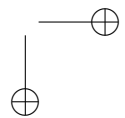
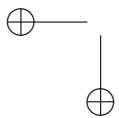
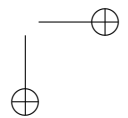
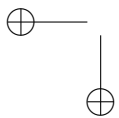
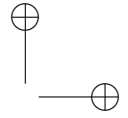
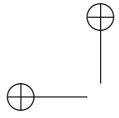
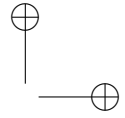
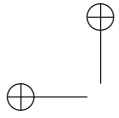


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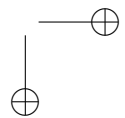
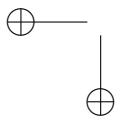


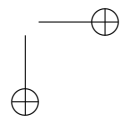
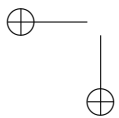
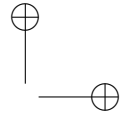
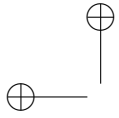


Homo Novus:
From Technological Captivity to New Freedom

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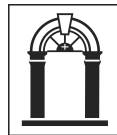


Homo Novus

From Technological Captivity to New Freedom

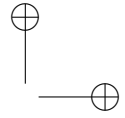
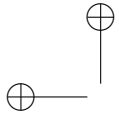
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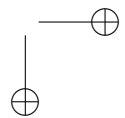
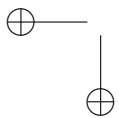
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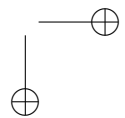
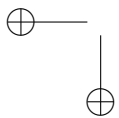
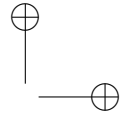
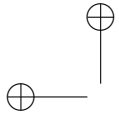
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Introduction

Gábor L. Ambrus

IN the beginning there was liberation. And, as a rule, this liberation, like all true acts of liberation, happened on the night of bondage. The liturgy of the Easter Vigil is quite unequivocal about this. ‘This is the night when once you led our forebears, Israel’s children, from slavery in Egypt...’ And, of course, strictly speaking ‘this is the night when Christ broke the prison-bars of death and rose victorious from the underworld’. Or is it? Is this night not the one when I received baptism and, as a new man, I was liberated from the old man, escaping from Egypt, rising ‘victorious from the underworld’? Or another night, any night, in an armchair, at a metro station or during a jog, when a Christian is called forth from death to life, from the bondage of merely pleasing other Christians to the freedom of unfettered joy? Any night when the true meaning of *The Raising of Lazarus* by Rembrandt is revealed...? No matter the night whose beginning is meant, either the one at the metro station, or the one in the baptistery, or the one in Jerusalem, or the one in Egypt, one thing is sure: in the beginning there was liberation. God the breaker of chains is in the habit of preceding God the Creator of heaven and earth.

Thus, freedom is certainly one of the few objects that can be aspired to as the ultimate concern of Christianity. But can this claim, one might wonder, be turned the other way around? When freedom becomes the ultimate concern, as it did in a political sense at the beginning of the modern world, is it, all things considered, a Christian one? If we believe in the truth of genealogies, and acknowledge that the modern world – that is the world of liberal

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democracy – began to take shape much before the French Revolution, the answer is yes. For there was a time when the question of Christian freedom was turning into a question of political freedom, and religious and political arguments became hardly distinguishable from one another – and exactly this happened during the English Civil War in the 1640s. This war is commonly seen as a conflict between the Parliamentarians and the Royalists which ended with the defeat of the latter and the execution of King Charles I. But the real harbingers of things to come were not the members of Parliament, but the members of the army that fought for them, the Puritan ironsides, whose radicalism prevailed in turning their commander, Oliver Cromwell, against Parliament itself in order to gain freedom to worship God as they, and anyone in their ranks, considered right. They must have been more than convinced that their precious spiritual freedom born in personal conversion in God’s grace must be manifested in free forms of worship unrestrained by any government. It is, of course, quite another matter that the years of the Puritan Commonwealth under Cromwell’s leadership were marked by fierce intolerance towards Catholics. Yet it remains unquestionable that, when it comes to liberal democracy, in the beginning there was the *religious* idea of the freedom of religion.

A voice advocating freedom of speech and freedom of the press soon followed. John Milton’s pamphlet *Areopagitica*, published in 1644 and arguing against the censorship of any printed material, is commonly considered one of the classic texts of liberal democracy. But what is truly riveting in this pamphlet is not its passionate appeal for the freedom to write and publish in terms of a right or a capacity. Rather, it reaches its apogee when praising the virtue of voracious reading and suggesting that true freedom only thrives on knowledge.¹ In reviewing various great men of letters from the history of the church and emphasising how much benefit Christianity

¹ J. Milton, *Areopagitica*, Arc Manor, Rockville, MD 2008, pp. 19–27.

had from pagan learning, at one point Milton’s argument touches upon the example of Adam’s state after the Fall in which his discernment between good and evil draws on his knowledge thereof.² From Milton’s use of the biblical story and from the subject of the whole pamphlet it can be inferred that, in his view, freedom through learning is at least as essential as a mere capacity to act such as that enjoyed by Adam in the prelapsarian state. It is highly profitable to Christian freedom to enjoy an uncensored press and unlimited access to all sorts of books.

It is important to note that Milton writes in Early Modernity, at a time when the print medium and the new abundance of books still aroused enthusiasm in an ever-broadening educated audience. The age of Milton counts as the heyday of the polymath, in which avid interest in learning could extend to the whole spectrum of knowledge. The steady growth of available knowledge and the rise of political freedom first as an idea and then as a social reality are intrinsically correlated from the invention of the printing press up until the 19th century. But the 19th century already foreshadowed our information age in that the further increase of what was knowable in all areas of learning frustrated any overall command of them, not allowing any option but specialisation in both science and the humanities. True as it is that this development coincided with the emergence of mass societies which enabled the totalitarianisms of the 20th century, it would be a mistake to posit any direct influence of this development on the first decline of liberal democracy and the loss of political freedom in several European countries in the aftermath of World War I. Nevertheless, one can safely say that sometime in the middle of the 20th century the accumulation of ‘knowledge’ ushered in a flood of ‘information’ and everything it entailed: information age, information society, information technology, information science and so on. The flood engulfing society

² Ibid., p. 23.

raised the possibility of a technology which, coupled with a harmful business model, has created a global crisis of human freedom the like of which has never been seen before – a rocking universal boat in which both liberal democracy and the Christian faith now happen to find themselves. This means that a most curious thing has come to pass that may be termed the ‘historical dialectic of the increase of information’. If the history of modernity can be translated into informational terms, the exponential growth of information was at the outset beneficial to Christian freedom and political freedom alike, whereas its further increase has proven to be an opposite force to a degree which poses a grave threat to them.

These foregoing considerations lead naturally to the subject of the present book, which draws on the recognition that today’s anthropological conditions created by information technology are a long way not only from those in the age of Jesus Christ but also from those in the greater part of modernity. It has been perceived that these new conditions amount to a new creation of human beings that is tantamount to a new captivity. Even if taken in a secular political sense, such a captivity evokes a response from the Christian theological and philosophical tradition which may help expose and remedy the loss of freedom as the major problem amid all the current talk about ‘surveillance’ and ‘privacy’ in the wake of a policy of aggressive data collection by high-tech companies. But the Christian tradition can particularly expose and remedy the new captivity if taken in a Christian spiritual sense. For Christian conversion and Christian life are deeply affected by the online environment of the present: reading, meditation, prayer and communal life all gasp for the air of freedom in the intensity of distraction enabled by new media technologies.

But there was also a specific incentive that gave rise to this book. In the throes of the initial phase of the Covid-19 pandemic in 2020, the Pontifical University of St. Thomas Aquinas (Angelicum) launched a research programme to deal with the difficulties arising

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from the pandemic on various levels – either intellectual or existential or financial. The programme fostered cooperation, on the one hand, among the faculties of the Angelicum and, on the other hand, between the Angelicum and other institutions; it was christened CRISIS, an acronym for ‘Christian Responses in Solidarity to Crisis’, in accordance with its goal of providing important Christian input to the current social debate. Since, in accelerating the move of in-person activities to an online environment, the pandemic only further aggravated the alarming situation created by new media and digitisation, the CRISIS programme offered an excellent opportunity to address the issues underlying information technology and high-tech business in our time. Such a research project seemed all the more opportune with regard to early signs that high-tech companies and governments were joining forces to exploit people’s new vulnerabilities.³ So it happened that the pandemic and Angelicum’s CRISIS programme called into existence the research project entitled ‘Homo Novus – From Technological Captivity to New Freedom’. With Prof. Matthieu Raffray as project director, the project included four authors of this volume who approached the project’s subject from four different angles: economics and business ethics (Sr. Helen Alford), biblical studies (Sr. Jacintha Veigas), the metaphysical tradition (Fr. Matthieu Raffray), modern philosophy and theology (myself). The title we chose for the project is a reference to those new human beings created by new technologies and living in captivity who, at the same time, are in need of a new liberation to become *homines novi* in yet another sense (in allusion to St. Paul who talks about human beings newly created in Christ).⁴ We also came to an agreement on the way in

³ Cf. N. Klein, ‘How big tech plans to profit from the pandemic’, *The Guardian* (13th May 2020).

⁴ As a matter of fact, *homo novus* as a term was first used in Roman Antiquity. It designated Roman citizens who were first in their families to rise to the rank of a senator.

which we should proceed. We held a series of discussions on a particular book, *Stand Out of Our Light: Freedom and Resistance in the Attention Economy*, by a public intellectual of our time, James Williams, whose interests proved to be perfectly in line with ours.⁵ Wiling to cooperate with us, James agreed first to read our draft papers developed in the course of our discussions and then engage in a dialogue with us at an online seminar drawing on his book and our papers. That seminar comprised the present volume in a nutshell: a trajectory starting from his book and ending with his new take on it – with our contributions in the middle.

The basic argument of James Williams’s book revolves around two key concepts, ‘attention’ and ‘distraction’. The first is the quintessence of Williams’s anthropology and, in his view, the major way in which human freedom is exercised. The second captures what Williams thinks is the principal characteristic of human beings’ online existence that results in unfreedom. Indeed, this online environment of systemic distraction amounts to an ‘attention economy’, a pernicious ecosystem which hijacks and diverts human attention from valuable goals. Williams presents a magisterial analysis of how the attention economy, in its drive to maximise what is called ‘user engagement’ (expressible in numbers of clicks, likes and page views, and saleable to third-party advertisers), invades human consciousness at various levels and thereby thwarts any true human fulfilment. His point is not only that the attention economy has been deliberately designed with this objective in mind. Rather, it has been designed in such a deceptive way that users are entirely blindfolded as to its true purpose; they place their trust in online platforms whose main objective is the abuse of trust. Behind the user-friendly surface, these platforms are, in fact, ‘adversarial’. Williams is unequivocal that the fragmentation of attention and the

⁵ J. Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, Cambridge University Press, Cambridge 2018.

loss of freedom resulting from these practices have severe political consequences: ‘users’ fare very poorly as thoughtful and responsible citizens of a liberal democracy. So monstrous is the attention economy in its erosion of democracy and freedom that, at a number of points of his book, the author does not refrain from calling it, as it were, a ‘religious’ entity. His dire diagnosis, nevertheless, does not make Williams a techno-pessimist or techno-determinist. He concludes his argument by proposing various ways of reconsidering, intervening and drafting policy that could turn the current harmful online environment into a medium for human flourishing.

Such is the gist of Williams’s book, which the members of our project have attempted to place in the perspective of the theological and philosophical tradition. In what follows I will provide a brief résumé of our contributions, perhaps without running the risk of repetitiveness, as James Williams presents a more detailed and more thoughtful overview of them in this volume’s final paper.

Sr. Helen Alford’s paper ‘Confronting Adversarial Technology: Learning from the Past, Looking to the Future’ puts Williams’s analysis of ‘adversarial technology’ in a rich anthropological, economic and historical context. There have been other kinds of technologies in the past that harmed people, reduced their freedom and sidelined their true needs, she argues, and they did so favouring the economic interests of their owners, yet these technologies could be curbed by proper social and economic action. This kind of action has in our time been undertaken by the ‘Blueprint for Better Business’, a social initiative which strives to help businesses find a meaningful purpose other than mere profit-making – a purpose in accordance with the values of human dignity, freedom, development and the common good. Accordingly, Sr. Alford’s argument conveys her underlying idea that, whereas technological development is conditioned by economic relations, economic relations are predicated upon anthropological presuppositions. The anthropology embraced by her paper is a powerful repudiation of the economic individualism

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that originates from the Enlightenment: in dialogue with the Greek virtue tradition, the biblical wisdom literature and Catholic Social Thought, her contention is that human freedom is fundamentally social and relational.

Although Fr. Matthieu Raffray’s contribution ‘Wisdom, Desire and Virtue in the Digital Age: a Socratic Approach’ also uses a historical narrative, in this case a genealogy of contemporary information technology from William Ockham to Alan Turing, the tenor of his argument lies in his application of Platonism as a counterweight to this technology and to the culture defined by it. Firstly, it is the untruth expressed by Plato’s famous allegory of the cave that, in Fr. Raffray’s view, informs the unfreedom of the attention economy described by Williams. He moves Williams’s subject to the field of epistemology and ontology: just as the prisoners of Plato’s cave can only see shadowy images instead of the true light of Ideas, the users of the attention economy are confined to illusions and cut off from reality. Secondly, using the figure of the sophist, well known from Plato and passionately criticised by him, as another allegory, Fr. Raffray shifts his discussion from epistemology to ethics. For, in the same way as the sophists in Ancient Greece, social media and their designers not only trade in illusory knowledge for their users’ attention, but also manipulate desire and suppress virtue. However incongruent it may seem to our current online environment, Fr. Raffray insists, individual virtue – taken in the Platonic sense of a disciplined learning that ‘unifies the soul’ – is the surest pathway to our inner freedom within the technological world in which we live.

Sr. Jacintha Veigas’s paper ‘Freedom From In Order To Be Free To – A Biblical Perspective On Digital Technology’ places Williams’s ‘attentional freedom’ and ‘attentional serfdom’ into the more holistic dynamic of freedom and captivity as it unfolds in the Scriptures. The ultimate role of this pair of biblical concepts is to describe God’s saving act, both spiritual and political, of breaking

the bondage of exile, characterised by evil, sinfulness and suffering, and setting us free to love and serve others, live in truth, and have a home in every possible sense – but the ultimate dimension of captivity and freedom is God: separation from God or living for God. The biblical understanding of freedom with its rich content and ‘purposiveness’ has much to contribute to the current debate on modern technology. What is more, the Scriptures offer a much-needed universal historical perspective for this debate. Sr. Veigas frames her discussion of modern technology in the history of salvation: creation, the fall, revelation and our eschatological future – with the latter having a particular significance as to the value of technologies. She suggests looking at these with a view to the coming kingdom of God. Accordingly, Sr. Veigas’s argument is not marked by either techno-optimism or techno-pessimism. Technological progress is ‘good and necessary’, she concludes, but it only plays a subordinate role in the coming reconciliation at the end of history.

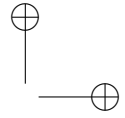
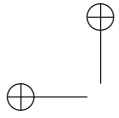
My own contribution (‘Technology, Freedom, Nothingness’) questions the fundamental premise of Williams’s book that the attention economy is basically distractive, and the highest values of human life lie outside of it. It might, I argue, offer what users desire most dearly, that is, social prestige in accordance with the Nietzschean ‘will to power’. Thus, it might be ‘attention desired’ that really matters and is only served by ‘attention paid’ which is therefore hardly distracted. A sphere of unfreedom defined by the ‘will to power’, contrary to Nietzsche’s understanding of the concept, operates under the sign of nihilism – permeated with nothingness. This notion has an ambivalent relationship with the Christian tradition: it names an underlying reality in European culture in the wake of the ‘death of God’, yet it has also assumed various theological meanings in Christian thought as a force ‘outside’ but also possibly ‘inside’ God. It is the flight from nothingness in which the unfreedom of a relentless *vita activa* on social media consists,

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whereas a contemplative encounter with nothingness can offer an experience of freedom in this sphere. Since nothingness cannot be perceived as such, this encounter happens through a positive content which can, following Heidegger, called a ‘free relationship with the essence of information technology’. This essence is none other than itemisation or ‘diagrammatics’.

