THE DIGITAL AND THE ENVIRONMENTAL

DISINHIBITION, DISINCARNATION, AND DECELERATION

John Reader

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Temple Ethical Futures: Book 4

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Introduction

One of the main objectives of the Foundation's Ethical Futures Network, established in 2017, is to establish links between environmental concerns and the increased prevalence of digital technology. It has been suggested that what needs to be created is effectively a new discipline which spans both subject areas. Such a discipline will require its own conceptual framework and terminology. This tract will propose three terms that might fulfil such a task: disinhibition; disincarnation; and deceleration. In what follows, I will present each of these in turn, before a final section arguing for an explicitly theological approach. My objective is to identify concepts that span both 'the environmental' and 'the digital' in terms of analysis, but also possible ways of addressing the challenges.[1]

The first task, however, is to set out the context and to describe how these two areas share common ground. There are three different approaches to the relationship between humans and digital technology that are equally applicable to the relationship between humans and the environment. First: humans are in control of the technology, so it is simply a matter of the digital being of instrumental value and the ethical issue is how we employ it. The parallel in the environmental realm is that humans are in control of the environment which is no more than a resource to be exploited for human gain or wellbeing. Second: the digital is now in control of humans and any sense of agency is removed. This is determinism at its most extreme. The parallel is that humans are simply animals and subject to their own internal drives and desires in ways that cannot be changed or shaped. The third, more nuanced approach is that humans and the digital form new configurations or assemblages in which it is

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[1]   I use 'the digital' as a shorthand for digital technology and 'the environmental' as an indicator of a variety of ecological issues including climate change, biodiversity loss, energy use, and so on.

the interaction and relationships that shape both beliefs and practices. The parallel is that humans are essentially co-creators, both shaping and being shaped by the natural world and that agency derives from that inter-relationship which means that we carry responsibilities as part of those dynamic assemblages.

The challenge is to identify and critique ways in which the environment is mediated by digital technology, discerning where those are harmful or life-denying and where they are of benefit or life-enhancing.

Chapter 1

Direct Impacts of the Digital upon the Environmental

I will not attempt an exhaustive survey but simply aim to present enough examples to make it clear that digital technologies are far from neutral when it comes to environmental impacts. As an area of study such evidence must form at least part of the context. One way of doing this is to assess the digital against the sustainable development goals to see how it measures up. It could be argued that the digital technology industry is one of the least sustainable and most environmentally damaging industries in the modern world. Reasons for this are as follows.

First, the business model which shapes the industry is based on replacement rather than repair. Mobile phones are an obvious example of this, as are most computers. New and supposedly improved models are brought on stream, often with a great fanfare to promote sales, while old models are seen as redundant and in need of disposal rather than repair. In terms of hardware and software, users are forced to upgrade on a regular basis as old software is unusable on new devices. Thus, older devices become redundant and are treated as waste. E-Waste contains harmful products which are often not disposed of safely and poorer countries are becoming dumping grounds for dangerous materials, thus having a detrimental environmental impact.

The second area of concern is that of electricity consumption. Globally, much of our electricity is still produced by coal-fired power stations, so the harm to the environment is obvious. It is not simply the powering of devices that is the problem but also the electricity that is required for their manufacture. It was predicted

that by 2020 digital devices would account for 10% of electricity consumption rising potentially to 20% by 2025. A greater emphasis upon energy efficiency is called for, not just in terms of the use of devices, but also for data storage and management where much energy is wasted as heat. The development of Smart Cities and the Internet of Things is bound to create significant additional demands upon energy supplies at a juncture when costs and control of those supplies is becoming a major political as well as economic issue.

The third concern relates to the use of rare minerals that are essential to the production processes. A mobile phone contains a third of the elements in the periodic table, and minerals such as Cobalt, Gallium, Indium and Tungsten are becoming more in demand with prices rising accordingly as supplies are depleted. The actual mining practices and processes are also questionable in some instances with the use of child labour being suspected in some cases. Lithium is another element that falls into this category and is of concern because of the wider impact of its deployment.

Finally, there is a direct impact upon climate change. It has been estimated that ICT use accounts for 2% of global CO2 emissions and has now surpassed the airline industry in terms of overall impact. The need for renewable energy becomes obvious but its use is yet to be widespread—either because of a lack of research and funding or because of recalcitrant political structures. Furthermore, the infrastructure required by the industry in terms of space, as well as energy, continues to put pressure on already stretched resources.

In summary, then, there are direct consequences upon the environment resulting from our increasing reliance upon digital technologies, but these tend to be well hidden as we press ahead regardless (see the next chapter on disinhibition).

