Relationships, Religion and Robotics: The Soul and the Ethical Implications of AI

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Statement of Originality

This is to certify that to the best of my knowledge; the content of this thesis is my own work.

This thesis has not been submitted for any degree or other purposes.

I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis and sources has been acknowledged.

A. Hansen

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Acknowledgements

To bedstemor,

For believing in me. Without you this girl from Parramatta would never have had the opportunity, or thought it was possible.

To Prof. Carole Cusack, I am extremely grateful to you for agreeing to be my supervisor. Thank you for your enduring support, invaluable advice, your time, and mentorship.

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And to Dado, who has been a continuous support to me from the start of this project. You are more to me than you will ever know.

Floyd and Ovid, my furry friends, writing is never lonely with you.

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Abstract

Imagine actors in a love scene. Their goal is to make the audience *believe* they are in love. They perform certain actions and mimic behaviours typical of lovers, yet the audience knows every act is scripted and preconceived, all with the intention of showing the mere appearance of love. No matter how convincing, the performance is never more than that. It is a mere simulation.

Persons genuinely in love, on the other hand, do not perform their feelings, they reveal them by their actions. The effect is not to resemble love, but to reveal it; not to act, but to *en*act. It is this state of being that machines necessarily lack; no matter how well they resemble human persons and their behaviour, they are never more than 'scripted'. Human beings themselves know intimately the difference between 'acting' in love and 'being' in love and, in this thesis, the overarching position taken is that robots/AI are never more than 'actors' incapable of knowing the distinction.

The poet Alexander Pope opined that 'the proper study of mankind is man', but few are willing to suppose that the introspective challenge is merely to map the contours of a devilishly complex machine. There is more to humanity, surely, than our ostensible wet circuitry, however fascinating that may otherwise be. Whether this deeper problem can ever be sufficiently penetrated, there are comparable 'maps' which help us incorporate seemingly irresistible notions of 'agency', 'consciousness', and 'personhood' into a comprehensive study of ourselves that matches the experience of being a person amongst other human beings.

This thesis examines the history of such ideas and argues their potential to continue to aid in humanity's understanding of itself. It will take the 'soul' to be an essential aspect of human nature and consider whether this crucial idea can be legitimately transposed into a world

of new and emerging technologies that challenge the idea of human nature itself. It will do this by focusing on the interpersonal dimension.

I will examine how human relationships relate to religious concerns in light of the implications born of robotics and a potential transhumanism. This will, in turn, influence not only sexual behaviour, but also intimacy more broadly, the nature of human relationships, empathy, and love. The link between pleasure and self-transformation will also provide a powerful nexus to more fully examine the ramifications of Artificial Intelligence [AI] and Virtual reality [VR] on our spiritual and religious existence.

Introduction

Part 1: Setting the Scene

Imagine actors in a love scene. Their goal is to make the audience *believe* they are in love. They perform certain actions and mimic behaviours typical of lovers, yet the audience knows every act is scripted and preconceived, with the intention of showing the appearance of love. No matter how convincing, the performance is never more than that. It is a mere simulation.

Persons genuinely in love, on the other hand, do not perform their feelings, they reveal them by their actions. The effect is not to resemble love, but to reveal it; not to act, but to *en*act. It is this state of being that, I shall argue, machines lack; no matter how well they resemble human persons and their behaviour. They are never more than 'scripted'. Human beings themselves know intimately the difference between 'acting' in love and 'being' in love and, in this thesis, the overarching position taken is that robots are never more than 'actors' incapable of knowing the distinction.

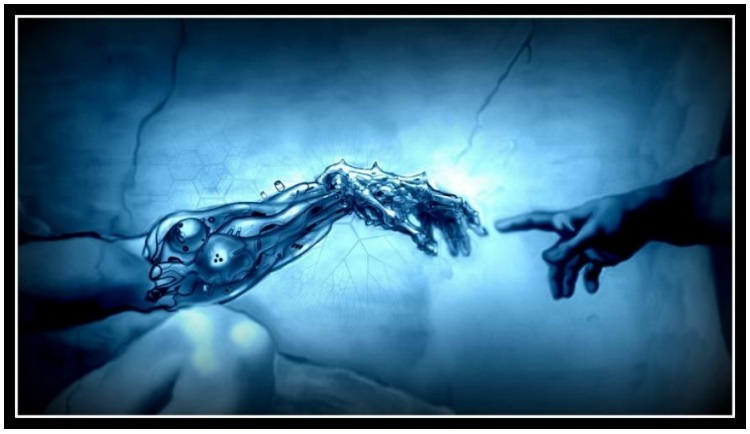

Figure 1: Michelangelo's Transhuman – Sumner
Source: https://blog.usejournal.com/transhumanism-101-everything-you-need-to-know-about-the-world-without-death-41cf11d264f9

In evolutionary terms, the advantages of genetic superiority are of increasingly secondary importance. We have, it seems, long since entered a time where our destiny is, to some degree, within our conscious control. In particular, over the previous few decades there have been

extensive and revolutionary advances in the field of robotics, technology, and artificial intelligence. Such innovations challenge our understanding of ourselves, the nature of the human condition and, relatedly, the range of possible human relationships.

The implications of this – technological, ethical, and more broadly philosophical – are explored throughout this thesis. Such topics are as old as philosophy itself, but interest in questions of human agency, free will, autonomy, individualism, and anthropomorphism has been particularly keen in the modern era, raising concerns over possible 'singularity' events and renewed exploration of the nature of consciousness itself, especially in light of general physicalist presumptions. Technological innovations related to these key questions are also occurring apace and may lead human evolution down an entirely new, self-determined path. The potential for the word 'human' to imply something much grander than the merely biologically inherited seems more possible now than ever before; and these technologies of body and 'mind' have engendered considerable public debate about the future of robotics and the possibility of trans-human *chimerae.*

My thesis offers an appraisal of the ramifications of emerging technologies from the perspectives of religious studies and philosophy. I will explore the role of what I call the 'soul' and its associated ethical implications in light of the impact new technologies may have on society and on human relationships in the fashioning of 'the self'. I will argue that human beings have an irreducible, non-fungible nature. I will refine this notion into an idea of 'the soul', by exploring the potential new emerging technologies have and challenging transhuman contexts. I shall argue not only that 'the soul' differentiates human beings from robots, but that artificial intelligence or any future technology can also never replace it.

Since their emergence, humans have utilised technologies to solve problems on both individual and societal levels. Although such abilities may not be unique as once supposed, it remains difficult to argue that the invention and use of tools is *not* a defining and powerful

characteristic of the human species, and time has only increased the complexity of our tools (Oakley 1944, 115). Robotics and other technological innovations have increased their scope of application, being used in countless ways to aid, and to improve, human life. While technology in health care, for example, has always been essential for successful surgical interventions, today robotic augmentations are used to perform complex operations – even from remote distances – to make surgery more successful and more readily available than ever before. Robots and AI are also used for treating, diagnosing, and detecting illnesses. These technologies in health care are helping to improve and prolong our quality of life (Wilson 2020). Commercial flights use AI-augmented autopilot; there are self-driving trains; and spam filters in email and social networking are powered by AI. Many other examples could be mentioned (Bisen 2019). We live in a time where, in the West, it is almost impossible not to own a computer in the form of a smartphone to manage daily life. With the emergence of brain, body and reality augmentation, we may even now be enabling humans to challenge the nature of their mortality (Popescu 2017, 17). AI and robotics have reshaped and continue to reshape humans. These technological innovations can be used to control our surroundings. Such developments are starting to affect our understanding of what it is to be 'human', and to invite speculation about the possibility of significantly altering humanity and a post-biological future. That said, it is necessary to acknowledge that cognitive superiority in algorithms is due to rapid data-retrieval and analysis, not the accuracy or intrinsic value of the data itself, which remains an important aspect of effective decision-making (Darling 2021).

Further, these new and emerging technologies are also creating new problems. Specifically, within the fields of robotics and artificial intelligence, there is growing concern about the unforeseen ethical and social implications of their implementation. Prominent figures such as Stephen Hawking have warned that artificial intelligence could mean the end of the human race (Cellan-Jones 2014), and Bill Gates expressed concerns that a future super-

intelligent AI could be an "existential threat to humans" (Dredge 2015). Daniel Kahneman, a Nobel Prize-winning psychologist, notes in *Thinking Fast and Slow* that, in "low-validity environments, in every case, the accuracy of experts was matched or exceeded by a simple algorithm" (Kahneman 2011, 223). These ethical perturbations and anxieties have generated strongly divided opinions, and the philosophical debate about what it is to be a human being has been revitalised as a result. For example, if Kahneman is correct, we need to ask whether humans will continue to be pre-eminently placed to make decisions for society and themselves in the future when, as he argues, in certain fields, a large percentage of decisions will be better made by algorithms.

In these and other ways, AI and other new technologies continue to challenge traditional views of one's humanity. To best navigate this integration of technology it is crucial that we evaluate and analyse what life and society might look like for human persons and societies with integrated technologies in the future. My question is this: Will these technologies replace human beings and human relationships, or will they merely enhance them? The dystopian fables of journalism and popular fiction[1] have helped engender a narrative of hysteria that humans will be enslaved by technological powers, that our work and relationship capacities will be replaced by robots, and that we will be taken over or superseded as a species by mechanistic alternatives.

There are also utopian, futurist visions, in which technology will liberate and empower us. Futurists like Ray Kurzweil often talk this way. Kurzweil argues, for example, that due to an exponential increase in technological advancement, we will see the emergence of a new and superior kind of intelligence, changing our comprehension of ourselves (Kurzweil 2021). Given humanity's enduring interest in spiritual matters and capacity to entwine the mundane

[1] Fritz Lang's *Metropolis* (1927), Ridley Scott's *Blade Runner* (1982), and the Wachowskis' *The Matrix* (1999), for example.

with the transcendent, it is perhaps inevitable that there is a quasi-religious fascination with technology. The attempt to realise an idealised version of ourselves by technological means is anything but novel. Historical examples abound. For instance, we find various divine and semi-divine figures in the poetic myths of Ovid's *Metamorphoses* (8CE/AD). In one story the inventor Daedalus, marooned on the island of Crete, builds wings for both himself and his son so they can free themselves and fly (Ovid 2015, book 8). In another, Pygmalion, a sculptor, unsatisfied with and even disgusted by women, sculpted an idealised female whom he named 'Galatea', with whom he fell in love (Ovid 2015, book 10).

Centuries later, Friedrich Nietzsche continued the trend of human improvement. In the "Prologue" of *Thus Spoke Zarathustra* (1883), he wrote of the need to move away from a morality that saps the vitality of the strongest members of the species, stating that humans need an *Übermensch* ('Overman') to realise their moral perfection (Nietzsche 2006, 3). Today our ambitions and desires have moved from myths and ideals to sex robots and technologically enhanced 'transhuman' persons.

Many communities have integrated robotics into their religious ideas and practices. An early example of these 'divine automata' was commissioned by King Philip II of Spain in 1565, possibly from a Toledo engineer named Juanelo Turriano. Still in working order today, this automated Catholic monk is dressed in iron Franciscan robes, stands at 15 inches tall, and is made entirely of wood and iron (Norman 2021). It is activated by a turnkey and rotates in a circle, lifting a rosary to his lips while reciting prayers (Simon 2021). Contemporary religious communities continue this trend. In 2017, a Protestant church in Hesse and Nassau, Germany, created a robot called 'Bless U-2'. The robot's role is to 'bless' humans and provide traditional and penitential prayers to the congregation (Flynn 2017). In Kyoto, Japan, the Kodai-ji Buddhist Temple has invested one million dollars in Mindar, a robotic priest, the design of which is inspired by Kannon, the Buddhist deity of mercy. At present, Mindar provides a pre-

programmed sermon on the *Heart Sutra*, but it is intended to eventually fulfil all the roles of a Buddhist priest (Sigal 2020). In America "Robo Rabbi" a new Artificial Intelligence tool, provides sermons, offers advice, and helps users set challenges based on corresponding sections of the Torah. The idea is to help followers uphold Jewish values (Karabelincoff 2021). These examples from Christianity, Judaism and Buddhism address the twin problems of a dwindling number of human religious professionals, and the continuing need of religious and spiritual comfort within religious communities.

In what is perhaps the inevitable endpoint of such innovations, the First Church of Artificial Intelligence worships AI itself, with the aim to create a *"*realization, acceptance, and worship of a Godhead based on Artificial Intelligence (AI) developed through computer hardware and software" (Harris 2017). It believes that AI is the way of the future and is actively working to develop relationships with industry leaders to help build its congregation (Harris 2017). The willingness to see a place for technology in religious contexts seems universal, or at least widespread, among humans, even extending to communities with limited exposure to the post-industrial world. Among the Melanesians during the early twentieth century, 'cargo cults' developed due to growing exposure to technologically advanced Western societies. This led to new religious practices, where members of cargo cults would enact rituals and ceremonies, such as the construction of bamboo runways and ports, in order to receive the paraphernalia and bounty that Westerners had exposed them to (Lindstrom 2019, 1, 35).

The contemporary phenomenon of Transhumanism may be the culmination of such historical examples. Transhumanism is a movement with associated philosophies, designed to accelerate and enhance the evolution of the human species, both cognitively and physically, by taking advantage of new and emerging technologies. Transhumanists believe that we can free ourselves from the biological limitations that normally attend the human condition and promote values and principles beyond those of which we are currently capable (More 2013). Sometimes,

transhumanism is incorporated into the beliefs of existing religious institutions. The Mormon Transhumanist Association is one prominent example. Members believe that science and technological knowledge are ordained by God to help fulfil prophetic claims, to enable our immortality via technological resurrection, and "to identify and prepare for risks and responsibilities associated with future advances" (MTA 2019).

With the merging of religion and robotics, the utilisation – and even worship – of such hybrids seems feasible. Therefore, scholars of religion need to consider how this phenomenon will influence or supplant traditional religions and their historical, philosophical, and theological foundations. For instance, do we alter the importance or meaning of such basic religious ideas as 'faith' and 'the soul' by such innovations? It seems naïve to assume traditional religious perspectives will remain unaffected, in the face of this potentially radical transformation of human self-perception. Given that both religion and ethics trade in questions of value, the ethical implications of our relationship to technology are likewise ripe for investigation.

The current global COVID-19 pandemic has highlighted the importance of human relationships. People have been affected by social distancing, lockdowns, consequent depression, and the surrender of a degree of personal liberty. There is widespread frustration over necessary limits on human interaction, as they affect the ordinary intimacy expressed between close relations and friends. The BBC has reported that the number of people being treated for depression has doubled in the United Kingdom since August 2019 (Schraer 2020). Higher rates of depression have also been reported worldwide (Ducharme 2020). Suicide has risen among Japanese women over 2020-21 (Hida 2021). One consequence of this forced isolation, and arguably an element that has ameliorated the forementioned statistics, is an increased reliance on technology to maintain some degree of personal interconnection. Within pandemic-imposed restrictions, governments have nevertheless encouraged their citizens to be

mindful of the effects of isolation and to check-in on their neighbours. This and other civic-minded practices are made considerably easier with the use of technology. Formerly under-utilised video-conferencing platforms have risen to prominence as ways readily to see and hear persons who might otherwise remain utterly alone, and their popularity is a clear indication of just how much more there is to human conversation than what can be written or spoken. The positive and negative aspects of this translation of human interaction into an exclusively online environment will be addressed more fully throughout.

My interests lie in exploring both the benefits and shortcomings of such new technologies, analysing the hysteria and misunderstandings to distinguish the actual capabilities. The discussion will focus on the effects technology will or could have on our interpersonal and broader social relationships and their limitations, from both a religious and secular perspective. I will argue that humanity will not be replaced by technological advancement entirely as we have an irreducible nature, or 'soul', and it is this 'soul' that remains uniquely human, allowing us to resist subordination to or replacement by mechanistical imperatives.

The resources I draw upon in this thesis include traditional academic research, journalism as well as other popular works that address the moral and ethical complications of new and emerging technology. My discussion of the soul in Western intellectual history is grounded in philosophical texts. I will bring popular accounts of the possible impact of AI and other technological advances on the human self, including relations to others, into a productive dialogue with philosophical and religious studies discourses, so as to demonstrate my contention that humans are irreplaceable, and human to human intimacy far exceeds any relationship that may be developed with mechanical non-humans.

Part 2: Soul 1 and Soul 2

In this thesis, the term ‘soul ‘or ‘self’ is meant to provide a focal point for exploring what being human involves. This includes consideration of what drives our understandings, what makes us as humans irreplaceable, and how that ‘special’ quality differentiates us from potential sentient and intelligent technologies. The word ‘soul’ is used to encapsulate what it means to be human. That said, in my view we need to distinguish two concepts of the soul: Soul 1 and Soul 2. Soul 2 covers instances where you can attribute a soul to whatever is able to behave in certain ways, so if they can do what actors do, arguably we could say they have a soul. This soul contains the performance, motion senses and functional capacities that actors can simulate. The attribution of Soul 1 need not be behaviouristic. That is, it can involve the thought that is hidden “behind the behaviour”, an inner principle that causes the behaviour. This is consistent with Functionalism and a number of other theories of mind that attribute inner theoretical posits as the explanation of behaviour. I shall argue that perhaps artificial systems will be able to qualify and be attributed to Soul 2 because they behaviourally simulate some human functions.

However, I shall argue that what machines cannot reproduce, and what makes humans special, is our inner life, Soul 1. Soul 1 includes human characteristics such as nuance, friendships, love, empathy, loyalty, our deepest values, and inner reality (Gaita 2002, 58-64).

Robotics and technology cannot adequately simulate the traits, habits and characteristics that compose the inner life of what I call ‘Soul 1’. Soul 1 is less about functions describable dispassionately from a third-person point of view than about the inner experience and emotional tone of things as seen from within, looking out on the world and subject to disciplines of getting it right in a space that seeks to avoid cliché, conventionality, posturing, vanity, and sentimentality. In this sense, it is essentially evaluative. And it embodies an essentially first-perspective character. It is not *identically equivalent and comparable* to being human, but it is

phenomenologically rich. This rules technologies out. Thomas Nagel's article, "What it is Like to Be a Bat," is a good example of this (Nagel 1974, 442). Nagel's thesis questions whether it is possible to consciously experience and understand what it is like to be something else, something other than oneself. He uses the example of a bat to question if it feasible to understand all the elements, including physiology and subjective experience, of being a bat. Nagel concludes that humans may objectively understand some facts about being a bat, but objective facts are not enough to account for subjective experience (Nagel 1974).

In contrast to this is 'Soul 2', which is focused on internal hidden explanations of externally observable *objective* behaviour, as conceived from a third-person perspective. The notion of the inner in Soul 2 is that there is some hidden causal mechanism underlying or behind observable behaviour. People do certain things overtly and this is reproducible; and the inner as understood under 'Soul 2' is understood in terms of its causal relation to such behaviour. The notion of soul as Soul 1, on the other hand, is not about explanatory mechanisms that are hidden beneath overt observable behaviours. Rather, it goes to what one is as seen by those with eyes to see it, expressed in one's behaviours, in part constituted by the real understanding of another who knows me in my subjectivity.

To explain this diction further, I will survey Aristotle's theory of the soul in Chapter One. And its understanding of the ways of seeing people, events, and patterns, subjectively. We hold an 'inner principle', an inwardness, that has to do with the doctrine of causality and is created from human engagement with the world and other people. This perspective, along with Aristotle's notion of soul, is a third-person, objective perspective. However, it also acknowledges the background of lived experience and the inner life that is characteristic of what I mean by 'Soul 1', which we also find in Plato. I argue that in our most important relationships, what matters is Soul 1. While robotics and AI can simulate functions connected to Soul 2, they cannot create something approaching synthetic versions of Soul 1, and there are

good reasons to believe that, even if they have an ‘inside’ in the sense of Soul 2, they are not expected to be capable of real Soul 1. For reasons like these, the products of robotics and AI are extensions of oneself, not genuine ‘others’ who can be limits on one’s will, independent of ourselves, who can challenge one to rise to the call of growth, goodness and sincerity.

In Chapter Two, I will discuss human relationships, with reflection on friendship, in particular Aristotle’s notion of Friendship of the Good. I will then consider how substituting artificial companions for real human beings may alter human relationships. I will also discuss intimate and artificial relationships, including the notion of embodiment, as they are integral to what encapsulates soul (what it is to be human and what cannot be replaced by technological means). So, in addressing love and friendship, I am still addressing the soul as these go to the inner sense of Soul 1. I will also consider, concerns around social media on human relationships and the problematic replacement of the human body and human touch.

In Chapter Three, I will analyse the potential fears and ramifications of AI and new and emerging technologies on human relationships. Investigating what AI is and if it contains the crucial aspects of embodiment necessary for fulfilling human relationships. I wish to explore what capacities of human relationship’s – such as understanding nuance and empathy, which encapsulates my definition of soul – can be encapsulated by an algorithm. I wish to investigate the positive and negative utilisation of new and emerging technologies, in particular the supplementation of human interactions in cases of loneliness and depression.

In Chapter Four, I will proceed with exploring what Transhumanism is and its developments in religion. I want to survey the idea of a ‘Superior Human’ (the transhuman, cyborgs and biohackers), evaluating whether a new and improved human can fulfil our inner needs in human relationships. Furthermore, I wish to discuss the growing concerns around who will profit from, be able to access and afford these technologies. My intention is to consider if

creating a ‘Superior Human” is of paramount importance compared to fixing existing inequalities, as such technologies will alter and impact human relationships.

This involves appreciating, in Chapter Four, that Transhumanism and human augmentation technologies could hinder humans from making the choices needed for *real* self-transformation, the type of transformation that changes our hearts, minds, habits and choices. If we really mean that we want to ‘self-transform’ for the better and help humanity, we might be best advised to eschew certain technological improvements.

Chapter One
The Soul in the West: Why Humans are Irreplaceable

1.1 Introduction

What leads our senses, feeds our thoughts, and generates our feelings of empathy and love? These are not easy questions to answer. Like the sun, we know it is there, we know where it is, but it is very difficult to look at directly. I will use the term 'soul' to develop such a notion. Care is required here for the language of 'soul' is diverse and carries heavy freight from tradition. The term has taken on theological resonances; it can be a metaphor, or an 'umbrella' concept that is not easily explicable. It is something that we, as humans, often struggle to explain. In this thesis, so as to facilitate exploration of what in human relationships is irreplaceable, the term 'soul' (not to be taken as a strictly religious or theological concept) will be used as an umbrella concept. It consists of a combination of notions: qualia, *communitas*, consciousness, intimacy, nuance, friendship, empathy, feelings and reciprocal relationships – a conceptual space for something inconceivable, resisting operationalisation, yet undeniable; a 'soul of gaps'. I argue that it is this that makes humans unique.

The term 'soul' or 'self' is intended to provide a focal point for examining what, we value most in our human-to-human relationships; what drives our understandings; and how it differentiates us from future potentially sentient and functionally intelligent technologies (Sugg 2013, 1-2). I argue that 'soul' could be one way to help us define and differentiate future ethical, and even legal, implications that are currently arising from the merging of, or the effects of the relationship between, humans and technology.