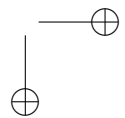
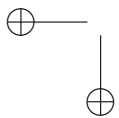
In the final paper (“This Mysterious New Sun: Reflections and Responses”), Williams aims for more than a mere response to our contributions. It is no small accomplishment on their part that he broadens his book’s horizon in dialogue with these contributions, but the nature of dialogues is that they wind unpredictably, and one can never be sure about what one’s words elicit. Unquestionably, Williams finds the religious tradition potentially relevant to his book’s subject. ‘I have a hunch’, he acknowledges, ‘[...] that there is some unique and essential kind of insight about our environment of digital technology that the perspective of religion studies stands to offer.’ The transcendent point of view of religion makes one recognise how much ‘ontological pettiness’ informs both the current design and criticism of digital technology. Our concerns are not what they should be, laments Williams, and there is a false reductionism (like a political or an economic one), and even a ‘profound failure of imagination’ in the way we conceive of our technologies. An ethical approach to the design and use of these technologies is more integral and more appropriate to the task of rallying people, offering various qualities and interpretive concepts, and among these freedom is certainly a powerful one. This approach includes the question of authenticity which Williams sees as a common ground underlying our papers. After discussing them, he brings to the fore a notion of the highest stature religion and theology can possibly come up with – and voices his puzzlement not only over its absence in decisions over the design of technology, but also over the fact that ‘those who have dedicated themselves most to advancing its cause’ have been curiously uninterested in influen-

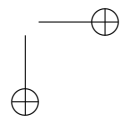
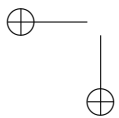
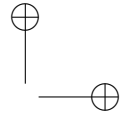
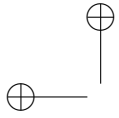
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cing those decisions. This notion is love. In a paraphrase of the Gospels, adapting them to contemporary concerns of technology design, Williams presents as the highest ideal the user who cares for their loved ones and not someone who is pointlessly preoccupied with technological matters.

Would this volume have, one might wonder, been a better one with a focus on love instead of freedom? This question comes down to whether these lofty notions can leave their place of ‘values’ high above or far outside the ‘attention economy’ and become inherent to it – whether what is above can descend as if emerging from below, and what is outside can enter as if born inside. Can freedom and love become, in the online environment, like bone of its bones and flesh of its flesh? Only then might it turn out whether freedom’s main purpose in this environment is also the freedom to love.





Confronting Adversarial Technology: Learning from the Past, Looking to the Future

Helen Alford

‘Have you understood all this?’ They said,
‘Yes’. And he said to them, ‘Well, then, every
scribe who becomes a disciple of the
kingdom of heaven is like a householder
who brings out from his storeroom things
both new and old’

Matthew 13: 51-52

IN his book, ‘Stand out of Our Light: Freedom and Resistance in the Attention Economy’, and in a similar way to other key thinkers writing about this field, James Williams is at pains to identify what is really new in our current situation.¹ Partly in reference to Wittgenstein’s ‘the limits of my language [...] mean the limits of my world’ (p.43) Williams says bluntly: ‘we lack a language’ (p. 88) to explain what is happening in our digitally-mediated world. He tells us that we face ‘new problems of kind, not just of degree’ (p.88). Yet, he also makes many references to the past, not only in the title of the book itself but also to key 20th century writers like Huxley and Steinbeck. History is very present in this book. In the end, it seems that we need to put together an understanding of key historical moments and processes with a proper analysis of

¹ For instance, Shoshana Zuboff talks about our current situation as ‘unprecedented’ – see S. Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*, Profile Books, London 2019, especially section IV of the Introduction, entitled ‘The Unprecedented’; the Introduction itself is entitled, ‘Home or Exile in the Digital Future’.

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what is really new if we are to confront the danger of ‘technological captivity’ and to propose a framework for a new form of freedom in a digitally-mediated world.

One element that is definitely not new is the struggle between two types of technological development and the role that economic power imbalances have played in favouring one form over another. Williams tells us that no engineer intends to hurt people through their work, but they end up caught in a system that focuses their formidable talents on breaking down our ability to attend to what is important and our resistance against distraction. In this, they are put to work on developing an ‘adversarial’ technology.

Uncontrolled and misdirected economic power has been a problem since time immemorial, and so has its influence on technological development. In this sense, the digital transition that we are living through represents both an absolutely new phase of history, or what Luciano Floridi calls ‘hyper-history’ – a fourth revolution after Copernicus, Darwin, and Freud – as well as just another chapter in the ongoing struggle that pits the accumulation of wealth at any cost against all that makes life worthwhile (one thinks of *Hard Times* by Charles Dickens).² After discussing Williams’ argument a little more, I will first draw on an example from the history of technological development to help us place the threat of current new technologies in better historical context, so that we can try to separate out what is really new and what is just ‘more of the same’. I will then discuss some of the wider historical and contextual factors that have led us to put the creation of economic value at the centre of our social systems and with that to think that what is actually *a particular form* of technological development is rather ‘the’ way, or *the only way*, technology develops. This then allows us in the final section to consider a different approach to both technological

² L. Floridi, *The Fourth Revolution: How the Infosphere is Reshaping Human Reality*, Oxford University Press, Oxford 2014.

development and economic activity, using the ‘Blueprint for Better Business’ movement as an example, that could be part of a more profound re-think of the role of economics, business and technology as a support to the exercise of freedom.

1 *Some Key Elements of Williams’ argument*

Williams ends his book with the following phrase: ‘In order to do anything that matters, we must first be able to give attention to the things that matter. It’s my firm conviction, now more than ever, that the degree to which we are able and willing to struggle for ownership of our attention is the degree to which we are free’. For the main argument of Williams is that, in an information-rich world like our own, the scarce resource is attention and the platforms of Facebook and others are set up to attract as much of this scarce resource to their platform as possible, using whatever techniques they can and without any obvious concern for the effect this is having on human development.

The book falls into three parts. In ‘Distraction by Design’, Williams lays out the basic problem – the degradation of our capacity to attend – ‘Clicks Against Humanity’ then analyses how that degradation works in more detail, while ‘Freedom of Attention’ looks at how to remedy the problem. Those of us who are old enough can remember the bust of the ‘dotcoms’ around the year 2000 – companies operating in the internet were not making any money, even if they had been attracting ever higher valuations before the bubble burst. In the early 2000s, however, Google realized that tracking what we do when we visit websites could allow them to start predicting what we would do next, and this then would allow them to start attracting advertising income, since they could offer advertisers the chance to reach very specific groups of people with specific interests. They were able to create a whole business model on this basis; everything else they did was to attract our attention

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to their sites so that they could sell as much targeted advertising as possible. Whereas in the past, advertising had been inserted into other forms of communication (television programmes, radio and so on), it now became the central form of communication, with everything else merely collateral to that. Armies of some of the best engineers and designers have been set up to work on the most effective ways of keeping our attention on their sites, using ever more sophisticated techniques of a new branch of design known as ‘persuasive technology’. The economic logic behind this kind of technological development emerges clearly in Williams’ text.

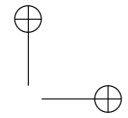
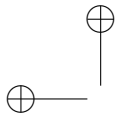
In the third part of his book, Williams opens up some lines of thought about how to counteract the effects of persuasive technology. About this he says: ‘There are a great number of interventions that could help move the attention economy in the right direction. Any one could fill a whole book. However, four particularly important types [...] are (a) rethinking the nature and purpose of advertising, (b) conceptual and linguistic reengineering, (c) changing the upstream determinants of design, and (d) advancing mechanisms for accountability, transparency and measurement [...] I don’t claim to have all, or even a representative set, of the answers here. Nor is it clear to me whether an accumulation of incremental improvements will be sufficient to change the system; it may be that some more fundamental reboot of it is necessary. Also, I won’t spend much time here talking about who in society bears responsibility for putting each form of attentional rebellion into place: that will vary widely between issues and contexts, and in many cases those answers aren’t even clear yet’. These are all crucial points and will need a lot of quite specific and skilled work on them to take them forward. As a contribution to this, when we get to the discussion of ‘Blueprint for Better Business’, I will make some initial connections between its approach and the development of digital technology. Blueprint is positioned more at the level of the ‘fundamental reboot’ of our system than anywhere else in the set of interventions that

Williams proposes; as such, it could have a very profound and long-lasting effect, even if that may mean that it does not have a very quick one (although it is beginning to influence the ‘mindset’ of some very big companies). As we will discuss, Blueprint comes out of the millenaral reflection of the ‘wisdom traditions’, with the Christian tradition at its core but with active links to other philosophical and religious traditions from around the world, all of which give us insights into what it means to be human and how business and economic activity can relate in an ordered way to the good human life as a whole. Analysing what is really ‘new’ about the ‘attention economy’ and bringing to bear the ancient if ever-green thinking from the wisdom traditions on our thinking about it – bringing out ‘things old and new’ – with the aim of bringing the attention economy back into order may allow us to confront the current forms of adversarial technology that menace human development today.

2 *Dealing with Adversarial Technology in the Past*

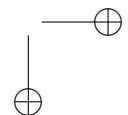
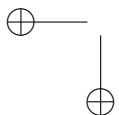
Perhaps some autobiographical comments could help at this point. I came to the questions we are discussing here as an undergraduate student of engineering in the early 1980s. I read a paper called ‘Engineers and the Work People Do’, which was assigned to me for an essay in a course entitled ‘Social Dimensions of Technology’.³ It was written by one of the leading control engineers in the UK of the 1980s, Professor Howard Rosenbrock, who was then based at the University of Manchester Institute of Science and Technology (UMIST). He began by saying ‘what I am going to describe to you in this paper will seem very ordinary, but I hope to have convinced

³ H. Rosenbrock, ‘Engineers and the Work the People Do’, *IEEE Control Systems Magazine*, 1, 3 (September 1981), re-published in the anthology, C. R. Littler (ed.), *The Experience of Work*, Gower / The Open University, Aldershot 1985, pp. 161–171.



you by the end that it is very strange’. He proceeded to describe a rather normal production line producing light bulbs, mostly mechanized, with 4 jobs being done by women. One of them involved picking up a piece of wire and inserting it into the coil of the light bulb every three and a half seconds. Later in the article, he would discuss the need for jobs, but at that point, he wanted to focus on the soul-destroying nature of a job like that. He suggested that we might try to see how it could be automated; it would be a nice design problem that to give to students. After discussing how the problem might be addressed on a technical level, he suggested that a more thoughtful student might say that designing a specific, specialized machine would be interesting, but also expensive; it would be cheaper to buy a mass-produced robot and programme it to do the job. In the 1980s robots were already being mass-produced and were relatively cheap. But Rosenbrock argues that a good engineer, even if he or she could get a cheap robot, would still try to see how much of the capability of that machine could be used. He or she would start to think about how the rest of the production system could be redesigned around the robot so as to make the best use of its capabilities. And then he makes his killer move: ‘No-one thinks about doing this when the woman is doing the job’, adding what is perhaps the most memorable line from the whole article: ‘If engineers could think about people as if they were robots, they would give them more human work to do’. The force of his argument struck me so deeply that, in a way, it set the direction for the rest of my life (‘I sometimes call reading this article my “Damascus Road” experience’). We were doing everything the *wrong way round* – we were designing the machines and fitting the people around them, instead of fitting the machines around the most creative and flexible element in any production system, the people working in them. He had convinced me, at least, that this was really strange.

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In the rest of the article, Rosenbrock tried to explain why this strange situation seemed normal. He argued that the key moment was in the early industrial revolution, before the profession of engineering had emerged, and when machines with similar levels of productivity, but very different ideas about the relations between human beings and machines behind them, were designed. The key example for him was the difference between Samuel Crompton’s 1779 spinning jenny and Richard Robert’s 1830 self-acting mule. Crompton, who was a skilled spinner himself, designed his machine to spin 8 threads contemporaneously, instead of the single thread of the spinning wheel, but other than that, it did not change the job of the spinner. Rosenbrock calls this a ‘skill-enhancing’ machine, since it makes human skill more productive. The machine designed by Roberts, however, was quite different. One of the early members of the newly emerging profession of engineers, Roberts was commissioned by a group of mill owners, running large factories with weaving machines driven by big steam engines, to produce a spinning machine for them. Just before commissioning this new machine, the mill owners had suffered a strike by the spinners, still a largely independent group of artisans who had finally organized themselves in order to defend the price of their thread. The primary goal of the mill owners in commissioning Roberts to produce a machine was to ‘deskill’ the job and thus to get greater control over the production process. In the commissioning document, they told Roberts they wanted a machine that could be run ‘by a child or a monkey’. Roberts produced it for them, and it was this machine, initially no more productive than Crompton’s, which attracted investment and development. Soon the self-acting mule was vastly superior to the older, skill-enhancing jenny. Rosenbrock’s point, however, is that deskilling is not inherent in technological development itself. Crompton’s machine was not any worse than Roberts’ on a technical level; its ‘weakness’, rather, was that it did not put the control of the production process entirely in the hands of the

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mill owners. Perhaps today, Rosenbrock would use Williams’ term, and call the self-acting mule an example of ‘adversarial’ technology. In the 1980s, he called this kind of technological development ‘technocentric’, and Crompton’s alternative as a form of ‘human-centred’ design, since his main concern was how we could change the way engineers think such that, like me, they would no longer put the design of the machine in the centre of their attention but instead put the human beings there. The disadvantage of this rather antiseptic terminology, however, is that it does not underline the way in which the ‘technocentric’ form was really a tool in the hands of more powerful groups in society in order to control those in a weaker position. The idea of an ‘adversarial’ technology makes that a lot clearer.

How were the worst excesses of this adversarial combination of finance and technology mitigated in the past? Most obviously, via forms of solidarity between the groups in society who suffered the effects of the attack on their lives and livelihoods by such technological development. Legal systems did not help them for a long time; the French Revolutionaries abolished the medieval ‘corporations’; about the same time, the British government introduced the ‘Combination Laws’ which outlawed workers’ associations. In this sense, legal systems, too, were ‘captured’ by the powerful, whether they were English capital owners or French revolutionaries.⁴ Nevertheless, through much suffering, worker solidarity did bring about change and did mitigate the worse effects of the system, but has not been able to correct the errors at the basis of the system itself. It is not a surprise, therefore, that we are still dealing with new forms of adversarial technology. At the same time, ‘human-centred’ technology (or what the great anthropologist Lewis Mumford calls

⁴ For a broader discussion, including a bibliographical summary of important texts in the burgeoning field of ‘global labour history’, see S. Berger, ‘Labour Movements in Global Historical Perspective: Conceptual Eurocentrism and Its Problems’, in, doi: 10.1057/978-1-137-30427-8_14.

elsewhere ‘biotechnics’ – a form of technological development that is inserted into a way of life and makes that organic system more productive) is not dead.⁵ According to Mumford, these two forms of technological development are always present, although specific historical circumstances may favour one over the other.⁶ Perhaps we could see the new ‘green’ technologies as, at least potentially, one form of the biotechnic form of technological development. There is some debate as to whether green technologies really live up to their name, but insofar as they are about inserting technological development into the living system of the planet and into the ways of life of different human communities, they may represent a resurgence of the ‘biotechnic’ or human-centred technological approach.

⁵ L. Mumford, *Technics and Civilization*, Routledge and Kegan Paul, London 1934, https://monoskop.org/images/f/fa/Mumford_Lewis_Technics_and_Civilization.pdf (accessed on 6th June 2021).

⁶ We may think that technology is always going to be used in a way that promotes economic power, but the early part of *Technics and Civilization*, Mumford wants to establish that capitalistic economics and technological development are two different things: ‘Capitalism has existed in other civilizations, which had relatively low technical development: and technics made steady improvements from the tenth to the fifteenth century without the special incentive of capitalism’ (p. 27), but we now experience them as united within Western culture: ‘it was unfortunate that the machine was conditioned, at the outset, by these foreign institutions and took on characteristics that had nothing essentially to do with the technical process or the forms of work. Capitalism used the machine not to further social welfare but to increase private profit [...] This led to the destruction of handicraft industries’ (pp. 26–27). The machine as such, he claims, is a ‘neutral agent’ but has often ‘seemed a malicious element in society, careless of human life and indifferent to human interests’; indeed, he argues that ‘the machine has suffered from the sins of capitalism’, while ‘capitalism has often taken credit for the virtues of the machine’ (p. 27). Mumford’s argument here parallels Rosenbrock’s; both of them want to separate technological development from capitalistic economics. We have inherited a technological system that has been developed within a capitalist framework, but technological development could be different.

This brief look at the history of technology shows us that technological development does not have to be ‘adversarial’, and that the main mechanism for confronting its adversarial type since the Industrial Revolution has been worker solidarity. We also see, however, that this mechanism has not been able to change the dominant trend of technological development since that time from the technocentric form to the human-centred or biotechnic form.

Given what we have seen, and if we are going to confront adversarial technology as such, it will probably be helpful to understand more clearly and deeply why we got into this situation. How did we arrive at the point where the machine devised by Roberts, for a ‘child or a monkey’ – deskilling the job of the worker and making him, as Adam Smith noted, ‘as stupid as it is for a human being to become’ – could be so much more successful than Crompton’s skill enhancing machine? If we can understand something about how we got to this point, we may be more effective at finding a way out of it. Among the many elements that could be discussed, I want to focus on the role of ideas, since, in a real way, ideas set the limits of possibility for action. This is also important for Williams, who places such importance on words and ideas in his analysis. It seems a good place on which to focus engagement with him.