A negative interpretation of the impact of the digital upon the environment is not, however, the only possibility. The alternative argues that Artificial Intelligence (AI), for instance, can have a key role to play in realising a low carbon or even post-carbon future (Elliott, 2022, p. 184). AI powered de-growth involves deploying algorithmic technologies to reverse the burning of fossil fuels and associated global warming—presumably via some sort of carbon capture and storage. New ways of generating alternative energy supplies could be developed using AI according to this interpretation. A possible example of this is Google using Deep Mind's AI to reduce the energy consumption of its data centres by 30% (Elliott, 2022, p. 185). By using

thousands of sensors to take snapshots of the cooling systems of its data centres and then feeding them through deep neural networks, Google was able to establish how this could be achieved.

Yet, despite such apparently positive applications of digital technology in the cause of limiting climate change, the scale and scope of such projects lead many to believe that a technological solution to environmental problems is an unrealistic objective. The more negative impacts of the digital, as already described, are the most likely outcomes under present circumstances.

Chapter 2

Disinhibition

Disinhibition is referred to by both Latour (2017, pp. 191ff) and Stiegler (2019, pp. 108-131), with both building on recent work by Fressoz (2012). A definition before we explore further:

> The word disinhibition condenses two moments of the passage a l'acte [passage of an action]: that of reflexivity and that of its being disregarded, that of taking danger into account and that of its normalization. Modernity was a process of reflexive disinhibition aiming to "legitimate the technological fait accompli". (Stiegler, 2019, p. 126, quoting Fressoz, 2012, p. 16).

In other words, the account that is often presented of the environmental movement—that we have only recently become more generally aware of the dangers we are creating for ourselves—is inaccurate and misleading. We have known all along that there were risks and detrimental consequences of the path we have been following and the evidence is there to prove this. The question becomes that of how and why we have known this for so long and yet pressed ahead anyway.

> The conclusion that forces itself on us, disturbing as it may be, is that our ancestors destroyed environments in full awareness of what they were doing [...]. The historical problem therefore, is not the emergence of an "environmental awareness" but rather the reverse: to understand the schizophrenic nature of modernity, which continued to view humans as the products of their environment at the same time as it let them damage and destroy it. (Bonneuil and Fressoz, 2017, pp. 196-7).

A similar argument can be presented in terms of all technology but particularly the impacts of the digital. It is not that we are unaware of the dangers and limitations, which are being constantly researched and made public, but that despite all these we go ahead anyway. Is this despite the risks, or even perhaps because of the risks? The irony of this—with a pandemic still affecting many parts of the world—is that this particular risk was either ignored or underestimated. Did we know the risks, then ignore them and go ahead anyway? Or do our attempts to calculate and control represent nothing more than human hubris? What is to be learnt from this if anything?

To address that question, it is worth exploring the respective explanations from Latour and Stiegler, as each reveals ideas of importance. Latour first of all. Echoing Fressoz's point, he asks why it is that ecological questions don't appear to be of direct concern to our identity, security, and property. One response—that it is because of our distance from the events and their implications—does not bear scrutiny because this is not the case with other examples, such as terrorism. 'No, reactivity and sensitivity are what have to be considered. Collectively we choose what we are sensitive to, what we need to react to quickly' (Latour, 2017, p. 191). Indeed, in previous generations people have been willing and able to respond to the sufferings of others who are distant, so it is as though we have decided to be insensitive to beings of a certain type—those who are connected to 'the strange figure of matter'. Hence, the question is why we are not true materialists.

Where there is inhibition, Latour suggests, is where we begin to reckon with retrospective consequences—in other words, when it is often already too late, and the damage has been done. Where the future is concerned, however, disinhibition is the order of the day. We press ahead regardless. So, what is the source of this disjunction? Latour attributes this to what he calls 'counter religion' which requires us to go back in time before the tangle of science, religion, and politics became inextricable. This assumes a contrast between traditional religions, which are relatively indifferent to questions of falsity and truth, and those for which the issue of truth becomes essential (Latour, 2017, p. 193). The issue at stake is one of certainty and being able to make claims that discredit or challenge potentially opposing traditions. To prevent people continuing to persecute and kill each other in the name of religious certainty, the claims have to be shifted elsewhere, for instance, to the realms

of science, economics or even politics. This solution, though, 'froze the battle lines but did not bring real peace'. Rather it paralysed the moderns, particularly in the way that they registered reactions to the materiality of their innovations.

Latour's view is that what lies behind this is the resurgence of the term apocalypse. Environmental issues are often presented in this way, and we could be living in the shadow of an apocalypse even now. Counter religion supports the interpretation that we are already living in the 'end times': for instance, the view of some US Christian groups that Trump, despite his obvious personal failings, was God's instrument at work to bring about the end of the current order and the initiation of God's rule on earth. In which case, 'bring it on', whatever the disaster might be! So, this is the end of time within time: 'a certain number of peoples tell themselves henceforth that they are absolutely certain that they have reached the end of time, have arrived in another world, and are separated from the old times by an absolute break' (Latour, 2017, p. 195). In which case, they have already crossed over to the other side and it is pointless attempting to reason with them about caring differently for the here and now. Negligence is the order of the day from now on. Rather than living in the expectation of the apocalypse, we are living after its realisation (Latour, 2017, p. 199). This is Latour's explanation for climate scepticism and denial.