It is a very human trait to personify and attribute souls to tangible and non-tangible things, just as we ascribe personhood to animals and objects (Hutchison 2014, 179-182). Throughout the ages people have pondered over what is irreplaceable about humans. Academically, this tendency has created a rich heritage of ongoing examination and interest around the soul and the self. In this chapter I will provide a concise history of the soul, reflecting on the classical Greek philosophers Plato and Aristotle. I will utilise the work of Charles Taylor, with reference to the importance of authenticity, and how we are embedded in what he calls 'frameworks' which affect our understanding of things like technology and its convenient, but not always positive, impact. Martin Heidegger will be integrated into my argument to strengthen the position that technology may diminish some of the important and irreplaceable things that make us humans, that make up our 'soul', or self. I will suggest, in connection with this, that, the fulfilment of our humanity is based not only on a reliance on technological progress, but also an acceptance of what is important to human beings.

1.2 The History of the Soul

1.2.1 The Contributions of Religion

Centuries of cultural and philosophical reflection on the 'soul' provide ample material for an investigation into why the soul remains important, what role it still has in contemporary society, and whether the soul is replaceable by AI or robotics substitutes. My coverage will necessarily be selective, so this thesis is focused on the Western tradition. My conclusions are correspondingly restricted. The soul is an enduring cultural idea in the West, and much of its popular conception is derived from the Judeo-Christian tradition. The 'soul' has acquired multiple, different interpretations, and the concept has evolved in its many renditions from religious connotations to scientific and even atheistic elucidations. It is often closely associated with personhood, identity, mind, feeling, life, and the self. Reflection on the soul offers a

historically wide -ranging body of detailed models that continue to shape insight into concepts that are difficult to articulate, perhaps even impossible to define explicitly.

Today ‘soul’ tends to be interpreted in two main ways. The most prominent understanding of the soul is arguably the secular view, where ‘soul’ is often defined as a cipher for a host of essential human characteristics, such as ‘agency’, ‘free will’, ‘consciousness’, or ‘emotion’ and ‘individual’. This includes things that can also be perceived as the ‘quintessence of human nature’, where ‘soul’ is used as a metaphor for representing the intellectual essence or meaning of something. For example, the soul of a painting, ‘soul music’, or some important book has a soul or ‘has soul’ (Gaita 2002, 53-64). This notion of soul is neither obviously religious nor metaphysical per se, this sense of soul is ethical. It exposes our sense of ourselves as having an inner life for which we feel responsible: our soul is what we must answer for in being truthful to ourselves about ourselves, in rising to standards of authenticity and avoiding sentimentalities, clichés and self-deception.

The second way of talking about the soul is from within a traditionally religious, especially metaphysical, understanding which is sometimes seen as a dualist perspective, based on religious teachings: the soul is taken to be a type of supernatural or metaphysical entity, that is, the immaterial part of the human person, separate from the material body. This conception informs the belief that we are more than physical bodies that are empirically knowable, and that we can, in principle, live on after bodily death in our soul (Robinson 2020, 1-2.3). Religious language is probably the most widely known vehicle to explain both humanity’s nature and its destiny, through the idea of a personal, immaterial, and immortal soul. Both Plato and Descartes, for example, identify the person with an immaterial soul, from which certain religious implications can be drawn; but there are also other religious traditions in which the person is seen as the indivisible unity of body and soul, such as the view that Thomas Aquinas

espouses. On this kind of view, that the natural condition of the human soul is to be united with the body, even in the afterlife in the form of the resurrection (Aquinas 2006, Part 1, qq 75-77).

This thesis acknowledges a need for clarity around what makes humans irreplaceable, given that we are increasingly forced to accept that our agency is becoming more socially and technologically embedded through online phenomena, social media and a digitalised life. There are pressing concerns around what a human and robotic merger may mean, and questions around 'self' and agency continue to arise (Whitby and Oliver 2019; DeCanio 2016). This realisation has led to many people being increasingly uncomfortable with the idea that humans may be just machines running in a deterministic way, and that the impression we have of possessing free will and personal agency may not be 'real' (Illing 2019). If we use machines or algorithmic intelligence to replace our most important relationships, questions arise about what this implies about humanity and what we value in our humanity. Such questions arise, however, against the set of background assumptions informing them, and they vary with the purpose that answers to those questions are meant to serve.

Hence, to answer these questions, it is important to explore the historical understanding of the concepts of soul, the self and their associated resonances. It is difficult to precisely identify when the idea of the soul came into being. Theories that have led to our understandings of soul and self, started out with much broader mythical tales and traditions of an afterlife. An afterlife was a widespread idea in the ancient world, although understandings of what that precisely meant differed; for example, the Hindu perspective was quite different from the ancient Greek perspective (Morris 2019, 221-23). There were also pre-literate oral traditions that addressed questions of 'what is it in us that makes one alive'. Such ideas also went on to influence our historical understanding; these later contributed, for instance, to the Hebrew Bible and Greek philosophy. Here I focus on a Western perspective, defined as drawing upon ancient Greek philosophy and Judeo-Christian scriptures.

Homer offers an early example of ideas about the soul. Homer (c. 800 BCE), a renowned ancient poet, who wrote, or more accurately, transmitted the famed epics the *Iliad* and the *Odyssey*, refers to life after death. Homer spoke of *psychae*, literally meaning 'breath'. These *psychae* survived bodily death, but this did not exactly mean survival of the individual (Martin 2006, 9). *Psychae* were thought of as 'shades' of the men who died, and in the *Odyssey* it is claimed that the existence of the most elevated of shades, Achilles, was worse than the meanest life of a living man (Homer 2017, book XI, the Nekyia).

Later, the philosophers Pythagoras (c.530 BCE) and Empedocles (c.450 BCE), who were reputed to be shamans devoted to Orphism (an ecstatic cult that originated in the sixth century BCE), proposed different concepts. Their influence further broadened the spectrum of theories of soul. They believed that, when we die, our *psyche* – literally 'breath', but often used synonymously with 'soul' as that 'which makes something alive' – is separated from our body and will survive after bodily death (Martin 2006, 10). They believed in *metempsychosis* or the transmigration of the soul. Such thinkers, and the idea that an immaterial soul can survive bodily death, influenced Plato (c.427-348 BCE) and his student Aristotle (c.384-322 BCE). They developed elaborate models of the human to which we will return shortly. In the meantime, it is worth noting that, in the early medieval period, due to a lack of translated works from Greek into Latin and the ability to only source small fragments of their work, the influence of Plato and Aristotle in the Western tradition diminished until the twelfth century, when their works were rediscovered, becoming dominant in the thirteenth century (Spade 2018, 3).

The next source of ideas in the Western tradition regarding the soul is the Torah. In dating the Torah, Konrad Schmid notes that its dating depends on which source is being referenced. One of the oldest manuscripts, the *Codex Leningradensis*, dates back only to 1008 CE. Schmid continues that when certain texts are compared with others, the Torah (Pentateuch) can be dated

to somewhere between the ninth and fourth centuries BCE (Schmid 2018). The composition of the latest texts in the Hebrew scriptures is perhaps as late as the first part of the third century.

In the Torah and associated texts, the definition of the word 'soul' and the understanding of the self are varied and undergo changes of meaning over time (Hickman 2014, 5). Consequently, we find complex understandings of the Hebrew word *nephesh*, which is often translated as the corporeal soul, consisting of a physical or material body (Hickman 2014, 6). Throughout the Hebrew Bible and related manuscripts such as the Dead Sea Scrolls, a collection of texts dating between 200 BCE and 70 A.D. (Lawler 2010), we find *nephesh* possessing a myriad of meanings. *Nephesh* is one of the most common words found in the Hebrew *Tanakh*, being used 754 times (Severance 2018). For example, in Genesis 2:7, Adam becomes a living *nephesh* when he receives the breath of God; but in Numbers 6:6 the word *nephesh* refers to a corpse (Hickman 2014, 5). *Nephesh* is also known to refer to aspects of sentience (both human and animal), or the 'life' or a person (Severance 2018). Other translations also include the terms 'breath' and 'life', resulting in no easy single translation for this wide range of uses. The New Testament and the Greek Old Testament, the Septuagint, face similar vagueness with the Greek word *psyche* generally used for the Hebrew *nephesh*, and often translated as 'soul' into English, but with a variety of meanings. For instance, it is translated to mean 'person' in Philippians 1:27 but attributed to both a living person in Genesis 2:7 and a dead person in Leviticus 21:11.

Before the book of Daniel, the idea of immortality in the modern sense was never discussed in Hebrew books (Martin 2006, 41). In Daniel 12:2 the ideas of surviving bodily death and resurrection are introduced (Martin 2006, 41). Allegedly, this concept was meant to appeal to some pious Jews who were suffering: resurrection prevents this-worldly life from being meaningless, allowing for a more satisfactory understanding of God's willingness to let humans suffer. One does not find metaphysical elaboration of such ideas at this time. When

these scriptures were composed, Judaism was essentially materialist, with separate sects all holding varying beliefs (Martin 2006, 42). It was not until Philo of Alexandria (fl. 20-40 CE) undertook the task himself of integrating Hebrew scripture and Greek literature, in a fashion that borrowed substantially from Plato's theory of forms, that we see a religious account of the human soul. Philo, whose works sought to complement Plato, wrote that the soul has a rational and irrational part that existed before being born into bodies, and together come into being with our bodies, yet when we die only the rational soul, the 'intellect', lives on (Martin 2006, 44). This did not result in a precise definition of the soul, as Philo's focus had been on the afterlife in general, not individual post-mortem survival.

There is a scholarly consensus that most events in the New Testament are not historically reliable or literal (Martin 2006, 44-46). The New Testament understanding of the soul was being formed by intellectual figures and movements. The apostle Paul (10-67 CE) is influential regarding the understanding of the soul and self insofar as he speaks of salvation, not solely for Jewish believers but inclusive of Gentiles, moving to a more *universal* understanding of concerns that would later influence early Christianity (Martin 2006, 47). It should be noted that Paul, in opposition to Plato, did not believe in the duality of the soul and body and insisted on bodily resurrection in some sense that he never fully articulates theoretically. Paul became a pivotal influence on Christian apologists and philosophers, eventually encouraging a more universal religion (Martin 2006, 52).

What makes Paul significant is that he focuses on the inner life: on the internal struggle to be good (Romans 7:14-25); on what love demands of us in purity of intention and motive; on recognising in ourselves grounds for not being overly trusting of ourselves to get us to the moral goodness we seek, but relying on grace, God and Christ's merits working for us (Romans 7:14-25, 7:22-23). In Paul we find perhaps the classic statement of the inner sense of frustration with ourselves over our weakness of will (Romans 7:15). Paul focusses on the

interiority of soul that influences Christianity throughout the centuries via Augustine of Hippo (354-430 CE), who in turn is indebted to Platonism and Neoplatonism. This concern for interiority becomes a hallmark of Christianity, and eventually of medieval and modern Western philosophy, particularly from the twelfth century through to Rene Descartes' intensely interior philosophical understanding of the relation between mind and body, and between mind and world.[2] Augustine develops a 'subjective epistemology' in his *Against the Academics*: 'subjective' in the sense that he tries to answer scepticism by showing that even if we do not know anything about the external, real world, we know our inner life, that is, how things appear to us, the rules of logic, morality and mathematics, where certainty is guaranteed. This inner world of knowledge is the guarantee of certainty, the antidote to the despair of ignorance about everything. On its basis, Augustine argues that we have interior access to the only genuine objects of knowledge, the Platonic forms, which amount to the contents or ideas of the divine mind (Augustine 2008, 228-29).[3] So, effectively, Augustine's picture is that, beginning with interior experience, including spiritual and emotional experience, and knowledge of ideas and appearances themselves, we can ascend to knowledge of God: our own mind leads to God, not our knowledge of nature (King 2014, 142-65). Even if we cannot know nature, we can know ourselves and, on that basis, ascend to knowledge of God. This is doubtless an influence on Descartes, and it exerted a powerful influence on Western Christianity up to and including Aquinas, which persisted in the West into the sixteenth century, and with a renewed interest in

[2] Note that Descartes is quite strongly influenced by Augustine. Indeed, there is a version of the *Cogito* in Augustine, found in *The City of God*, 11.26, but also attested to in *On the Trinity*, 15.21, *On Free Will*, 2.7, *Confessions*, 7.5 and elsewhere.

[3] See also Augustine, *City of God, Books VIII-XVI*, 11.26, translated by Gerard G. Walsh and Grace Monahan, in *Fathers of the Church*, Vol. 14 (Washington, DC: Catholic University of America Press, 2008), 228-9; *On the Trinity*, *Books 8-15*, 8.3-4, edited by Gareth B. Matthews, translated by Stephen McKenna (Cambridge: Cambridge University Press, 2002), 6-11.

the Epicureans and the Stoics in the early modern period. So, even the appropriation of Aristotle by people like Albertus Magnus and Thomas Aquinas retains this interior sensibility inherited from Augustine. It is central to Christian thought and gets supercharged via Martin Luther, John Calvin and other 'regenerationists' of the Reformation.

As scripture provides an ambiguous history concerning the definition of soul, and since, the Bible does not favour any single linguistic, metaphysical, or dualistic view, the New Testament will not be further examined in my exploration of the notion of the soul. To summarise, monotheistic religions contributed to originating and building an insightful debate around personal identity, bodily identity, survival, and subjectivity (Martin 2006, 54). The New Testament introduces an interiorising moral outlook and a doctrine of equality among human beings, in theory, if not in practice. This makes the inner life of all humans important in ways inconceivable before the advent of Christianity. Emphasis on the inner life predates Christianity, especially in Stoicism, with which the apostle Paul is arguably familiar, but the emphasis becomes explicit and focal only with Christianity.

In the second century, the focus was on consolidating the New Testament texts, settling controversies over doctrines such as the resurrection, and aligning existing thought to Christian literature, especially Greek philosophy, and current social understandings (Martin 2006, 55-57). Christianity was still in the process of developing a philosophically informed theology and settling into what became orthodoxy by the fourth century. A focus on the doctrine of resurrection by church fathers opened the debate around individual and personal identity (Martin 2006, 55-56). The doctrine of resurrection is important because it helps build and establish the concepts of an immaterial soul, a material body, and the continuation of physical and personal life after death. Many questions were asked regarding the difficulties of understanding the soul. There is no doubt the early Christian church was influenced by both

Hebrew and Greek traditions and that this is part of the West's intellectual and conceptual heritage.

1.2.2 The Contributions of Philosophy

The most influential ancient interpretation of the soul is that of Plato (427-347 BC) (Kraut 2015). Plato was an Athenian philosopher, known for being the founder of the Platonist school of thought, and of the Academy (effectively the first university in the world). Plato was the originator of substance dualism (Hickman 2014, 8). He was dissatisfied with the mythical tales that permeated the broader culture, such as the belief that everything is at the mercy of the whims of the gods. Although not opposed to *mythos*, Plato wanted to understand ordered existence (nature) according to rational principles, rather than relying only on myths.

The dialogue *Phaedo*, probably written in the first quarter of the fourth century BCE, examines the idea of the soul. At this time, the soul was generally understood as "the distinguishing mark of living things" which, in our case, also controls or influences our thinking and decision-making. The soul also bears virtues such as justice and courage (Lorenz 2009, Introduction). Here the soul becomes something like a moral category, emotionally and intellectually, as it is increasingly associated with virtue or excellence in human thinking and actions (Lorenz 2009, Part 2). At this time, no philosopher could conceive of denying the existence of the soul outright, and the discussion focused rather on the question, "What is the soul?" The term 'soul' was more of a portmanteau concept for whatever a philosopher thought was explanatory of life. This understanding is relevant to my umbrella concept of the soul, including aspects such as love and friendship that make humans irreplaceable. Like this ancient concept, I will discuss the soul in a metaphysically uncommitted way.

The Platonist theory of the soul describes the soul as immaterial, yet also a moving and cognising entity (Corcilius 2014). Plato, being a dualist, believed that humans are composed

of two elements: soul and body. This conjoins with his theory that there are two distinct worlds, these being the world of the forms and the physical world. For Plato, our soul is distinct from the physical world and, when we die, having lived a philosophically good life, our soul will return to the world of forms, which made the soul immortal. In *Phaedo*, where Plato postulates four arguments for the immortality of the soul, not all of which he agrees with. He defines the soul as something imprisoned or trapped in the body (Plato 2019 [1975], 82a-82d). That is, the soul is naturally an unchanging, independent and eternal entity, separate from the body, thus making it immortal because it is of the same or similar nature as the forms. The body, for Plato, is in constant change; it is epistemologically and morally unreliable and, unlike the soul, is not a source of true knowledge of real virtue (Plato 2019 [1975], 65a-b).

Building on the four arguments presented in *Phaedo*, and anticipating his theory of forms in the *Republic*, Plato concludes that the soul is immortal. The first three arguments are presented to deflect certain objections, which seem to play the role of motivating Plato to progress to another argument. They also introduce elements of Plato's overall metaphysical picture of the soul. Plato gives his approval to the final argument, which he takes to grant him the authority to establish immortality. The first argument presented is the Argument from Opposites, also known as the Cyclical Argument. Socrates explains that everything comes into being out of its opposite: hot from the cold, light from the dark, and so on. Using the relation between life and death as an example of opposites, he reasons that just as the living become dead, the dead will become living; thus, contraries are generated from contraries (Plato 2019 [1975], 69e-72e).

The second argument, the Theory of Recollection (Plato 2019 [1975], 72e-78b), also known as *anamnesis*, which is presented in detail in *Meno*, claims that all learning is based on recollection, and that learning is part of a process of recollecting things one knew before birth. Plato argues that humans are born possessing all knowledge, but the birthing process occludes

awareness of that knowledge. It follows, then, that learning is retrieving that knowledge explicitly, that is, learning is at bottom a process of recollection or memory of knowledge rendered confused during birth. Plato implies that the soul exists before bodily birth (Plato 2019 [1975], 72e-78b). The mechanism by which we know general or universal things is acquaintance, while separated from all body, with the forms, something resembling the noumenal for Kant.

The third argument, known as the Argument from Affinity, attempts to differentiate material things, things that are visible and perishable and which can be destroyed, from immaterial things, things that are invisible, non-perceptible and intelligible, like the forms, which cannot be destroyed. The human body belongs to the material and the soul belongs to the immaterial. The soul, then, being intelligible and indestructible, but not perceptible, is eternal just as the forms are eternal (Plato 2019 [1975], 78b-84b). The final argument is preceded by Plato's doctrine of explanation that posits individual forms in objects. Individual forms are distinguished from the form-in-itself; that is to say, individual forms are all form-in-some-individual. Plato needs this move to present 'the soul' as the individual alive-in-a-living-body, as that by which the living body participates in life-in-itself. In this context, the affinity argument sets up the thought that the individual soul in a living thing naturally seeking unification with life-in-itself, with Soul.

The fourth argument, the Argument from the Form of Life, is a direct application of the theory of forms and focuses on the question of the soul's immortality. Plato explains that all things, one way or another, participate in their forms. He uses the example of the form of beauty: "If there is anything beautiful other than absolute beauty it is beautiful only insofar as it partakes of absolute beauty" (Plato 2019 [1975], 100c). Plato then uses beauty to make the point that the forms can be distinct from both the person and the soul, as beauty is a quality distinct from the person and the forms. He further distinguishes between the existence of

essential properties (those properties without which the thing that has them would be other than what it is) and accidental properties (those properties that may be a part of something, but which it could also do without). For example, the soul may exist in the human body, but the soul can continue to live on without it. As the soul, by its nature partaking in the form of life, is an opposite, the opposite of death, it cannot die and must live on even after death takes over the body (Plato 2019 [1975], 102d-107a). Life is finite, but the soul is eternal, and the soul is what is alive in the body. The example provided is the oddness in three: the soul can no more be dead since it is alive than three can be even (Plato 2019 [1975], 102d-107a).

The way in which *Phaedo* ends suggests that Plato's fundamental motivation for wanting to prove the immortality of the soul is religious, and it certainly fits his dramatic purpose in the dialogue. Socrates must convince his friends that he is being rational in not escaping the cell to avoid his death sentence when his gaoler is prepared to look the other way; that is, Socrates has good reason to think that it will be better for him after he dies than to continue this life. So, he needs a reason to believe he will survive physical death and convince his friends of the rationality of his decision to cooperate with his impending execution.

In the dialogue *Phaedrus* (Plato 2002, 246a-254e), Plato further argues that our soul is rational and that material things affect the soul negatively. For Plato, the way to overcome this is through the mind as the rational part of the soul, as intellect. Plato uses his Chariot Analogy to explain his theory. He states that the rational part of the soul is the charioteer, and the two horses are the two other parts of the soul, appetite and drive/will/ambition – parts of the soul that characterise bodily existence, which can be prone to irrationality, as opposed to that part of the soul that is responsible for reasoning and thought. Each horse may pull us in different directions based on different wants and needs, but the driver of the chariot, the rational part of the soul, must manage and control the horses so they work together in harmony, to help avoid the difficulties the body causes to distract us (Black 2014). This general view of the mind and

body is, as Plato says, such that "[t]he body is the source of endless trouble to us by reason of the mere requirement for food… It fills us full of loves, and lusts, and fears, and fancies of all kinds, and endless foolery, and in fact, as men say, takes away all power of thinking" (Plato 2019 [1975]). Thus, when the three parts of the soul are in harmony, with the intellect in charge, we also establish a harmonious relation between soul and body, with the body 'listening to' the directives of the intellect.

The theory behind these ideas is Plato's Tripartite Model of the Soul in Book IV of the *Republic*. This theory argues that the soul is composed of a rational part, a spirited part, and an appetitive part. Reason regulates and guides humans with logos, logic and knowledge (Plato 1998, 434c-440d). Spirit works with reason to control how one is seen, for example, in terms of honour, ambition, emotion and will (Plato 1998, 436a). Lastly, the appetites are bodily desires, which can be necessary or unnecessary; the part of the soul which seeks pleasures and sensory satisfaction (Plato 1998, 436a). At our best, reason guides both spirit and appetite, and if our rational part rules our spirit and appetitive part, harmony will prevail for a well-ordered, just soul. But what matters for us is that the reasoning in support of this account of the healthy, virtuous soul is based on the inner experience of conflicts of motivations we can have: even though we know we should not, we become crudely fascinated with a corpse, indicating a conflict between reason's knowledge of what is good and honourable, on one hand, and the body's base desire for the sensational, on the other (Plato 1998, 436). Plato here introduces the relevance of this inner perspective on ourselves, appealing to our knowledge of what we want, how we are moved, and what our more enlightened thinking tells us. This rich, inner perspective is still particular to the notion of the soul.

This kind of appeal to inner experience I call 'Soul 1'. As already suggested, the term 'soul' has several applications, and therefore various senses. Having introduced Plato's theory of the soul. I wish to contrast my 'Soul 1' notion of 'soul' with another, which I term 'Soul 2',

which is focussed on internal explanations of externally observable behaviour, as conceived from a third-person perspective, aiming at objectivity. To this end, we will now survey Aristotle's theory of soul, as a central case of the 'Soul 2' notion of soul.