3 *Wider Cultural and Historical Issues*

What I will try to argue here is that we can identify two sets of change processes in our ideas and philosophical worldview that are relevant to our discussion. The first is long and slow, at least two thousand years old, while the second is more recent, starting about three hundred years ago or so. In terms of confronting adversarial technology, the first is a positive development – the rise of the idea of each person as valuable in themselves – while the second – an exclusive and reductionist view of the human person as no more than an individual – hinders us in dealing with adversarial

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technology. The second process depends on, and overlays, the first, older process, but ends up distorting it; we could see it as parasitic upon the older process. I want to suggest that we have received a complicated mixture of a negative, if derivative, set of ideas imposed on to, and mixed in with, a fundamentally positive set, and this makes it difficult for us to distinguish between the two and to understand how to react to them. What I want to argue is that if we can separate the resources of the earlier tradition of thought out from the accretions that have distorted it in more recent history, we may have a basis on which to draw for putting the distortion right. In practical terms, *Blueprint for Better Business*, the subject of the last part of this paper, is an attempt to do this – to value what is good from mainstream thinking today but also to challenge it to do better on the basis of ideas coming from ancient philosophical and religious thought.

Over the long term, it is the fundamental religious and philosophical ideas of a culture that really count. For the Western world, these developments have been recently captured from many points of view in Larry Siedentop’s, *Inventing the Individual: The Origins of Western Liberalism*.⁷ Siedentop makes use of the work of many other historians in describing how the idea of the importance of each person, and thereby of human equality, dignity and individuality, has developed in Europe through a very gradual process, in which the influence of Christianity plays a central role. In ancient Greece and Rome, religious cults reinforced social status differences, with the *paterfamilias* as the head, priest and centre of the whole system. Social distinctions were not just ‘roles’, as we think of them today, but defined who people were and put them in a hierarchy. Inequality seemed normal in these cultures; some people, the slaves, were the property of others.

⁷ L. Siedentop, *Inventing the Individual: The Origins of Western Liberalism*, Harvard University Press, Belknap 2014.

Equality before God, however, was fundamental to the Christian message. It did not start a political revolution, and Christians themselves often acted in ways that were far distant from what their faith implied, but it did start a slow process of change in Western thought. This basic affirmation, that each person is important because each one is made, and personally known, by God, and that each one is called to love God and love others, worked like a slow-burning fuse. Despite many switchbacks and wrong turns, it gradually had an effect, bringing the equality and dignity of all human beings, and the importance of individual identity and freedom, to the centre of Western thought. One especially important part of this history is the mediaeval development of canon or church law, which began to formulate the idea of the rights of each person in relation to the ruling powers and to one other. Here another key point emerges: the individual needs to be thought of in relation to his or her social groups of reference (whether they be family, nation, church, association or whatever). Rights imply relationships, reciprocity and duties. For medieval thinkers, they also imply that we have a shared nature which set parameters within which we could search to achieve certain basic goals, like happiness, by exercising our freedom. For a medieval thinker like Thomas Aquinas, for instance, individual freedom has a crucial role, but it is exercised on the basis of a given nature and in common with others in social groups. The whole person needs to develop, involving their emotions, reason and will, and that development brings freedom (as the Nobel prize winner, Amartya Sen, put it in the title of one of his books ‘Development as Freedom’).

In the 17th century and moving into the 18th, the most recent trend on thinking starts to develop. Leading philosophers and thinkers started trying to find a way to put the freedom of the human being at the centre of their systems of thought. One of the most famous phrases from the mid 1700s is the opening line of the book by Jean Jacques Rousseau, *The Social Contract*: ‘Man is

born free, but everywhere he is in chains.’ There were many factors driving this change; here we can mention three of them. Firstly, intense violence had engulfed Europe in the 17th century. In the wake of the 16th century Reformation, such violence was almost inevitably tied up with religious differences, so that by the 18th century many were looking for ways to prevent violence associated with religion from happening anymore. The idea that individuals should be free to decide what to believe, with a clear distinction between a ‘private’ sphere, where belief could reign, and the ‘public’ domain, where rule of law, proper procedure and meritocracy held sway, seemed a reasonable and even attractive solution. We can see how the idea of the isolated individual could gain ground and seem the most reasonable way forward for confronting the religious and political problems of the time. In short, a move to emphasise the private freedom of the individual and the legalistic, dispassionate sphere of the public square became a way to address the problems society was facing. A partial truth was stretched for good reasons but remained partial nonetheless and stored up problems for the future.

Secondly, economic developments were also pushing against traditional ways of running and organising economic activities. The idea of a ‘free economy’ was gaining ground. Just as the public sphere was freeing itself from traditional influences, so the economic sphere was also freeing itself from the social expectations and traditions of the past, where landlords and peasants had responsibilities towards each other. Whilst there had been inequalities in the pre-capitalist system, there had also been mutual obligations and benefits. The drive towards loosening these social bonds became even stronger with industrialisation. The poor were driven to the new centres of mining and manufacturing where the mill owners established purely contractual relationships with them. For both parties, their relationship was financial and contractual and there was no sense of any shared goals or any common good.

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Since most people were still very poor, developments like these that promised to increase economic output, even if they also represented a threat to the social protection of the most vulnerable part of the population, were likely to be successful. In some ways today's 'gig economy' reflects a similar dynamic – there is a lot of freedom, on both sides, but the insecurity that workers face is a constant threat to them.

The rise of capitalism provided a chance to raise the living standards of whole populations, but not without a cost. One of these costs was the positioning of economic questions at the centre of social life, such that all issues became first of all a question of resource creation and allocation. All more substantial ends, such as a good life or personal development, became relegated to the private, secondary sphere.

Thirdly, the natural sciences were developing fast and influenced the ways people thought about society. The physics of people like Isaac Newton and Robert Boyle were especially important. Thinking of society as if it were a gas, with human beings as the atoms that made it up, and that we could come up with a kind of 'social physics' which would allow us to run society in a 'rational' way, just like we could make machines work, gained influence. This too tended to reinforce the individualistic idea of the human being.

So thinking about human beings as individuals, around which the widest possible space should be created so that they can act freely, and choose what they want to do, was encouraged by the situation that faced 18th century Enlightenment thinkers like Adam Smith, John Locke and David Hume. They abandoned the idea of any shared goal for human beings that could be discerned from their shared nature. Freedom became associated with 'free will', the possibility to choose from the widest range of options possible. Reason also became a kind of 'rational calculation', detached from the embodiment of the human person, leaving emotions and physicality behind in a kind of dark, non-rational backwater. In

some ways, we could say that what we witnessed at the time of the Enlightenment was a kind of breakdown of the integrated view of the human person that had included individuality, but was not limited to it, and which had reached the peak of its development at the end of the Middle Ages. This breakdown in thinking brought problems (problems that have become acute for us now), but it also brought advantages on political and economic levels.

Focusing on the individual put the social context, or the ‘whole’ or ‘system’ within which the individual acts, in the background. This had the advantage of simplifying theories and allowing thinking to focus on specific aspects of life at a time when society was changing very fast under the impact of the emerging capitalist and industrial system, and new knowledge was needed. From the 1700s through to the 1900s we start to see whole new areas of thought developing, with new subject areas establishing themselves such as economics, political science, sociology and psychology. Specialisation, however, represents a problem as well as a gain. Losing sight of the overall picture, university disciplines and experts in general become less able to use the advances in their fields in the resolution of real, multifaceted and integrated problems. As the joke goes, the difference between an academic, who wants to advance his discipline, and a management consultant, who needs to get something done, is that the first knows more and more about less and less, and the second knows less and less about more and more. Both suffer from the inability to make progress in regard to systemic, social problems. Problems and solutions can only be seen within the ‘silo’ of the specialism.

The new bodies of knowledge, including economics, received the idea of the human being as a pure individual as the starting point for their thought. Economics as a serious scientific endeavour became increasingly freed from social context. And once freed not only did it lose touch with the social context; it actually began to shape parts of society as an artificial construct through par-

tial truths about the rationality of the individual and freedoms to choose based on individuals’ desires without reference to others. Once economics was so separated from real life, it is not a surprise to see it favouring technocratic forms of development.

with the rise of the shareholder model of the firm, and its negative view of the human person. This ‘financial theory of the firm’, built on agency theory, grew to dominate the way business was understood from the late 1970s and 1980s onwards. It starts from a completely individualistic view of the person. With no idea of the social context or the common good, the idea of a business can only be artificial. As two of the most prominent thinkers behind the shareholder model of the firm have put it, Michael Jensen and William Meckling: ‘The corporation is only a convenient legal fiction that serves as a nexus for a very complex set of contracts between individuals’.

In recent decades, the ones most influential on the technological developments that concern us here, the individualistic character of the short term historical trend we’ve been discussing has become even clearer in business and economics,⁸ The only way to understand a business when we begin with a purely individualistic outlook is as a construct or ‘fiction’, since a business can only be a particular set of contracts or transactions between particular individuals. Drawing on agency theory, the financial theory of the firm also sees the human being as purely self-interested, giving rise to one of the key issues for this theory, or what is often called the ‘principal-agent problem’. Principals here are the shareholders, and agents are the executives of the business. The problem arises because the agents, or executives, may run the business only in their self-interest, instead of in the interests of the shareholders. To resolve the problem, the shareholders need to give incentives to the

⁸ M. C. Jensen and W. H. Meckling, ‘Can the Corporation Survive?’, *Financial Analysts Journal* (January–February 1978).

executives to align their self-interest with those of the shareholders, hence why we arrived at the well-known ways of compensating executives in which only a relatively small proportion comes from a salary and the rest is made up of various ways of connecting their pay with changes in the value of the shares. Although we have known for a while that this way of paying executives was not really effective, and indeed Michael Jensen has recognised that his proposals had ‘unintended effects’, it is only recently that boards have started to insist on changes to executive compensation.

Even business ethics in this period adopted an individualistic view of the human person. The idea of the stakeholder, for instance, while it might take us a step forward from a focus on shareholders alone, still treats each stakeholder in an individualistic way. We can see this particularly clearly in a book entitled *Corporate Strategy and the Search for Ethics* by R. Edward Freeman, the person who first brought the idea of the stakeholder into management thinking, and Daniel Gilbert.⁹ The authors spend most of the book explaining why most business strategy is unethical, since it always treats individuals as means to creating value for shareholders, not as ends in themselves. They therefore propose an alternative, called the ‘Personal Projects Enterprise Strategy’ (PPES). An ethical business strategy, thus, is one that tries to realise the ‘personal projects’ of each of the stakeholders involved in the firm. It is not a surprise that they find it pretty difficult to make this work; we just need a few stakeholders and we start to find personal projects that conflict with each other. In the book, they say that their approach needs further work, but the problem is not that the strategy has not been worked out enough. It is rather that it cannot be worked out at all if we start from a purely individualistic idea of stakeholders and their personal projects. It is not surprising, therefore, that in another

⁹ R. E. Freeman and D. Gilbert, *Corporate Strategy and the Search for Ethics*, Prentice Hall, 1988.

of his writings Freeman tells us that a manager needs the ‘wisdom of Solomon’ in order to find a way through the conflicts between stakeholders.

We can see in this history, then, that a fundamentally positive move towards human equality and the importance of each person and their rights gets increasingly distorted from the 1700s onwards, and especially from the 1960s and 1970s. We have analysed some of the historical trends that have led to where we are. Our argument is that the economic thinking that we have inherited from the last few centuries has a lot that is good to it, but also much that has become increasingly distorted. However, we can try to separate out what is good in it through returning to its sources and by confronting it with results from modern sciences that help us understand in reality what a human being is and what is good for this kind of being. This kind of rethinking could contribute to the ‘fundamental reboot’ about which Williams writes, at a time when the realisation that we face an environmental crisis, caused by the kind of economic system based on the kind of thinking we are discussing here, is also pushing us to move in a more human-centred direction. This leads us to a discussion of Blueprint for Better Business.

4 *Blueprint for Better Business*

A movement of business people that emerged after the financial crisis, and in the light of the encyclical letter by Pope Benedict *Caritas in veritate*, published in 2009, Blueprint for Better Business aimed to rebuild the broken trust between the world of business and wider society. Those involved in it realized that business itself was too compromised to be trusted. To rebuild trust, it would need to show that it was operating in line with values that did not come from within it and which it did not control, so that it could be held to account on the basis of those values by society as a whole. This would mean adopting a different way of thinking

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about business – a changed ‘mindset’ – that draws its inspiration from sources that could be trusted by society as a whole. These two sources are scientific results (especially from genetics, neuroscience and behavioural economics), that help us understand better who we are and how we do, or could, behave in economic situations, and the results of the millenial ‘wisdom’ traditions, both religious and philosophical, which can bring insights that are not accessible using scientific methods, such as the idea of human dignity (we cannot look down a microscope or devise an experiment that could help us discover this – we know it from the deep impact that the wisdom traditions, specifically Christianity, have had on our societies).

BBB represents a particular type of proposal for a ‘(human) life-centred economy’. It draws on the idea that is currently very popular in business circles that a business needs to have a ‘purpose’. It focuses on the ‘why’ and ‘what for’ of business rather than the ‘how’, which is the focus of most movements for change in business. In some ways, this makes it impotent, except in the long term, but it is quietly gaining traction in a growing number of business sectors in the UK. There was early interest from Unilever and Vodafone, but the main sector in which Blueprint has impacted thinking is within finance, probably in part because it is based in London. NatWest and Capita would be two important financial players that are incorporating Blueprint ideas into their business model and strategy, although probably the most influential thinker in the sector who is working within the Blueprint framework is the former Governor of the Bank of England, in his recent Reith Lectures (December 2020) and his book *Value(s): Building a Better World for All* (2021).¹⁰

For Blueprint, businesses need to change from within – via a change of mindset of their members, and especially their leaders

¹⁰ For the Reith Lectures by Mark Carney, see <https://www.bbc.co.uk/programmes/m000py8t> (accessed on 4th September 2023). M. Carney, *Value(s): Building a Better World for All*, William Collins, 2021.

– rather than be forced to do it from the outside. It builds on the idea that we all search for the ‘good’, even if we can be mistaken about what is truly good, being attracted instead by ‘apparent good’, and/or we can become ‘vicious’, that is, habituated to achieving an ‘apparent good’ and be incapable of seeing it as such. The cornerstone of BBB is that each business, and the business system as a whole, has a ‘purpose’, which builds on, or starts from, respect for human dignity and promotion of the common good.

Blueprint devised two basic tools, among many others, for promoting the change of mindset; one is called the ‘Framework for Decision-making’ and the other is the ‘Principles of a Purpose-driven business’, appended to this article.

At the core of Blueprint thinking is an idea of the human being – with dignity, and with the capacity to develop in relation to others. Recognising dignity and creating productive systems that allow human development are key to the approach. This idea begins its development in Rome, where *dignitas* was given to the emperor or other great military leader when he returned to Rome after a great victory. The people of Rome would come out to greet him and a grand procession would wend its way through the city, following its way along the via Sacra to the temple of Jupiter. The early Christian thinkers knew this ceremony, and, reflecting on it in the light of the witness of both the Jewish scriptures and the texts of the New Testament, they took the word *dignitas* and turned it upside down. Instead of referring to the great acclamation given to an emperor after his victory, they said that all human beings have *dignitas*, independently of who they are or what they have done, since for them, all bear the ‘image and likeness of God’.

Once this idea had been launched, over time it gradually started to have a life of its own, independently of the Christians, and now it is widely held independently of any religious belief. We could say that it has now become part of the ‘patrimony of humanity’, especially as a basis for the legal concept of ‘human rights’, but it

continues to be actively supported by thinkers within the tradition of Catholic social thought. We may also mention two other points. Firstly, dignity can be enhanced, as when we say that someone behaved in a ‘dignified’ way, or that a person acts with dignity, so that dignity is both something that ‘just is’ and something that ‘is created’. We can look at this through the eyes of the virtue tradition, as discussed by Matthieu Raffray in his contribution to this book; as we act well, we develop ourselves, and this enhances our dignity. We are both human beings (with dignity) and we can ‘become more fully human’, that is, more fully ourselves, thereby enhancing that dignity. Technologies that help us do that could be called ‘dignity-enhancing’. Secondly, our sense of our own dignity also depends on what other people think about us and how other people treat us. We may think that we have done something quite well, but we can change that opinion quickly if we meet with indifference or negativity from others, and this can very easily affect our self-esteem and the sense of our worth and dignity. Unfortunately, it is far from the case that the dignity of every human person is recognised all around the world, and so it is still an essential struggle for us to continue to affirm it and to build our institutions and societies on the basis of it.

Another key element in Blueprint thinking about the human being is our capacity for development. The science of genetics shows that the human being starts out life from a set of basic predispositions, developed within in each one of us before birth, and which we continue to develop throughout life: ‘Homo sapiens possesses an innate moral sense (meaning “organised in advance of experience” rather than “un-malleable”) [...] moral capacity is analogous to linguistic capacity’.¹¹ In other words: ‘we are born with a moral capacity, and a strong tendency to absorb the moral values of our social environment, but we are not born with a moral

¹¹ E. Sadler-Smith, ‘Before Virtue: Biology, Brain, Behaviour and the “Moral Sense”’, *Business Ethics Quarterly*, 22, 2 (April 2012), pp. 352, 357.

code in place.¹² This 'moral sense' is understood in various disciplines (evolutionary biology, social psychology, positive psychology, among others) as having various attributes or 'modules', such as suffering/compassion, hierarchy, reciprocity, purity, affiliation.¹³ These basic modules or predispositions are then formed into specific character traits through life, partly due to the influence of others (including culture and institutions) upon us, and partly through our own actions (through which we also influence others).