Turning to Stiegler: in the early sections of his chapter on the subject (2019, Chapter 8) he works with ideas from Descartes, Foucault, Derrida, and Sloterdijk to lay out the territory of the Anthropocene as described by Bonneuil and Fressoz. His basic argument is that capitalism's economy of disinhibition is based on calculation, and latterly the deployment of algorithms (Stiegler, 2019, p. 111). This leads to forms of what he calls madness, itself dependent upon hubris or the human capacity to exaggerate our powers of control and thus underestimate the dangers faced by relentlessly pursuing technological innovation. If risks can be predicted, evaluated, calculated and then taken into account when it comes to decisions about future developments, then they can be attributed a mathematical value which appears to make them containable and acceptable. To the extent that we believe this to be the case we are certainly indulging in a form of madness and indeed self-deception. Globalisation extends this and creates further levels of disruption: 'The disruption now underway, as a new stage of the organization of disinhibition and an extremization of these tendencies characteristic of the Anthropocene, is at the same time being extended to the

entire planet, via digital networks functioning at two thirds light speed.' (Stiegler, 2019, p. 124) This leads to the breakdown of territorial immunities, which itself prepares the way for counter reactions, presumably such as revived nationalism.

The main concern, though, is the impact of this upon the willingness to take risks regardless of the consequences, or in the misguided belief that any risks can be measured and catered for in advance. In effect a new morality comes into existence as a result—one example of which, rather unfortunately given the current crisis, is that of inoculation, which itself leads towards the idea that the human body can be transformed and indeed improved. 'This morality consisted of a practice both of puritan prohibition and the destruction of public power so as to deregulate not only the circulation of commodities but also industrial science, and as such it resembled an early elaboration of the transhumanist discourse of the libertarians' (Stiegler, 2019, pp. 129-130). The insurance industry would be another example of the reliance upon the capacity to calculate and predict and thus set financially acceptable levels of contribution and reward. In other words, we encounter Stiegler's concerns with issues of trust, calculability, speed and how these are central to the developments of digital technology and how decisions about future directions will be evaluated. The short-circuiting of the human critical thought processes which ought to guide and accompany such decisions is a likely consequence of the disinhibitions which themselves lead to a misplaced trust in our capacity to control and limit the powers of the digital, let alone the global companies that now determine so much in this field. Underlying this are deeper questions about what it is to be human and how the human and nonhuman interact and are entangled with each other. How do we keep ourselves in check when the technologies we have created spur us on to ever more rapid or instant responses and tempt us to bypass the need to take more time for reflection and consideration?

Chapter 3

Disincarnation

Dictionary definitions of disincarnation refer to being out of the body or deprived in some way of a physical existence, and there are obvious theological undertones as it could be a denial of or reversal of incarnation. Both interpretations are relevant, but I want to extend this line of thinking to open a discussion about how both 'the environmental' and 'the digital' are affected by the experience of being disconnected from the embodied nature of the human and the nonhuman. One of the keys to explaining how it can be that people in government or large corporations insist on pursuing damaging policies in respect of fossil fuels, for instance, is to understand how they fail to appreciate the connections between their actions and the physical world around them. There must be a disconnect at work based on the view that the natural world (and this may include their own bodies) is somehow detached from their everyday existence, either external to their normal functioning or simply a resource to be exploited for personal gain. What is needed is a complete shift of perspective and a realisation that as humans we are embodied, embedded in the physical world, and in constant and determinative interaction with the nonhuman. The nonhuman is to encompass both the natural and the artificial—the environmental and the digital.

It is well established that indigenous populations appear to have a very different understanding and appreciation of the natural world, although this does not necessarily preclude a scientific approach. The popularity of books such as Braiding Sweetgrass (Kimmerer, 2013) is a good example of this. Living closer to nature provides a different perspective on, and a deeper relationship with, all that surrounds us, and the

book abounds with accounts which exemplify this. The author also suggests that a purely scientific approach risks being alienating, and the basis for the disconnection which potentially leads to exploitation.

> Science lets us see the dance of the chromosomes, the leaves of moss and the farthest galaxy. But, is it a sacred lens like the Popul Vuh? Does science allow us to perceive the sacred in the world, or does it bend light in such a way as to obscure it? A lens that brings the material world into focus but blurs the spiritual is the lens of a people made of wood (Kimmerer, 2013, p. 345).

There is a difference, though, between the actual practice of science and the scientific worldview that it feeds. Engaging with the physical realm in research and exploration can lead to an intimacy with the natural world that itself creates a sense of awe and wonder, but the wisdom of the indigenous stirs a different dimension that is difficult to encapsulate in scientific discourse that depends upon objectivity. The place of the human within the whole is itself seen in a different light.