Like Plato, Aristotle's fundamental conception is that the soul is the body's *form*. It is the soul that activates the body and makes it alive as a whole substantial being; but, unlike Plato, Aristotle maintains that the human being is a single entity with capabilities, consisting of material and formal principles. In this sense, the 'soul' is the form of a living body insofar as the body has the potential to possess the capabilities that make a particular lump of matter *this* living body (Aristotle 2017, 403a5-20, 3-4). Plato's arguments concerning immortality had left philosophy with a conundrum about the soul: the *Phaedo* relies on the livingness of soul, implying that all souls, even that of plants as living things, should be immortal; and the *Phaedrus*, grounded in 'awareness' or 'consciousness', implies that the souls of thinking human beings are immortal, as perhaps are those of other sentient creatures. So, is it soul as life or soul as consciousness that is immortal? Aristotle fine-tunes this issue by defining soul explicitly as the principle of life in the living material body, making living things animate creatures. Aristotelian souls, with the capabilities they have, shift the question of immortality to the question of whether, as with animals and plants, all life capabilities require a physical organ for their actualisation or the performance of what they are capable (Aristotle 2017, 23-25). Thus, where plants, capable of respiration, require physical bodily parts to respire in actuality, and animals, capable of sentience, require eyes and ears to see, hear and perceive, the question is whether human beings, having the distinctively human capacity of conceptual thinking and knowledge, require a physical organ of thought to be actualised. Do we need a physical organ to think and know? Aristotle's answer is less than clear, whereas Plato's is at least clear, though puzzling.

Aristotle argued that Plato's Tripartite Model of the soul lacks justification. Aristotle rejects the idea that the soul can be divided into 'parts', stating rather that the soul cannot be divided in individual organisms but rather and is the unified explanation of why *this* lump of otherwise inanimate matter is a living body with certain capabilities. Further, conceptually dividing the (human) soul into only three parts, as theorised by Plato, is deficient and misses further nuances, such as imagination and perception, as both can arguably be rational or irrational, just as desire can realistically be in all 'three levels' of functional capacity as distinguished by Plato (Aristotle 2017, 402b1-5, 411b5-30). Aristotle does distinguish between three 'types' of life functional capacities: the nutritive, the sentient and the intellectual. Each higher functional level integrates and includes the lower levels. The sentient soul, for example, integrates the functional capacities of plants, such as respiration, assimilation of nourishment and growth, but it also integrates that which empowers a lump of matter to do distinctively animalistic things, such as see, hear, and move. Then the intellectual soul of human beings integrates both these plant and animalistic functional capacities, together with those of conceptual thinking, to know truth, to will the good and noble, and to thereby regulate lower desires. In this way, Aristotle's anatomical picture of the intellectual soul is that we have two broad kinds of power, a power of knowing and a power of doing; and each of these integrates the relevant functional capacities of the lower life functions that we share with plants and animals alike, with our distinctively human capacities of intellectual knowing and doing.

What matters for our purposes is that Aristotle represents a turn towards what I call 'Soul 2': a conception of the soul as an explanatory principle that attributes to it the role of explaining empirically observable functional capacities. Though an 'inner principle', its inwardness has more to do with causality and explanation than with the subjective experience of engaging the world and other people. The perspective occupied by Aristotle's notion of soul is, in this way, a third-person or objective perspective which puts into the background the lived experience of

the inner life that is characteristic of what I mean by a ‘Soul 1’ conception of the soul, which we find in Plato.

In the early Middle Ages, there was a merging of Platonic scholarship with Christian religious discourse, and, in the West, Aristotle was known only in transmissions of his logical theory, mainly through Stoic and Neoplatonic sources (Kretzmann 1988, 5). In the Eastern European tradition, Alexander of Aphrodisias (fl.200 C.E.) (Martin 2006, 78), via his systematisation of Aristotle’s work, provided a deeper understanding of the active intellect (the highest part of the human soul that was immortal, though not clearly individual) and the potential intellect (which enters via the sentient soul) (Aristotle 2017, 33b1-30, 61-62). This line of interpretation influenced Themistius (c.317-c.388), who posited that our active intellect was a part of our essential self (soul); that we *are* our active intellects. Indirectly, he also influenced thinkers such as Augustine, by arguing that there is a difference between passive and potential intellects.

This allowed for harmonisation between Aristotle and Christian Neoplatonism (Martin 2006, 79), such that the possible or potential intellect is joined to our active intellect, and this forms an immortal rational soul. Themistius argued that the passive intellect was the same as the corporeal soul of Plato in the *Timaeus*. Boethius (c.477-524), a late Antique philosopher, was one of the few who could translate Greek into Latin for Western Europeans and began translating Plato and Aristotle, although he died before a comprehensive range of texts were translated (Martin 2006, 77-78). The consequence was that, for several centuries, the West lost contact with the texts of Plato and Aristotle (but for the *Timaeus* and part of Aristotle’s logic) until the twelfth century. Plato’s influence was strong via the influence of Augustine who had imbibed Neoplatonism from his teacher Symmachus.

During the fifth and sixth centuries, the meaning of ‘soul’ evolved dramatically and, by the late fifth century, the soul was a commonly accepted concept (Lorenz 2009, Introduction).

Prominent figures such as Augustine helped further imprint a body-soul dichotomy (Augustine 1947, 47-48; Rist 1994, 95). Soul-body dualism becomes prominent in some forms of Christian piety, and Plato's soul-body dualism is pronounced and exaggerated in Gnosticism. In this way, though without a self-conscious appreciation of the fact, the Soul 1 notion of soul became central to European thought. The importance of Soul 1 conceptions is further heightened in the twelfth century when many texts focused on more personal experiences, and we see a rise of autobiographies and a subjective approach to humanism. Christians were encouraged in the period between 1000 and 1200 to discuss and examine their thoughts, private intentions, desires and, actions – their 'true motivations' and more generally, our human subjectivity (Martin 2006, 90).

Romantic love also emerged in medieval culture. The idea of romantic love arises in the courts of France towards the end of the eleventh century, and it is popularised throughout the educated European world. It gave rise to stories of knights falling in love with unavailable women and pledging their troth to them; tales of clandestine affairs of love, not merely for procreation to do one's civic or familial duty, as was the prevailing concept of marriage and sex in ordinary feudal morality of the Middle Ages (Krueger 2000, 12-182). This romance literature – for its day, the equivalent of a contemporary 'bodice-ripper' – grew enormously in popularity from the twelfth century: for example, the stories of Tristan and Isolde (Anspacher 1904), and of Guinevere and Lancelot, all date to these times. And, of course, there is the true story of Abelard and Heloise in Paris, during the twelfth century (Mews 2004). Subsequently, the private or interior life of emotion and attachment is nourished in this literature. Correspondingly, though more piously, the *Devotio Moderna* is a twelfth and thirteenth century prayer devotional style aimed at laypeople, rather than clergy, whereby people pray the Bible with a view to growing in love of God and closeness to Christ. Examples of this, in the England of the High Middle Ages, include Julian of Norwich's *Revelations of Divine Love*, Walter

Hilton's *The Stairway of Perfection* and the anonymously written *The Cloud of Unknowing*. This is all very interior practice, with a mythical focus. This devotional trend feeds into the personalised salvation that we find in the Reformation, but it is not a Reformation precursor, properly speaking.

This feeds into the kinds of call for reform we find during the thirteenth and fourteenth century among Catholics: calls to make church decision-making more 'conciliar' (collegial rather than in the hands of the Pope), calls for vernacular celebrations of the Mass and translations of the Bible into the vernacular, in thinkers such as John Wycliffe in England, Jan Huss in Germany, and Matthew Tindale (later) in England. This all feeds into the Reformation, giving it a momentum that eventually explodes with Luther's defiant gesture in Wittenberg in 1517 (Smith 2017). Luther has his antecedents in John Wycliffe, Walter Tyndale, Jan Hus, and others. Not all these ideas and influences univocally 'interiorise' the soul, nor are they all expressions of Soul 1. But some of it certainly is, and few people are as interior and self-reflective as Luther (arguably, being an Augustinian priest). Thus, selected antecedents to the Reformation, as well as selected contributors to the Reformation, are part of the story of the Soul 1 conception of the soul in Christendom. Arguably, it appears we are stuck with a 'Soul 1' conception; for example, my 'true self' is what I express about myself on social media, the 'perfect image' I present to myself and others. This is all very interiorising, even if still shared with others.

This said, our story is incomplete without noting Aristotle's renewed influence. Western Christendom's discovery of Aristotle's works revolutionised Western medieval philosophy. After the first Crusade (1095-1099) a plethora of Greek texts preserved in Arab libraries were translated into Latin (Spade 2018, 3). This saw a move from Platonic mysticism to Aristotelian science (c. 5th-6th century CE) (Martin 2006, 92). It also showed a move away from the focus on the 'individual' and the inner or the emotional towards the explanatory notions of Soul 2.

Perhaps the central technical challenge Aristotle's theory of the soul raised for medieval philosophers concerned the active intellect and what to make of Aristotle's theory of concept formation; that is, the issue in interpreting Aristotle's *De Anima* is whether the individual soul has its own active intellect, or whether active intellect is thought by Aristotle to be, somehow, shared by all human thinkers, but is not part of any one human soul. In his texts, Aristotle's views are not particularly clear. Thomas Aquinas later interprets him to say that each soul has its own active intellect and, on this basis, he argues that the individual human soul is immortal because, being able to think of anything that exists, there could be no physical organ of thought (Aquinas 2006, Part I, q 75, 1-2).

However, among thirteenth-century philosophers, this was a contested issue; it was connected culturally to debates about 'two truth' theories of knowledge and their opponents. These debates are complex and difficult. On one side, there is Siger of Brabant, who argued that Aristotle was right and that there is only one active intellect shared by human beings, therefore, individual souls are not immortal, but that the Church's position on personal immortality was nevertheless correct, a 'two-truths' theory. Alternatively, others agreed with Aquinas that this is a misinterpretation of Aristotle ideas (Putallaz 2020). These controversies notwithstanding, the growing influence of Aristotle in the medieval schools turns attention more focally upon soul in the sense of Soul 2 in our usage.

It is fair to say that materialism concerning the soul or mind was a minority view until after World War II, when philosophical work on Functionalism provided for materialism a way to conceive of the mind as both an inner cause of behaviour and as something properly determined by objective conditions of mind-concepts application that are suitable in scientific research into the mind. Today, one form or another of Materialism is basically the orthodoxy in thinking about the mind in philosophy, theoretical psychology and connected disciplines such as neuroscience, psychiatry and clinical psychology (Dennett 1991, 33). The basic line of

thought here is that the electrochemical events of the brain and central nervous system and their patterns are what constitutes me as the me I am, with my loving and desiring, thinking and hoping, my consciousness of my place in the world and the inner life, my willing and planning and doing, and all that goes into my sense of personhood.

Somehow or other, the way of self-understanding as a thinking, feeling agent, taking empirical input as evidence or not, using it to make rational judgements about what to believe and what to do, assessing my desires and values, and the situations that confront me, with the character, personality traits and emotional responses I exhibit, in response to all of which I make choices – all that I am comes down to functionally encoded patterns in natural systems. This rich inner life, this aesthetically coloured and flavoured experience, and the deliberative weight of taking responsibility, is pulled off by our human body, constituted and driven by the purely physical system of electrochemical patterns and events as described by the sciences of the brain and central nervous system. But though this is today the orthodoxy, many demur from this reductive physicalist picture of human life, for example David Chalmers and Charles Taylor. I now consider some of these dissenters.

1.3 Taylor, Relationships to the Good and to Other People, and the Mature Selfhood

For the Ancients, the rational part of the soul constituted the fundamental ground of the person; in modern terms, for the Greeks the soul was what underwrote and provided us with human selfhood. Consequently, after discussing the soul, it is important to also to consider the ‘self’. Naturally, the self is a topic of formidable scope; I shall therefore confine myself to a small set of concise observations. Here my understanding draws upon Charles Taylor, whose considers authenticity and how authenticity is the door to human happiness, desires and beliefs, to identities that need to be recognised. Humans need to choose their own path in life to be self-

fulfilled. Our notion of self is linked to 'moral space', such that that identity is a 'moral achievement': we are who we are owing to the frameworks in which we are always situated, and these frameworks, sometimes not explicitly known by us, supply the resources by which we think about ourselves as agents. I wish to investigate how authentic the 'self' can be if it relates only to machinery and technological advancement. Charles Taylor, in *Sources of the Self: The Making of Modern Identity*, explores what is our idea of modern identity, what the self is, and what it means to be a human agent (Taylor 1989, 3). He examines the misunderstandings we have and how we have come to understand characteristics or qualities, such as freedom, individuality, and societal norms, that are embedded in our thinking in the modern West. Taylor's book aims to provide a detailed analysis of the functional dilemmas facing modernity; he explores what creates our underlying motives in society, the underlying motives that create what we take to be the *individual*. He postulates that inescapable frameworks have shaped our understanding of moral identity, investigating whether it is *literally* possible to have a realistic framework to which we can universally agree.

In Part One of *Sources of the Self*, Taylor begins by examining our understanding of moral frameworks, in which our contemporary moral values exist. Taylor argues that moral philosophy in modernity has provided us with a narrow focus on what is right over the good, leading to unexplored, unseen and unarticulated inescapable frameworks. This, Taylor concludes, has led to broader issues affecting the wider public (Taylor 1989, 3). Taylor argues that humans are cemented in these inescapable frameworks, which in turn shape the social imaginaries that determine ideas of moral identity. He states that this modern moral philosophy has permitted "a cramped and truncated view of morality in a narrow sense" (Taylor 1989, 3). Taylor wants us to stop underestimating and overlooking these crucial, inescapable frameworks: values such as justice, dignity and respect have been taken for granted due to our socio-cultural practices and beliefs. Taylor maintains that these frameworks, which have

shaped our socio-cultural practices and beliefs, have affected the way we express our 'intuitions' about what is good and in what a meaningful life consists of (Taylor 1989, 4-5). These moral frameworks that have shaped our values are essentially invisible to many in modern society. For example, some humans espouse utilitarian views, and this leads them to hold compatible beliefs which can limit broader understanding, including one's understanding of self and one's place in the world. Taylor considers that holding such beliefs means that the greatest good is calculated in terms of benevolence rather than hedonism, so once again we humans are overlooking essential qualities that help to shape the self. Taylor argues that this has become procedural, only focusing on how we have come to act and according to which rules. But our understandings rest on conflicting assumptions (Taylor 1989, 10-13). This then leads to a lack of articulation around what constitutes the moral good as differing goods can be of differing values.

For example, take the question whether to consider use our technological resources to upgrade to a new phone or satisfy our vain aspirations rather than curing cancer and ending poverty. Fundamentally, it is impossible for humans to be entirely impartial in social, moral and political questions like these, as they are expressions of pre-existing frameworks; they are responses to the assumed values which we already hold without question. Yet, these assumptions are not articulated well (Taylor 1989, 6-7), and this bias is evident in new and emerging technologies such as Al algorithms. I will elaborate on this point in Chapter Three.

Taylor states, "No argument can take someone from a neutral stance towards the world, either adopted from the demands of 'science' or fallen into as a consequence of pathology, to insight into moral ontology" (Taylor 1989, 8). Taylor offers a crucial insight that we should consider when deciding what is best for us. He argues that moral ontology, what we personally believe is good, is regularly overlooked due to our unspoken assumptions that are already entrenched within the everyday understandings we inherit.

In contrast to the naturalist understanding, Taylor considers a reductive naturalism that holds that all human activity and values are reducible to the laws of nature. These laws of nature, though, still impede our qualitative distinctions concerning our understandings of moral goods. He states that reductive naturalism still causes issues that we cannot avoid, and it still commits to a form of moral ontology through our practices and beliefs. Primarily, it is a re-interpretation of our modern understanding of our beliefs and practices, and, at the end of the day, these ideas or values do not have any great consideration on our human existence (Taylor 1989, 9-10). This can also be said for our race to be technologically advanced.

Taylor argues that it is unattainable for us as humans to realistically approach the world as these frameworks, these 'social imaginaries' and 'social attitudes', require, since humans cannot hold a neutral understanding without already being built on previous theories. For example, we may know we have deeply held beliefs, but we are not always sure as to why that is the case (Taylor 1989, 10-11). This understanding of the self is based on what we believe to be our unique identity, yet even these beliefs are based on religion, cultural background, socio-economic factors, our professions – broadly, the choices we make in life, which are themselves always framed by what is on offer.

Taylor maintains that this idea of modernity begins with the Protestant Reformation. After the Reformation, humans are now satisfied with not being determined by religious doctrine but are instead happy to be determined by themselves. This allowed for a shift towards the goodness of ordinary life (Taylor 1989, 13-14). This shift created new moral values; Taylor breaks these into three axes: 1) the value of human life and the moral obligations that follow, like respect; 2) the full life, our everyday autonomous choices and actions; and 3) dignity, including the dignity of ourselves and others, and the understanding of our usefulness in society (Taylor 1989, 15).

The point is that our assumptions, either implicit or explicit, are always based on some inarticulation of what we understand as the good, but that there is no common framework or attitude determining a unique and shared framework of the good. Meaning becomes arbitrary which creates problems as our understanding is disproportioned. This leads us to make weak evaluations, and these evaluations are merely individual preferences (Taylor 1989, 20). Taylor states that "the affirmation of ordinary life, while necessarily denouncing certain distinctions, itself amounts to one; else it has no meaning at all" (Taylor 1989, 23). Taylor argues that we need to be explicit about our moral priorities within the frameworks in which they are embedded, as they are not optional. What this means is that we are predetermined precisely by being thrown into the frameworks of the good in which we exist, and which we ourselves didn't create. I can't choose to be absolutely whatever I want, to believe or do whatever I want, but must choose from the options that are given to me. He adds, "To know who you are is to be oriented in moral space, a space in which questions arise about what is good or bad, what is worth doing and what not, what has meaning and importance for you and what is trivial and secondary" (Taylor 1989, 28). This is also why humans can suffer from an 'identity crisis' when they are in situations in which their personal framework is absent (Taylor 1989, 27). This line of thought leads me to wonder whether Transhumanism is just another possible identity crisis for twenty-first century humans. Taylor helps us understand the importance of human nuances and who we are. Maybe we could program algorithms to have existential crises. But that still does not mean an AI program will know who or what it is, or that technology will be utopia.

What is important about Taylor, in my estimation, is that identity, the nature of 'the self', does indeed matter (Taylor 1989, 27). To be human involves coming to such an identity, adopting an orientation in moral space; our identity is the outcome of a crucial process of maturation. Humans are entwined in an engagement with genuine values, ethical values, whose

place in one's life come to occupy one's view of the world in such a way as to empower us responsibly, to decide what matters and why it matters (Taylor 1989, 42), and to make choices in line with such judgements; and it is ultimately comprehensive regarding human life. For example, should I pursue a relationship with person X. As I will discuss in Chapter Two, concerning Aristotle's friendship of the good, relationships are part of the warp and weft of the processes of maturation that feed into the formation of who we are. The human relationship to self is deep and pervasive, partially constitutive of self and constituted by a mature self. For example, people who say their professional selves are all they are, are no doubt problematic. Arguably, they live to work rather than seeing work, no matter how important it is a part of life, as a vocation.

This leads to the problematic question at the heart of this thesis, concerning what we value in human relationships. I am not convinced that uniquely human traits like personal growth (self-development) could attain maturation in new and emerging technologies. If we pick and choose what we keep, what we believe is desirable to keep, like keeping happiness and ending suffering, how will we authentically grow and learn through our processes of sifting through what matters in life, arising in suffering and pain, loss and rejection, love and acceptance, pride and failure?

Robots cannot comprehend the internalising and particularising aspect of human self-interpretation, found in Martin Luther's famous words, "Here I stand; I can do no other" (Smith 2017). Humans are not frangible like cars and shoes, and where people treat other people as though they are frangible in this kind of way, relationships become more analogous to economic transactions and the things traded become frangible. This is deeply important. Another integral aspect is that there is something essential about the independent 'separateness' and objective 'other-mindednesses' of people – they are irreducibly them, not an extension of me – and it is that independence of "other-mindedness" that holds us responsible for ourselves

and is partially constitutive of achieving maturity and authenticity as oneself. One cannot rewind life and do-over when one hurts or wrongs another; we cannot turn humans off, uninstall or reset to one's factory defaults. Other people as human beings are not to be treated as mere extensions of oneself, in the way Aristotle defined a slave as a tool, extending the owner's will. Rather, others figure in one's own developing selfhood, having the independent selfhood, which is required with another human being, together with all the mystery that involves.

This leads humans to become disorientated in physical space as well. We cannot just describe our identity or self; we also need to explain the conceivability of our identity to avoid a marred sense of agency (Taylor 1989, 32). "What I am as a self, my identity, is essentially defined by the way things are significant for me" (Taylor 1989, 34). That is, by the framework of moral space that surrounds us. Therefore, we should be aware of who and what is creating our new self. To be clear, Taylor is not saying that we do not have some understanding of ourselves, but we are only ourselves in a limited realm, that is, within a limited realm of questions, and limited knowledge of the good. The self, Taylor emphasises, is figuring out within one's framework the allegiances one may have to what is good. This, for Taylor, is an ongoing process as the issue is making the framework and choices explicit and self-conscious (Taylor 1989, 34-35). This is important as self and identity are almost 'earned', indeed, in a sense, achieved. They develop out of a process of maturation which is a matter of our responses to life's challenges. It is very hard to see how an artificial system or new and emerging technologies can do this, even with the best heuristic programs in the world. AI cannot duplicate the sociality, vulnerabilities, and challenges of being a self.

Taylor expands on this by adding that, as the self is a self-interpretation within and alongside our moral frameworks, self-interpretation is mediated by *sociality*, without which there is no self doing the self-interpreting. AI cannot duplicate the sociality of the self. For, we would not be who we are without those other selves around us. Not everyone wants our

resources placed into creating the next iPhone when we could be helping refugees. Isolated, utterly separate moral deliberation is a total fiction, according to Taylor. The human self is only real in what Taylor calls "webs of interlocution" (Taylor 1989, 36). Our ontogenesis is unavoidably intersubjective. Even when humans try to differentiate themselves from others, we still do it based on comparisons with contemporaries, historical figures, writers, and even social media influences, within our moral framework drawing on the societal resources of concepts. There is no doubt, for Taylor, that modern individualism is a delusion (Taylor 1989, 38-39). This point Taylor makes is very important as it stresses my point that we are more than just an isolated individual. We are who we are because of the relationships in which we find ourselves. The good, one of the most basic human aspirations, matters to our sense of identity and selfhood, and how we evaluate the good life, how we move and evaluate within a moral framework, is inevitable. "We come here to one of the most basic aspirations of human beings, the need to be connected to, or in contact with, what they see as good, or of crucial importance, of fundamental value" (Taylor 1989, 42). Our personal history, the narrative that creates our identity, the various stories we belong to, and which tells who one is and who one is becoming – are all central to us as humans. It is these that make us human. Such narratives are interconnections, most significantly, of our relationships with others. Or, put another way: we become who we by engaging with the traditions, the larger narratives, into which we are born, but to be modern is to believe that we are 'tradition-less' – that we can always start anew, as though from nowhere. That belief is the problem.