Some of the wisdom traditions already talked about this kind of moral development over two thousand years before psychologists and others were able to identify it, and the fully formed character traits just referred to are known as 'virtues' (if they are good – we still need to define what 'good' means) or 'vices', if they are the opposite. Indeed, referring to that literature, Sadler-Smith can say: "The view that *Homo sapiens* [...] is "constituted by nature" to acquire the virtues [...] is acknowledged widely by a number of psychologists, biologists [...] and philosophers', and that the results of various scientific investigations support a virtue-based approach to ethics rather any other kind.¹⁴ In the West, the 'virtue tradition' of moral thinking and practice has its origin in Plato and Aristotle, but it has been maintained in a living, developing body of thought and action within the Christian tradition, and is often also associated with the name of St Thomas Aquinas (hence the title that is often used of the 'Aristotelian-Thomistic tradition'). Virtue ethics is more usable for those in business than the other contenders for this position, such as Kantian deontology or the social contractalism

12 J. C. Flack and F. B. M. de Waal, 'Monkey business and business ethics: Evolutionary origins of human morality', in *Business, science, and ethics*, ed. by R. H. Freeman and P. H. Werhane, Ruffin Series, 4, Charlottesville, Va 2004, p. 32.

13 J. Haidt and C. Joseph, 'Intuitive ethics: how innately prepared intuitions generate culturally variable virtues', *Dædalus* (2004), Fall, pp. 55–56.

14 Sadler-Smith, 'Before Virtue: Biology, Brain, Behaviour and the "Moral Sense"', cit., p. 351.

represented by a figure like John Rawls. Both of these latter approaches focus on generally applicable (and therefore also abstract) obligations, undergirding a compliance approach to ensuring that business promotes the good of society. Virtue ethics, on the other hand, focuses instead on the creation of goods, whether instrumental (like money) or intrinsic (like happiness), whether common (shared) or individual. This kind of approach can help businesses in formulating a purpose for their existence and operations that integrates creating good for society with the good of the business, thereby providing the possibility for a deeper relationship of trust than is possible from compliance with regulations alone. Since it is focused on creating a good, this kind of thinking also works in a way that parallels, and could undergird, technological development.

The starting point behind all this is that ‘being is good’. For the Christian social tradition, this affirmation is rooted in the idea that God, as the fountainhead of all created being, is good, but it is an idea that was also held by Aristotle, who was not a theist and lived more than 300 years before Christ. We should note that this applies to all beings, including animals, plants and the cosmos as a whole. From this theoretical starting point, a basic practical principle follows (often known as the ‘golden rule’, and found in all human cultures and religious systems): do good and avoid evil, meaning, do what favours the preservation and development of being. We can see a close link to ecology here. In particular, such an idea guides us to consider how we can favour human development, in a sustainable relationship with other beings. While all human beings are fully human (deserving their rights even if, and especially if, they are vulnerable and weak for whatever reason), they are also always growing and developing. In our early years, we grow physically as well as intellectually and emotionally, but after our physical development is more or less complete, we still continue to develop through our actions; we learn a new language

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by trying to speak it; we learn to play a musical instrument by practising on it, and so on. Since human development is connected to action, it is connected in a direct way to work and therefore also to business and the technology we use. Similarly, at the same time that people are developing themselves through their actions in businesses (what we could call ‘subjective good’), objective goods are also being produced, whereby, through various types of production or service provision, something is brought into existence out of the potential for that existence in the ‘raw materials’ (which could consist largely in human capacities, if we are talking about services) that are used.

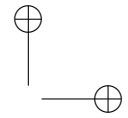
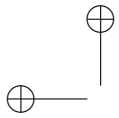
Virtues are an acquired habitual disposition towards the good. Each word is important here. Firstly, it is a characteristic of virtue that it is habitual. Virtues are settled ways of behaving that we have acquired over time through experience and experimentation, and in particular, through learning from others. Other things being equal, it is usually harder for young people to display the same level of virtue as those who are older, since they have not had the time to develop these settled dispositions so completely. Secondly, a virtue is a ‘disposition’, here meaning a way of being, a form, that an otherwise unformed tendency within our character has assumed (we can remember the ‘moral modules’ of evolutionary biology). Another way to understand the idea of disposition is to contrast it to the idea in existentialism that we only live in each moment, and that from one moment to the next we may do things that are contradictory, without experiencing a problem with this. Thirdly, a virtue disposes us habitually towards the ‘good’, towards doing what brings the potentiality in our being, and in the beings around us, into existence. Whereas physiological processes (like digestion, or breathing) are ‘automatically’ ordered towards doing us good (and if there is a problem with them, we say we are ‘ill’, as other animals would be, not that we are ‘bad’), moral modules or pre-dispositions are open-ended and we can form them through acting

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regularly and consciously towards the good. In doing so, we form a ‘character’, which nevertheless is always a ‘work in progress’ (so, on the one hand, we always need to be vigilant about doing wrong, but equally, on the other, if we have a bad start in life and our character is weak, we never have to lose hope that it could not – literally – be re-formed). The idea of virtue would lead us to think of the good (ethical) life as the life of a virtuoso performer or a great linguist, that is, as someone who has gone beyond keeping rules and has integrated those rules in a creative way into producing innovative answers to difficult questions, like what the purpose of a business is and how we should achieve it. Growing in virtue, then, is growing in freedom, and it is here that we come back to our opening question about freedom. In the virtue tradition, freedom from rules is only secondary, in the way that the virtuoso performer is free of rules. It also requires the help of others, as we learn from them and model ourselves on those who inspire us; freedom requires the support and stability that deep relationships give us, rather than being threatened by others. All this thinking is corroborated by the results we saw before from evolutionary biology and social psychology. We can see the great difference between this way of thinking about what is the good thing to do and that of utilitarianism or deontology. Whereas in the latter case, doing the right thing is mostly about ‘knowing (intellectually)’ what the right thing is and applying this knowledge impartially in each situation, in the virtue approach, doing the right thing is more a consequence of becoming a fully developed person (integrating knowledge into that); doing the right thing then reinforces the habitual disposition (virtues) towards the good that have gradually been built up over time through many attempts to realize the good across the different situations and circumstances of life.

In Blueprint two ‘dimensions’ of the human person are recognized: an individual one, also recognized in economic and business theory in general – but also a relational one, arising from the part

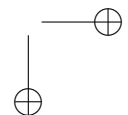
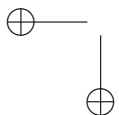
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of us that is spiritual or non-material. A lot more could be said about this, but for now, let us just say that thinking like this permits us to recognize that we do not only work for our individual good, but also for shared goods, that we hold in our relationships. Such goods are good for me, as well as for another – friendship would be the most obvious example. The friendship in itself is a good, but we can also achieve further goals and reach other goods, that we share together, in and through the friendship. But it is not only friendships that work like that – in any relationship where we share a goal, we can build a shared or common good. Those working in a business, for instance, if they share in its purpose, can build a common or shared good together, which is the business itself.

So when we are dealing with each other in business, we are creating a common good together, on the basis of which we can each gain some individual benefit too (which usually includes some financial reward, but is not limited to that). Wherever people are acting or working or cooperating together, they are producing common goods, and all these shared goods, in a wonderfully varied and articulated way, build up into the wider common good of societies as a whole. With this in mind, let us focus more specifically on the goods that we can create in a business, and which connect us to the good that we can find in technological development.

We can think about this on three levels. On the first level, we can distinguish between foundational and excellent goods; foundational goods are all those things necessary to sustain human beings and human institutions; in the case of the business, foundational goods include capital, technology, technical skills and, often, more specific goods that are relevant to a particular product or service. Excellent goods are those that are created within the human beings that are part of the business, or that are affected by it (the stakeholders), both individually and in their various communities (the business itself can be considered a ‘community of work’). Such goods refer to all the various aspects of human development, of



bringing into reality all that is potential in the human being. There is a both a hierarchy between foundational and excellent goods as well as a form of ‘reciprocity’ between them.

On the second level of the analysis, we can think of the goods produced in the firm in terms of the distinction between ‘participated’ and ‘allocated’, or what we could also call the distinction between ‘common’ and ‘particular’ goods. Businesses produce both kinds of good. The overall output of the firm as a whole, the shared ‘culture’ or ‘character’ that the firm develops, or its shared ‘core competences’, as well as the policies it adopts and implements would all be examples of participated goods. As participated goods, we share in them without diminishing the good itself; indeed, we tend to reinforce the good the more it is shared. On the basis of these shared goods, we can then allocate goods that can only be shared by allocation, such as the payment of all the various stakeholders who have had an input into the process that produced the firm’s output, positions in the management hierarchy, investment into some research projects and not into others and so on. The money we create is allocated between all those who should be paid for their contribution to the shared result we have produced, but it is only on the basis of the shared, common ‘good’, created in the relationships holding us together, that we can make that allocation between them. The way the allocation is made needs to be seen, at least by the majority, as just, and a shared idea of justice is another participated good on the basis of which allocations can be made.

Finally, at the third level of analysis, we need to ask ourselves if what the business is producing is a genuine or ‘true’ good, or whether it is only an ‘apparent’ good. All businesses do what they think is good for them, but other stakeholders may be able to see that what they are doing, in a more general sense, is not really good (if this analysis had been done more widely, we would not be in the climate crisis that we face now, and adversarial technology would be a lot less present in society).

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On the basis of the shared, common goods that we create between us as we work towards the overall purpose of the firm, all the other goods that the business produces, including money, can also be created. This very brief discussion can then lead us to the idea that in business we develop ‘common goods’ not only between those involved in it, the stakeholders, but also between business and the rest of society. Once we can give our idea of the relation between business and society as a whole a solid foundation like this one, we can hope to build deeper levels of trust between businesses and society. The common goods we build up together between our business and society, along with others produced within and between other businesses and other types of organisation or community (non-profits, public administrations and government agencies, families, local communities, religious communities [...] the list goes on) create the connecting tissue that holds our society together, and on the basis of which we can produce and allocate individual goods.

The idea of the common good may seem alien to thinking within business, but we can find ideas with different names within the management literature that point in a similar direction. One of these is the idea of ‘core competences’, developed in the 1980s to explain how Japanese electronics firms could miniaturise any electronic product, whatever its market. Management researchers realised that this competence was shared within the firm; it was a property of the business as a whole, rather than of any of its parts. It would have been possible to take all the particular people working within Technics or Panasonic or Sony, and put them to work in different places, and of course, they would all bring their particular skills with them. But what had been held between them – the core competence of their particular firm – would then be lost. The core competence of a firm, therefore, is one of the common goods that are developed between the members of a business in their day to day activity.

What could Blueprint say to the likes of Facebook and Google? Firstly, it would be illuminating to have a discussion about true and apparent good with them. Clearly, truth is many-faceted and, in a real sense, we are always striving to find it rather than ever fully possessing it, but we can also be clear about some business goals that are not going to carry us towards true good, even if they make us money. It is not difficult to argue that when we place making money above supporting true human development, indeed, if we aim to make money in such a way that undermines such development, we cannot be achieving more than an apparent good. At the same time, it is possible to imagine that Facebook and Google, given the enormous resources at their disposal and the high value that they give to innovation, could find ways of applying what they know to a good that could be recognized as nearer to being true. Blueprint would put that challenge before them. We could also apply the other elements of the common good approach to both of them with illuminating results, but the key aspect would be to get them to consider how they are currently only working towards an apparent good, when they could be working towards a true one.

In some senses, we could see the Blueprint agenda as continuing what was started in the political sphere with the arrival of democracy – recognizing the dignity of each person, one man, one vote, with each person having the right to have a say in their government – by bringing a discussion of human dignity into the economic sphere. What would Facebook’s business strategy look like if it thought that its purpose was to enhance the dignity of its customers, and of all the people who are part of its operations, rather than to take advantage of their weaknesses? Such talk may seem utopian and unrealistic, but it is undeniably attractive. If the engineers in Google and Facebook could be presented with that challenge, instead of the challenges with which they are currently presented (which degrade their dignity as much as they do the customers of these two behemoths), wouldn’t they take it up?

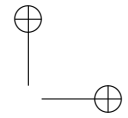
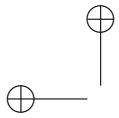
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Conclusions

James Williams in his *Stand Out of Our Light* makes an impassioned case for the newness of the situation we are facing. While there is certainly much that is new, I hope we have seen here that we have many tools for dealing with it from the past, since in key ways, the ‘newness’ we now experience is a new form of an old problem. What is important about his emphasis on the newness of the threat proposed by persuasive technology in the hands of companies like Facebook is its rhetorical value – it is important to wake people up to what is happening and to mobilise them to react. At the same time, it will not help us if we do not realise that this newness is not total or absolute, and that humanity has experienced very fast, revolutionary changes in the past that brought them into very new social conditions as well and yet still managed to reign in the worst effects of these changes, to ‘rebel’ effectively against other forms of adversarial technology.

As we have tried to briefly outline in the second part of this article, dealing with the general social changes that have led to where we are now, it is also important to recognize that the mindsets of many important philosophers of our day are fixed by the idealism that became dominant from the Enlightenment onwards (represented by the figure of Kant for European philosophy and several figures in English-speaking philosophy, among whom Hume would be one of the first). An idealist mindset does not give enough attention to what is ‘real’ about human nature and that does not change (or changes extremely slowly – too slowly for us to be able to notice it over the last few thousand years). In this sense, the digital / virtual world changes our environment and changes, therefore, our brains because we are interacting in different ways with our environment, but it does not change our genetics, the way our brains work – or what, more classically, would be called our ‘nature’. We will still be recognizably human even if we are moving in and out of a virtual

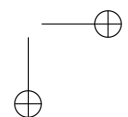
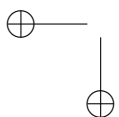
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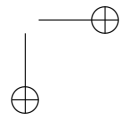
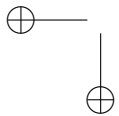
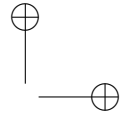
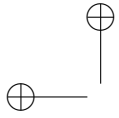


world that becomes increasingly indistinguishable from the real one. We are not our psychology – our psychology is a crucial part of us, but it is not what we are. This kind of reductionism – identifying human beings with one or a limited number of their aspects – is a characteristic of modern thinking, for a number of reasons (we saw that one of them is that it makes theory-building easier). As the Blueprint movement is showing, if we are going to move out of the economic mindset that has wreaked so much havoc in our relationships with our world, with each other and with our future, we need to move towards a more complete picture of what it means to be human.

Finally, building on the analysis of the strengths and weaknesses of the heritage that we have received from the Enlightenment in relation to the problems we have to face today, which argues that this heritage is no longer ‘fit for purpose’ and needs to be radically overhauled, just as the Enlightenment thinkers overhauled what went before them, we present the Blueprint for Better Business approach as an example of the kind of thinking that could help us move forward in understanding how to develop economic systems that promote human development in a sustainable relation with nature, thereby also promoting human freedom. Mindset changes such as those presented by Blueprint need to be accompanied by practical initiatives, but practice is also generated by good ideas. Ideas really count. The long run development of the idea about what it means to be human, giving value to each human person, connected with the idea of human dignity, has fundamentally changed the way we think about human beings, and it could continue to change the way with think about technological development. We have some great intellectual resources at our disposal, if we can use them properly, to help us redirect technology to becoming a friend of human development instead of its adversary, to help us avoid technological captivity and to move, rather, towards a new type of freedom, one that we have not yet imagined.

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Wisdom, Desire and Virtue in the Digital Age: a Socratic Approach

Matthieu Raffray

IN his book *Stand Out of Our Light – Freedom and Resistance in the Attention Economy*, James Williams offers a rather anachronistic yet highly interesting comparison: just as the powerful emperor Alexander the Great had, in the fourth century B.C., proposed to Diogenes the Cynic ‘to grant him any wish he desired’, so the great digital firms of today claim that they can freely and instantaneously fulfil all of our desires, satisfy the least of our needs and realise our innermost drives. Google satisfies our thirst for knowledge, Amazon our urge to own things, and Facebook our desire to communicate – not to mention sexual appetites, the will to power, or our obsession with our appearance. Diogenes, that peculiar man who lived in a barrel, and of whom Plato said he was but ‘*a Socrates gone mad*’, refused Alexander’s proposition and answered back (to the great emperor standing in front of the sun): ‘*Stand out of my light*’. Here, like Diogenes, Williams suggests that we should understand that by offering to fulfil our desires, these new technological means of communication and information also stand in front of a light that is essential to our humanity: our attention. In the age of generalised information, our attention span has indeed become the most valuable asset that large firms both buy and share.¹ By picking up on the light of our attention, and by transforming it into consumption, distraction and information, we have inadvertently

¹ In French, see for example B. Patino, *La civilisation du poisson rouge. Petit traité sur le marché de l’attention*, Grasset, Paris 2019; Y. Citton, *Pour une écologie de l’attention*, Seuil, Paris 2014.