> In the indigenous view, humans are viewed as somewhat lesser beings in the democracy of species. We are referred to as the younger brothers of Creation, so like younger brothers we must learn from our elders. Plants were here first and have a long time to figure things out. They live both above and below ground and hold the earth in place. Plants know how to make food from light and water (Kimmerer, 2013, p. 346).

The obvious objection to this approach is that it risks returning to some sort of romantic view of the world which either never existed, or else is far from the rose-tinted perspective that it might appear to represent. Is it possible to learn from or incorporate a totally different cultural interpretation which depends upon a direct embodied experience which is no longer shared by an urban, scientifically based culture? Has this form of relationship been lost for good except for those cultures that have themselves been squeezed out of existence or shifted to the margins politically and socially? There is no straightforward answer to this question, but it is clear that something of real importance has largely been lost—and yet can still contribute to that sense of reconnection that is so badly needed.

As Kimmerer suggests, though, those engaged in scientific research also in some cases possess that greater sense of the whole which places the human in a more intimate relationship with the nonhuman. A good example of this is Dave Goulson's Silent

Earth (2021) which, although focussed on the threat to insect life globally, explores
a much wider perspective on environmental issues. In one of his chapters (Chapter
14) he draws on Donald Rumsfeld's famous comment on the known and unknown
unknowns to illustrate the dangers of the disinhibitions referred to in the previous
section. Although the use of pesticides provides the most well-known instance of the
danger of deploying technologies before we fully understand their effects upon the
environment, Goulson is also concerned with the proposed development of geoengi-
neering.

> It seems pretty clear that it is a bad idea, but, like many human technolo-
> gies that could have consequences for all of us (such as the development
> of artificial intelligence), it is hard to regulate. One small country could,
> theoretically, alter the climate of the entire world. When the devastating
> impacts of climate change start to kick in, it is easy to imagine geoengi-
> neering being used in a last-ditch, desperate attempt to avoid disaster,
> but one that could well make things worse rather than better (Goulson,
> 2021, p. 194).

The unknown unknowns are, by definition, impossible to predict let alone control, but
many of the technological developments in both the digital and environmental fields
are known unknowns, where there are clearly risks attached but the temptation is to
go ahead with them anyway. That Goulson acknowledges this so clearly stems from
his own deep connections with the nonhuman, based upon years of direct contact
and relationship through scientific research.

Another important insight from Goulson's work is what he refers to as shifting base-
lines. The point is that our personal baseline for what is normal in the world around
us depends upon our own experience from growing up. So, for successive generations
what is normal for them will be quite different from what was normal for older gen-
erations—especially given the increased destruction of species of birds, animals, and
plants. When I was growing up in the 1960s, I was used to seeing flocks of lapwings
in the fields near where I lived. That was part of my normality. Now that is no
longer the case, but younger people will not be aware of this as one cannot miss
what one has never experienced.

> In the last fifty years, we have reduced the abundance of wildlife on Earth
> dramatically. Many species that were once common are now scarce. We
> can't be sure, but if one looks at the various studies from Europe, over

various time periods and focussed on different insect groups, it seems
likely that we have lost at least 50 per cent or more of our insects since
1970. It could easily be as high as 90 per cent (Goulson, 2021, p. 70).

Does this matter though? I agree with Goulson that if we allow ourselves to forget
what has been, we will doom future generations to living in a dreary, impoverished
world, not knowing the joy and wonder that birdsong, butterflies, and buzzing bees
bring to our lives. That insight and awareness comes from a direct relationship
with and experience of nature, an incarnation—if you will—that acknowledges the
fullness of our own physical being and its existence as part of and not separate from
the nonhuman.

While Goulson does an excellent job in bringing the importance of insects into fo-
cus—and this does not mean just their importance for humans, but their existence in
their own right—another recent book to gain wide popularity is Merlin Sheldrake's
Entangled Life (2021) which does much the same for fungi. This not only expands
our understanding of this form of life, but also challenges the conceptual frameworks
within which we are accustomed to approaching this subject. The danger which he
identifies is that of anthropomorphism or reading into the responses of other forms
of life what are recognisable human reactions. But there is a counterargument: that
by not anthropomorphising, we lose real insights into how other life forms function
and operate.

As Sheldrake says, we can veer between interpreting fungi as behaving in a pre-
programmed robotic way, or as seeing them as active life forms functioning in a
deliberate and almost conscious fashion.

> Framed as brainless organisms, lacking the basic apparatus required to
> have even a simple kind of 'experience', fungal interactions are no more
> than automatic responses to a series of biochemical triggers. Yet the
> mycelium of truffle fungi, like that of most fungal species, actively senses
> and responds to its surroundings in unpredictable ways (Sheldrake, 2021,
> p. 45).