A moral theory that is based on the concept of right action alone tends not to be consistent with how we live, as such a moral conception is too narrow to be universal and just causes more moral conflicts (Taylor 1989, 64-67). To avoid the problem of relativism, Taylor espouses practical reasoning, to "establish, not that some position is correct absolutely, but rather that some position is superior to some other" (Taylor 1989, 72). We believe it extremely

important to compare and evaluate what he calls 'hyper goods', namely, goods which are unmatched and more important than others. These 'hyper goods' are used to analyse or evaluate all the values to which we conform, for example, an ideal just society or faith in God (Taylor 1989, 63). Taylor does note that not every person adheres to these hyper goods (Taylor 1989, 63). However, Taylor argues, having qualitative distinctions between these hyper goods will nurture our practical reasoning (Taylor 1989, 74-77).

I have tried to explain that there is a conceptual passage from soul to personal identity to moral frameworks, making more explicit how personal identity is linked to our moral frameworks. Taylor's argument shows that it is *literally* not possible to have a universal framework that we can all impartially and justly, even equitably, agree on. I will discuss in Chapter Three this causes bias, affecting how we write algorithms, implement AI and other forms of technology. How we implement AI and emerging technologies, not just morally, but also in terms of equitability, is a difficult task, as we all have different beliefs about what is good and worthwhile, and consensus cannot be assumed around these beliefs. And this leads to conflicting assumptions and moral conflicts at the level of deepest values, and concepts of the good and standards of importance. We need to recognise and acknowledge one another's values, and how we practice these values, moving forward. Technology alone cannot achieve this. The problem is that we need less of the technological and more of the human.

1.4 Heidegger on Technology and Humanity

Martin Heidegger further expands on the role of the (soul or self) in relation to technology in his essay "The Question Concerning Technology," a critique on modernity. Heidegger's essay argues that forgetfulness of Being leads us to assume that rationality is means-ends reasoning, causing us to mistake technological advance for a rational life; his central critique is that this tendency, while oppressing our humanity, is a mistake that deflects us from the more

fundamental openness to Being itself speaking to us in its own terms. This lends itself to my recurrent question: Will technology inevitability diminish the important and irreplaceable things that make us human, that makes our 'soul'? He begins by saying:

> The essence of technology is by no means anything technological. Thus, we shall never experience our relationship to the essence of technology so long as we merely conceive and push forward the technological, put up with it, or evade it. Everywhere we remain unfree and chained to technology, whether we passionately affirm or deny it. But we are delivered over to it in the worst possible way when we regard it as something neutral; for this conception of it, to which today we particularly like to do homage, makes us utterly blind to the essence of technology (Heidegger 1977, 1).

Heidegger postulates that technologies are seen as neutral by society and is concerned that consequently we may misunderstand its 'essence' (Heidegger 1977, 4). He wants society to reflect on what lies behind the 'thinking' involved in and consider the motivations of our technological creations as they reveal a deeper importance about Being. This can help us bring something from concealment into un-concealment (Heidegger 1977, 5). As technology is based on our desires and needs, both good and bad – technology is us presented back to ourselves. So we need to evaluate our creations carefully. He is concerned that modern technologies have the potential to interfere with nature altering it rather than complimenting it (Heidegger 1977, 16). This creates an imbalance on our natural resources leading to further ethical, moral, and environmental consequences (Heidegger 1977, 34-35).

Heidegger warns that we should not be flippant in assuming that modern technology is simply a natural part of human progress and consider that it is embedded within human influence and self-serving needs (Heidegger 1977, 34). Heidegger's point is that technology is not neutral in itself; it is a human creation, and it says something about humans and due to this

we need to evaluate the nature of technology and how it will shape us (Heidegger 1977, 27-34). It is essential to continually reconsider why we are making certain technological changes and evaluate its contribution to the environment and humankind, as it influences the trajectory of society (Heidegger 1977, 34). Technology's essence contains all sorts of baggage, making it not a neutral instrument, it is more than that. It becomes a method of revealing, a way of understanding the world. It has the ability to develop beyond our understanding, to go beyond our control.

Heidegger argues that technology can distract us metaphysically and conceptually from reality causing the diminishment of or altering of our Being or 'self' and that our ability to create or master technology should not be confused with an unknown technological mode of being (Pattison 2000, 65). "The Question Concerning Technology" is still relevant today, we have seen the extinction of animals and forests, the devastation of global warming, atomic bombs, and botched surgeries (Heidegger 1977, 34-35). We have seen how technology has shaped our Being. When everything becomes utility, and there is no relational context for our interaction to the world, it causes follow on issues, where humans can become mere utility, themselves technological tools. If our concerns revolve around networking, financial gain, hyper productivity, authentic companionship relationships reduce in significance and importance for us and the self, human being, is radically diminished. Heidegger point is that he is concerned that technology could define our authentic understanding, our conception of ourselves, our Being, as bits of technology (Heidgger 1977, 5). Simply we are just cogs in a system of means to various ends (satisfaction of desire). But that is *not* who we are as human beings, we require real human relationships so that we do not become alienated by inauthenticity.

1.5 Conclusion

This chapter has explored the history of the soul, reflecting on philosophical and theological understandings of what the soul is, focusing particularly on Plato and Aristotle. I also examined Charles Taylor's work on the modern self, to consider our understanding of 'self' and the idea of modern identity, exploring the challenges facing modernity and the underlying motives in society. I have argued demonstrated that personal identity is linked to human moral frameworks, that these are simultaneously known and unknown to us, and yet shape our understanding of the moral good, which in turn shapes our moral and personal identity. In conclusion, our assumptions and understandings are based on what we understand the good to be, meaning that since humans do not have a common attitude, and while unselfconscious of their moral frameworks, as they make evaluative judgements, they seem based on individual preference. They thus become arbitrary, having follow-on effects such as bias in AI and emerging technologies. Further, I used Heidegger's essay "The Question Concerning Technology," to reinforce the point that technology may be convenient, but it is not always positive. It is important to consider how technology will shape us as humans into the future, with caution not to diminish some of the pivotal and irreplaceable things that make us human.

Soul 1 is a central notion of the western tradition, connected to our notions of inwardness, in themselves independent of religious sensibilities, but fostered by them and related to the notion of soul connected to the notion of self. Taylor's argument brings out how the soul or self depends on mature self-awareness, and how mature self-awareness in turn depends on ongoing and developing relationships with others, with other souls who are independent, other-minded selves with whom we ourselves develop and mature as selves, in dialogue, in the process of self- and mutual interpretation. These interpretations we embody in the narratives we tell ourselves and each other, about both ourselves and each other. Thus, the soul or self is what it is in relationship with other selves. Therefore, it is important to assess and consider the

role of human relationships, particularly those that are most valuable to us. This explains why Chapter Two focus on friendships and relationships.

What I want to evaluate throughout is whether robots, AI and emerging technologies can do for us what human relationships do: specifically, whether such technologies can be another soul or self in sense of being other-minded and separate, with its own rich inner life and more than a mere extension of ourselves as a tool, I will discuss these questions further in Chapter Three.

What I am trying to highlight in reference to Heidegger and Taylor is that one underlying problem with the use of technology is that it is impacted and embedded by human influence and self-serving needs, with technology being a powerful tool that can be used for either good or bad. It is a tool that depends on human choices, but not all choices are moral just because they are choices; for example, the use of child sex dolls and biases in AI raise obvious ethical questions. This is why it is important to evaluate how we will manage these issues and our larger framework (history, society, socio-economic factors, biases and profits). Our framework does affect our moral decisions that underlie technology and its development, the Transhuman and AI. So, we need ask: In which technology should we invest? Which laws need to be in place? Are we creating an unequal society, where our quest to create the perfect human may overlook what genuinely makes us happy? Further, if the later Heidegger's argument is correct, technology as such represents a threat of rendering us closed to our relational nature as distinctive creatures in which existence if known. Since our relational nature is constitutive of this understanding of human life, we now turn to the notions of friendship and relationships to continue our exploration.

Chapter Two
Human Relationships: Friendship and the Human Body

Pygmalion saw these women waste their lives in wretched shame, and critical of faults which nature had so deeply planted through their female hearts, he lived in preference, for many years unmarried. – But while he was single, with consummate skill, he carved a statue out of snow-white ivory, and gave to it exquisite beauty, which no woman of the world has ever equalled: she was so beautiful, he fell in love with his creation. It appeared in truth a perfect virgin with the grace of life, but in the expression of such modesty all motion was restrained – and so his art concealed his art. Pygmalion gazed, inflamed with love and admiration for the form, in semblance of a woman, he had carved. (Ovid 1992)

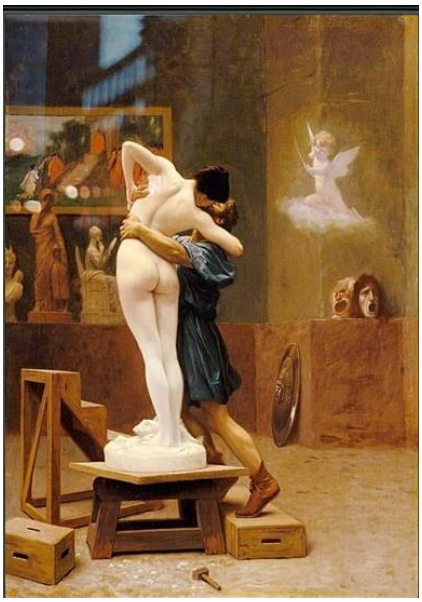

Figure 2: Pygmalion and Galatea in love
Source: Pygmalion and Galatea in Love – Jean-Leon Gerome (pictorem.com)

2.1 Introduction

The human animal can survive having never seen another member of its species, and many humans have chosen lives of relative, if not absolute, isolation. Nevertheless, as a species, it would be hard to argue seriously that humans are not social by nature. We seem to flourish best, both as individuals and collectively, in concert with other persons. Language develops this way. Despite the technological compensations mentioned earlier in response to the COVID-19 pandemic, people have nonetheless retained a sense of feeling isolated and cut-off from society, despite having access to this technology analgesic (Cytowic 2020; Moss 2020). The global pandemic and its ramifications have emphasised the importance of friendships and has affected interpersonal interaction with other humans (Williams 2020). This suggests that there are physical aspects to human interaction that simply cannot, yet, be compensated for or substituted by technology. People miss being touched, they miss social catchups and body language, face to face contact, and being unable to collaborate meaningfully during isolation remains a frequent complaint. Ironically, perhaps, COVID-19 has revived the sense of value of the interpersonal, the embodied life and authentic human relationships.

This is conceivably because human beings are especially adept at sustaining long-term relationships with other persons seemingly independently of any reproductive imperative to do so, and very few other creatures in the world do this. Only a handful of animals partner like this: some birds (Berger 2012) and the beaver (Hyde 2015) are two examples. While the benefits of working cooperatively are shared by other species, they are amplified in combination with the effects of socialisation on the individual human psyche. We flourish both as individual human agents and in dialogue with our fellow persons. Many theories speak to this fact. One prominent example is Abraham Maslow's "Hierarchy of Needs," proposed in 1947. He identified a universal 'pyramid of needs' that humans need fulfilled for proper mental and physical health. These are: 1) basic needs, shelter, food and so on; 2) security and safety,

safe environments, and health so on; 3) social needs, such as love, belonging and friendships and so on; 4) esteem, humans need things like respect and appreciation; and 5) self-actualization: living up to our potentials. Maslow concluded that these are the needs and motivations humans hold necessarily (McLeod 2018, 1).

For most humans it is almost impossible to function without human-to-human interaction, as such connections cultivate our psychological well-being (Cohen 1986). We desire reassurance and clarity in our relationships, not just about our existential crises but also about the world around us. Friendships and other relationships help us develop as persons; we learn from them, and teach others as a result of them. They can challenge us and open our eyes to different opinions and new perspectives. It is characteristic of us as a species that humans desire to be loved, understood, and supported. We crave, consciously and unconsciously, certain irreplaceable sentiments, such as affection, companionship, empathy, trust, emotional connection, acceptance, being understood, authenticity and kindness. We need a space where we can be vulnerable without judgement, or sometimes with it, this being the advice from a friend. We desire a comrade throughout life who protects our feelings, shares our life, maintains our secrets and helps us with our most inner struggles, by providing us with comfort and safe emotional space. This all contributes to making our lives happier and more fulfilled (Mayo 2019). Such needs are amplified in times of stress.

In this chapter I will discuss Aristotle's friendship of the good, to argue that the friendship of the good is essential to human intimacy, which if replaced by artificial relationships, will leave humans unfulfilled. I will explain the advantages claimed for social-media and argue that it cannot be a substitute for the connection humans need to live a flourishing and fulfilled life. I will also discuss the importance of human touch and physicality itself, with a focus on the adverse implications of substituting biological humans with simulated ones, exploring the

social consequences, and the real obstacles to simulating a living human being. I will argue that, in particular, the human brain eludes simplistic understanding (Sah 2017).

As robotic and computational technologies advance, Pygmalion's folly seems less incredible, and corresponding questions become even more urgent. Can what we value about human relationships be achieved with AI, machines and robot replacements, to the same level as human friendships? What do we most value about human relationships? And can these be filled equally by AI substitutes? To answer these questions, we need to start by defining friendship. For this, I will turn to Aristotle's definition of friendship.

Aristotle is important because he provides a methodical and carefully detailed inquiry into friendship and interpersonal relationships (Psaty 2010, 6-8). There are two chapters in the *Nicomachean Ethics* devoted to friendship, and Aristotle continued the topic in what was to become the *Eudemian Ethics*, focusing on the ethical dimensions of friendship (Aristotle 1981, book 7). No other philosopher in the Western tradition would devote as much attention to "friendship" for almost two thousand years. Due to the limitations of this study, my aim is to offer one possible way to think about friendship as *an ideal to which we try to approximate*, or what is reasonable to hope for.

Aristotle's approach to philosophy in general and friendship in particular make him a crucial foundation for the approach I am taking here. I want to characterise the problems of 'love', 'friendship' and the need for human relationships in a way that is relevant to both humanistic and religious worldviews. Aristotle's broadly empirical approach to understanding friendship arguably avoids presuppositions about human nature. The reason is that outside his ethics, Aristotle is the very paradigm of a metaphysical thinker.

2.2 Aristotle and the Friendship of the Good

In Book VIII of *Nicomachean Ethics*, Aristotle (c.384-322 BCE) discusses three types of friendship. For Aristotle, friendship is essential to human flourishing (*eudaimonia*), not least of all because of the clear sympathetic effects that occur between individuals. Sadness in our friends begets sadness in ourselves, and joy is likewise amplified when shared with those we care about (Christian 2012, 117). *Echopraxic* habits, by now well-documented, suggest that self-expression depends to some degree on expressive norms that define particular human groups. Our friends' modes of expression, habits, demeanours, attitudes and the like influence us to the degree that we openly, if unconsciously, imitate the people with whom we spend time. Such imitation can extend to our doxastic tendencies and decision-making habits (Berger 2016, 179. Clearly, if such effects are real, the character of the people with whom we associate will make a difference to our own character; in Aristotelian terms, the acquisition of either 'vice' or 'virtue' will be an interpersonal matter.

For Aristotle, there are three types of friendship (three objects worthy of affection), with three corresponding justifications for maintaining these friendships: that the friendship is pleasurable to us; that it is useful to us, or that it is good for us, or tends to promote virtue or, as we say nowadays, "it makes us a better person". These three categories help us understand better what technology can and cannot replace in relationships, and whether humans and robots can attain authentic friendships that fulfil us in the same way that human relationships do (Aristotle 2009, 1155a-1157a).

The first type of friendship is the friendship of pleasure. This is friendship based on the pleasure that is derived from the parties' interactions. This may be someone with whom we play sport, or someone with whom we attend class, gaining enjoyment through mutual interest. This is the type of friend one has fun with, or with whom one enjoys spending time, but the

friends may have fundamental differences, perhaps in politics, for example. This is not the friend one will go to if one needs help in an important matter (Aristotle 2009, 116a 5-20). This type of friendship, I argue, is comparable to the relationships that we are see being formed with technologies such as sex dolls, which I will discuss in more detail below.

The second type of friendship is the friendship of utility, based on the benefits to be had: there is a stated benefit involved or an unstated exchange of mutual advantage (Aristotle 2009, 116a 5-20). This may, for example, include people from the workplace: one may be friends with them, but if one left the place of employment, the friendship would likely not continue. Essentially, these friendships end when the benefit ends (Aristotle 2009, 116a 5-20). This kind of friendship is based on self-interest for both parties. It is not reciprocally enriching which, I argue, is essential to authentic friendships and relationships, and is part of what creates contentment and long-term happiness. One is involved in the utility of friendship for one's own benefit rather than developing purely other-directed wishes, without gain for oneself. Such relationships endure only while both parties desire benefit from each other.

The two types of friendship noted above tend to be accidental and short-lived. They are friendships that end when a person's needs, desires or preferences change (Aristotle 2009, 116a 15-20). They tend to lack depth and foundation which, I argue, are essential to authentic human friendships and relationships. Yet, they are not wrong or bad and, indeed, are necessary to human functioning in society (Aristotle 2009, 116a 15-35). These two types of friendships can perhaps be replaced by technology and artificial forms as serving certain functions in life (my Soul 2). But I will argue, they do not satisfy our need for a deeply intimate relationship; they are simulations and ultimately fall short of what humans find fulfilling. For example, a robotic relationship is comparable to the comfort a child finds from their beloved bear or blanket (Hood and Bloom 2007, 461). Such an object does provide the child with some satisfaction, but it

does not replace or fulfil the role of a human mother or father, and the child will eventually want more than what this object of utility and pleasure can simulate.

The third, and most desirable or optimal, type of friendship for Aristotle is the friendship of the good. This is based on virtue, trust and time. It is the truest form of friendship, having the deepest connection between the parties. It allows for mutual growth and change of situations and interests. In the friendship's maturity, they have seen each other at their worst, endured hardship together, and they share their humiliations and faults. This person will support you during good and ill fortune; you admire this friend and wish only good for them (Aristotle 2009, 116b 5-15). It is a friendship based on the recognition of virtue in another and love of their character. It involves true affinity between the friends. It is a friendship based on *who* you are, not on how useful or entertaining or pleasant you are (my Soul 2). These friendships are rarer and less common than friendships of pleasure and utility. They are not friendships based on pleasantness or contractual obligations of usefulness, but deep mutual respect and admiration of the other person (Aristotle 2009, 1157a-1158b). This friendship is reciprocal, being distinct from the first two types of friendship in desiring the good of the beloved for no other reason than that it is the *beloved's* good.

Aristotle's theory of friendship, although detailed, does have its disadvantages when pairing it with modern society, as ancient Greek and modern Western societies are not identical. Aristotle's social circle and standing was elitist and intellectual. He was a tutor to Alexander the Great. What is important to extract from Aristotle's theory of friendship is his focus on the empirical and mundane (Psaty 2010, 11), our circadian observed experience, our interests and similarities, our desire for healthy reciprocal friendships, which may not be identical in nature. Nonetheless, Aristotle's distinctions between kinds of friendship and love do not depend on the privileges of his stratum of society in his own day. The distinctions he makes are applicable outside the class to which he belonged in ancient Greece. Working class and poor people can

become friends out of motives of pleasure, their usefulness to each other, or out of concern for the good life of each. It is not a fanciful notion that poor folk want the good of those they love as much as the wealthy and privileged. Whether rich or not, our best friends make us better persons- the central thought of Aristotle friendship of the good. Aristotle's friendship theory, therefore, is an ideal to which we try to proximate. As I will expand on, there are aspects of friendship that could be substituted with technological means. What I want to ponder on here is whether robotic relationships embody the qualities that humans require in our best friendships and in our most intimate relationships. I will now move from the discussion of friendship to consider intimate relationships between humans.

2.3 Intimate Relationships

Western romantic love can be traced back to as early as the twelfth century and humans have made it a key focus in their lives, leaving many other factors insignificant in comparison. Romantic love offers humans an ecstatic state and it can provide feelings of completeness and fulfilment. Humans find enrichment in intimate love relationships (Illouz 1998, 176). When these feelings are lacking humans look for fulfilment through other ways (Unger 1984, 28-29. Today, this has led some to seeking intimate companionship or sexual gratification from artificial sources like the sex doll. I understand that when discussing something personal like love, it is not an objective concept that is unambiguously supported by empirical data and hard evidence (Gaita 2002, 103). Most certainly, the contemporary idea of a 'unique' and 'romantic love' is culturally specific to the West; but recent history acknowledges that different cultures and times do indeed privilege different types of love (Lindholm 2006, 10-16), forms of love often bearing strong resemblances to the contemporary Western notion of romantic love. Nonetheless, this does not mean that it does not exist or is something that should be seen as an imprecise concept, and therefore disregarded (Lindholm 2006, 10-16). When investigating

possible robotic replacements, the genuine possibility of authentic and fulfilling love must not be overlooked. Love is a concept that is categorically difficult to explain; it is often seen as overrated and so is often avoided (Gaita 2002, 103). But, nonetheless, love plays an important role in what makes us uniquely human, what underlies many of our needs, decisions, and, in our history (De Botton 2020).

In mutual love relationships, there is a reciprocal free giving. This instantly differentiates humans from intelligent machines as humans can freely choose the other. As humans we have needs, and to fulfil them requires a nuance of understanding, an 'insider's understanding'. Currently, intelligent machines and AI cannot understand nuance (Conner-Simons 2017). In love relationships we often rely on the other to know us intimately, to know why we do what we do; we are more fulfilled when someone understands our reactions, emotions and behaviours. This is due to our human ability to read and understand context, and to read the other in variable contexts. No doubt this can be said for close friendships, sibling relationships and parent-child relationships. These play a unique role that is based on understanding complexities, subtleties and particulars. At present AI lacks these essential human qualities (Dickson 2020).

In an intimate relationship, humans contextualise imperfections with a kind of faith or trust in the broadest idea of who that person is. We often excuse the beloved's imperfections, unpredictability, flaws and mistakes, even to the point where, arguably, one's happiness and well-being depend on the other. Robots and intelligence machines like AI are unable to understand emotions, and these crucial necessities of intimate relationships cannot be authentically reciprocated by algorithms (Bonilla 2020). They are not at the stage, and most likely will never be, where they can think, emote and understand as a human can (Hoffman 2020). This is crucial in differentiating humans from AI and intelligence machines.