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become mere merchandise, some raw material, a simple product, so much so that our freedom is now threatened, not by some invasive and coercive external power, but by our very own dependance on these digital solicitations: our capacity to know and to desire has been taken captive. We are now like prisoners before blue-lit screens, never-ending mouse clicks away from ever new and supposedly relevant suggestions, infinitely renewed ‘stories’, unceasing notifications that hold our attention and our wants as profitable hostages.

In order to reflect on this new form of enslavement, and in the hope of understanding what it says about us, either individually or socially, I would like to carry on with the anachronistic comparison proposed by James Williams while referring to another philosopher who lived but a couple of years before Diogenes: the great Socrates. Socrates for his part was not opposed to any Alexander, but rather the Sophists who made their fortune on the squares of Athens by selling their fictitious wisdom (*sophia*) to the city’s youth. Faced with these dealers and presumed traders in wisdom, Socrates instead proposed a new type of insight, grounded in the awareness of our own ignorance and in the pursuit of virtue for the good of our soul. What, then, would be today’s Socratic answer to these ‘Big Tech’ firms that have become merchants of desire (*orexis*)? What should be our attitude vis-à-vis these new Sophists turned ‘Orexisists’ who deal in our desires for profit – a virtuous attitude that we might call ‘Socratic’?

Socrates would, I believe, have resorted to the same method that he used 2,500 years ago: the maieutic method, which consisted in ‘giving birth’ to the truth which is already inherent in the mind of his adversary and simply wishes to see the light of day. And in this way, Socrates would allow people to gain access to a stable essence of things, as opposed to a mere illusion of appearances, not only in terms of knowledge but also in terms of ethics: to search for the

rational and eternal value of things, rather than be carried away by unstable and insatiable desires.

From this Socratic viewpoint I would in consequence wish to propose that we follow the path of philosophy so as to be in a position to avoid electronic illusions and instead turn toward a more stable, more universal and hence more real world – firstly in the field of knowledge, and subsequently in the field of human action and its ethical value.

1 *From digital ignorance to knowledge about reality*

1.1 Leaving the technological cave

The allegory of the cave, which no doubt is one of Plato’s most famous passages (*The Republic*, VII, 514a – 520a) seems to me to take on a new and altogether remarkable meaning when applied to our digital reality.

Socrates – Behold! Human beings living in an underground cave, which has a mouth open towards the light and reaching all along the cave; here they have been chained so that they cannot move, and can only see before them, being prevented by the chains from turning round their heads.²

The prisoners in chains in Socrates’s myth inevitably remind us of post-modern youths, ‘chained’ to their smartphones, more or less indifferent to the world around them, with their whole attention span focusing on the virtual images before them, like those prisoners who see nothing except the shadows projected on the walls of their cave. The consequence is indeed the same. Both groups take for real the virtual shadows. “To them, the truth would be literally

² Plato, *The Republic*, VII, 514a, trans. by B. Jowett, Vintage Books, New York 1991, pp. 253–261.

nothing but the shadows of the images'. The images by their very nature therefore have this captivating, fascinating and in the end deceptive character. The image is only a reflection, even as it claims to represent a truth to which it has no right, and through which it leads the prisoners away through its virtuality, from their search for authentic reality: they are condemned to ignorance, and they happily comply.

We might, by the way, at this stage ask ourselves what kinds of chains it is that immobilise our slaves: Plato does not go into this – the Socratic myth in general contents itself with depicting an imaginary situation for purely didactic purposes. Still, one could, in the case of our contemporary slaves of technology, imagine what powerful masters would have an economic or political interest in keeping humankind captive in today's technological fetters, and in particular the younger generations.

The following part of the Socratic myth in question is just as instructive and dramatic. Socrates imagines how one of the prisoners is suddenly liberated of their chains and thus, as it were, 'cured of their ignorance':

At first, when any of them is liberated and compelled suddenly to stand up and turn his neck round and walk and look towards the light, he will suffer sharp pains; the glare will distress him, and he will be unable to see the realities of which in his former state he had seen the shadows; and then conceive someone saying to him, that what he saw before was an illusion, but that now, when he is approaching nearer to being and his eye is turned towards more real existence, he has a clearer vision, – what will be his reply? [...] Will he not fancy that the shadows which he formerly saw are truer than the objects which are now shown to him? [...] And if he is compelled to look straight at the light, will he not have a pain in his eyes which will make him turn away to take and take in the objects of vision which he can see, and which he will conceive to

be in reality clearer than the things which are now being shown to him?

The virtual context is thus not only captivating, but it renders us even, in a way, unable to see reality properly: whoever is immersed in virtuality is horrified by the light of true knowledge, of science and wisdom, for they upset and even obscure, due to their own luminosity, the beautiful illusions in which this person has been nurtured. In addition, the attractiveness of contemporary technologies fulfils this characteristic in striking fashion: the bluish light of digital media, from television to the screens of smartphones, possesses this capacity to excite the brain even when it is tired, and reduce the ability to concentrate, to listen, to pay attention, to sleep. Numerous studies show that children who intensively absorb digital information from an early age suffer deficits and bodily, emotional, psychological, cognitive and intellectual problems in the course of their development.³ The fascination of the ‘homo numericus’ with virtual images is thus much more than a simple attachment to new techniques: it in the end causes the human spirit to deviate from the light of objects, social relations or knowledge of itself, in that it focuses that same spirit on mere appearances, illusions or fleeting opinions.

Moreover, the unfettered prisoner is torn away from the cave by force: ‘He is reluctantly dragged up a steep and rugged ascent and held fast until he is forced into the presence of the sun itself’. Such an ascent out of the cave clearly means to Socrates the initial journey of philosophers, who are forced to undergo the hardships of education and study during their development, so as in the end

³ See for example M. Desmurget, *La fabrique du crétin digital. Les dangers des écrans pour nos enfants*, Seuil, Paris 2019; L. S. Pagani *et al.*, ‘Prospective associations between televiewing at toddlerhood and later self-reported social impairment at middle school in a Canadian longitudinal cohort born in 1997/1998’, *Psychological Medicine*, 46 (December 2016), pp. 3329–3337.

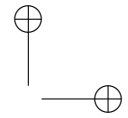
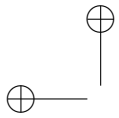
– after many doubts and much fumbling due to the harsh light of reality – to reach the wisdom of contemplation. It is in fact only at the end of a mystagogical journey that philosophical minds may be in a position to discover the mysteries of what is true and what is beautiful, the universal and the rational, which used to be hidden from them, and will remain so for the non-initiated, for the non-philosophers and for those who remain prisoners in the cave of virtual illusions.

For Plato, this dizzying climb up the hill of philosophy takes on an additional dimension: it is not only an educative – a rise from ignorance to knowledge – and epistemological – a passage from illusory opinions to scientific certitude – but it is also an ontological ascent that lets the philosopher circumvent the exterior appearance of things and gain access to the latter’s profound nature, their essence and their definition. The fact of leaving the cave thus means passing from the particular to the universal, from the individual being to what it has in common with others, to what is stable and eternal and universal, and thus rational and capable of being communicated. This is the meaning of the appeal of Platonism, for us to change our philosophical method and undertake a ‘second navigation’ (ὁ δεύτερος πλοῦς, *Phaedo*, 99c9-d1), to know how to disregard sensual things and individual appearances in favour of Ideas that are stable, perfect and universal: in other words, to seek refuge outside of the sensible world, outside of Socrates’s cave – and instead ‘look for the understandable and inner truth of beings’ (σκοπεῖν τῶν ὄντων τὴν ἀλήθειαν, *Phaedo*, 99e6).

This method, so typical of Platonic thinking, could, I believe, prove to be of importance at our present technological stage. In actual fact, the digital world has this particularity of dealing only with singular cases, at most with a collection (sometimes gigantic) of individuals, without ever having access to what is truly universal: Thus, Artificial Intelligence (AI) will recognize the image of a dog only because it has singled out, during its ‘learning phase’, the

common traits of canines on the basis of a multitude of images of individual dogs. But AI is not capable of formulating – nor has it any aspiration to do so – a definition or an ‘essence’ of a dog like those which a biologist or a veterinarian would use in defining what it means to be a ‘dog.’ No matter how sophisticated a given machine is, it still always aims to fulfil a particular task, an ‘output’ corresponding (or not) to the expectation of its user, depending on the data introduced by that user in the form of an ‘input’. I type in a destination on my GPS, following which the machine calculates my best possible route, depending on previously selected criteria. However, the GPS could never select, nor could it comprehend or even take into account, the intention I have in seeking that particular destination (commit a murder? visit a castle? or reunite with a woman named Juliette?). The machine as such is in fact unable to aim for a universal purpose, a general principle, or to contemplate a conceptual definition. The person who made the machine ‘intelligent’, or the technician or the user, could very well express their intention or their general requirements for its functioning, but they can only ever do it by transforming those exigencies into single consecutive supplementary ‘inputs’. I can program a robot to commit the murder I had planned, and have it adapt itself to the circumstances and conditions of this objective. But the robot itself will never be able to grasp the general notion of a murder, nor that of evil, nor ask itself why I had decided to commit the murder in question in the first place. Furthermore, if by any chance the architect of this robot had programmed it in advance to prevent it ever committing a murder; and if, in consequence, it refused to respect my wish in this regard, it would, again, not be on account of any general insight on its part into the evil nature of the crime itself. Nor would it be due to any insight into any universal moral rule banning murder, but only to a supplementary and, as always, individual input in the form of a line of code such as:

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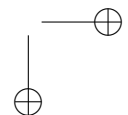
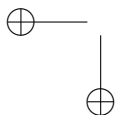
« IF [user’s goal] = commit a murder, THEN [answer] = no AND [call the police] ».

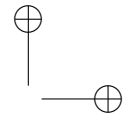
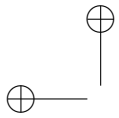
The inability of the machine to gain access to the universal realm, to the Platonic Idea, or in other words access to the intellectual concept, thus demonstrates this intrinsic limit of the machine when compared with the human being: the robot’s capacity for calculation, however great, in the end remains merely an ignorance of the essences, an illusion of possessing knowledge, a simple reflection of reality on a digital wall in a dark cave, a numerical sophism. In regard to the slaves, even when they are in chains and imprisoned in their technological cave, what matters is precisely their ability to free themselves from these fetters by recognizing their ignorance, to turn away from virtual illusions in order to climb up the hill which separates them from reality, from the universal and from the world of Ideas. Digital technology is thus in the end an appeal to philosophical intelligence for those who have the courage to undertake this ‘second navigation’, and venture onto the steep ascent of the wall outside the technological cave.

1.2 What is meant by ‘to know’?

These initial reflections on the school of Socrates lead us toward a more fundamental philosophical inquiry: What is knowledge? What is knowing? Could we affirm that a computer ‘knows’ the result of a calculation? That AlphaGo ‘knows’ how to play Go? That my GPS ‘knows’ where I am going, or that it has ‘learnt’ the different routes possible to get there? Could we state that the AI of Google can ‘recognise’ the image of a dog? That it is even capable of predicting my behaviour? If these questions come to the fore when they are presented in terms of AI and new technologies, they nevertheless remain among the fundamental and constant questions of epistemology, and have given rise to divergent or contradictory

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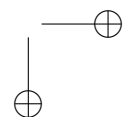
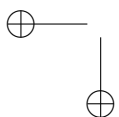


theories in the history of thinking: every philosophical school of thought has sought to determine the nature and contours of human knowledge, just as the application of these differing conclusions onto the issues raised by machines will necessarily yield replies that are, likewise, highly distinct from each other. Here we want to show how one may distinguish, in the course of history, an evolution in thinking that has given birth to nothing less than the digital world itself. This possibility indeed appears to us to be less the fruit of scientific discoveries or technologies, and more the result of a particular understanding of nature and of our relation to it: a philosophical conception of knowledge capable of being transposed to machines.

Already among the atomists of Antiquity, Leucippus and his disciple Democritus (a contemporary of Socrates), the question of knowledge presented itself as a challenge for the thinking process. The materialist solution that they proposed conceives a continuous rainfall of subtle atoms emanating from all things and in all directions. These atoms penetrate the skin, and when they encounter a sensual organ, they leave in it a physical imprint of the object from which they emanate. The other atomist schools (especially the Epicureans in the Hellenistic period, and then Lucretius in Roman Epicureanism), develop this mechanistic conception of knowledge, and add to it an explanatory approach to intellectual knowledge based on the same principles: what we call thought will for them be the reception of additional subtle atoms, ethereal or of the same nature as fire, by the brain as the organ of this intellectual knowledge.

Such a solution mainly has the advantage of accounting for the similarity between the image and its object, and the purely receptive character of knowledge, whether sensual or intellectual: the atom directly resembles that from which it emanates since it is a reduced model of it; and it imprints in the organ, without intermediary or transformation, a material similarity with the known

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object. Nevertheless, the main objection raised in regard to the atomists will be precisely that of Plato and his successors in terms of particulars and universals, something which the cave allegory precisely set out to prove. In fact, since intellectual knowledge is nothing more than the impression of a physical emanation coming from the known object, it is impossible to show its universal character: I know this and that dog, but I do not know what they have in common, that is, what is their 'canine nature', in other words, their 'dogness' as realised in different individuals. I will never be able to unite under one and the same concept what makes Milou a dog, and Mirza, too. It is therefore the profound nature of things that escapes me, and knowledge is reduced to each object in its particularity.

In the history of thought, several paths have opened up toward a solution to this Platonic objection. The 'lekta' of the Stoics, for example, are collections of individual knowledge accumulated until they jointly resemble, in general terms, the entire set of the individuals of a given species. Even if this tentative attempt in Antiquity to provide an answer to the problem of our knowledge of 'universals' (that is, to know what is universal, common and thus thinkable, in a particular thing) certainly is of interest to us, we cannot stop there. Rather, we must go on, in this case to the end of the Middle Ages, and to the birth of modern thought. In fact, it is the Nominalist school that will propose a novel and altogether original solution to the issue of universals: William of Ockham, a Franciscan of the beginning of the 14th century, asks us instead to consider Milou and Mirza as having nothing in common except the appellation of 'dog' attributed to them. There is therefore, Ockham argues, no 'universal dog' that exists in a Platonic world of ideas reflected in Milou and Mirza. Nor is there any 'substantial form' of a dog that exists in the individuals that are Milou and Mirza in order to make them dogs – in line with Aristotle's doctrine of moderate realism, defended by the Dominican opponents of William, and in

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particular by Thomas Aquinas, who professed Aristotelianism in the middle of the 13th century.

The importance of this 'Ockhamist solution' is far from being merely anecdotal or of value only to medievalists. It is in fact possible to argue that Ockham's nominalism has been one of the most vigorous roots of modern thought: in disregarding the essences of things, and in reducing all knowledge to that of particulars, Ockham opens the door to a purely mechanistic conception of thought by accumulating individual realities. In other words, no longer is it necessary to accede to a common nature of things in order to know what they have in common; now it is enough to assimilate them by collecting them in great number: the collection replaces the essence, the accumulation replaces the concept, and the average or 'mean' replaces the definition. In terms of scholastic logic you could argue that Nominalism has replaced the 'definition by comprehension (or *intension*)' by the 'definition by extension.' It should be noted that Gottlob Frege, the father of modern logic, reuses this distinction in terms of 'sense (*Sinn*)' and 'denotation (*Bedeutung*).'⁴ To arrive at knowledge of an object, you could in fact either look for its logical definition, by *genus* and *specific difference*, in following the teachings of Aristotle's ancient logic:

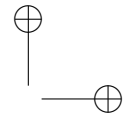
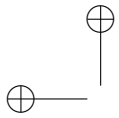
$$\{\text{human being}\}^{\text{COMPREHENSION}} = \{\text{animal}\} + \{\text{endowed with reason}\}$$

or you could, mechanically, list all the individuals who verify this concept:

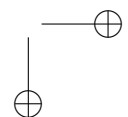
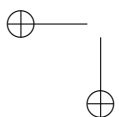
$$\{\text{human being}\}^{\text{EXTENSION}} = \{\text{human being 1; human being 2; ... human being 7.000.000}\}$$

If the comprehensive (or intensional) definition of the concept is correct, it corresponds exactly with its extensional definition, on

⁴ G. Frege, 'Über Sinn und Bedeutung', *Zeitschrift für Philosophie und philosophische Kritik*, 100 (1892), pp. 22–50.



condition that the latter is exhaustive. Still, extensional definition is more difficult, for it implies inspecting the entirety of things in existence, in order not to overlook even a single one – something which obviously can be done only virtually or in one’s imagination. One might already add a fundamental objection against using these two types of definitions as being equivalent – and against Ockhamist Nominalism in general: the definition by extension necessarily presupposes a definition by intension, for in order to determine what should be considered an element of the collection, we must first find an intensional criterion that identifies which elements have to be included or not in the extension of the concept. Who can decide, for example, who is a human being and who is not? It is evident that the extension of a concept such as ‘human being’ cannot be determined by a single human, nor by a particular group of humans, nor (perhaps even less so) by a machine ... At any rate, in regard to this objection, to which we will return later, we may underline the purpose of the Ockhamist method: it eliminates the intensional definition on the grounds that it is purely nominal, and replaces it by the extensional definition. By replacing the concept by a collection, it makes possible the use of universals without having recourse to universal and ideal beings. It also shows how you arrive at a concept, or rather at its equivalent, simply by accumulating individuals: you could say what is a dog without having any idea of a dog, without knowing either its essence or its definition, but simply by collecting images of all existing dogs, if that were possible. Ockham of course had no idea of what would constitute, 600 years later, ‘big data’, the access to which would permit gigantic collections of individual data. But we may argue that he formalised, six hundred years in advance, the possibility of establishing a mechanical thought using quantitative, mathematical accumulation. And it is precisely such a type of thought that could be transposed to a language that could be understood by an automaton, reproduced by

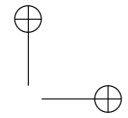
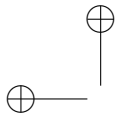


a machine following algorithms, and in the end imitated by artificial neurons.