Sheldrake comes to these conclusions as a result of spending time down and in the
ground, with the fungi in a manner not unrelated to Kimmerer's direct relationship
with the nonhuman. In response to this experience, he asks whether there is a
deeper understanding to be gained by expanding our normal concepts of the human:
speaking might not always require a mouth, hearing might not always require ears,

and interpreting might not always require a nervous system. So, are network-based life forms such as fungi or slime moulds capable of a form of cognition? Can their behaviour be thought of as intelligent? Are these in fact other forms of intelligence that humans find it difficult to recognise because they don't conform to our own?

What is crucial, perhaps, is to realise that there are relationships at work with these other life forms, and that plants and fungi have the capacity to reshape and reconfigure themselves in and through those relationships. Humans, then, are part of these reconfigurations—connected, incarnated, and in relationship with, rather than over or against. As Sheldrake argues:

> Throughout human history, partnerships with other organisms have extended the reach of both humans and nonhumans. Human relationships with corn brought about new forms of civilisation. Relationships with horses allowed new forms of transport. Relationships with yeast permitted new forms of alcohol production and distribution. In each case, humans and their nonhuman partners redefined their possibilities (Sheldrake, 2021, p. 158).

Rather than the concept of evolution, it might be more appropriate to talk about involution, capturing the entangled and ongoing interweaving of different life forms that develop through and in relationship. In which case, the whole interpretation of the nonhuman as being separate from, and under the potential control of, the human is a gross misunderstanding of the true nature of our existence. Yet, this can only be grasped if we can acknowledge our own embodied, physical nature rather than seeing ourselves as supposedly rational, disembodied beings operating at a different level from the rest of creation. Once again, it is disincarnation, or the loss of that sense of being embodied and in relationship with that lies at the heart of so much of the environmental crisis that we have created.

How, then, does this relate to the digital? Intuitively, it would seem that spending time engaged with technological devices is detrimental to direct human contact, but does it also imply that distance from one's own physical nature that disincarnation is suggesting? The evidence emerging from research into how we as humans engage with the nonhuman in the form of digital technology certainly points in this direction. Another recent publication presents considerable material of which one can only provide limited but telling examples. The Lonely Century by Noreena Hertz (2020) sets out to substantiate the view that, even before the pandemic, relationships were becoming more splintered and fragmented. The impact of the pandemic and the

resulting increased dependence upon digital technology for communication has only served to exacerbate these tendencies. Along with individual accounts Hertz provides statistics to back up her argument. Before the pandemic, three in five US adults considered themselves lonely (Hertz, 2020, p. 3). In the UK, a Minister for Loneliness was appointed in 2018 and one in eight Brits said they did not have a close friend upon whom they could rely. Three quarters of citizens did not know the names of their neighbours, while 60% of UK employees reported feeling lonely at work. Similar figures were available for other major countries (Hertz, 2020, p. 4).

Although loneliness tends to be associated more with older age groups, the statistics offer a much broader picture and suggest a culture of disconnection and disassociation. It is easy to continue to pile on the figures, but Hertz argues that loneliness is more than the simple lack of personal contact, which is the familiar definition, and also involves feeling cut off from politicians and the democratic process, and feeling powerless, invisible, and lacking a voice in public matters. In which case, there are wider issues at stake for public life generally. It also has implications for levels of health and wellbeing, which tend to suffer for lack of contact and company. There are a number of explanations for this: not least, Hertz argues, the dominance of neo-liberalism which has led to a dog-eat-dog culture, where concern for others is subordinated to the objective of making profits and securing one's own financial position (Hertz, 2020, p. 12).

The particular concern, though, is the impact of the digital upon this growth of loneliness. The number of times, on average, that we check our phones each day is two hundred and twenty-one (Hertz, 2020, p. 90). This adds up to three hours and fifteen minutes of average daily use and almost 1200 hours each year. Around half of teenagers are online almost constantly and about a third of adults globally check their phones within five minutes of waking up. What is unlike previous forms of communication, even the telephone, is the extent to which we are tethered to these devices. Communicating by text, or the equivalent, has now taken over from making phone calls for many people—and although good for simply sharing information, it is not a substitute for the quality of contact achieved by talking at the same time. Conducting a real conversation by text or WhatsApp is a different proposition, requiring a level of concentration and commitment that is not normally associated with using the devices in this way.

> Every moment in which we are on our phones, scrolling, watching videos, reading tweets, commenting on pictures, we are not present with those around us, depriving ourselves of the multiple daily social interactions that make us feel part of a wider society—those small moments of feeling seen and validated that, as we have seen, really do matter (Hertz, 2020, p. 91).

Having a smartphone changes the way in which we behave and how we interact with the world around us. In a recent study, researchers found that strangers smile significantly less at each other when they have their smartphones with them. It is also the case that they distance us from those whom we do know, including family members. Some schools will not hand over children to their parents at the end of the day if the parents are engaged with their phones rather than attending to the children. Other schools insist on students handing their phones in, only to be reclaimed at the end of the school day. This lack of direct connection with others becomes a form of disincarnation in which our attachment to the digital devices replaces that physical sense of self required for attention to others, both human and nonhuman.