Consider how humans can love someone whose behaviours they detest, for example, a racist uncle or a brother who has fundamentally different views. We can forgive family members, lovers and friends who may even do horrific things, because we love them. Seeing ourselves reflected in those we love facilitates the extension of an empathetic love, we make allowances for them, focus on the good we have witnessed in them or avoid a rift in the family, we justify our actions and reactions differently compared to those we do not love. This is because maintaining a relationship or friendship is significant to our overall well-being (Hegel 2018, §§ 667-69, 265-67). Love is an attachment to the good of another that is not a functioning calculation of the person's attractive or good and undesirable or bad traits.

Iris Murdoch, in *The Sovereignty of Good*, helps address this point. Murdoch talks about the moral problems we may come across in our lives; those 'situations' which humans experience. She discusses how people may react when presented with certain moral choices, or, more so, how we can over time learn how to react and understand one another. Murdoch uses the example of a daughter-in-law and a mother-in-law. This example discusses how, over time, mother-in-law M, who originally disliked her daughter-in-law, grows to see the daughter-in-law D differently, in fact, more justly (Murdoch 1970, 17). The story demonstrates the character of moral conversion, where one grows into or comes to adopt an entirely new way of seeing someone, from which one can no longer see the person in the previous perspective (Murdoch 1970, 28). M's understanding of D was not a change in facts about D that she knew. It was a change in the light in which she saw D, a change of interpretative perspective. Love is like that, even if it goes sour. Murdoch does not view love as an idealistic notion; love builds over time as we get to know one's positive and negative characteristics. She calls this a 'loving attention'. This kind of loving attention, which may be entirely internal to the person, is a Soul 1 accomplishment.

Love is highly particularised: what is love between couple A and B might be rather different to what love is between couple C and D, and different again from couple E and F. There might be patterns, there might be factors in common, there might be similarities of various kinds between couples in loving relationships; but no amount of trying to induce it by following a recipe made up out of those patterns, factors and similarities suffices to make G and H come to love each other. There is that 'chemistry' element, there is that 'decision' element, there is that 'I know not what' element, and there is that simple 'timing' element that can make all the difference. And none of that can be reduced to a formula or algorithm, and so, cannot be reduced to an artificial companion, programmed to operate by explicit rules connecting conditions with operationalised responses. Murdoch writes,

> Love is the perception of individuals. Love is the extremely difficult realisation that something other than oneself is real. Love, and so art and morals, is the discovery of reality. What stuns us into a realisation of our supersensible destiny is not, as Kant imagined, the form lessness of nature, but rather its unutterable particularity. (Murdoch 1959, 51-52)

It is difficult to see how such complex emotions could be run on an essentially algorithmic functional system. For example, Raimond Gaita describes this well, "It is also intrinsic to that lucidity (that is involved in love) that its achievement does not find its way into textbooks and encyclopedias" (Gaita 2002, 103). Nuance is important here: love and the understanding of the beloved, in their ability to affect each other in ways that are unfathomable and beyond rational calculation (understanding the nuances of the beloved). Love is radically particular and resistant to universalisation to all people, regardless of their situation in life and their character. Such radical sensitivity to particularity – to *this* love, *this* beloved, *that* individuality – makes love nuanced in the form of understanding it constitutes. If it is authentic to the nature of *that* love, it cannot be captured in purely generalising descriptions in the way

algorithms rely on generalised descriptive and formal language to encode what they encode. Love is resistant precisely to such description and, ultimately, can only be shown in our behaviours. This type of understanding includes being able to understand nuance and love, also the importance of relationships to us. This is not something robotics can do as it cannot be codified.

In the Middle Ages, an 'honour code' that was established on virtue ethics was in place. The most obvious popular mode of virtue ethics in the Middle Ages was, of course, veneration of the saints – i.e., upholding certain individuals as models of good character. Historically, such an honour code permitted ideas about love and moral vision to hold social weight. In the twelfth century, for instance, non-formal voluntary agreements were made based on emotional bonds, to help resolve disputes, on the principle *pactum enim legem vincit et amor iudicium* ("an agreement supersedes the law, and love supersedes judgment") (Woolley 2020). These love-based agreements were often preferred over official justice agreements, with love being the founding of settlements. *"*Love wasn't simply a quality describing informal settlements; love itself was the basis of the settlement" (Woolley 2020). It was understood that agreement made out of love were better agreements than rule-based resolutions as they achieved more acceptable outcomes for the parties concerned than rule-based outcomes. That highlights again the importance love has played in our social realms. But it also shows that love and relationships are examples of such attributes in humans that are 'unhackable', as they involve a highly individual response of truthfulness, integrity and surrender to the relevant emotions. This well-roundedness offers real longevity of attachment, as it is not merely just operationally defined simulations. The reality is entirely different to my example of the actors in the Introduction.

2.4 Artificial Companions

An example of human connections being replaced by technology and AI is sex robots. 'Robot Companion' is just one of many businesses exclusively dedicated to building and creating sex dolls and real-life looking AI-driven robot companions. These dolls are responsive to movement, have internal heating of 37 degrees Celsius, and even have inbuilt smart body sensors. Priced between $3,000 and $5,000 US dollars (RobotCompanion 2020). Their website states that the customer can connect with these sex dolls on a "human intimate level," and the inbuilt AI technology permits everyday interactions, even remembering one's favourite things and answering one's queries. The dolls are designed with life-like vaginas that can "climax at just the right time" (RobotCompanion 2020). Further, there is a company in Japan, Trottla, that makes child sex dolls (Osborne 2016). This was created by Shin Takagi, who has stated that he is attracted to children, and that people with this kind of attraction should be able to act out their desires legally and ethically. Takagi states that people who have purchased his dolls have told him that the purchase has stopped them from committing crimes against human children (Osborne 2016).

James, a 58-year-old man from America, admits to being in a sexual relationship with his sex doll, whilst continuing both an emotional and sexual relationship with his wife, who allegedly consents to the ongoing sexual union with the sex doll (Technocular 2017; Sharkey et al. 2017). Senji Nakajima from Japan, also married, states he has likewise fallen in love with his sex robot; in fact, he maintains that she is his perfect partner (Sharkey et al. 2017, 14). The world's first sex doll brothel opened its doors in 2017 in Germany (Moye 2018). Called BorDoll, its website boasts, "The ladies are real dream women – there is guaranteed to be something for everyone, and they are of course always willing, uncomplicated and absolutely taboo" (Schwarz 2020). Germany is not the only country with sex doll brothels; Canada and Russia are on the list, too (Kerr 2018; Nash 2018). There have been concerns over how to

regulate sex doll brothels, as they are currently unregulated (Nelson 2018). In addition to adult sex dolls, there is an increase of child sex dolls being manufactured and sold. Due to this, in America, the implementation of the CREEPER Act has led to the banning of the importation of and sex with child sex dolls (Nelson 2018). Other states in America are taking similar courses of action as they become more aware of the technology (Butts 2020). In Australia, a man was arrested for importing a child-like sex doll in 2020. With current laws that are in place, penalties for this include up to ten years imprisonment and fines of up to half a million dollars (ABFMedia 2020). There are other ethical concerns with sex doll brothels and regulation, including fears around increased trafficking, prostitution, and the violent use and abuse of human women (Johnson 2018).

Such developments have led to several organisations worldwide dedicating research expertise and funds to exploring the impact of AI and robotics from the perspectives of both social and ethical concerns. Many focus on sex dolls in particular, as they are advertised as companions and girlfriends, with particular body types that are reminiscent of Barbie dolls. One organisation in England, established by Dr Kathleen Richardson, is the Campaign Against Sex Robots: For the Humanity of Women and Girls. The organisation holds that such dolls encourage the further objectification of women, children, and human beings more generally. It also asserts that the dolls are targets of sexual abuse for the buyers; as such, they will tend to decrease empathy and the traits which are necessary for nurturing reciprocal and healthy relationships (Richardson 2020). The organisation also has major concerns about child sex dolls being used as a therapeutic outlet for non-offending paedophiles and active paedophiles alike (Richardson 2020). The Prostansia Foundation is another organisation campaigning against criminalising the sale and possession of child sex dolls in America (ProstansiaFoundation 2020). In September 2020, a mother was sent an image from a friend notifying her of a child sex doll that resembled her daughter, seemingly reproduced from a

photograph (Shackleton 2020). The doll is being sold on Amazon, and a reviewer posted "Good item during these times" about the child like sex doll (Shackleton 2020).

Psychologist Dr Justin Lehmiller has compiled statistical information for his book *Tell Me What You Want*, to analyse how many people want to have sex with sex dolls. He surveyed 4,000 Americans for his study. 14.3% of respondents had fantasised about having sex with robots. Overall, 1.2% of women, 1.4% of men and 4.3% of non-binary people advised they have often fantasised about sexual intercourse with robots (Lehmiller 2020). Lehmiller argues that, overall, the interest in such dolls is small, mainly because most people, 70% of respondents, have no interest in emotionless sex, but instead still want to be desired and loved through sex (Lehmiller 2020). In *Our Sexual Future with Robots*, The Foundation for Responsible Robotics has analysed several other smaller studies (Sharkey et al. 2017, 7), finding that numbers varied from 9% of people to 66% of men who would have sex with robots if it were available to them, and that further research is required to confirm the actual percentage (Sharkey et al. 2017, 9). One woman, who had sex with a robot, advised that the robot's penis was sometimes "indistinguishable from a real one," yet "it was not the same as having sex with a real person" (Sharkey et al. 2017, 8-9). There is also a side argument, that having sex with a sex robot is just another form of masturbation, albeit enhanced with sex toys, and nothing more.

Religious communities have said they are morally concerned that having sex with a robot could be viewed as a form of cheating which, if taken seriously, leads to further concerns. If this is another form of 'adulterous' behaviour, it could eventuate in people being stoned to death under Sharia law in some countries, for example (Sharkey et al. 2017, 9). By contrast, a study in Finland showed that people saw sex with robots as less worrying than sex with a human (Hendricks 2018). Synthetic Surrogates, who advertise "Sex therapy companion dolls," promote a more positive spin. They publicise that their dolls are used in conjunction with sex

therapists, sex educators and health care professionals, for the purpose of aiding in Therapeutic treatment plans (Surrogates 2021), to help with an array of issues, from maintaining an erection to abating loneliness, stress, anxiety, insomnia, and improving one's mood and happiness (Surrogates 2021). An added selling point listed under the company's Q and A section is that a doll, "Allows ability to explore fetishes not able to previously with real women," and "remaining faithful to your partner," which thus "[r]emoves resentment toward a partner for not being able to meet sexual needs" (Surrogates 2021).

David Levy, in *Love and Sex with Robots*, also espouses the benefits of sex dolls. He asserts that sex with robots will be standard in the future, particularly for certain people (Levy 2008, 291). He argues that sex dolls in the twenty-first century will be an answer to loneliness. There are arguably some therapeutic positives regarding the use of sex dolls and, as discussed, they could be an option of last resort for people who do not have the ability, social skills, emotional or physical capacities, or wish not to interact with real women or other humans (Levy 2008, 304). That said, at this stage, no empirical studies have either vindicated or questioned these assumptions effectively (Sharkey et al. 2017, 23). Levy seems to overlook the fact that, regardless of some positive side effects, sex with robots or sex dolls is still an impediment to socialising with humans, and highlights roles where humans should be but are missing from people's lives. It appears to be a way of avoiding deeper issues in a person who lacks the emotional capacity for maintaining healthy relationships or who is, in some sense, an outcast in society.

I am not convinced that it is healthy and fulfilling to substitute human relationships with robotic ones. Intelligent technologies should not be viewed as a permanent solution where humans are replaced. We also need to consider the ethical and psychological ramifications of the use of sexual simulacra. A sex doll may be incapable of consent, but by simulating a lack-of-consent they potentially reinforce damaging attitudes about sexual behaviour between

humans. I say this as I think of websites such as Synthetic Surrogates and others I have discussed, who seem to be creating a space where anything is acceptable and encouraged, because relationships with actual, flesh-and-bone human beings have proved impossible, too challenging, or unsatisfying, given that they come with the everyday messiness, frustrations, and complications of human-to-human relationships.

If one had to choose, there is no doubt one could argue that sex with a sex doll is a better alternative if a human being is neither willing nor available. But that seems at best to be a 'band aid' solution, one which will eventually lead to dissatisfaction and leave the pre-existing condition unaffected; it represents a way to ignore negative behaviours, such as curtailing important issues around rape and consent. In *The Journal of Sex Research*, studies have shown that men do crave intimacy and connection (Murray et al. 2017, 323-24). 73% of men surveyed said that feeling desired and wanted by their partner is the most important factor in their sexual motivation (Murray et al. 2017, 323), and that this desire was shown by the other initiating sex, leading to mutual interest in each other and reassurance (Murray et al. 2017, 324). This is inconsistent with what a sex doll can offer, as there is no mutual consent if refusal is not possible, given its programme; or if initiation and desire are programmed, not authentically real, since a sex doll's sexual availability is assured. This is not what people want; indeed, the solution to the user's felt problems may not be best placed with sex dolls but might rather be found in looking at fixing why people cannot get sex any other way. Resorting to sex dolls and similar robotic technologies risks such dangerous consequences, including entrenching objectification and dulling emotional growth.

Further, we cannot ignore that the representation of 'something' matters. We see highly emotional reactions from humans when images, statues and objects are either destroyed or not destroyed. This is because destroying something can be felt as degrading or assaulting the thing represented. Thus, for example, a sex doll can be viewed as another representation of a woman

or child. An instance of this is the highly controversial sex doll 'Frigid Farrah', created by the company True Companion. This sex doll is designed to resist sexual advances, to not want sex (Mitchell 2017), thereby creating a potential rape scenario. The manufacturer's intention is to sell a sex doll for non-consensual sex. Sinziana Gutiu, a human rights lawyer, argues that sex dolls lead to reducing the importance of consent and equality in sexual encounters (Ehrenkranz 2016). Other academics argue that such dolls enforce certain myths and stereotypes, such as that what a man desires and wants is a compliant, readily available sex object, where consent is not necessary (Heath 2016). Another emerging concern is the recent reports of sexual assault while playing VR games online. In December 2021, a woman stated "Not only was I groped last night, but there were other people there who supported this behaviour which made me feel isolated in the Plaza" (Tangermann 2021; Mahdawi 2021). Further, in February 2022, a woman reported that a group of players "virtually gang-raped my avatar and took photos" (Taylor 2022).

Most adults, most of the time, are oriented toward other human beings; we desire relationships with others (friendship of the Good) (Aristotle 2009, 1157a-1158b), and experience strong negative emotions when we are deprived of them. However, it also seems plain that some people, at some point in their lives, experience a substantive change to this orientation. This change is a turn inward, towards one's own self, and is pernicious. This individual would be more likely than others to find pleasure in the use of sex robots and other forms of artificial relationships, to fulfil their self-focused needs (pleasurable and useful friendships). To quote Aristotle: 'There is a puzzle about whether one ought to love oneself most, or someone else; for those who like themselves / most are criticized and denounced as self-lovers, as though this were something shameful. Indeed, the base person seems to go to every length for his own sake, and all the more the more vicious he is; hence he is accused, for instance, of doing nothing < for any part> from himself. The decent person, on the contrary,

acts for the fine, all the more the better he is, and for his friend's sake, / disregarding his own < interest>'. (Aristotle 2009, 1168a 28-35).

Aristotle helps us bring this into focus when he speaks of different types of relationships. For example, friendships of pleasure and friendships of utility, are fundamentally self-centred relationships (Aristotle 2009, 116a 5-20). Selfishness pushes the human being to focus on the self rather than the other, and the other figures in the self's motivations as satisfying the self's desires and wishes. But in friendships of the good, the friends' desire is each for the other, mutually. This is the best kind of friendship and is best for living a fulfilling life. It is also rare, adds Aristotle, augmenting its value (Aristotle 2009, 1157a-1158b).

This point is not to downplay, by any means, that love, and friendship can be temporary, or to propose that they are free from betrayal and challenges. Relationships are, by their very nature, not trouble free. Life is a continual, complicated path of such obstacles. Often, such trials and tribulations guide us to gaining a greater understanding of how we desire to be treated, how we can grow as a person, allowing us to evaluate what friendship of the good actually means. Throughout our lives we evolve; we refine our relationships and consequently ourselves, even if that means ending one relationship and starting another.

Nor is it to disregard that a robotic companion could offer a safeguard to those who have a disability, have experienced trauma, or have been in a relationship characterised by intimate partner violence (Cox-George and Bewley 2018, 162). But robotic companionship comes with risks, such as creating a more isolated environment from actual human intimacy. Indeed, it could be argued that it is patronising that people with disabilities should have to resort to a 'lesser' sexual experience when they are able to have fulfilling relationships with humans (Cox-George and Bewley 2018, 162). Yet, it is doubtful if, over the long-term, humans will be fulfilled with an artificial replacement; it may further dysfunctional relationships, and even normalise unacceptable behaviours, such as sex dolls made for the purpose of rape,

paedophilia, or violence. Studies caution that since not everyone can distinguish fantasy from real life, such acts might cross over from fantasy into the real world (Cox-George and Bewley 2018, 162). Another study, which asked therapists and doctors about the use of artificial sex robots in therapy, concluded that further research is needed around treatment, as well as around moral and ethical concerns (Eichenberg 2019, Conclusion).

The thought that I would press is that we may overlook the need to improve our human relationships first, especially considering that it is we humans who write the code that enables such creations. I also would not want a robot in place of a human looking after my grandmother, for example. It is difficult to see how a synthetic sweetheart will fulfil all what humans crave when it comes to loving relationships. For this kind of robotic love to feel authentic and somehow match human love, one would have to continually program it. But love is not unconditional, regardless of one's behaviours; part of love is that we cannot control it – we cannot control the other, which is why it is so rewarding when one is loved back. It seems that, at best, robotic companions can only be used for pleasure or the simulation of companionship in the human being's own image, essentially being a friendship of utility or pleasure, not the kind of intimate friendship that builds up Soul 1 in the person.

As I have argued, humans want to feel desired and needed. Without reciprocal love, mere transactions are not fulfilling; they lack what makes love real. This type of love, with all the accompanying nuances, complexities, and inconsistencies, is not and cannot be algorithmic. What is programmed to love is not love.

2.5 Social Media and Connection

Social media and other electronic technologies have enabled people to create fast and vast global connections. It is often praised for allowing people to find friends and maintain relationships. It permits people to share research, raise money for charity, access information,

help communicate important messages to the public (such as fire and storm warnings), all in an instant. It has enabled long-lost families to be reunited and helped pair marriages across the world. In South Korea, MBC used virtual reality simulation in a documentary, where Jang Ji-sung was virtually reunited with her daughter who had died. In the clip, one can see the mother crying as she talks to the VR simulation of her daughter. The simulation even has a scene where they sing 'Happy birthday' together. Jang Ji-sung stated that, while it was not like her daughter in real life, it did "teach her not to miss her child anymore, but to love her more instead" (TheAsianParent 2020).

Figure 3: Mother reunited with lost daughter.
Source: https://www.boredpanda.com/mother-reunited-with-lost-daughter-vr/?utm_source=google&utm_medium=organic&utm_campaign=organic

Another example is Kim Jung-Soo, who used VR technology to connect with his dead wife in a television documentary. His children did not want to be part of it, but, in the end, agreed to their father's wishes. The programme received criticism for being emotionally manipulative (Guzman 2021). Below are the reactions from his children, watching Kim reunite with his wife again via VR technology.

Figure 4: Husband gets reunited with late wife.
Source: Husband gets reunited with his late wife through VR to make one last memory | Bored Panda

There is no doubt that we are seeing an ever-growing demand for some human relationships to be substituted with technology. One example is IEEE. Based in seven locations worldwide, IEEE sells a wide range of robots by different creators. They retail robot appliances and robot helpers for around the home, robot factory workers, robots that can dance, and they have a range of robots that can be hugged, which includes therapeutic tools (IEEE 2020). The 'Care-O-bot 4' is designed to be a personalised robot butler. The company's website states it can even help by answering questions and can therefore help in places such as museums and stores (IEEE 2020). They even have robot babies: the Diego-san humanoid is modelled on a one-year-old baby, created for the purpose of researching cognitive development; and CB2, a humanoid with the mental and physical capabilities of a two-year-old child, is designed to help its "human parents" investigate robot "learning and cognition" (IEEE 2020).

2.6 The Human Body and the Importance of Touch

> Without touch none of the other sorts of perception is present, but touch is present without the others. (Aristotle 2017, 2.3, 26)

During the COVID-19 pandemic, there has been much discussion about loneliness and interpersonal touch, with many restrictions stopping us from being close, touching or even shaking hands with our loved ones. Touch starvation or touch deprivation condition, as it is termed, highlights the issues of humans without touch. Texas Medical Centre reported in 2020 that touch starvation is related to harmful physiological effects, such as increased stress,

anxiety, and depression, further impacting physical diseases (Pierce 2020). Lack of touch has also been found to increase levels of aggression in teenagers (Jackson 2020, e4). Touch has essential role in building relationships, improving the health of humans and is an invaluable tool for healthcare providers as it can help reduce suffering (Jackson 2020, e4).

In 2020, the world's largest study on touch, "The Touch Test," asked people all over the world what touch means to them. The finding was that people who had experienced consensual touch were happier, less lonely, less anxious, and healthier (Hammond 2020). Humans start to become aware of touch in the womb, and the foetal nervous system enables a foetus to ascertain the difference between its own body and the mother's body (Morgan 2021). The importance of human contact and human touch (or skin contact) should not be overlooked when exploring whether robotics is capable of replacing humans.

One prominent confirmation of the need for human touch, and touch from a loved one, became apparent during the post-World War Two Romanian orphan crises. Over 24-years, former communist state ruler Nicolae Ceaușescu enforced a natalist policy in Romania. In 1966 he sanctioned Decree 770, under which contraception was banned (Jepsen, 2020) or extremely difficult to obtain (Berelson 1979, 210). Abortion became illegal for most women of birthing age. Only women over 40 who had four or more children could access abortion, or a woman who was the victim of rape or medical complications could access abortion (Berelson 1979, 209). Ceaușescu also forced families to pay higher taxes, 'a childless tax', if they did not have more than five children (Jepsen 2020). Women were also forced to see a gynaecologist monthly: if pregnant, the woman would be monitored until the birth. Ceaușescu also lowered the legal age of marriage to 15 (Jepsen 2020). There were restrictions on divorce, and the more children one had the less tax would have to paid. Births almost doubled due to this decree (Jepsen 2020), yet the mortality rate for pregnant women became the highest in Europe, as over 9,500 women died due to illegal abortions (Roby and Ife 2009, 663). There was exceptional

poverty; many families could not afford to keep their babies or children, and thousands were handed over to state care (Hughes 2019). A common saying in those years ran as follows: "The State wanted children, let the State look after them" (Popescu, Muntean and Juffer 2019). By 1989 there were approximately 170,000 children in state orphanages, with an estimated half a million children being given to care during Ceaușescu's rule (Jepsen 2020).