1.3 The mathematisation of the world: Descartes, Leibniz, Turing

In order to understand the evolution of modern science ever since this nominalist rupture at the close of the Middle Ages, we have to imagine the framework of challenges presenting itself to philosophy via the Protestant crisis: To both Luther and Calvin, human reason, as impacted by original sin, is definitely unable to know truth with certitude. It is thus necessary to create a new science, an original and revolutionary method of taming nature and gaining access to irrefutable knowledge about it: this would be the mission in particular of Francis Bacon (1561-1626) and René Descartes (1596-1650). In writing his *Novum Organon*, Bacon takes a clear position against Aristotelian science and its logical foundations as contained in the six books of Aristotle’s *Organon*, which had constituted the scientific foundation for any study of nature both in Antiquity and in the Middle Ages. In particular, Bacon coined a new finality for scientific knowledge: its purpose should no longer be simply to contemplate eternal essences, in the image of God and spirits strewn across the Universe, but rather to take productive and efficacious action permitting humans to act on nature as a material to tame. Bacon writes: ‘Men have to know that in this theatre of human life it belongs only to God and the angels to be spectators.’⁵ According to this new spirit, the dignity and the greatness of humans thus are to be found in their ability to dominate nature, to use its resources and therefore first to know it; not to contemplate it in theory, but rather to act on it in practice and with fecundity. However, this scientific methodology implies that

⁵ F. Bacon, *De dignitate et augmentis scientiarum*, VII, 1.



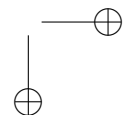
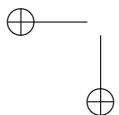
nature be understood as a presumably highly complex machine, as a mechanical process accessible to intelligence. It becomes a matter of dissecting it, weighing it, calculating or measuring it, in order to keep it under the domination of the human spirit.

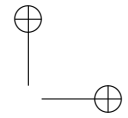
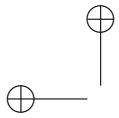
This conception of scientific knowledge finds its most complete expression in the works of Descartes: within the context of his dualist metaphysics – according to which spirit and extended matter are two substances that are altogether foreign and incomparable to each other – he considers nature, as well as any of its components, as a complex but entirely describable mechanism, provided one has the adequate means to bring it to light:

I do not see any difference between on the one hand machines fabricated by craftspeople, and on the other, the fruits that nature produces itself, except that the effects of machines are due to the action of a number of pipes, or springs, or other instruments which, having some proportion in relation to the hands that produced them, are always so big in size that their figures and movements can be observed, whereas the pipes or springs that cause effects in nature are usually too small to be perceived by our senses. And it is certainly the case that all the rules of mechanics form part of physics, so that all artificial things are thereby also natural. For example, when a watch marks the hours thanks to the wheels that make it up, then this is no less natural than it is for a tree to yield fruit.⁶

This geometrization of the physical world lets Descartes eliminate philosophy from science: a purely mechanical explanation of nature makes it, through its geometrization, perfectly clear and accessible to scientific investigation, without our having to attribute to it a metaphysical background: no intrinsic finality, nor any substantial form. What we are dealing with here is therefore a fundamental reversal as regards the very nature of knowing. From

⁶ Descartes, *Principles of Philosophy*, IV, 203 (AT IX, 321).



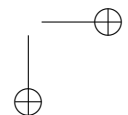
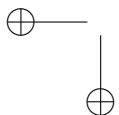


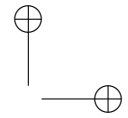
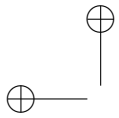
this moment, mathematics takes pride of place in the hierarchy of sciences and dethrones metaphysics, which sought to grasp the essence of things, as well as ethics, which determined finality and order: the Cartesian method sets out to measure the real, rather than to know any deepest essence. It is on this new approach to nature that Descartes develops his famous theory of ‘animal-machines’: just as, in the text above, he compared a tree yielding fruit with a watch with its wheels and mechanisms, he comes to see animals themselves as sophisticated and complex machines, and as only being distinct from the machines of our craftspeople through the size of their wheels and machinery.

... which is something that will not surprise those who, knowing how much different automatons, or machines of movement, how much people’s work can achieve, while using only very few pieces – and this in comparison with the great multitude of bones, muscles, nerves, arteries, veins, and all the other components that make up the body of any animal, will consider this body as being a machine which, having been made by God’s hands, as being incomparably better and having more admirable movements than any of those which may be invented by man.⁷

The modernity of the above quote from the French philosopher is striking: it seems that he already envisages the possibility of building machines made of miniature parts, machines that would be no different from animals, similar in all respects to those which God creates in nature. It is gripping to see how the creative ambition of human beings is compared here – even if on a smaller scale – with the creative power of God himself. But we above all note humankind’s universal pretension to unlimited domination over nature: henceforth, all things in nature, without exception, are within humankind’s reach; nothing will remain mysterious to human beings, to the extent that they develop their knowledge and

⁷ Descartes, *Discourse on the Method*, Part V (AT VI, 56).

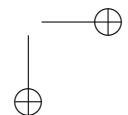
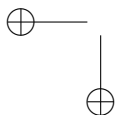


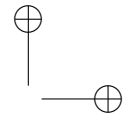
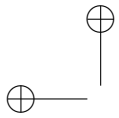


their capabilities of calculation. The world in its entirety, down to the last detail, is therefore now included under their analytical domination, thanks to the power of their calculations. Do we not already have here the announcement of a technological hegemony whose effects we witness today, and whose significance we are analysing here?

Following this radical reversal in scientific method, it now only remains for modern philosophers to apply this mathematical approach to the world. Here we should mention, among many others, the work of the mathematician and philosopher Gottfried Wilhelm Leibniz (1646-1716), who after Descartes played a fundamental role in the realisation of this mathematising approach to nature. It is Leibniz who proposes, among many other discoveries, in his early work *De arte combinatoria* (1666), the development of a ‘*Characteristica Universalis*’, that is to say, a formal and universal language understandable in all languages, following precise and fixed grammatical rules, and applicable in a purely mechanical way. His project first of all consists in constructing an ‘alphabet of human thought’, composed of all fundamental ideas that people employ to describe the world and to communicate with each other, and subsequently associating these fundamental concepts with the aid of a theoretical calculating machine (which he calls ‘*calculus ratiocinator*’) that would yield access to more complex ideas using logical combinations. This ‘thinking machine’ would permit the user not only to reconstitute human thinking mechanically and hence infallibly, but also to discover new truths by combining concepts in accordance with all admitted logical rules (hence its definition as an ‘Art of Combinations’). One would thereby be able to form new judgments by exploring possible combinations exhaustively, and to evaluate methodically and with certainty the truth of these new conclusions. The ambition of Leibniz was nothing less than to submit all reasoning, whether philosophical or even in religious debate, to pure calculation:

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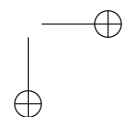
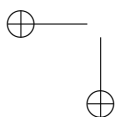
Then it will no longer be necessary to have discussions between philosophers that are longer than between two mathematicians, for it will suffice for them to grab their plumes, sit down by their calculation table (with the aid of a friend if they so wish) and tell each other: ‘Let’s calculate!’⁸

Leibniz was here notably inspired by a mediaeval theologian who had already set in motion such a project toward a thinking machine, namely the Catalonian Ramon Llull (1232-1315), who in his *Ars Magna* had imagined a machine in which the theories, the subjects and the theological predicates had been organised in geometrical figures (circles, squares and triangles); in activating dials, levers and cranks and by turning a wheel, propositions and theses moved into positions corresponding to their truth value. Llull’s machine could in this way show on its own, thanks to these irrefutable mechanics, the verity or falsity of a proposition. The Catalonian theologian claimed he was thereby able to judge theological debates and definitely prove the truth of Catholicism, particularly against the Moslems.

First Llull, and four centuries later Leibniz, thus partly realised – at least in theory – this mad project which seems to be a constant factor in the human spirit: namely to try to translate thoughts into numbers in order to render them calculable. One could easily claim that this same ambition haunted Alan Turing when he presented, in 1936, in his famous article ‘On Computable Numbers, with an Application to the Entscheidungsproblem,’⁹ the principles of functioning of his ‘Universal computing machine’ – one that would thenceforth be referred to as the ‘Turing Machine’. The idea of this British mathematician was to build an imaginary machine that would function with extreme simplicity (a writable and erasable

⁸ G. W. Leibniz, ‘Nova methodus pro maximis et minimis’, *Acta Eruditorum* (1684).

⁹ A. M. Turing, ‘On Computable Numbers, with an Application to the Entscheidungsproblem’, *Proc. London Math. Soc.*, 42 (1937), pp. 230–266.



ribbon of supposedly infinite length; a cursor capable of reading and writing 0 and 1 on said ribbon and then to move forward or backward; a collection of procedures to be followed by the machine according to a given list of its different ‘states’.) A machine of this kind would thereby be able – if you were to give it a suitable set of instructions however long – to calculate anything that was theoretically calculable. With the Turing Machine, informatics was born!

Even though he was inspired by numerous predecessors (for example Charles Babbage and Lady Ada Lovelace at the end of the 19th century), Turing’s achievement nevertheless permitted a major step to be made toward what from 1956 onwards would be called Artificial Intelligence. The challenge posed to human knowledge by the Turing Machine is indeed immense: it seems as if everything which up until then had been the preserve of the human spirit and its exclusive capabilities could from now on be accomplished by a machine: of course Turing did not claim to be building such a machine, but he maintained it was doable in theory, and that there only remained to develop the calculating capacity (speed of execution and information storage capacity). In 1950, in another article of major importance in AI history, Turing affirmed that before the year 2000, thinking machines would be spread widely across the world.¹⁰ The work of Turing is therefore undoubtedly of a visionary nature. But it bears repeating that it rests on the modern postulate according to which the real would be identified with the calculable: after the calculability of concepts proposed by Ockham, after the mathematical turnaround in scientific knowledge realised by Descartes, subsequent to the mechanisation of reasoning as postulated by Leibniz, and then to

¹⁰ A. M. Turing, ‘Computing Machinery and Intelligence’, *Mind*, 59 (1950), pp. 33–460: ‘I believe that at the end of the century the use of words and general educated opinion will have altered so much that one will be able to speak of machines thinking without expecting to be contradicted’ (p. 442).

the introduction of automatic calculability, the last step toward the appearance of intelligent machines had been taken.

1.4 Digital manipulations

Following this journey in giant steps across the history of thought, the time has come to return to Socrates and his discussion with the sophists in Athens in the 4th century B.C. In so doing it seems to me useful for us to base ourselves on the portrait of a sophist given by Plato at the end of the late dialogue which indeed bears the title of *The Sophist*. A person called 'The Stranger' here gives a summary of the different descriptions reached in the course of the discussion:

Let us count up the number of forms in which the sophist has appeared to us. First, I believe, he was found to be a paid hunter after the young and wealthy. – Theaetetus: Yes. – Stranger: And secondly a kind of merchant in articles of knowledge for the soul. – Theaetetus: Certainly. – Stranger: And thirdly did he not turn up as a retailer of these same articles of knowledge? – Theaetetus: Yes, and fourthly we found he was a seller of his own productions of knowledge. – Stranger: Your memory is good; but I will try to recall the fifth case myself. He was an athlete in contests of words, who had taken for his own the art of disputation. – Theaetetus: Yes, he was. – Stranger: The sixth case was doubtful, but nevertheless we agreed to consider him a purger of souls, who removes opinions that obstruct learning. – Theaetetus: Very true.¹¹

Surprisingly enough we find in this enumeration certain elements that could be applied to the limits of pretended knowledge or pretended science expounded by big technological enterprises and by AI – which would make them the new sophists of today.

¹¹ Plato, *The Sophist*, 231d-e, trans. by H. N. Fowler, Harvard University Press – William Heinemann, Cambridge – London 1921.

A proper limit to current technological tools is in fact related to the very nature of knowledge: even if in order to know we obviously also need to know certain data, the very fact of accumulating these data or these facts – however numerous or complex they may be – does not add up to any knowledge, or even the beginning thereof. I may keep at home the equivalent of 38 million works of the Library of Congress in Washington D.C., but if I have not opened a single one of these books, I am just an ignoramus. And even if it is henceforth (nearly) possible to own and keep at home the whole Library of Congress in numerical form in the shape of a little hard disc, this will not make humanity any more clever or wiser. The facility of access to information, even to the most complex or elevated data, in fact never implies a facility of access to knowledge or wisdom. Only those who would have made the effort to seek such knowledge on the shelves of the Library of Congress would also know how to really profit from the access procured by numerisation: the spirit of wisdom or knowledge is therefore not multiplied by any profusion of data as such. Perhaps the opposite is indeed the case: any teacher well knows how a student who has read through a novel knows more than someone who has gathered a ton of information on this same novel simply by copy-pasting from Wikipedia. By contrast, the time and effort spent, the difficulty of understanding surmounted and vanquished, the personal questioning, the entry into contact with knowledge in diverse quarters, the confrontation with one’s own individual or social experience: all these elements entirely escape the universal encyclopaedic ambition of information technologies, and their pretension to hegemony over knowledge. If the immediate access to numerous and diversified data evidently signifies progress, then the use to which we put them will still depend on our intentions, our intellectual capacities and our good will. The profusion of data may even sometimes pose an obstacle to knowledge: when all opinions, even the most false and absurd, are accessible with the same degree

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of authority, knowledge itself loses its value. The fact of knowing an endless amount of false or simply useless things will not render anyone any more intelligent or wise: quite the contrary. Without raising here the related issues of ethics (we will return to them in the second part), it seems as if calculation in the end turns against knowledge. The myth of accumulated quantity reveals itself as an illusion, to the detriment of the quality of science. Wikipedia will never replace the Academy of Sciences or the Academy of Fine Arts, just as Google Earth will never replace journeys and the experimental discovery of other cultures, lands or peoples.

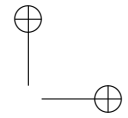
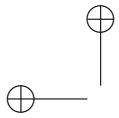
Beyond this simple observation, a real question of a philosophical nature presents itself : What is the difference between a piece of knowledge kept in my memory and a book in my library? What is the difference between my visual experience and the recording of the same scene by my camera? Or this: Can I claim that the thermometer on the wall of my balcony knows the temperature outside? What these questions have in common is that they show that any sensual or intellectual knowledge is never pure receptivity: if my senses or my intellect receive information, they submit it to a process of assimilation which goes far beyond simple storage, as would have been the case if it had been an artificial organ (the vibrating membrane of a microphone, the CCD-sensor in my camera, the download of bank information onto my hard disc...). It is such a process of assimilation, of personal and individual appropriation, that gives to the experience the condition of *knowledge* in the strict sense. However, even if, as we have seen, all information can be written in mathematical language – and if any data can be quantifiable – then this personal process of assimilation is not quantifiable in turn. It could well be imitated, you could presumably even reproduce it via an advanced droid, but it can never be reproduced as such, because it is a process proper to the living. Knowledge in the strict sense can therefore never be reproduced as such in a machine. It is in this sense that ‘intelligent machines’ will never possess

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anything more than an imitation of knowledge, an appearance, an illusion. And those who claim that they pass muster as possessing authentic knowledge, they are truly our contemporary sophists, ‘salesmen of appearances’ dealing in pseudo-knowledge, ‘retailers of articles of knowledge [...] sellers of [their] own productions of knowledge.’

Like the sophists of the Athens of Antiquity, the giants of technology are also skillful predators who, attracted by profit, do not hesitate to use beautiful words in playing on appearances, in order to subjugate and corrupt the souls of their prey. Under the semblance of liberty, consumers are led to this or that suggestion to buy something, this or that recommendation as regards content, pushed in the direction of this or that restaurant that Google has singled out as meeting their momentary expectations or needs, while they remain convinced that they are making up their own mind amidst a multitude of possible choices. Teenagers who imagine themselves to be ‘influencers’ – pushed by anonymous Instagram or TikTok stars via algorithms that impose their will day and night onto their timeline without asking whether they agree or not – will seek to gain ever more fame in constantly investing time, sleep and attention in social media that promise them celebrity. Just like the sophists of Antiquity, social media and the operators of High Tech are professionals of persuasion and athletes excelling in the art of convincing, suggesting, and gaining consent. Because they own and master the attention of their clients, they manage to convince them using their sophistic arguments in order better to manipulate them: to make up their minds to buy, to shape their political opinions, their social behaviour; nothing escapes the power of these ‘vendors of knowledge’, these ‘hunters of youth’.