Does any of this matter, and, if so, what can be done about it? Shifting the examples to the increased prevalence of robots in peoples' lives, especially when it comes to a substitute for human companionship, Hertz provides a clear summary of the problems being stored up for the future. First, the less we interact with other humans, the worse we become at doing so. This became evident during the pandemic, when enforced social isolation created a dislocation of normal human conversation for many of us. Another impact is that the more time we spend with the substitute the less likely we are to put in the time and effort required in normal human interaction. It is easier not to have to make the effort to understand the other or to negotiate the subtleties of real relationships. This will then have a knock-on effect upon wider social relationships, where we must exercise the practices of cooperation, compromise, and reciprocity that are essential to communal and political life. The end result of this may well be that care for the other and a commitment to tolerance and understanding are lost, and that society as a whole fragments even more.

> The danger is that a world in which machines have replaced humans in our affections and taken over the role of caregivers, is also a world that is fundamentally incompatible with the underpinnings of inclusive democracy, reciprocity, compassion and care (Hertz, 2020, p. 199).

None of this is to deny the benefits and advantages that are to be gained by the development of, and ease of access to, our digital devices, but rather to point out the dangers of becoming so dependent upon them as to risk permanent damage to our personal and political relationships. Disconnection from direct human contact risks a deeper disincarnation.

What could well seem like the ultimate test of the argument emerges from contemporary discussions about virtual and augmented reality (VR and AR). If either, or both, of these detach humans from their physical existence in a form of disincarnation then it would strengthen the case for resisting further developments of digital technology. One publication which presents the arguments in favour of VR and AR in great philosophical detail is Reality+ by David Chalmers (2022). Although there is a speculative element to much of his material, it nevertheless describes accurately both the mechanisms and the potential consequences of such developments. His central thesis is that virtual reality is genuine reality, neither illusion nor fiction (Chalmers, 2022, p. xvii). Living in virtual reality, he suggests, can be good and the location for a fully meaningful life. Furthermore, it is possible that we are already living in such a world. He is not saying that this is the case, merely that it is a possibility. The crucial proposal, though, is that this does not represent a form of escapism but can indeed be the route to a genuine life.

Much as one might admire the logic of his arguments throughout the book, the conclusion that this is not a form of escapism is surely the most controversial and the most disturbing. If the concept of disincarnation is convincing, then abandoning one's physical existence for a virtual or augmented one will create or exacerbate the disconnections with the environment that rest at the heart of the ecological crisis. This does not seem to bother Chalmers in the least: he even talks about abandoning a degraded external world in order to lead a better life in the virtual one. The concern is that the future he anticipates is far more than science fiction and could indeed be closer to the present than we realise. In which case, there are huge moral and practical issues about our relationship with the nonhuman world to be examined immediately.

There is far more to Chalmers's book than can be covered here, but a couple of chapters represent the problems which will be encountered. He argues, for instance, that augmented reality could be a technology we will all be using in a decade or two (Chalmers, 2022, p. 225). It could enable communication with friends in faraway places as if they were in the same space as ourselves. It could navigate using built-

in maps and recognise people for us using facial recognition. It could also bring historical locations to life by augmenting them with scenes from the past. It augments our minds by extending our brains with new capabilities. Will what we see, however, be an illusion or will it be real? As with virtual reality, this is where things get complicated. Thanks to brain-stimulation technology, we can smell or taste virtual objects. With haptic technology they can even be touched and felt. This being the case, there is a physical dimension to the virtual experience that is not the case when it is merely augmented. Is this, then, an incarnational aspect of VR? If so, what are the implications for our care of the nonhuman, which is the planet on which we exist? Why would we bother with this if a different sort of reality were now to be available? As with Hertz and her concerns that people would stop taking the trouble to negotiate and struggle with real external relationships, is there not the danger that the option of an escape into a much easier reality to inhabit would dissuade us from making the effort to engage with that troublesome and deteriorating reality?

Interestingly, Chalmers pursues this discussion into the realm of alternative facts and the political controversies that have stemmed from the playbooks of both Putin and Trump. He argues that although both VR and AR lead to a form of relativism, there is nothing dangerous about this as neither threatens the idea of an objective reality. I would suggest this is politically naïve, and that the opportunities presented by VR and AR to manipulate public opinion on crucial matters and events are far greater than Chalmers is prepared to admit. It begs the question of who controls the technologies, and how the technologies are shaped and developed. It is somewhat contradictory for Chalmers to argue that it is simply a matter of how humans use these technologies, while at the same time displaying so effectively how these same technologies shape and potentially determine human behaviour. He seems to think that the digital is neutral, whereas the evidence is surely that it all depends on the motivations and mechanisms that lie behind the devices to be purchased and deployed.