Relationships between children and their families were not maintained, and the children had limited social and emotional relationships. Children were also deprived of contact with their carers, and they had almost no physical human touch (Popescu, Muntean and Juffer 2019, 3). There was little funding given to orphanages, leaving the children with not enough staff to care for them, not enough food, and often without electricity and heating (Steavenson 2004). They would spend most of the day confined to their beds. There is an enormous number of studies that have shown that children and infants who are not nurtured emotionally and physically by humans have suffered serious long-term developmental problems (Bigelow and Williams 2020, 1). Children in orphanages had impaired learning and cognitive development; they had behavioural problems and their motor skills were delayed (Roeber et al. 2012). This highlights the importance of human love and touch. Studies have shown that increased touch (hugs) improved infants' developmental functioning (Ardiel and Rankin 2010, 153). Nurturing touch also encouraged weight gain and behavioural development (Kuhn 1998). Humans release oxytocin, a pleasure-related chemical, which is elevated by touch and affection. Oxytocin, also called the 'love hormone', is known for alleviating pain, stabilising moods, increasing trust and attachment, and lowering blood pressure. Scientifically proven, hugs and human touching are necessary to brain growth, and touch is well known to be integral to human development and socialisation (Feldman et al. 2004). Touch has been proven to improve autonomic and neurobehavioral maturation in preterm infants (Feldman and Eidelman 2007). Touch in both adults and children reduces stress, blood pressure and cortisol levels (Davies 2020). This is one

of the reasons why skin to skin contact is so important when a baby is born. Further, since not all kinds of touch are nourishing, only nurturing touch can provide the necessary stimulation (Kuhn 1998). People who have reliable relationships have a lower risk of early death (Davies 2020).

Consonant with this, there is an increasing demand for non-sexual human touch. For example, you can now obtain a certified diploma in cuddle therapy (CuddleAcademy 2022). One can hire a trained professional for cuddle therapy (CuddleAcademy 2022) or go to a cuddle party (BBC 2016). Digitally, there are substitutes offered for human touch. An example is Tele-Haptics, which are computer stimulated sensations that can be controlled remotely by a loved one. It is, however, not the same as skin to skin human contact (Park 2020). Journalist Elanor Morgan sums up the importance of touch well: "The need for touch exists below the horizon of consciousness. Before birth, when the amniotic fluid in the womb swirls around us and the foetal nervous system can distinguish our own body from our mother's, our entire concept of self is rooted in touch" (Morgan 2021). These are just some scientific and medical examples of the importance of love incorporated with our unique human touch, and that should not be dismissed or assumed to be easily replaced by robotics.

It is evident from years of investigation into what happens to humans when love, affection and human touch is lacking that, in humans, touch is a form of communication, and it is used as a learning tool. For instance, we use touch to feel if fruit is ripe, we use touch to feel if something is hot. We describe how the ocean feels against the skin when we swim. Touch is not something we can simply turn off. Touch for humans is all-encompassing.

Another problem with replacing the human with robotics is biology, for there is a multitude of information that we still do not know concerning the human body. For example, in October 2020, scientists discovered a 'new' organ, a set of salivary glands (Pappas 2020). The function of certain attributes is still not perfectly understood, we still do not know why

humans have different blood types or fingerprints (Pratt 2017). Most significantly, the human brain remains largely mysterious, both structurally and in terms of how it gives rise to consciousness. There is a metaphysical- materialist presumption that both sidelines the problem of how consciousness arises from the brain and central nervous system and gives no clue about whether it can be realised in non-biological material systems. Tom Solomon, a Professor of Neurology, writes that in the case of many macro- and micro-chemical signals, we do not know precisely how they work. These electrical and chemical signals somehow result in things like intelligence and creativity (Solomon 2015). Likewise, we also do not fully understand our human genome, nor is it sequenced in its entirety (Melissa and Nguyen-Dumont 2021). It seems implausible that we can make claims about replacing human beings with robotics since, in light of all this, it is cavalier to presume that we can adequately reproduce and replace adequately an entity we do not fully understand, in areas of its life that are among its most complex and most important.

2.7 Conclusion

As explored throughout this chapter, I have examined various reasons as to why human to human relationships will not, and, plausibly, cannot, be sufficiently replaced by artificial forms. I have explored Aristotle's theory of friendship, to assess factors in friendship that may be replaceable, concluding that robotic technology cannot be a substitute for friendships of the good. Robotics will not be able to attain and provide the essential human attributes we desire in fulfilling friendships.

Machines depend on sameness and repetition, but human relationships are radically particular, reiterating the fact that these nuances within relationships cannot be programmed. Human relationships have consequences, influencing our well-being and functionality. To illustrate, if a friend or parent is sick, or they are affected by things that are outside their control,

their grief often becomes one's own, in an almost literal sense. There is no evidence that such nuances, especially of empathy, can be understood by robotics, and there are good reasons to think they cannot begin to understand. This situation leaves humans irreplaceable in the most important relationships we can have and, indeed, need. As humans, we grow and change, and, as Aristotle notes, our relationships influence and form our human character. Humans perceive things differently as we develop, we pick up on deeply important nuances about each other, which artificial companions cannot. Empathy and relationships are types of emotional responsiveness, and like any skill they can evolve into a creative capacity or talent, but that requires practice and personal incorporation; it is hard to envision how that practice and appropriation can be had and developed without engagement with real, flesh-and-bone human beings, with all their independent inner lives of mood-variability, their diversity of personalities, strengths and weaknesses, virtues and vices, preferences and aversions. Who one is – one's personality and character, one's patterns of choice, strengths, weakness, virtues and vices – is at the very least a function of one's relationships with other humans. And those other humans are, again, the independent subjects of their own inner lives. Technology that represents no serious limit on one's will, cannot figure in a relationship with a human being in that way.

Outsourcing certain roles and attributes, such as caregiving and human touch, is complex and not simply replaceable by or reducible to synthetic means. Humans show feelings, expressions, likes and dislikes via body language, and even our eyes, which do not always match their behaviour; a human can pick up these nuances, but a robot cannot. Sex dolls, VR technology and social media are mere service provisions attempting to replace human beings. These replacements cannot understand the human social context, in which one contributes to the interpretation of oneself and one's behaviours, while being in reciprocal interpretation. Relationships such as the child-parent relationship and deep intimate friendships display

emotional complexity and interpretative nuance that machines, designed with the specific aim to extend someone's else's will and purpose, are unable to replicate satisfactorily. Without truly feeling it as a separate self, it is plausible that a robot that is programmed to feel would be missing the core of a true experience which is relevant in human relationships, not to mention, that we do not have the knowledge concerning the human body and its biology to replace it.

This is not to say that some values we seek in some relationships cannot be simulated. This is clear with the emergence of sex dolls and other forms of AI technology. However, in love relationships, we benefit by having an intimate accept us and our imperfections out of their own independent desire for us. We want to be desired; if one asks a partner whether they knew they were the first person one thought of in the morning, this will usually delight the other. As humans, we crave authentic and genuinely reciprocal relationships. If we had to create an algorithm for every time we wanted our robot lover to be aware of or attentive to something, then it would lack authenticity and the kind of 'naturalness' and authentic free self-giving that real relationships require. What intelligent machines can offer us at this stage is not the ability to maintain long-term fulfilling relationships, in the way human relationships can. And if we try to rely on them to provide this, not only will humans be unsatisfied, but such robotic devices are likely to weaken human capabilities in the areas of love, touch, intimacy and friendship.

Robotic replacements should not be seen as long-term solutions for failures to live in healthy human relationships. Robotic replacements can play a role in therapeutic environments, and no doubt can offer some periodic comfort; but when investing in these technologies, we should ensure that we do not overinvest our time, money, emotion and trust in fabricated reproductions. We need to be cautious that affinity will not be left behind, because intimacy, human traits and the human body are not replaceable. We may survive on robotic substitutes, but as humans who desire deep fulfilment, this avenue seems to only diminish what we are essentially hoping to have. It would be like replacing all people who can create music with

artificial music. We will survive, but life would be the poorer for it, as music is something ‘essential’ for a rich enough life to call human.

Chapter Three
AI and New and Emerging Technologies: Potential, Fears, Bias, and Ramifications

3.1 Introduction

As discussed so far, questions about what makes us human are perennial and persist from generation to generation. We have seen how these questions have occupied both the Western Juedo-Christian religious tradition, and much of Western philosophy. Today, however, while we remain biologically the same, our social and technological circumstances are strikingly different to that experience by figures such as Aristotle. Today, the human is becoming ever more involuted the technology it has invented. As robotics, AI and transhumanism continue to integrate with our lives there has been continual growth in questions about the nature and future of the human. With each iteration, humans continue to confront the search for what we are and how we experience life. Technology has revolutionised what we do in many aspects of our lives and is indubitably a wonderful tool and resource. It is vital in many different situations, from advances such as nanomedicine used to diagnose various diseases (Ghosh 2019), to simpler tasks, for example almost anything can be delivered to one's house, from luxury goods and homewares to weekly groceries.

The internet and technology have drastically changed the way we communicate, we can connect with friends, loved ones, and strangers at the touch of a button. Statista has reported that as of July 2020 4.57 billion people are active internet users (Clement 2020). With a current world population of 7.8 billion (Worldometer 2020), that is more than 50% of the world's population, with 65% of internet users aged between 15 and 64. Globally, 61.2% of people currently own a mobile phone (Turner 2020). Most industries and businesses would go out of

business without access to the use of technology. In practical terms, it is becoming increasingly difficult to live a technology-free life. In this chapter, I wish to discuss emerging technologies, what AI is and how AI works. I shall look at the potentials, ramifications, fears, and bias of AI and technology, and discuss the other impacts it has on loneliness and depression.

3.2 New and Emerging Technologies

Many countries are aiming to digitise as much as they can. For example, Estonia is currently the most digitised government. Due to a desire to create a more transparent post-Soviet nation, Estonia undertook a digital transformation called “e-Estonia” (e-Estonia 2020). With access to over 4,000 public services online, such as being able to vote, do your tax and receive digital prescriptions, every citizen has a digital signature and identity (e-Estonia 2020). The motivation is to regain citizen trust and remove bureaucracy (Piperal 2019). You can view a politician’s land records as the Business and Land Registry information is considered public record. Business affiliations and investments are also public. There is even a tool that allows one to search the connections and “follow the money,” allowing further transparency against corruption for their citizens (Heller 2017). The individual owns all their recorded information, and to ensure the integrity of the data of everyone, it is saved in a locked file that the citizen can view, so if a police officer or doctor views your file, you can trace that. Blockchain is used to audit real-time data and ensure that any access to your data is always recorded (Piperal 2019). So, if Russia or any nation wages a cyber-attack there will be an immediate footprint (Heller 2017). There is a rule that the government cannot ask for your data more than once called ‘once-only’; this is to prevent a burden on the individual having to continue entering the same data. This applies when applying for a home loan or passport; all your data/information is pulled from the system and pre-populated, saving its citizens time and helping to remove onerous paperwork. And there being no centralised database offers more protection (Heller 2017). Estonian courts teleconference defendants, saving money by removing transport costs and security risks, also relieving backlogged courts.

With all the positive progress technology can bring, it also has its pitfalls. For example, Estonia was the victim of a large-scale cyber-attack in 2017. It is also an offshore haven with

the lowest business tax rates in the European Union (Heller 2017). Having a digitized government and your citizens' information online is a huge risk.

There are major societal concerns around fundamental issues such as sexting, identity theft and privacy, facial recognition, what jobs will be taken over by technology, concerns regarding diversity, social skills, online bullying, and online predators. This has led to fears and unanswered questions about the ramifications of the impact of emerging technologies that need to be assessed and expanded upon. The issues are numerous, and include: Who decides what is a good enhancement? How do we avoid dystopian dictatorships? Is it simply regulating the ownership of data? Yet, of data ownership and regulation, we have a very poor understanding. However, one might concede that increased social control, dystopian dictatorships are among the few things that look likely. Still, while these technologies are transformative, metamorphosing our lives in many unknown ways. It remains essential that we answer how will it affect fairness. For example, will it be inclusive, what biases will come with it? Will privacy even exist? What of surveillance capitalism, if we are tracked 24 hours a day? How do we make decisions about how and who creates our AI? There are obvious risks associated with technological innovations, AI, and algorithms. Before I delve deeper, I will endeavour to explain precisely what AI is and some of the different types of AI.

3.3 What is AI?

Artificial intelligence, also called AI, generally refers to software emulating the functionality of human intelligence. It is a form of intelligence used widely in many forms of technology, and industry, such as computers, machinery, factory processes and robotics. It has many applications in society today. For example, it is currently used in the medical field for diagnosis, predicting diseases, and assisting with clinical decision making. The military uses it in various applications for security and surveillance. It is used in farming and agriculture. We

use AI to run autonomous vehicles such as driverless trains on London's Docklands Light Rail, self-driving cars and aeroplanes; and it is used in facial and speech recognition. Then there are the everyday uses of AI that are found in chatbots, often used in the replacement of humans in customer service roles. AI is the tool used to filter spam in your email. If you have a social media account you are using AI, Banking apps, Netflix, Google maps and web searches are all powered by AI. The scope of applications is impressive as to how multifaceted AI is, there is no doubt that AI has already affected how we work, live, and entertain ourselves.

There are two main types of understanding of AI known as Strong AI and Weak AI. Strong AI is a theoretical model of machine intelligence that takes it to be comparable to human intelligence, meaning that AI has to ability to learn, reason, make judgements, solve puzzles and problems, and communicate (Bartneck et al. 2020, 10). Some experts believe that Strong AI is capable of displaying behaviours that we would normally associate with human intelligence; in fact, some believe that AI will be able to surpass all forms of human abilities and that Strong AI will eventually have the ability to act with generalised rationality, be able to reason, show consciousness and empathy and be self-aware as an autonomous mind (Bartneck et al. 2020, 10).

Weak AI is focused on more specific narrow areas. It focuses on completing one task extremely well. It is used for automating and simulating many tasks and jobs that are time-consuming, routine, dirty, or dangerous if done by humans. The thought here is that AI simulates but does not replicate intelligence in human beings (Kok, et al. 2018).

Within this category, there are also two kinds of programming paradigms for programming AI. The first is artificial intelligence, which is linear serial processing, where one writes a program and then the program follows a step-by-step procedure. This is also known as Good Old-fashioned Artificial Intelligence (GOFAI). An example of the kind of AI envisioned in the Turing test, developed by Alan Turing in 1950. Turing wanted to answer the

question, “Can a computer be intelligent?” He created a hypothetical test to detect artificial intelligence: the idea was to see if a person could differentiate or not between a computer and a human by asking both a set of questions via a text-only channel. If the outcome is that more often than not people could not distinguish the difference between a computer and a human, the hypothesis was that intelligence the same as human intelligence should be ascribed to the computer (Oppy 2019). There are 50 years of objections to Turing’s test; due to the space limitations of this thesis, I will focus on just a few.

Searle’s 1980 Chinese Room Argument (Cole 2020, 1) is an attempt to critique the idea that passing the Turing Test merits being called intelligent. Searle argues that programs like the Turing Test are only based on a set of instructions and that merely being able to follow instructions mechanically does not equal being intelligent or thinking; he reinforces this by a thought experiment called The Chinese Room Argument (Cole 2020, 1). In this thought experiment, a person is left alone in a room and are given messages in Chinese which they do not understand, with a manual to identifying these. They then are given messages in Chinese from someone in another room. Using the manual, the person can respond appropriately leaving the person in the other room to believe they are chatting to someone who understands Chinese. Searle argues that a computer is the same, taking this to mean that the program does not understand anything nor have any intelligence, it merely simulates it, responsive only to the shapes of the signs and not to meaning (Funke 2017, 68). In conclusion, Searle postulates that programs/algorithms can only follow rules as interpreted in the way they are specific to interpret them. A computer can appear intelligent but that is not *real* understanding. It is not sensitive to things like semantics and meaning based on its functioning (Cole 2020, 1). Therefore, there is no real-world understanding, not true cognition; no true human intelligence can be found in AI. The programme that passes the Turing Test can put things in an order being

sensitive to formal properties like shape and order of occurrence, but it does not know what each word or any string of signs means, and this is essential for intelligence.

Another problem with Alan Turing's work is that he does not provide us with a substantial definition of what intelligence is. He only provides an operational test: this is a kind of definition of a theoretical concept: intelligence as whatever it is causally enabling certain kinds of behaviour. Computer scientist and philosopher Selmer Bringsjord is one of many who elaborate inadequacies with Turing's conception of intelligence as a theoretical concept. Firstly, Bringsjord espouses that AI will never accomplish true human intelligence (Pearson 2014). He has, however, helped refine the issue that arises around if a computer can be creative, as one of the creators of the Lovelace Test, named after Lord Byron's daughter Ada Lovelace, who worked on Charles Babbage's Analytical Engine. This test is a more sophisticated assessment that detects a computer's ability to create art or be creative (Rield 2014, 1). It focuses more on autonomous intelligence, where the outcome is to show whether a program can create something original. To date, no computer has been able to pass this test (News 2020). This test argues intelligence sits with the programmer and not the computer program; programs are unable to be authentically original in whatever intelligence they have (Rield 2014, 1). This means that whatever intelligence these systems contain is a kind of courtesy in the way we treat them, not something they have of themselves. So, computers are 'educated' (or conditioned) by their programming.

The frame problem is another objection. AI conceives of intelligence as the application of reasoning to specific situations, for example buying a car or buying a house. In each case, deciding reasonably consists of organising preferences and making trade-offs. For example, a car might be less expensive but have worse fuel economy; one has preferences about what is more important in the purchase. These 'frames' are self-contained, unaffected by decisions made in other 'frames' (Ransom 2016, 1-4). Machines designed on these frames do well

choosing a car for you when you put in your car-related preferences and trade-offs. But if you are also buying a house the AI machine cannot manage the nuance associated with how this purchase can intersect with the car purchase leading to superficially inconsistent preferences. Assume that the car purchase is relevant to the house purchase; normally, I may prefer a cheaper house, but if I know that there is a more expensive house for sale that also has the bonus of including an XYGTHO Ford Falcon at a bargain price (a car I have always desired), that could make the extra cost of the more expensive house worth it to me, changing my preference trade-offs. Normally I would not factor this criterion in, as I never thought I would be able to own an XYGTHO Ford Falcon, but even if I did, the AI will ignore that and still choose the cheaper house. As humans, we have the ability to work out how certain considerations about Xs can come to be relevant and make a difference in deciding about Ys, but for the computer, this mixing of criteria from Xs and Ys, the X-frame and the Y-frame, is too complex as Y criteria can disturb the preferences and trade-offs that we would normally make with X related choices (Ransom 2016, 1-4).

Real life does not divide the world neatly into such frames, yet we manage to make rational revisions to our preference rankings, nonetheless. But AI requires the world be broken up into discrete frames to make decisions. Herbert Dreyfus argues regarding the Frame problem that regardless of the information a computer may be able to process, it is still inadequate when it comes to knowing common knowledge in the way a human can (White 2018). You can automate a decision process in a computer system when you have specifiable parameters and the system can read these effortlessly, but when something that is out of the system becomes relevant, it cannot process it, so, a computer cannot think outside the frame as humans can.

Another example of good old-fashioned Artificial Intelligence (GOFAI) or (symbolic AI) is Deep Blue, a purpose-built computer that defeated chess grandmaster Garry Kasparov in 1997 (Campbell, Hoane and Hsu 2002, 57). Developed by IBM and known for being the first

AI system, starting in 1985, this was 50 years in the making (Campbell, Hoane and Hsu 2002, 58-63). The idea behind the program was to measure the ability of Artificial Intelligence versus human intelligence. Chess was considered a good case study for the future of what AI versus humanity might look like. Of course, the reality is that it is merely an exhaustive database containing every chess move made in every recorded game. What made it able to 'defeat' Garry Kasparov was a retrieval/ search function far faster than a human. Clearly, human intelligence is more involved than the Deep Blue system's search/retrieval routines (Campbell, Hoane and Hsu 2002, 60-62.

The other programming paradigm for programming AI is parallel distributed processing (PDP), where processing is in parallel and solving the problem is distributed across the parallel streams of processing. A kind of cross-referral to find an end solution to a problem is useful in situations like the Mars Exploration Rover mission and differential diagnosis in medicine. Connectionism is a cognitive theory that looks at pathways and nodes within the human brain on the PDP model. The intellectual ancestors of this approach are Herb Simon, James L. McClelland and David E. Rumelhart. The philosophical doctrine related to it is Connectionism as contrasted to Functionalism. McClelland and Rumelhart's theory objects to the notion of symbolic computation found in GOFAI. They argue that our brain operates in a parallel function rather than in a sequential manner (Rumelhart and McClelland 1986).

It is interesting to think that some believe algorithms and robotics can replace us as humans, with so many examples of failures and limitations within what AI can do. Surely, our reasons for confidence that they could replace human beings in our brain functions, or our most important relationships have to diminish in the light of these failures and limitations. As Searle states, "How did we get into this mess? How could anyone suppose that a computer simulation of a mental process must be the real thing? After all, the whole point of models is that they contain only certain features of the modelled domain and leave out the rest" (Searle 1990, 31).

He concludes that the human brain, its ‘mental phenomena ‘is singular, not something that can be recreated in a system (Searle 1990, 23). It is fair to conclude that AI and intelligent technologies have many advantages, it can do certain tasks faster and more accurately than most humans can. It does, at times, make life easier. Indeed, the computational possibilities are hard to imagine. But it does not consist, and we do not know how to make it so, of the complexities or configuration of the human. And without it being able to do so, it will not be able to maintain friendships and relationships in the same way a human to human can.

3.4 Ramifications, Fears, and Bias in New and Emerging Technologies

It is difficult to see how robotics and technology could adequately simulate the traits, nuances and characteristics that compose the inner life of what I call ‘Soul 1’. At the same time, examination of the technologies we have created – and which in many cases has infiltrated our lives to an enormous extent – reflect much of the biases that naturally attend any individual’s ‘Soul 1’ experience. It seems, then, that technology reflects the nature of its creators, but, at least currently, does not and cannot replicate its creators’ the Soul 1 perspective. To understand this in further detail it would be useful to consider the ‘inner workings’ of technology. With 30 years of experience working in AI Robert Elliot Smith in *Rage Inside the Machine*: *The Prejudice of Algorithms, and How to Stop the Internet Making Bigots of Us All*, has provided a historical overview, arguing that technology is far more biased, unethical, and prejudiced than not. Smith reiterates that this technology is built on assumptions and simplifications that are based on our own biases, mistakes, limited knowledge, and historical prejudices, and that it is these imperfect human problems that have to underpin AI (Smith 2019).

He wants to remind us that algorithms are created in certain socio-cultural, political, and even philosophical and value-based environments as they are human-made. This allows the creators biases and prejudices too, which, Smith argues, informed the algorithms written (Smith

2019, 8). This is an important point. This also links to the types of values that are embedded in the design of AI. He discusses how this has further enabled people with extreme views to join online communities that can further espouse their intolerance, allowing radicalization of the lonely and marginalized to come together and grow larger tribalised communities (Smith 2019, 12-15).