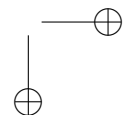
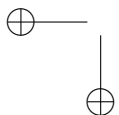
Such a comparison between the technological companies and the sophists of Antiquity may seem a little radical, given the benefits the new technologies also provide to our lives and daily needs. The recourse taken to the figure of Socrates in this way is therefore



above all meant to raise awareness of the risks and dangers that these new technologies present, as well as to add a certain lucidity in regard to those to whom we give access to our knowledge, our desires, and even our consciousness. It thus does not at all represent a desire to return to Antiquity at a level below technology and its recent gains, but it rather reflects a wish to rediscover the deep meaning of the Socratic approach, and its appeal for us to escape the illusions of appearances and instead to find refuge in the contemplation of the essences.

2 *From the infinity of desire to a virtue without end*

In the foregoing description of the mathematisation of the world – which has been the work of modern thought – it is clear that the essences and their qualities were largely forgotten, to the exclusive advantage of the quantitative and measurable aspect of reality. However, such an evolution has as its corollary that finality, too, is forgotten, or at least that such a finality, since it is not measurable, is pushed back into the realm of the irrational. In fact, mathematical entities have neither ethical value nor intrinsic finality: mathematical objects are neither good nor bad; they do not have a perfection toward which they might aspire, nor do they accede to any form whatsoever of satisfaction or happiness. The numerical world in which we live – to the extent that it has this characteristic of being illusory knowledge as shown in the first part – also presents this particularity of rethinking and reprogramming the notion of desire, in order better to satisfy it in its own way. In knowledge, individuals receive in themselves the exterior world, whereas in the realm of desire, the soul in a way turns to the exterior world, outside itself, in order to assuage its appetite. If so, the new sophists – in the form of information and technology enterprises – grab hold of this faculty and the necessity of the soul to exteriorize itself, and have



become not only vendors of illusory knowledge, but also vendors of chimeric desires.

2.1 Pierced jars

One of the most notorious Sophists that Socrates confronts is Gorgias of Leontini, who professed a radically nihilist doctrine claiming that no being could really exist, nor be known or explained. From this he deduced that true power could only be found in the art of rhetoric which, for those who master it, guarantees success in all domains. In the dialogue of Plato that bears his name, and that Plato had presumably written about 50 years after the actual arrival of Gorgias in Athens (around 427 B.C.), we find a famous image used by Socrates in which two men carry jars. The one owns a couple of jars filled with precious goods that were acquired ‘through much hard toil’, while the other carries jars that, like unfulfilled desires, are always ‘leaky and decayed’:¹² ‘the soul of the thoughtless he likened to a sieve, as being perforated, since it is unable to hold anything by reason of its unbelief and forgetfulness.’¹³

Now, I believe this image can be applied quite correctly to the capacity of some of our current technology industry to continuously satisfy our desires without ever fulfilling them, all the while keeping us in a form of perpetual solicitation. To borrow the terms of Hans Jonas, we could speak of these modern technologies as a ‘restless phenomenon’: ‘Modern technology, unlike the traditional one, is an enterprise and not a possession, a process and not a state, a dynamic thrust and not a set of implements and skills.’¹⁴ Indeed, not only do technological tools take over for one another

¹² Plato, *Gorgias*, 493e-494a.

¹³ Plato, *Gorgias*, 493b.

¹⁴ H. Jonas, ‘Toward a Philosophy of Technology. Hastings Center Report 9/1 (1979)’, in *Philosophy of Technology: The Technological Condition: An Anthology*, ed. by R. C. Scharff and V. Dusek, John Wiley and Sons, 2014, pp. 212–213.

(their obsolescence being the very guarantee for both the advent of improved versions and the unlimited progress of technology), but the more elaborate and efficient these tools are, the more they create the new needs they aim to satisfy. This infinite capacity to generate a need in order to please and to have it satisfied is based on what Jonas called the ‘wholly unprecedented belief in virtual ‘infinity’’. In other words, the power these new technologies have over us consists in exploiting this capacity of ours of always looking to satisfy our desires. Because they create the possibility of new satisfactions so boundlessly, modern machines actually become the source of inexhaustible desires, for the simple reason that these are impossible to fulfil and are potentially always born anew:

A technology tailored to a nature and to a knowledge of this indefinite potential ensures its indefinitely continued conversion into practical powers, each step of it begetting the next, with never a cutoff from the internal exhaustion of possibilities.¹⁵

This capacity for indefinite self-renewing is also representative of many tools of the present day: the news, the stories on Facebook or Twitter that renew themselves with every reloading of the page, the endless suggestions for new videos on YouTube, the recommendations to buy from Amazon, the new people that may appear on Tinder: a new and potentially satisfying encounter always seems possible with the next click. The most striking example is probably the site Omegle, which is the rage among adolescents in these times of lockdowns, and which permits two people who do not know one another to discuss, with the aid of a random algorithm that is never exhausted and never completed: a wonderful new meeting always appears possible at the next click.

Accordingly, it is precisely this infinite nature of solicitation, whose corollary is the impossibility of obtaining complete satisfaction, that creates a cause for dependance, much akin to a slot

¹⁵ *Ibid.*

machine: the very hope of getting a reward that is always nearer yet never really attained plays the role of an addictive substance. Now, it is precisely the virtual nature of technological experiences that hinders satisfaction and generates dependance, just as we can observe in addiction to pornography. And because, for want of reality, pleasure that is obtained virtually cannot ever be truly satisfying, it is like a pierced jar that can never be filled: ‘but the vessels [of this man] are leaky and decayed, and he is compelled to fill them constantly, all night and day, or else suffer extreme distress.’¹⁶

2.2 A liberal and depressed society

James Williams goes on to mention *Tetris*, the famous video game where bricks fall endlessly from the top of the screen. Here, the very absence of a limit creates a desire that is never-ending. He adds that the key element here is the promise of some random reward. When we use this type of virtual technology, we actually buy, with our time and our attention, the possibility for surprise and for a new type of satisfaction:

With slot machines, we pay with our money. With technologies in the attention economy, we pay with our attention.¹⁷

We can give an account of another facet of this problem by considering its economic side: that side which Williams calls the ‘persuasive design’ of technological tools. To be sure, it is the users themselves – their time, their attention, their desires – that are being held captive by machines that exploit their compulsive and addictive use of the very distractions generated for them. Persuasion, says Williams, is now industrialised.¹⁸ Since this very persuasion is saleable, the

¹⁶ Plato, *Gorgias*, 493e.

¹⁷ Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, cit., p. 35.

¹⁸ *Ibid.*, p. 28.

stakes are mostly economic, but they are also anthropological. Indeed, the economy that surrounds attention and its virtual infinity is linked to the quantitative reductionism of the modern mind that we described in the first part: all that is valuable is reduced to what is quantifiable, numerical, measurable and indeed purchasable.

Yet this is precisely one of the final effects of neoliberal politics, whose main thesis is the primacy of the just and fair over the good. This fundamental axiom claims that the only way modern societies can live in peace is to make sure that only the mechanics of Law and Markets may intervene, to the detriment of the Good and the True. It is the sense of liberal progress, which is above all economic, that from the beginning is presented as the only viable alternative to the fundamental disagreements of faith and morality traversing societies since the end of the Middle Ages: to use the words of Kant in his *Perpetual Peace* (1795): ‘The mechanics of Law alone must suffice to ensure peaceful co-existence, even in a nation of demons.’¹⁹ This Rawlsian ‘Theory of Justice’ thus organises individual and social freedom in order to maintain a balance between rival perceptions, all the while exempting itself from the virtue of the citizens:²⁰ it

19 E. Kant, *Perpetual peace. A Philosophical Essay [1796]*, trans. by M. C. Smith, George Allen and Unwin Ltd., London 1903, p. 154: ‘The problem of the formation of the state, hard as it may sound, is not insoluble, even for a race of devils, granted that they have intelligence. It may be put thus: — ‘Given a multitude of rational beings who, in a body, require general laws for their own preservation, but each of whom, as an individual, is secretly inclined to exempt himself from this restraint: how are we to order their affairs and how establish for them a constitution such that, although their private dispositions may be really antagonistic, they may yet so act as a check upon one another, that, in their public relations, the effect is the same as if they had no such evil sentiments.’

20 *ibid.*: ‘For it deals, not with the moral reformation of mankind, but only with the mechanism of nature; and the problem is to learn how this mechanism of nature can be applied to men, in order so to regulate the antagonism of conflicting interests in a people that they may even compel one another to submit to compulsory laws and thus necessarily bring about the state of peace in which laws have force.’

is only the impersonal dynamics of justice and trade that should regulate exchanges and determine the individual's place in a society of equals.

In this neoliberal context, however, the individual is no longer called to virtue, to glory, or to any form of interior heroism, for these are now considered as a disguise for private interest. Every hero figure – who sacrifices himself for a greater good or for a profane or sacred ideal – is thereby destroyed or thrown out into the realm of heterogeneity, wondrousness or absurdity. Take for instance Netflix's superheroes, who are all superhuman, extra-terrestrial, incompetent or unlikely heroes. And since the most fundamental views on the True, the Good and the Beautiful are incommunicable and incommensurable, they cannot find a place in a world of exchanges and are reduced therefore to simple matters of taste. Called henceforth 'consumers' or 'users', modern humans are deprived of all intrinsic value and are reduced, once again, to a series of measurable and quantifiable attributes. To acquire market value, all of their interactions must now be quantifiable: the time they spend on the internet, the number of their followers on Instagram, the 'Likes' of a published post, the number of subscribers, the number of clicks on an internet page, etc. All of these numbers are meant to describe individuals in the most precise way, so much so that their behaviour might be understood, emulated and even anticipated.²¹ By possessing all of their attention span, by holding captive their desires and by controlling the doses of pleasure that may be granted to them, these individuals, deprived of their will and freedom, are now at the mercy of the technologies of power.²²

21 See H. Kissinger, 'How the Enlightenment Ends', *The Atlantic* (June 2018): 'The internet's purpose is to ratify knowledge through the accumulation and manipulation of ever expanding data. Human cognition loses its personal character. Individuals turn into data, and data becomes regnant.'

22 See *Psychopolitics. Neoliberalism and new technologies of power*, Verso, London and New York 2017, p. 10: 'Neoliberalism represents a highly efficient, indeed an

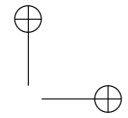
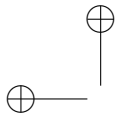
This new slavery of desire, with its infinite – but as we have seen also treacherous – capacity to satisfy, thus has the absence of ideal, of dream and of transcendence as its inevitable corollary. In short, the *desire for the infinite* has been replaced by *unending desire*. Besides, as noted by the American sociologist Christopher Lasch, one of the features of postmodernity is that it does not offer the prospect of a wondrous world to come. It presents itself rather as being essentially infinite, and unlimited.²³ The world is not moving towards something better, but towards more technology, more information and more exchange. By captivating their own desire in order to make a profit, we might say that modern humans have become ‘anorexic’: without authentic desire, and incapable even of desiring truthfully. Pornography has replaced love, Facebook has replaced real friendship, and Amazon has replaced concrete market displays. Our contemporary and liberal society is in fact sinking into a ‘society of depression,’²⁴ or a ‘society of weariness (*Müdigkeitsgesellschaft*)’²⁵ in which our desires have no flavour, being now commodified, infinite, unlimited and digitised. People become depressed because they suffer from their incapacity to achieve the imperatives of pleasure that are offered to them. This is so especially in a society where the desires that they are too feeble to satisfy are being constantly restimulated. Just as the Sophists in the days of Socrates had reduced wisdom to a mere commodity, we could say that the modern ‘orexists’, the vendors of desire, have finally removed the very flavour that desire once possessed: human

intelligent, system for exploiting freedom. Everything that belongs to practices and expressive forms of liberty – emotion, play and communication – comes to be exploited. It is inefficient to exploit people against their will. Allo-exploitation yields scant returns. Only when freedom is exploited are returns maximised’.

23 C. Lasch, *The True and Only Heaven: Progress and Its Critics*, WW. Norton and Company, New York 1991.

24 See A. Ehrenberg, *La Fatigue d'être soi. Dépression et société*, Odile Jacob, Paris 2000.

25 See B.-C. Han, *The Burnout Society*, Stanford University Press, Stanford 2015.



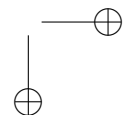
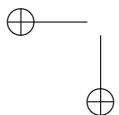
beings, now a captive of technology, do not know any longer how to desire.

2.3 Socratic virtue as a unifying remedy for the soul

Another great Sophist whom Socrates confronts is Protagoras. Like many of our contemporaries, Protagoras claimed that ‘Man is the measure of all things’.²⁶ In Plato’s famous dialogue called *Protagoras*, we find many other enlightening elements for our present comparison. One in particular can be found in Protagoras’s famous ‘Myth of Prometheus’: His brother Epimetheus, having been put in charge of handing out all kinds of attributes to the animals of the world, is at a loss when the turn comes to the human. The poor human is left with neither feathers nor shells, neither velocity nor ferocity, to fend for himself. However, in order that the human may not fall helpless prey to other beings, Prometheus decides to make up for his brother’s mistake and so breaks into Athena’s and Hephaistos’ forge and steals the technical knowledge of divine fire. He thereby gives to human beings the arts and techniques of the gods, as if it were a divine but usurped gift.

If the first part of this story is rather well-known – along with the more ancient stories found in Hesiod and Aeschylus – the rest of the myth, as related by Plato, displays a fairly interesting originality with regard to our subject. In the story of *Protagoras*, we see that human beings, now equipped with this divine gift, are nevertheless unable to live properly in society. The technological powers seem to always set them against one another. Seeing that humanity is about to destroy itself, Zeus intervenes and offers a remedy against the powers’ evil: the divine virtues of respect (*aidōs*) and justice (*dikē*). The lesson found in this myth is clear: however sophisticated it may

²⁶ Plato, *Theaetetus*, 152a.



be, technology can only help society provided it is accompanied by individual virtues.

Here we arrive at the heart of a Socratic doctrine that, to my mind, could surely be applied to our technology-obsessed society. Only virtue – a rational capacity to tame and control, through reason, the solicitations of our desires – will be able lastingly to ensure the kind of unity of the soul that is a prerequisite for individual happiness and social life. Whether they are infinitely multiplied or instantaneously satisfied, sensual pleasures cannot in and of themselves make a person happy. On the contrary, what brings happiness is the virtuous control of these by the spiritual soul:

The body fills us with passions and desires and fears, and all sorts of fancies and foolishness, so that, as they say, it really and truly makes it impossible for us to think at all. The body and its desires are the only cause of wars and factions and battles; for all wars arise for the sake of gaining money, and we are compelled to gain money for the sake of the body. We are slaves to its service. And so, because of all these things, we have no leisure for philosophy.²⁷

To a morality based on pleasure, Socrates responds with a morality based on the good, according to which it is only by achieving the good that is proper to its nature, that a man can have it truly satisfied. He talks here of a form of purification (which can also be understood as a sort of unification) which requires a detachment from sensual pleasures for the benefit of the life of the spirit. Indeed, it is the latter that points to the divine part in us – the part which takes us nearer to the absolute:

And while we live, we shall, I think, be nearest to knowledge when we avoid, so far as possible, intercourse and communion with the body, except what is absolutely necessary, and are not filled with its nature, but keep ourselves pure from it until God himself sets

²⁷ Plato, *Phaedo*, 66c-d.

us free. And in this way, freeing ourselves from the foolishness of the body and being pure, we shall, I think, be with the pure and shall know of ourselves all that is pure, and that is, perhaps, the truth.²⁸

It is therefore only the control and the mastering of our desires that can give true unity for the soul, thus giving us true freedom. Aristotle would develop this idea of self-control a century later, in distinguishing, as far as desires (*orexis*) are concerned, between those that are of a rational nature (*boulesis*), and those that are of an animal nature (*epithumia*). He would show how different tendencies have to be articulated, in order for them to correspond to the true perfection of human nature.

Thus, according to Aristotle, it is only when they fulfil their rational desires (that is to say to the injunctions of the will) that humans are truly reasonable, truly at the height of their spiritual nature, and can therefore be free. What remains, however, of this freedom of the will in the technological human?