The other chapter relevant to this discussion is that on whether it is possible to lead a good life in virtual reality (Chapter 17). Faced with the choice of whether to enter such a world, one might well decide against it:

> The reality machine is simply an escapist fantasy. Life in a virtual world
> doesn't mean anything: at best, it's like spending one's life at the movies
> or playing video games. You should stay in the physical world where you
> can have real experiences and where you might be able to make a real
> difference (Chalmers, 2022, p. 311).

Chalmers, of course, argues against this: that life in the virtual world can have the same sort of value as life in the nonvirtual world. If the latter turns out to be bad, it will not be because it is virtual, but for some other reason, just as in physical reality. It seems to me that this denies the importance of human life as embedded in that external reality, let alone ignoring any sense of responsibility for what happens to the nonhuman components of that external world. The planet can burn up around us, but so long as individuals can retreat into their virtual worlds then all is well.[1] He argues that there may come a point when an attachment to the physical will be seen as a novelty or a fetish (Chalmers, 2022, p. 322). Hence, virtual reality will become where many people choose to live out their lives; even relationships with other humans will be possible in this sphere. This will be no more a form of escapism than emigration (Chalmers, 2022, p. 323).

This approach risks abandoning the challenges facing humans in our relationships with the nonvirtual nonhumans we think of as the natural world and is an ultimate form of disincarnation (even though there may be an element of the physical available in some way). It is, however, an important argument to consider because what Chalmers is talking about is potentially on the horizon—a known unknown—and unless this is brought to the surface now then the opportunity for any critical discussion of the issues may be lost. The question then is what alternatives can be developed that counter the potentially damaging impacts of the disconnections that have been identified in both the environmental and digital domains.

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[1]   Note that Chalmers neglects to mention that this VR could only be sustained for as long as our physical environment continued to produce the raw materials and energy it required.

Chapter 4

Deceleration

The philosopher of science Isabelle Stengers presents important insights into the value of decelerating,[1] or slowing down, which potentially counter the impacts of disinhibition and disincarnation:

> Slowness like speed, has a meaning which links researchers to all those who know that the imperatives of flexibility and competitiveness condemn them to destruction. (Stengers, 2018, pp. 80-82)

The stakes inherent in such destruction may evoke the period of enclosures when peasant communities were not only robbed of vital resources but also what held them together. With the commons privatised, what was destroyed was practical know-how, along with collective ways of acting, thinking, feeling, and living. If capitalism today seems to be getting on very well with modern states it is because both are rooted in this kind of destruction. The democratic individual, the one who says 'It's my right' is the one who takes great pride in an 'autonomy' which, in fact, hands back to the state the responsibility for thinking through the consequences. Stengers is talking here about the ways in which scientists avoid engaging in the 'big questions', the ethical consequences of their research, on the basis that this is for others to undertake. However, it could also link to the idea of disinhibition, as discussed above. If it can be done then it is fine to do it, irrespective of the consequences—that will be someone else's problem to sort out. So, both environmental and digital spheres

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[1]   Compare this to Pope Francis's call for 'de-rapidification' in Laudato Si', §18.

are allowed to develop without due thought of constraints or limits. A strange liberty it is not to have to think further than one's own immediate interests. As for capitalism, it is running free in a world exposed to its redefinitions, all of which intensify our dependence on modes of production that presuppose and entail, as with the enclosures, a form of 'progress' that destroys all possibility of collective intelligence.

To speak of destruction is to speak of a resistance that can only exist alongside what American activists call 'reclaiming'—recuperating, healing, becoming capable once again of linking with what we have been separated from. This 'recuperation' process begins with the jolting realisation that we are truly sick, and have been for a long time, so that we no longer recognise what we are lacking, and think of our sickness, and whatever sustains it as 'normal'. What Stengers has tried to do, in the particular case of scientific research and evaluation, is to start thinking about what is lacking, and about the way this lack makes us sick. We may well be critical and lucid, but we are crucially incapable of resisting what is destroying us.

Knowing that one is sick creates a sense of the possible. It is a matter of unlearning an attitude of more or less cynical (realist) resignation, and becoming sensitive again to what we perhaps know, but only as in a dream. It is here that the word 'slow', as used in the slow movements, is adequate. Speed demands and creates an insensitivity to everything that might slow things down: the frictions, the rubbing, the hesitations that make us feel we are not alone in the world. Slowing down means becoming capable of learning again, becoming acquainted with things again, reweaving the bounds of interdependency. It means thinking and imagining, and in the process creating relationships with others that are not those of capture. It means, therefore, creating among us and with others the kind of relation that works for sick people, people who need each other in order to learn—with others, from others, thanks to others—what a life worth living demands, and the knowledges that are worth cultivating.

So, Stengers raises questions about reason, science, and knowledge plus the importance of slowness and how we experience and configure both time and space. There are possible links to the idea of an ethics of non-appropriation (rather than an approach which depends upon capture and enclosure), as well as to the concepts of reimagining and reconnecting.