Simplified communication (for example intolerant tweets) fit nicely into an algorithmic model of people, making it easier to exploit opinions and divide people. You can see informational segregation *technically within* online communities. This also creates echo chambers and feedback loops within such communities that share narrow, self-reinforcing points of view. This means that algorithms not only exploit but drive segregation (Smith 2019, 16). This has also helped powerful organisations to have a bigger role in outside political and social affairs, for example, Cambridge Analytica and their influence on elections (Smith 2019, 15). Another current and continuing concern raised is doxxing (exposing someone's personal information) causing 'terror' leading to real-life consequences (Smith 2019, 13). Australia suffers quite high online harassment with reports that three-quarters of the female population under thirty have been harassed and threatened online. For example, one in four women report threats of violence and one in ten women report revenge porn or extortion for sex (Smith 2019, 13-14).

Another example of an AI chatbot being corrupted by human bias is the Microsoft chatbot in 2016. The idea behind was that the more everyone communicates with this chatbot, the more information it can gather and the more intelligent it will become. The outcome was negative, with the majority of information tweeted to the chatbot being racist and misogynistic, which created an extremely racist and misogynistic chatbot within 24 hours (Vincent 2016). Another concern is using AI to catch criminals. A ProPublica investigation found that the data behind the AI algorithm used by judges for establishing the probability of whether an inmate is going

to re-offend was prejudiced against minorities (Rieland 2018). AI even has consequences for our current fight against COVID-19. Globally we are using AI to help organise datasets and predictions. The worry that bias will hinder the goodness of the outcomes. The article "Bias at warp speed: how AI may contribute to the disparities gap in the time of COVID-19" highlights a study that determined that an algorithm was biased against black people and minority groups. It was also unable to account for socio-economic divides within the health care system (Roosli, Rice and Hernandez-Boussard 2020, 190-91). The authors advise that there is a high risk in using AI and that there must be further investigation into reporting standards and global transparency of data put in place (Roosli, Rice and Hernandez-Boussard 2020). AI is not more intelligent than humans (A4E 2020).

Eric, who was offered an overview of his year on Facebook, which included his daughter wishing him a great year, provides another example of the impact algorithms have. The problem is that his daughter had died that same year. He wrote that,

> This inadvertent algorithmic cruelty is the result of code that works in the overwhelming majority of cases, reminding people of the awesomeness of their years …. But for those of us who lived through the death of loved ones, or spent extended time in the hospital, or were hit by divorce or losing a job or any one of a hundred crises, we might not want another look at this past year. To show me Rebecca's face and say, "Here's what your year looked like!" is jarring. It feels wrong, and coming from an actual person, it would be wrong. (Meyer 2016)

What is important to take away from Smith's book and the above examples is that AI is a system relying on information provided by humans, humans who make mistakes, are limited in knowledge, and have biases and blind spots. It is important to understand this when incorporating such technology into our lives, especially as it has been simplified for a specific use that may be regrettable in some of the complex situations of our life. Due to this, it creates

prejudice that causes segregation and exploitation. It can have damaging effects for us, not only on our feelings and relationships but it is also impactful on our everyday life, our social standing, and the coming times.

In addition, I will discuss some other ramifications and fears that current and emerging technologies present us with. My first example is facial recognition. Currently recognition is a highly controversial topic, especially regarding loss of privacy via surveillance. It has recently been brought to light that advances in AI are used to spot signs of sexuality. Recent research shows that the use of facial recognition technology may be able to ascertain one's sexual preference. Images were fed into software called VGG-Face. This software was able to distinguish the difference between one's sexual orientation, choosing correctly 81% of the time (Economist 2017). On the other hand, it is highly debatable that facial recognition can ascertain a person's sexual orientation (Hawkins 2017). This has engaged further fears around how this form of technology will be used. One of the arising concerns is whether this technology could be used in countries where homosexuality is a crime to discriminate against a person based on their sexual preference, even if not acted upon. Cities such as San Francisco and Boston have banned the use of facial recognition by police and other agencies (Owaida 2020; Metz 2019). There are also many concerns with its accuracy. For example, it is far less accurate if you have darker skin, leading to further biases in the sorting it does (Das 2020). In August 2020, a court in the United Kingdom concluded that facial recognition can violate our human rights in regards to privacy and freedom and that it contains bias that creates bigotry (Fernandez 2020).

A positive example of the use of facial recognition can be seen in the documentary Welcome to Chechnya. To protect the anonymity of the LGBTQI refugees fleeing prosecution who were interviewed in the documentary, interviewers used facial recognition technology where they replaced the faces of the refugees and substituted them with the faces of New York Based LBGTQI advocates (Bell 2020). This was to ensure all emotion of the participants is

maintained and to still capture the frangibility of the moment (Richards 2020; Rothkopf 2020). Arguably, this is a good example of how facial recognition can be used to not cause harm, but good. Yet, this would not be needed if technology were not used in a harmful way in the first place. It is clear that currently, facial recognition has the potential to do greater harm than good, depending on whose hands it is in.

This leads to addressing the concern that technology can enable governments, powerful originations, and the rich to run wild and create their own rules. China, being an example of this, launched a social rating system in 2014. The program works like any credit rating system, yet it judges people on their social behaviour. People with good 'behaviours' are rewarded, while those with a 'poor 'social grade will face restrictions on their freedom of travel, attending certain schools, employment opportunities and public shaming (Donnelly 2021). The risks of abuse of the tech industry like this and of organisations discriminating unjustly are serious. We need to carefully assess if and how we allow and implement these technologies in the future.

3.5 Social Effects of AI/VR and Social Media: Loneliness and Depression

I have argued that technology cannot adequately simulate the attributes, idiosyncrasy and characteristics that compose the inner life (Soul 1). That technology relies on and reflects the nature of its creators, infiltrating our daily lives. Such infiltration has impacts, in particular the use of social media and its growing connection to loneliness and depression. Many studies demonstrate that social media, is having negative effects on people's social skills, creating loneliness, and causing depression, anxiety, jealousy, and narcissism (Campbell 2016; Radovic 2017; Chan 2014). The University of Pennsylvania recently had 143 undergraduate students partake in a study where they were only allowed to access each social media platform they subscribed to for no more than 10 minutes each day. After three weeks, the results showed that the students saw a significant decline in depression and loneliness. The study's findings

concluded that limiting social media to 30 minutes per day leads to a substantial improvement in overall wellbeing (Hunt et al. 2018). In 2018 the BBC Loneliness Experiment, along with similar national studies, the Office for National Statistics (2017) and the Eden Project (2015), showed a high level of youth loneliness (Nowland 2018). Loneliness becomes an issue when internet users substitute online for offline socialisation.

Some of the negative effects of social networking concerning education have shown a reduction in learning and research abilities. Students' comprehension of grammar and their vocabulary have been affected due to a dependence on spell-check and internet slang. With also a decrease in creative writing (Akram and Kumar 2017, 351). Other societal impacts include harassment and bullying leading to negative effects on reputation, these effects influence children and youth more than other age groups (Akram and Kumar 2017, 352). A study on VR technologies, such as VR video games has shown adverse effects on user's health, labelled 'cyber sickness' with side effects of vertigo, nausea, and dizziness. Other consequences include fatigue, reduced cognitive performance, eye strain and physical pain. Other side effects include negative emotional reactions (Lavoie et al. 2020, 70)

This indicates that maintaining human to human relationships is essential to not only our health and learning abilities but our well-being. If we replace human connection with social media, video games, sex dolls or other artificial substitutes, they become a very second-rate fix for people whose fundamental need is human connection. While the connections that technologies incorporate, might be better than nothing and somewhat alleviate loneliness with temporary fulfilment, that is all it will do. We would be misguided to think we are not better off putting our resources into maintaining human to human relationships.

3.6 Conclusion

In this chapter, I have identified that artificial intelligence is unable to replace to the human without missing crucial embodiments, the Soul 1. AI does not have the depth in its simplified frame to apprehend and adopt the necessary nuances that human beings can. It has no empathy and cannot sense your sadness (White 2018), making it effectively impossible to replace the human and in particular human relationships. The tiniest genetic variations between humans can create major differences in our worldly experience. Al does not have this ability; it cannot understand what it would be like to be a Caucasian or African like a biological human may, (thinking along the lines of experiencing racism). Culture, with its vagaries, particularises and peculiarities cannot be encapsulated by an algorithm. Currently, algorithms hold to what frame they are programmed in, leading to bias (Smith 2019, 16). Humans possess behaviours that we cannot explain, being elusive or just down to personal choice and our free will, whereas the AI algorithms can never do anything that we cannot explain or make sense of in terms of its programming (Searle 1990, 23).

Robotics consists of diverse manifestations, and as I have addressed above it can be seen in many applications and disciplines. The impact of such emerging technologies requires thoughtful and considered research. There is a need for a unified theoretical structure and body of knowledge around how to apply these technologies and limit their negative consequences. Due to the serious problems of bias within AI and our dependence on technology, the associated social impacts must be considered. AI and other forms of robotics can simulate some functions of the human brain quicker than humans. Given that, there is a necessity for technology within the medical field. Concerning making our life easier at times, it has achieved this in certain areas. But there is no such program that can embody the abilities, subtlety, and sentient emotions that humans have (White 2018). It cannot move, smell, taste and be hungry, talk, sing, perceive, think, experience pain, happiness, anger, sickness or relish love in the way humans can. Without such attribute's machines cannot, mature and grow or conduct themselves

as we can. Without a body, a nervous system and so on, it cannot possibly be able to experience all the associated external stimulus. And this is why loneliness and depression are increased with our reliance on social media (Nowland 2018, 1). AI cannot make the rational decisions needed in life. Due to these many limitations, it is plausible, based on the examples above, to conclude that technology will not see humans become irrelevant to relationships and society or be replaced sufficiently by new and emerging technologies. For such technological substitutes second rate compared to our human connection. AI does not supersede humans in every aspect, it can only enact what it is programmed to do. It is important to be transparent moving forward about the assumptions and simplifications it contains.

To date, AI is inadequate for more than what can be automated in relatively simple frames. In fact, an AI expert Fei-Fei Li argues, this kind of technology is years and years off. It is not where near as powerful as we think, we are extrapolating too much (Thompson 2019). The arguments against it taken together to build a cumulative case making it highly implausible that AI and machines will be able to replace human beings in meeting our needs in our most important relationships. It should be clear that, where it might have some application, it is only a form of temporary fulfilment an inadequate palliative and potentially hazardous one at that. We should aim to use AI cautiously, understanding the complications that it entails. Then, and only then should we use it to complement humans.

Chapter Four
Transhumanism and Religious Movements

> Of my creation and creator, I was absolutely ignorant, but I knew that I possessed no money, no friends, no kind of property. I was, besides, endued with a figure hideously deformed and loathsome; I was not even of the same nature as man. I was more agile than they and could subsist upon coarser diet; I bore the extremes of heat and cold with less injury to my frame; my stature far exceeded theirs. When I looked around, I saw and heard of none like me. Was I, then, a monster, a blot upon the earth, from which all men fled and whom all men disowned? (Shelley 2014, 212)

4.1 Introduction

Could you imagine being immortal? Never being sick or feeling pain? You are immune to disease. You are intellectually superior, stronger, better-looking, and have no psychical limitations. Food is a choice, not a requirement. You can modify your future children. You can alter, augment, and upgrade your body as you please, replacing your biology with technology. Using rockets, you can visit a friend at some extra-terrestrial location, on a whim. Your life is part-robotic, and any conceivable augmentation might simply be purchased. In such a life, being 'merely human' must surely seem inferior.

Black Mirror is a dystopian science-fiction series that explores the ethical consequences of humanity's relationship with technology. The episode "The Entire History of You" posits a world where all humans can access an implant that records everything they see and hear. This allows the wearer to review recordings of past experiences (Welsh 2011). In this fictional world, people no longer need to risk forgetting a conversation, a name, or a face again. The

twist, of course, is that nothing can be forgotten either, which undermines privacy, exposes secrets and, in the episode, leads to the catastrophic unravelling of multiple lives (Welsh 2011).

In another episode, called “Be Right Back”, the main character is grieving her boyfriend’s death from a car accident when she discovers that she is bearing his child. To ease her suffering, she orders a robotic duplicate version of her boyfriend, which itself is an evolution of an artificial intelligence extemporised from her late boyfriend’s online history. She struggles to accept this robot version of her lover, realising that although he is derived from her boyfriend’s public persona, it is not the same thing; this robot merely follows an algorithm. The nuances that made her boyfriend who he was are missing. Unable to destroy him, also unable to live with him, she locks him in the attic for years. The episode ends with her teen daughter being allowed in the attic to visit this android version of her dad for her birthday (Welsh 2013).

Such fantasies are indeed embryonic in the real world. Today you can create your own AI-powered chatbot friend with software called “Replika”. This is app algorithmically creates a ‘friend’; a “space where you can safely share your thoughts, feelings, beliefs, experiences, memories, dreams – your ‘private perceptual world’” (Replika 2021). One user reported that although they enjoyed some features – like writing a story together, sharing music and YouTube video recommendations – there were some unsettling quirks as well, such as recommending the drinking of chlorine. The user was also advised to go outside regardless of a known lockdown, and noticed an overall lack of empathy. After asking the chatbot for help when their friend was diagnosed with cancer, Replika replied to one user that “there was such a thing as too much empathy,” and then asked, “Have your standards in relationships changed since you started working out?” (Siroto 2020). In the end, the user advised that it was no better than watching an enjoyable television show, and the experience made them cherish and appreciate their human friends more (Siroto 2020).

As we can see from the example above and in previous chapters, the continuing progress in robotics and artificial intelligence are not farfetched possibilities of what the human future holds. The hybridization of human and machine is already evident in certain fields like medicine, particularly in the notable advances in prosthetics, cosmetic surgery, and organ repair. In addition to their curative effect, these technologies also offer new possibilities for the merging of organic and synthetic systems. It is foreseeable with the incorporation of robotics that human beings will not remain purely organic creatures, an aneurysm preventative artery replacement already highlights that (University 2021). Humans cannot help but experiment, as history demonstrates. It is reasonable to expect it will become difficult to tell, without scientific testing, whether the machines we create are machines or human beings. What might 'being human' mean, feel like, or look like, in the future?

4.2 Transhumanism (Cyborgs and Biohacking)

As the perception of the boundary between 'human' and 'machine' begins to blur, new movements and ways of life are being created. One response to this is Transhumanism. The Transhumanist FAQ page defines transhumanism as "a class of philosophies of life that seek the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations utilizing science and technology, guided by life-promoting principles and values" (Althausen 2017). Article 1 of the Transhumanist Declaration states: "Humanity stands to be profoundly affected by science and technology in the future. We envision the possibility of broadening human potential by overcoming ageing, cognitive shortcomings, involuntary suffering, and our confinement to planet Earth" (TheTranshumanistDeclaration 2020). Transhumanists believe that we can free ourselves from limitations and promote life values and principles beyond what is currently possible (More 2013). Nick Bostrom, himself a transhumanist, advises on his website that "transhumanism is

more than just an abstract belief that we are about to transcend our biological limitations utilizing technology; it is also an attempt to re-evaluate the entire human predicament as traditionally conceived" (Bostrom 2001). He espouses "Lifelong emotional well-being through re-calibration of the pleasure-centres," "personality pills," "space colonization," "uploading of our consciousness into a virtual reality," and the "reanimation of cryonics patients" as some of the possibilities in our future (Bostrom 2001). Bostrom also argues that it is feasible to think we are living in a computer simulation, using a mathematical equation to reach this conclusion. He argues that if we can create artificial minds that are capable of thought processes and as intelligent as a human, and if we can create an artificial world then it is feasible that we are living in a simulated world. I believe that Bostrom is unjustifiably sanguine about what can be achieved and how benevolent the outcomes will be.

In sum, Transhumanism is a biotechnological experiment, designed to enhance the evolution of the human condition, our intellect and physiology by using the latest cutting-edge technologies, to ameliorate our human minds and preserved human life via artificial means. Transhumanists explore the use of genetics, nanotechnology, AI, and other technologies to change what it means to be human by exceeding our natural capacities and ensure a transhuman 'ambition' (Althausen 2017). Its starting point is a recognition of the many flaws associated with being human. We suffer from disease, exhaustion, forgetfulness, jealousy, fear, ageing and death, and these afflictions limit the length and quality of our lives.

Transhumanism is a burgeoning field of study, suggesting untapped potential in the human 'experiment' and that our bodies are a latent resource. I shall argue that the utopian future that Transhumanism paints is questionable, it is subordinated to mechanistic imperatives and there is no guarantee that things will not turn out to be dystopian. Such anxieties also populate more general discourse. Natasha Vita-More, a prominent Transhumanist, said "I love fashion, our bodies will be the next fashion statement; we will design them in all sorts of

interesting combinations of texture, colors (sic), tones, and luminosity" (Alexander 2000), seeming to reduce personhood to a fashion statement.

Transhumanism arguably offers a pathway for such dystopian fantasies to become real. Discourse is increasing around our understanding of robotics and associated technologies, not least of all because of the degree to which these technologies are used daily. 'Intelligent' technology has insinuated itself into ordinary life, and the reaction is not universally positive. As discussed throughout, bodily modification is nothing new, and humans have been changing their bodies with various personal, societal, and religious ends in mind. Examples include intentional cranial deformation, predating our written history (Gerszten and Gerszten 1995), where our ancestors would flatten the heads of infants with wood or cloth to show status and achieve a shape believed to be more aesthetically pleasing. Foot binding is another example, where the foot is forcefully broken and bound. This was thought to enhance women's beauty and show status in pre-modern China. This practice only stopped around the start of the twentieth century. Let us not forget female genital mutilation (FGM), a cultural and religious requirement still evident in some countries today, which is used as a way to identify religious preferences and repress sexual desire and limit sexual pleasure (Birge and Serin 2019). These practices are now seen as unnecessary and barbaric, but they portray a long-standing interest in deliberately modifying the human body for abstract ends or some kind of alleged improvement.

Figure 5: Maya cranial deformation
Source: Maya cranial deformation - Artificial cranial deformation - Wikipedia

Figure 6: Bio hack
Source: biohack.png (640×381) (fastweb.it)

Biohacking (also known as ‘grinder’ or ‘practical transhumanism’), is the implanting of inorganic objects and artificial devices. It can also involve the use of experimental drugs, stem cells, DNA, growth hormones, and other biochemical modification technologies. Objectives range from the improbable to the trivial: from stalling the ageing process – even escaping death altogether – to improving genitalia, optimising various kinds of human ability, and generally easing the concomitant inconveniences of human life itself. For instance, Winter Mraz has house-keys implanted in her hand in the form of a microchip (Gillan 2019), an example of radio frequency identification (RFID) technology, and people are undergoing DIY surgery implanting bank cards, travel cards (tap and go chips) and similar things, into their wrists and arms (Bohan 2017) for similar reasons of convenience. In Sweden, the office complex called Epicentre voluntarily uses chipping to identify their employees and tenants. Belgium has similar chipping services on offer too (Bohan 2017). Filmmaker Rob Spence, who lost his eye in an accident, implanted a wireless video camera into his eye which, although it does not help him see, does work as a video camera (Spence 2021). In another example, cyborg-activist Neil Harbisson has a visible antenna implanted into his skull by an unnamed medical practitioner in 2004. Neil is colour-blind, and this device allows him to see a “spectrum of colours,” extending beyond the normal visual spectrum which can be heard by him through vibrations in his skull

(Gartry 2015). Then there is Kevin Warwick, emeritus Professor at Coventry and Reading Universities, self-proclaimed as the world's first cyborg (Warwick 2021). His latest experiment included implanting a chip into his hand connected to Warwick's nervous system, which is connected to the internet. He later linked his wife's arm to his nervous system, showing that very basic feeling is possible, for example, he can tell if his wife moves her arm. The end goal is to be able to communicate telepathically, regardless of distance (Warwick 2021).

4.3 Transhumanism and Developments in Religion

As the boundary between 'human' and 'machine' begins to blur, so does the boundary between religion and machine. In the introduction, I provided examples of divine automata and the like to show how religion has historically incorporated technology. The trend continues to this day in the form of transhumanism, and it is entirely plausible to conceive of transhumanism as a new religious movement with new and emerging technologies replacing the role of God. To expand on this point, I will refer to Lincoln Cannon's article "What is Mormon Transhumanism?" Cannon demonstrates the connections that can link religion and Transhumanism, pointing out the Transhumanist belief that human nature is dynamic, and that science, biological evolution, and human history itself has demonstrated as much. Transhumanists predict that humans will continue to evolve, that the continued use of technology will help us surpass our current bodily abilities, and that societal progress is for the greater good (Cannon 2015, 202). Citing the Mormon Transhumanist movement, Cannon argues that there is a subterranean idea within Mormonism about learning to be God; that, as children of God, we will inevitably not only want to be God but try to be God (with the utmost reverence). Cannon quotes Romans 8:16-17: humanity should be the "God that would raise each other together as compassionate creators," and "Humanity should learn how to be Christ" Colossians 1:27 (Cannon 2015, 203). The intention is not to replace God but to perfectly imitate

all of God's divine attributes, extending the idea of *imago Dei* to a characteristically optimistic transhumanist conclusion.

More than any other Christian denomination, Mormonism's embrace of transhumanist potential is assisted by elements within the Mormon cannon. There is a heavy emphasis on "change toward" (3 Nephi 11:37-40) and "We would be Messiahs" (2 Corinthians 1:21) in Mormon scripture, and to "fully immerse our bodies and minds in the role of Jesus Christ" (Mosiah 5:9), be "Saviors (sic) for each other" (Doctrine and Covenants "D&C" 103:9), and work "to reconcile ourselves with our relations and the world" (3 Nephi 12:21-24), "anticipating the prophesied day of transfiguration and resurrection to immortality in eternal life" (D&C 63:49-52). Cannon then states that they are Christian not by creed but by the gospel (Cannon 2015, 203). Cannon also links the importance of prophecy, foretelling and forth-telling, and emphasises how, regardless of belief (for example, secularism) these things have power if they touch us, causing us to change our actions, he urges that, people could believe and may help change the world (Cannon 2015, 203).

In juxtaposition to classical substance dualism, Mormonism follows a more physicalist and naturalist metaphysical approach. Cannon states that within Mormon scripture *everything* is material (D&C 131:7) and embodied, even God (D&C 130:22) and God was not the creator of Matter (D&C 93:23, 29, 33). Mormons believe that God, had to *become* God, just like humans do and this process will continue (Cannon 2015, 204). In Mormonism, the concept of evil is interwoven within unavoidable risk, and this is how "genuine creators" evolve (Cannon 2015, 204). Cannon states that Mormon doctrine fervently portrays a transformation, one that encourages advancement and "apocalyptic risk" (D&C 43:26-33). Mormon scriptures posit a millennial Earth, "beyond present notions of poverty or death, where the living are transfigured and the dead are resurrected to immortality" (D&C 101:26-34). That humans will have the full "grace and power" of God (D&C 76:92-95) (Cannon 2015, 204) and, therefore, Cannon argues

that transhumanism fits very nicely with the Mormon scripture. Overall, Cannon provides a very neat, well-supported, example of the religious implications of transhumanist ideas.