In order to expand this line of questioning, I turn to another recent book which questions the general narrative of constant progress and improvement (Dorling, 2021). Slowing down does not mean either stopping or going into reverse, but simply decreasing the speed at which developments are happening. The one exception to this, as Danny Dorling documents fully, is that of temperature rises and climate change (Chapters 5 and 6).

Dorling argues that almost every aspect of our lives is now affected by this slowing down and that this requires a revision of many of our assumptions:

> To what extent are our current belief systems (economic, political and otherwise) built on assumptions of rapid future technological change and perpetual economic growth? Accepting that a slowdown is upon us will require us to shift our fundamental view of change, innovation, and discovery as unalloyed benefits (Dorling, 2021, pp. 1-2).

Slowing down in this way is presented as a positive thing for the simple reason that continuing on a constant upward trajectory is unsustainable for ourselves and the planet. One might place Dorling in the ranks of those who question the role of economic growth as the narrative of contemporary politics. One of the main examples of this is the slowing down of population growth, something that he documents in great detail, and which might come as a surprise to those who fear that overpopulation is one of the biggest challenges we face.

Allied to that fear is one about the proliferation of data and ways in which we are now being overwhelmed by everything that is available and accessible—the assumption being that there is no obvious limit to this form of growth. Yet, as the growth in human population itself slows down, there is every reason to believe that the production of data will also slow:

> [T]he number of human beings would have to rise and rise exponentially in the future if we were to continue to create data at a rate such that 90% of it is always so new that it is just a few years old (Dorling, 2021, p. 67).

We might also imagine that the number of mobile phones in circulation will keep on rising, but, as with all such devices, there comes a point when the markets are saturated and there is no more scope for expansion. One notes that most of the so-called innovations in these technologies are basically marketing ploys relating to incremental improvements rather the development of new technologies as such—a

better camera or more storage for instance. Even though the figures pertaining to the quantity of data are staggering—as Dorling says, the projection for 2020 was that 1.7 megabytes of data would be created every second for every person on earth (Dorling, 2021, p. 67)—there is much duplication and only a small proportion of this is of any interest or importance. Even the growth of Wikipedia is starting to slow (Dorling, 2021, p. 67).

Not so long ago, it was the Internet of Things that was being proposed as the next big breakthrough: machines talking to each other without human intervention, and also able to predict our wants and requirements in advance based on information about our previous behaviour. As Dorling says, 'today even our washing machines can talk to each other. But why would they?' (Dorling, 2021, p. 87). The washing machine itself was a great leap forward, but does this new capacity really add anything significant either to normal life or the actual range of technologies?

What, then, of the more genuinely high-tech developments such as Artificial Intelligence? Dorling refers to a colleague at Oxford, Anders Sandberg, writing for the Future of Humanity Institute in 2014 on what he considered to be the five biggest threats to human existence. Sandberg identified these as being: nuclear war; a bio-engineered pandemic; superintelligence; nanotechnology; and unknown unknowns. Although the threat of nuclear war is deemed to be less than it was, and the pandemic issue has been overtaken by other events—a known unknown perhaps—5 years later the same scholar revisits the question and comes up with a slightly different answer on Artificial Intelligence, having done a lot of work on the subject. As with biotechnology, he concludes that the current risk is pretty minimal, but that it might grow in time as AI becomes better and smarter. In other words, nothing significant has developed on that front during those intervening years. This time he does mention climate change, so this is not necessarily reassuring.

It would seem that everyone now has to become an expert on and have a view about AI to the extent that this has become an academic industry in its own right. I suspect that the more pressing environmental challenges may pre-empt such progress unless there is any real hope that developments in the one field can have a positive impact in the other. Be that as it may, the point is still that concerns and predictions about AI and machine intelligence in various guises have become central to the narrative about the future, with reports being issued by the EU and UK governments and attempts made to suggest governance procedures and possible ethical frameworks within which any detrimental impacts can be contained. Part of the story we now

tell about ourselves is that the human will be superseded by other life forms, either enhancements of the human or something more clearly artificial but potentially escaping human control. These scenarios are remote in terms of encounter and possibly remote in terms of time, but they nevertheless represent a reshaping of life as we now know it. The challenge is to construct a critique that is based on something more than this narrative, but instead attends to the detail of the developments.

Conclusion: Theological Responses

The conclusions can only be provisional at this stage, but I want to suggest theological themes relevant to the discussions of disinhibition, disincarnation, and deceleration. The obvious one is that of Incarnation and the significance of our embodied physical existence to both the environmental and the digital. What does the concept of human dignity offer to a critique of the tendency of the technology to get out of control? The doctrine of creation is clearly related: if the digital is part of creation, is it all good, and, if not, how can there be harmful technology in the world? Then there is the problem of evil: are only humans evil or are there examples or configurations of the human and digital which can be counted as evil? I would hope that this tract might become a platform for a much more intense discussion of these issues and in-depth explorations of how and where the resources of our religious traditions offer critical perspectives on the dangers inherent in digital-environmental configurations.

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