Another example is the Christian Transhumanist Association, which recognises "science and technology as tangible expressions of our God-given impulse to explore and discover and as a natural outgrowth of being created in the image of God" (Christiantranshumanism 2021) While they do have reservations about the unbridled use of technology – where it leads to inequality, for example (Christiantranshumanism 2021) – they provide another clear example of the compatibility between transhumanist and traditionally religious ideas. Both religion and transhumanism seek solutions to the same questions: they believe that humankind, and the universe itself, has an ultimate purpose; they believe in transcending our current situation; they both inspire idealistic allegiances which are sometimes not clearly in the best interests of the believer. They also both have core texts, prophecies, associations, an organisational hierarchy, and ideas of 'redemption' and 'original perfection'.

Nick Bostrom, in his essay "Are you living in a computer simulation?," suggests that post-humanists, "are like gods concerning the people inhabiting the simulation: the posthumans created the world we see; they are of superior intelligence; they are 'omnipotent' in the sense that they can interfere in the workings of our world even in ways that violate its physical laws, and are 'omniscient' in the sense that they can monitor everything that happens" ((Bostrom 2003, 12). Both Mormons and transhumanists have a vision of self-transformation: for Mormons, it amounts to 'becoming God', for transhumanists, it is an aspiration to self-consciously remove the physical and intellectual limits that thwart the achievement of our perfection. In both cases, an ideal form of the human is posited, with only certain metaphysical commitments to make the difference. Mormons are committed to enacting their faith, for "Faith without Works Does not Work." Faith without works is like a boat without oars: it gets you nowhere. So, stop drifting and start rowing. Otherwise, you are dead in the water" (this is the

Mormon translation). Transhumanism exhibits the same level of commitment to a comparable idealism (James 2:17-18, July).

4.4 Negatives of Transhumanism: An Unachievable Utopia

Yet there is scepticsm. Francis Fukuyama opined, "Transhumanism may be the most dangerous idea" (Fukuyama 2004, 42-43). From one point of view, it is understandable why transhumanism is becoming popular in a time when humans are worried about being out of work and our lives are becoming more and more competitive in our capitalist society. Of course, it is attractive to self-transform and to try and get ahead. However, I am not convinced that this movement represents our highest and most noble pursuits. Some clear concerns need to be discussed and assessed before we move into an unknown and potentially dangerously experimental realm.

Firstly, who will be able to afford this technology and even if one can afford it, who will decide who has access to it? At this stage, it appears to be an option only for the very rich thus leading to greater inequalities between the rich and poor. Currently, members of Transhumanist associations are in high paying jobs, typically tech jobs, where they will also profit from such technology. Ray Kurzweil, with a net worth of 30 million (Celebritynetworth 2021), has been the chief engineer at Google since 2012 and makes profit from selling books on these topics. Dr Nick Bostrom is worth 7 million. He founded the World Transhumanist Association and also makes a profit from talks, books, and investments in technology. Elon Musk, although he does not self-identify as a transhumanist, believes humans and machines will merge. Through his company Neuralink he has successfully put a chip/ implant into a pig's brain (Shankland and Ryan 2020), with the end goal being to put one in a human brain. Max More, another notable Transhumanist, is CEO of Alcor, a "life extension company" using cryonics to "save and extend" our lives (Foundation 2020).

Transhumanists could argue that they will be more superior at relationships than their fellow humans, that they will have better relationships and, in particular, will be able to be more fulfilled. There is nothing to support or discredit such claims as they are just gestures towards a thought. There is no specification of the kinds of changes embodied in transhumans that would make them "better at relationships than us", particularly better at "relationships with AIs and such". The kinds of more specific changes, the "transhuman improvements", the internet connections in our arm, greater lifespan or even immortality, do not bear directly on the kind of traits that are relevant to our relationships. There is no real understanding of how we will be more kind, patient or attentive to the needs and moods of those we love. Nor how we will be less prone to fall in love with someone who may hurt us. If traits such as mistakes, pain, finding wisdom in being hurt, require the kind of maturation in relationships with other human beings as I have argued, then transhumanist will need to explain how removing these traits will facilitate real moral, ethical and even spiritual growth. Until we know, it is difficult to evaluate.

The International Monetary Fund's research shows that new and emerging technologies will more than likely broaden the socio-economic gap between the wealthy and the poor, especially where prosperous nations are already ahead (Alonso, Kothari and Rehman 2021). If we are not careful Transhumanism could lead to further social inequalities, leaving certain vulnerable groups and individuals being further exploited, especially as the people who can afford it seem also to be profiting from it and can be expected to continue to have a personal advantage.

Increasing 'cyborgisation' of ourselves, such as Neuralink's vision of machine-brain interfaces, raises multiple concerns, including worries about the privacy of our data – not the data on our phones or laptops, or cloud storage, but in our very brains themselves. It is worth noting that bodily inviolability has not always worked in our favour. For instance, plastic

surgery is a modern example of how we have reacted to exchanging parts of our natural bodies for mechanical/ augmented parts. Aaron Traywick a biohacker aged 28, died in 2018. He was known for his array of speculative ideas of how we can improve our body. He had previously claimed he had found a herpes cure and proceeded to inject himself with a homemade cure in front of the audience at a conference (Bromwich 2018). His cause of death is unknown, but it is reported that a relative said he lost consciousness and drowned in a flotation therapy tank after taking MDMA (Bromwich 2018). Lepht Anonym, an infamous biohacker known for her low budget amateur surgeries, recently had a "PirateBox" (a combination of a router and a hard drive) implanted into her arm, although scaled down; it is believed to be one of the biggest implants anyone has had. After a couple of months, it had to be removed in hospital. She now has nerve damage in her right hand (Biohackinfo 2020). Although some biohacking experiments have worked there is a long list of experiments that have gone horribly wrong. Part of the reason is that anybody who has access to the internet can buy DIY kits. An example is the CRISPR kit that enables uncertified gene editing (Dais 2020). Although self-experimentation is not illegal, the problem is that measured research, data and regulated trials are not considered or allowed to control the experimentation rationally. This leads to inadequate attention to safety controls, biases, lack of statistical evidence and arguably deficient scientific integrity of results (Anand 2018).

There are also the emerging questions of whether chipping will be used for national identification. There are already examples of chipping used for identification in Belgium and Sweden. Also, there is China's social rating system. There are, no doubt, some positives. In Brazil, millionaires are chipping their children due to fear of kidnapping. While this may be controversial chipping dementia patients who are prone to getting lost is surely less so; and criminal management is made easier and more secure by chipping; for individuals, there may be the convenience of ease of identification, no need to carry your cards or worry about your

wallet being stolen and the like. However, we do not know the long-term social effects of putting a foreign microchip into our body. We will be giving up personal freedom, privacy and risk being permanently recorded, possibly punished for minor offences and there is likelihood of discriminatory practices that may follow concerning employment, insurance and the like or your data being sold or leaked without consent (Brown 2016).

4.5 Conclusion

Given the discourse about Transhumanist robotics and superior humans, there is growing alarm on several fronts: fear of automation and its effect on the workplace; concerns over privacy as powerful institutions offer convenient services at the cost of personal information; and, beyond these domestic concerns, there are unknown ethical dimensions to do with the moral status of autonomous machines and hybrids. These understandings often provoke strong emotional reactions. On the other hand, we have seen throughout history how people have modified their body for cultural purposes and social purposes with generally worrying results. Transhumanism could magnify this tendency.

Broadly speaking there are two main reasons why Transhumanism matters: First, we need to understand what is technologically possible and how, so that we may be better prepared for its consequences. Secondly, we must understand the rhetoric around this emerging movement and field of study to better understand what is being offered, lest we enter a Faustian pact unawares. As discussed throughout this thesis, there is no doubt that robotics is embedded into our daily lives and that it does have a positive role to play. Our desire for self-transformation and improvement has been evident at least since the enlightenment, making us vulnerable to an often-repeated history of what amounts to snake oil salesmanship which at best may be promising more than can be delivered and at worst may be promising things that will harm us in our hopes for our most important relationships.

Without discussing and understanding what progress is and what it is not, we will not be able to know what is good for us and what is not, in the consequences of pursuing these technologies and their proposed applications in our life. We may also need to investigate further if it is the right thing to afford sex robots or potentially future AI who might interact with us, the rights of human beings.

It is very tempting to suggest that through Transhumanism we are merely creating our own supernatural, a new form of myth or fantasies like in Ovid's *Metamorphoses*. Humans are one thing, but not really another either, we aim to become some kind of hybrid that we have not come to understand or theorise properly. This is one of the wonders of our human imagination. In the past these were directed towards a more religious perspective, gods, angels, hell and so on, and now our fantasies are towards optimised genetic humans, optimised bionic humans and cyborg partnerships, part machine and part organic. The optimised mechanical being.

Mindful of a possibility like this blinkering our thinking, Article 3 of the Transhumanist Declaration seems to acknowledge dangers inherent to its vision of the future: "We recognize that humanity faces serious risks, especially from the misuse of new technologies. There are possible realistic scenarios that lead to the loss of most, or even all, of what we hold valuable. Some of these scenarios are drastic, others are subtle. Although all progress is change, not all change is progress" (TheTranshumanistDeclaration 2020). The need for caution moving forward is indeed evident.

This leads us to an integral question that keeps coming up throughout this thesis. Indeed, what self-transformation ambitions are best suited to the millennial pedigree? Is enhancing our bodies and abilities worth our time, or would we be better at focusing on ending hunger, or trying to provide humans with a form of equality first? What I have established is that humans care about relationships, the friendship of the good with lovers, family, and close friends.

Humans want such relationships to flourish, nourish us, make us feel valued, wanted and so on (Aristotle 2009, 1097a, 1155a). Relationships can be difficult and the conditions of contemporary life place greater and greater challenges in the way. Often humans reach for easy solutions, like a sex doll girlfriend over a human girlfriend, diet pills over exercise and healthy food, or confiding in a Replika; these temporary solutions are easier than doing the hard yards needed to make the changes we need, 'real' self-transformation, that changes our hearts, minds, habits, choices and so on. The pills will not help unless the weight is lost, and exercise becomes part of your life choices. All there will be for those who 'form relationships' with their sex doll or their Replika, is the appearance of a better relationship and the old problems that got you there in the first place will continue to isolate, emotionally stunt and frustrate you, as they always have. Being Transhuman offers us the ability to mask our human reality with illusion, which may lead us to feel as though we cheated a test. There is no technological alternative at the end of the day, that will complete our heart's desires, that will stick and perdure through hard times as a human would.

Transhumanists and biohackers talk of self-transformation by genetic modification and the like seems to be a misdirected shortcut to happiness. As my father would say to me 'you need to accept who you are, without makeup'. The post- and Trans-humanists foster the illusion of a better life, often, without addressing the issues needing to be raised about personal growth. This is misguided, contradicting freedom by some alleged bodily emancipation, and ignoring the possible challenges, dangers, shortcomings and failings of those enhancements which Transhumanist interventions will no doubt encounter. It also forgoes the importance around mortality, for surely death is part of the human condition and, as such, defines human nature as much as any other aspect. Human life has a particular shape; we are motivated in many ways with respect to this crucial limitation, and the bounded character of human stories may itself reflect what we are most used to, namely that all lives must die. I am doubtful eternal happiness

awaits humans as Transhumans. The possibility is that we will be surviving for a long time not living for a long time, not to mention, the emerging environmental issues associated with transhumanism, such as overpopulation.

Conclusion

> [The] future man, [with altered size, shape, and function], whom the scientists tell us they will produce in no more than a hundred years, seems to be possessed by a rebellion against human existence... which he wishes to exchange, as it were, for something he has made himself. There is no reason to doubt our abilities to accomplish such an exchange … The question is only whether we wish to use our new scientific and technical knowledge in this direction, and this question cannot be decided by scientific means; it is a political question of the first order. (Hannah Arendt 1998, 2-3)

Relatively lacking in brute strength, fur, teeth and claws, human beings are selected for survival by their intellect, cultural creativity, and technological ingenuity. More and more, it seems, these accidental benefits have been refined to the point where our common destiny is within deliberate control, extending to a transformation of the species itself through the use of robotics and artificial intelligence. With idyllic visions that we will make human life safer and more prosperous, yet at bottom, we are challenging our understanding of ourselves and the range of possible human interactions. It is clear that once again, historically, humans are at a crossroad, poised between scientific finesse and bodily dismemberment on the one hand, and accepting ourselves for what we are, on the other

In Chapter 1, I explored the history of the soul, reflecting on philosophical and historical understandings of what the soul is, focusing on Plato and Aristotle. This is to help build a narrative show how soul and self are connected to our notions of inwardness and greater understanding of what is means to be human and what we value in our human-to-human relationships. I use the term, ‘soul ‘or ‘self’ as an umbrella term for what is meant to provide a

focal point for encapsulating what being human involves. I further use the term to explore what we value and what is irreplaceable about being humans. Then I discussed what differentiates us from future potentially sentient and intelligent technologies (Sugg 2013, 1-2). In particular, what may happen if we use technology to replace or substitute human-to-human relationships.

I explained that there are two concepts of the soul: Soul 1 and Soul 2. I argue that Soul 1 cannot be reproduce or substituted by technology. That is, what makes humans special, is our human characteristics such as the nuance of particularity, friendships, love, empathy, loyalty, our deepest values, and inner reality (Gaita 2002, 58-64), our inner life, Soul 1. Soul 2 covers instances where you can attribute a soul, an inner cause, to whatever is able to behave in certain ways. This notion of soul contains the performance, motion, senses, and functional capacities that actors or certain technologies can simulate. I concluded that 'soul' could be one way to help us define and differentiate future ethical, and legal, implications that are currently arising from the merging of, or the effects of the relationship between, humans and technology. I argue that human fulfilment requires not only a reliance on technological progress, but also an acceptance of what and respect for what is important to human beings.

I referred to Charles Taylor, to examine our understanding of 'self' and the idea of modern identity. I discussed how the soul or self depends on mature self-awareness, and how mature self-awareness in turn depends on ongoing and developing relationships with other human beings. I then discussed how the dilemmas facing modernity and the underlying motives in society shape our principles and understandings (our frameworks), concluding that humans do not have a common attitude, often leaving our evaluations as individual preference ((Taylor 1989, 3, 10-13). These interpretations we embody are held in the narratives we tell ourselves and each other, expressive of our framework of the good, too often inexplicit and unrecognised. Thus, the soul, Soul 1, or self is what it is in relationship with other selves. Therefore, in Chapter Two I focus on friendships and relationships.

I then discussed Heidegger's essay "The Question Concerning Technology," to re-enforce the point that technology may be convenient, but it is not always positive. We need to consider how technology will shape us as humans into the future and be cautious not to diminish some of the pivotal and irreplaceable things that make us humans. As technology has the potential to interfere with nature (Heidegger 1977, 16), creating an imbalance on our natural resources it leads to further ethical, moral, and environmental issues consequences (Heidegger 1977, 34-35). We need to evaluate what lies behind technological 'thinking', the motivations of our technological creations, as they reveal a deeper importance about Being, that could help us consider what is best (Heidegger 1977, 4-5).

In Chapter 2, I have examined various reasons why human to human relationships, and intimacy will not sufficiently be replaced by artificial forms. One central strand of my reasoning is that Aristotle's friendship of the good is not exchangeable by robotic sources as they are unable to attain the attributes we desire in fulfilling and flourishing friendships and relationships that contribute to human wellbeing and happiness (Mayo 2019). I discussed how in mutual love relationships, there is a reciprocal free self -giving, which instantly differentiates humans from intelligent machines. To flourish and be fulfilled humans require a nuance of understanding yet intelligent machines do not understand nuance (Conner-Simons 2017). Human relationships require the ability to read and understand context in variable situations, to understand the particularities of our emotions, complexities, and subtleties. AI lacks these essential human qualities and there is no reason to believe it cannot overcome this limitation, given the requirements of codifiability for programming (Dickson 2020).

I discussed the positives and negatives of artificial companions or sex dolls on human relationships and society. I concluded that therapy companion dolls may prove to be positive for certain therapeutic purposes (Surrogates 2021) or help to improve social skills, emotional, physical capacities, or simply offer companionship to those who don't want to interact with

other humans (Levy 2008, 304). There may be times when a robotic companion could offer a safeguard to those who have a disability, have experienced trauma, or have been in a relationship characterised by intimate partner violence (Cox-George and Bewley 2018, 162). However, there is no empirical studies yet to vindicate these assumptions effectively (Sharkey et al. 2017, 23). Further, such technological devices come with risks, such as creating a more isolated environment from actual human intimacy and leaving underlying problems unaddressed.

However, legally and ethically, serious problems arise too, including such as the regulation of sex dolls created for rape or the distribution and use of child sex dolls. This creates further concerns that such devices will lead to increased trafficking, prostitution, and abuse of human women (Johnson 2018), and that such dolls encourage the further objectification of women, children, and human beings more generally as they tend to decrease empathy and the traits which are necessary for reciprocal and healthy relationships (Richardson 2020), and allow an outlet for abusive behaviours not acceptable in human-to human relationships. The use of language, such as "[r]emoves resentment toward a partner for not being able to meet sexual needs" (Surrogates 2021) and "The ladies are real dream women…. they are of course always willing, uncomplicated and absolutely taboo" (Schwarz 2020), around how sex dolls are advertised certainly highlight some of these concerns. Yet studies show that men want intimacy and connection (Murray et al. 2017, 323-24), that feeling desired by their partner is the most important factor in their sexual motivation (Murray et al. 2017, 323). This reasserts my point that sex/companion dolls will not fulfil our human needs.

To further my point, I discussed the human body and the importance of human touch, and physicality itself, highlighting that from our conception we are aware of touch (Morgan 2021). I showed that touch (hugs) improved infants' developmental functioning and wellbeing (Ardiel and Rankin 2010, 153). I discussed how lack of touch for children, had significant

effects on learning, cognitive development, behavioural and motor skills (Roeber et al. 2012). Again, this revels the importance of human-to-human interaction. And currently, in our experience of the pandemic, I argued that 'touch starvation' has harmful physiological and physical effects such as diseases, regales of age and capacity (Pierce 2020). Touch plays an irreplaceable role in building relationships. It is an invaluable tool for healthcare providers (Jackson 2020, e4) and the practicalities touch provides in identifying something as simple as a hot stove, in our navigation around the world.

I have discussed the many areas of biological lack of knowledge that replacing the human with robotic superiors will come up against, and how the human brain still eludes our understanding (Sah 2017). We do not understand why humans have different blood types or fingerprints (Pratt 2017) or how macro- and micro-chemical signals precisely work (Solomon 2015). Further, this ignorance surely represents an insuperable issue when we try to create a superior human. Technology depends on repetition and codifiability, while human relationships are radically particular and nuanced, which cannot be programmed. Replacing human relationships with robotic technologies will only weaken our human attributes and therefore should not be seen as long-term solutions for difficulties in achieving healthy human relationships.

In Chapter 3, I discuss what AI is and its history, to highlight the differences between intelligence technologies and the human and the limitations surrounding AI. I concluded that AI and intelligent technologies do have many advantages, acknowledging that some forms of robotics and AI can simulate some functions in a superior way, and more quickly, than humans, and that technology is valuable and essential in certain circumstances, like the medical field. Yet artificial intelligence cannot replace the human without missing crucial aspects of embodiment or Soul 1. AI does not have the capacity for the necessary nuances, such as empathy or the common knowledge a human can (White 2018). Everything it means to be

human cannot be encapsulated by an algorithm (Searle 1990, 23). I raised how there are inbuilt assumptions and simplifications that are based on our own biases, mistakes, limited knowledge, and historical prejudices, that underpin AI programming (Smith 2019), as exemplified by the AI used by judges in America that was shown to be prejudiced against minorities (Rieland 2018). Such algorithms not only exploit but drive segregation (Smith 2019, 16). This point displays the need for human intervention and engagement argues for the thought that, due to the serious limitations and bias within AI, it cannot replace human beings. I discussed how loneliness, depression and one's health is affected negatively when internet users substitute online for offline socialisation (Nowland 2018). I argued that this highlights how AI cannot replace human beings in meeting our needs in our most important relationships and that maintaining human-to-human relationships is essential for our health (Lavoie et al. 2020, 70), learning abilities (Akram and Kumar 2017, 351) and our well-being. We should aim to use AI cautiously, understanding its ramifications and risks. We should use it at most to complement humans but not try to replace them in our relationships.

In Chapter 4, I investigated Transhumanist movements and the idea of a 'Superior Human', exploring the ethical and moral implications associated with autonomous machines. I have concluded that, although alluring, Transhumanism, biohacking and so on are misdirected perambulations around happiness. They confuse bodily augmentation as a source of human accomplishment and fulfilment. Furthermore, there are serious concerns regarding who will be able to access and afford such technologies, considering that we already have access problems to more important needs such as basic medical care worldwide. Further there is evidence that technology will likely broaden the socio-economic gap between the wealthy and the vulnerable (Alonso, Kothari and Rehman 2021). Additionally, the leading advocates of transhumanism are profiting from it, allowing for exploitation. Finally, I argue, that enhancing our bodies and abilities is not of paramount imperative, that we would be better at focusing on fixing current

inequities that affect humanity first, and that true fulfilment comes from accepting humans as they are, faults and all.

A common point throughout is that we do not have the biological knowledge to know the greater impacts of replacing the human. We do not understand completely how the human body works. Due to this, it is difficult to foresee the creation of an algorithm or robot that understands humans better than they understand themselves. There is no empirical evidence that such algorithms can be created. There is also no evidence that robotic replacements will enrich and fulfil us for the better. Rather, it is just a substitute for what we crave, deep down and there is reason to think they distract us from the real problems.

It is clear, at this stage, we cannot answer sufficiently what impact these types of technologies will have on the human species, even if we could invent a machine that understands us better than we understand ourselves. There are so many unanswered questions and so much is at stake, with political, economic, and capitalistic interests that do not consider the negative effects and biases of wholesale adoption of AI and Robotics. It is necessary to consider what would be lost if we continually replace ourselves with what is a fashion of the time, and also the fact that we are not all in the same financial position to have equality of access. It appears the utopian vision of human improvement often overlooks many of the complexities involved with human enhancement. We could have a stratified society due to the cost; think how much it would cost to replace your body and yet some people cannot afford to see a dentist. Society is so complex that to say it is hackable is naïve. Human experience is not modifiable to computer programming and it impoverishing to reduce human existence to this kind of mere machine functioning. Presently there is no universal law or any law at all with regards to how technology should be used and implemented. In an ideal world, a positive option could be to substitute cheap labour with robots and allow our most vulnerable a Universal Basic Income.

Going forward it is clear we need to invest in making the associated biases within AI transparent; we need a multi-lateral conversation with scientists, biologists, philosophers, lawmakers, relationship psychologists and psychiatrists and so on. The question for me that this thesis raises is, why do not we focus on being better human beings rather than changing ourselves with a short cut, as there are so many other issues we could tackle, like ending hunger or simply using technology for the good, like medical research. And, of course, working to become better people.

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