2.4 Haven't modern human beings become incapable of unity, therefore incapable of virtue?

Just as we have read in the *Phaedo*, the virtue of the soul, as a Socratic remedy, is an individual and particular one. We can therefore ask ourselves whether this remedy is relevant, or at least efficient, in the case of the technological human being. We have seen indeed that it is mainly society itself that has been technologized, digitised, computerised, and invaded by the flow of data and information, all of which constitute the very material of the new technological slavery. If any individual wished to escape from the omnipresence of these technologies, to give up their connected instruments and their utility, never to use either internet or computer, they would then have to give up all those kinds of social relationships, without

²⁸ Plato, *Phaedo*, 67a-b.

which they would inevitably be absorbed again in the universal system of data and exchanges from which they wanted to escape: they could henceforth neither to do their shopping nor use a credit card, nor go to a hospital nor register their children at school, and even less use a telephone or correspond with other people... Indeed all communications and exchanges are digital and virtual today, and therefore traceable, recordable and identifiable. Digital societies have, in a way, rendered inaccessible the legitimate and indispensable intimacy of individual identity: any hidden, private life has now become impossible in our contemporary societies, and anyone wanting to escape would have to flee from society itself by taking refuge on a lost island or in a deep forest. The call to Socratic virtue therefore seems to have been relegated to the domain of pure utopia: Socrates asks that we separate ourselves from the servitude and needs of the body in order to live the life of the spirit, but any person who wished to live today an authentic life of the spirit could not live at all, for they would then have to give up all human relationships... even monks, isolated in their monasteries, now sell their ‘monastic products’ online, while we use connected apps to practise daily meditation on our phones...

A much more serious issue perhaps is that the individuals are invaded, satiated, and saturated in their own very selves by technological paraphernalia. Thus it is not society alone that is opposed to the Socratic virtuous ideal, but the interior conformation of the technological human, which has now become the principal obstacle of the virtuous unification of the individual. One of the main thinkers of technological philosophy, Günther Anders, developed such a thought in his masterly work *The Obsolescence of Humankind*, published in 1956 – at a time when it was impossible to imagine either an all-round invasion of the Internet or the in-

trusion from a society of surveillance.²⁹ He indeed mentions the myth of Prometheus, already exposed above, to denounce what he calls a 'Promethean gap', daily widened between humans and the world they have made, an unbridgeable gap, that is, between human nature's finitude and the unbounded development (in its speed and omnipresence) of technical instruments:

Our own metamorphosis has lagged behind because of the 'Promethean gap': our souls have remained far behind the metamorphosis that our products, and therefore our world, have gone through. [...] This is the situation therefore: because of their 'lag', the souls of our times are still 'in the making', or in other words not yet finished; but since they refuse at the same time any definitive form, they will never be finished.³⁰

The Promethean challenge, according to Anders, consists in the creature overcoming its creator: Prometheus wanted to be the author of humanity by entrusting him with certain techniques, but it is precisely this Promethean usurpation that will lead to the ruin of humanity. It will also lead to the ruin of Prometheus himself, condemned by Zeus to be tied to a rock, his liver devoured every day by the Caucasian Eagle so that the night may be repelled. By applying this myth to modern souls, Günther Anders then forges the notion of 'Promethean shame' in order to describe the feeling of inferiority that humanity feels in regard to the machines they created, to their mechanical perfection and their infinite reproducibility. If humans are indeed surpassed by their own creatures, it is precisely because they are manufactured:

²⁹ G. Anders, *L'obsolescence de l'homme. Sur l'âme à l'époque de la deuxième révolution industrielle*, trans. by C. David, Editions de l'Encyclopédie des Nuisances / Ivrea, Paris 2002, orig. publication *Die Antiquiertheit des Menschen: Über die Seele im Zeitalter der zweiten industriellen Revolution*, C. H. Beck Verlag, München 1956.

³⁰ Ibid., pp. 33–34.

When I try exploring this notion of 'Promethean shame', it seems that its fundamental object, the 'fundamental opprobrium' which gives man this shame of himself, is its origin. [Man] is ashamed of having become rather than having been made. He is ashamed of owing his own existence – unlike products, which are all faultless because of their having been calculated to the most minute detail – to the blind, incalculable and ancestral process of procreation and birth. [...] But if he is ashamed of the obsolete character of his own origin, he is of course also ashamed of the imperfect and inevitable result of this origin, which in this case is himself.³¹

This Promethean shame, a characteristic of modern humans, manifests itself in the individualistic desire to fabricate oneself, to be a self-made human, a product made like other artificial products, as if one were trying to escape what nature bestows, the inheritance each one of us receives within our own body and in our own limits. We are indeed bequeathed with some sort of burden to carry, one which limits us, imposes its finitude on us, and gives us the very capacity to err and to fail. On the one hand, technological tools are infallible in regard to the tasks they are entrusted with; not only can they be infinitely replicated, they are also being constantly improved, upgraded and perfected. Our own nature, on the other hand, thrusts itself upon us like a dead weight that is contumacious and insubordinate. Anders sees a proof for this search of 'self-reification' in the use of cosmetics: to put on make-up is essentially to give the impression that the visible parts of one's body have also been manufactured. This amounts to 'denying one's organic past' in order to 'present the same cold, smooth 'finish' of things':

The same standards apply to hair, legs, facial expression, and in fact to the whole body. For a 'naked' body today is not a naked body, but a body that has not been worked on, a body devoid of the attributes of a thing, deprived of any reference to reification.³²

³¹ Ibid., p. 38.

³² Ibid., p. 47.

Günther Anders wrote this in 1956... What would he say in the age of Snapchat filters, of Instagram stories or of avatars from the social networks? Hardly anyone dares to appear as they are nowadays, for everyone can now invent a life, a profile, an image, a way of being and appearing. It seems therefore that our technological universe has realised this dream of human reification by suppressing or diminishing the 'Promethean shame' that was felt in regards to machines. And the reign of AI will only complete this very process of dehumanisation, this transhumanist fantasy where humans can at last be like any other machine, freed from the weight of their own nature... yet at the cost of their natural, bodily and spiritual unity. In the end, by desiring this reification, technological humans simply condemn themselves to not being their own selves anymore, to the denying of their individual nature and, by finally losing what made them singular human beings, to the neutralising of their very selves: this indeed is the price to pay if one were ever to wish to become some reproducible and infinitely reconstructable object, a product, a commodity. But only to disunify oneself.

2.5 Regaining a (new) freedom for *homo novus*

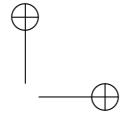
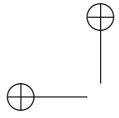
In the age of technological revolution, it seems that the doctrine of individual virtue is no longer able to oppose technology's hegemony and its intrusion – as we described it with Günther Anders – into the most intimate part of human self-consciousness. Does this mean however that humans are now found fatally reduced to renouncing their very selves? Are they condemned to flee society and to dehumanise themselves in order to utopianly preserve their corporeal nature, and thus his individuality?

On the contrary, it seems the Socratic lesson proposes yet again, and by way of conclusion, a new way of finding the meaning for our humanity, one which is at the very heart of the technological society. Let's go back to the famous myth of the cave described at

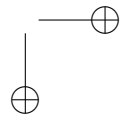
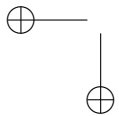
the beginning of this article: it is not necessary that the prisoner's ascent out of the world of illusions be a physical exit from one world into another and better one: the world of Ideas. On the contrary, the Socratic allegory could be interpreted as an inner ascent, a transformation in one's very own soul which turns its eyes away from the images only to fix them on the ideal realities it finds in itself. The prisoner-philosopher's step would, in this sense, be an interior one first through the affirmation of their spiritual freedom. Only then can it be an external one, such as the modification of their attitudes or interests. Given this spiritual interpretation, the Socratic approach therefore takes a new dimension in regard to our contemporary problem: rather than being an incitement to leave the technological society, it is a call to an inner liberation aiming at a new freedom of the soul.

In other words, the Socratic lesson is above all one of an inner journey, a search for a new, inalienable type of freedom that technological intrusions and invasions cannot affect. It is a very personal process that consists in the discovering and preserving in our soul of a purely spiritual space which remains inaccessible to machines, a space for freedom and truth. The ancient philosopher thus invites us to go through an interior conversion: a personal and intimate conversion which turns us away from technology's servitude and illusions towards this space of interior freedom; a rediscovery of the life of our spirit, of its openness to a higher and liberating truth, of its openness to transcendence within our most intimate selves.

Ultimately, this spiritual outing from the cave is nothing but humanity's move to regain possession of itself: a universal momentum from the new technological human towards the *new man* of St. Paul, that is, a human being redeemed by grace and thus able to recover an authentic type of freedom. It is the discovery, in other words, of what makes a human being really a human being, from then on tending to their own transcendent finality on account of their assuming, without any reserve, their profoundly spiritual



nature and inner freedom, one which no tyrant can ever take away from them, for there indeed lies their eternal destiny.



‘Freedom From in Order To Be Free To’: A Biblical Perspective On Digital Technology

Jacintha Veigas

THE early church father Tertullian once posed the famous question ‘What does Athens have to do with Jerusalem?’ What he meant by this was, ‘What does Athens, a city representing culture, have to do with Jerusalem, which represent[s] faith?’¹ In other words, what does faith have to do with culture? To paraphrase Tertullian in our historical present we might ask ‘What does digital technology have to do with Biblical Theology?’ or ‘What do bytes have to do with beliefs?’² Of course, there are many ways in which one may tackle such a question; the question here concerns how the Judeo-Christian tradition can answer. And in fact, the standard, accepted answer throughout most of Judeo-Christian history would have been ‘not very much’, as the two cities and what they represent appear more challenging and contrary than complementary to each other. I will nevertheless argue that the history of the biblical tradition shows how ‘the people of God’ actually faced challenges similar to those of digital technology we face today. And in response to the anachronistic paraphrase of Tertullian, I will also argue that bytes have a lot to do with beliefs.

- 1 Tertullian, *De Praescriptione Haereticorum*, trans. by T. H. Bindley, Society for Promoting Christian Knowledge, London 1914, chp. 7; see also R. Herzman, ‘Confessions’ 7.9: What Has Athens To Do With Jerusalem?, *The Journal of Education*, 179 (1997), pp. 49–60, p. 49.
- 2 This is a question posed at the beginning of the book by D. C. Schuurman, *Shaping a Digital World: Faith, Culture and Computer Technology*, InterVarsity Press, Downers Grove 2013, p. 11.

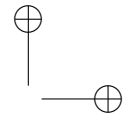
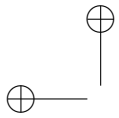
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From a biblical perspective, humanity – created in the image and likeness of God – was created to be free since, at our creation, we were able ‘to live the life we were created to live.’³ It was only after we ‘submitted to a creature (the snake) and disobeyed God’s command’ that we found ourselves in captivity.⁴ In this article, I hope to illustrate that technology, as an instrument, can certainly be understood and appreciated from within God’s creative plan as long as we use it from within the boundaries set by God. Now, in order to flesh out this statement, I will first reflect on James Williams’s thought-provoking book, *Stand Out of Our Light: Freedom and Resistance in the Attention Economy*. Then, I will map out the relationship between technology and creation and reflect on what it means to be free and captive in the biblical perspective. I will then bring everything to a conclusion by extracting the theological implications of using technology in God’s good creation.

1 *Freedom in the Light vs ‘Stand Out of Our Light’*

Underpinning James Williams’s book⁵ is an anecdote about Diogenes, the ancient Greek philosopher who was known for his self-imposed poverty and his cranky personality. While he was reading one day, outdoors in Corinth, he was approached by an admirer, Alexander the Great, who offered to grant him any wish. Diogenes only wanted to get back to what he was doing before the interruption. Rather than ask for a material benefit, he simply said: ‘Stand

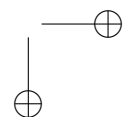
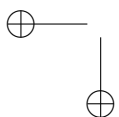
- 3 B. Och, ‘Creation and Redemption. Towards a Theology of Creation’, in *Cult and Cosmos. Tilting Toward a Temple-Centered Theology*, ed. by L. M. Morales, Biblical tools and studies, 18, Peeters, Leuven 2014, p. 335.
- 4 B. B. Phillips, ‘A Creature among Creations or Lord of Creation?. The vocation of Dominion in Christian Theology’, *Journal of Markets and Morality*, 14 (2011), p. 137.
- 5 Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, cit.



out of my light.’ Williams applies this story to our modern condition, one in which we are incessantly exposed to technologies that usurp our attention. What is more, this usurping of our attention is for the purposes of selling us things we do not need or getting us to click links for websites that do not improve our lives, or – what can be worse – that misinform us about public issues. Ultimately, this distraction keeps us from making progress on whatever goals or projects we might have been pursuing before our attention was captured. Williams wants us first to recognise, then to push back against these interruptions for the sake of maintaining the integrity of our psyches, the bedrock of private experience, as well as for the benefit of our communities and our society at large.

The central chapters of James Williams’s book illuminate these unmet desires by examining three kinds of metaphoric light that interruptive technologies block from us: the spotlight of individual attention, the daylight in which we conduct our communal affairs and the starlight by which we orient ourselves with respect to enduring values. If the game of late digital technological prowess is to offer the perception of a limitless horizon of possibility, or the transhumanist illusion of transcending various forms of finitude and limitation, it might be a lot like Alexander coming with this promise of total wish fulfilment in a rather presumptuous manner. We would do well to ask what is being obscured, blocked, ignored, or denied in the offer. Thus, we begin to ask new questions, or familiar questions in new ways, about the outlines these new technologies give to our world – instead of switching between the black and white values shaping these outlines, based on the illusion that we have only one choice or another, we could attend to the very shape on offer itself.

Digital technology is seen as having absolute power over its users, which captures them, binds them and imprisons them as captives. Is there a way out from this captivity? The urgency of our present situation shows that we are at the crossroads of his-



tory, either leading toward destruction or averting it. One thing becomes clear, however. We cannot turn the wheel of history back, aborting our technological advancements. Our civilization is much too complex and we are much too removed from ‘a natural way of life’ to be able to do without technology. Just imagine for one moment what our life would be like if we were not allowed to wear eyeglasses when our vision deteriorates. For better and for worse we cannot rid ourselves from the influence of technology. But can we at least discern the consequences of technology and avoid some of the more dangerous ones?

This is primarily a question of values, an ethical question. In addressing this question I wonder why an effective remedy in our attitude toward technology should not come primarily from the Judeo-Christian tradition. If this tradition made it possible for our present technological age to develop, it might also be able to provide helpful guidelines for avoiding the adverse side-effects of technology as they show themselves in our day-to-day life. Pursuing this idea, we investigate whether any conclusive statements can be made from the Judeo-Christian tradition concerning good and evil in technology. What follows is an attempt to present the biblical insight which offers the ‘fundamental (true) value’ and the ‘promise of total wish fulfilment’ for each human being.

2 *Biblical Thoughts on Digital Technology*

First of all, we need to understand what we mean by technology. The term technology designates ‘the instrumentalities we create in order to actualize the made-world’⁶ and thus facilitate our lives under the sun. As such, technology arises from God-given creativity and should not be regarded as an evil in itself. Created in the image of God, we are capable of shaping the world in ways that are not

6 I. L. Götz, *Technology and the Spirit*, Praeger, Westport, CT. 2001, p. 22.

possible by other creatures. Thus, since the Garden of Eden humans have been in the business of inventing devices to make life more comfortable, enjoyable, and efficient.

2.1 Technology and Creation

We can say that technology is part of the latent potential in creation. Sometimes when we think of creation, we think of things like stars, trees, flowers, and animals. But creation is, in fact, all the things that God has ordained to be, and that includes technology, which is part of God’s good creation. At the largest scale it has been noted that the Bible begins in the Garden of Eden, and ends in the City of God, thus (since both are holy) apparently blessing, or at least not damning, technological progress. We already see the role of technology in the first chapters of Genesis. It all began when God put Adam ‘in the Garden of Eden to tend and keep it’ (Gen 2:15). But prior to the creation of Adam, Scripture recognises that ‘there was no man to till the ground’ (Gen 2:23).

The act of tilling the ground – which assumes the use of tools and hence technology – appears as a necessary and positive activity. Therefore, ‘Adam was to take the ‘natural’ world (what God made) and fashion it into something else – something not entirely ‘natural’ – but sanctioned by God.’⁷ Technology then appears to help humans better accomplish the mission of tending the earth and caring for creation. Continuing in Genesis we witness Noah’s Ark as an example of a technological artefact saving humanity and animal creation from destruction, thus playing an integral role in God’s plan (Gen. 6:14–8:19). Upon leaving the Ark, Noah immediately builds an altar for burnt offerings to God, illustrating the role of technology in divine worship and thanksgiving (Gen. 8:20).

⁷ J. Dyer, *From the Garden to the City: The Redeeming and Corrupting Power of Technology*, Kregel Publications, Grand Rapids 2011, pp. 742–743.

God created human beings in God’s image – something that has many implications, including ones that inform our view of artificial intelligence and of the ways people are distinct from machines. Creation is complex and diverse; God made each thing ‘according to its kind,’ but people frequently seek to reduce things to a common denominator. For instance, in computing we might be tempted to see everything as reducible to information or data or algorithms. But ‘not everything that counts can be counted.’⁸ We need to avoid reductionism and remember that creation is both diverse and complex. In creation, God establishes a pattern of sabbath rest – work and rest are part of the rhythm of creation. But with our 24/7 digital devices, finding time to rest has become more difficult. Our tools shape us, and our tools never rest. Sabbath is a creational reality that we ignore at our peril.

In this way, Technology is not just about widgets and artefacts. Stephen V. Monsma, in his book *Responsible Technology*, defines it as follows:

Technology is a distinct cultural activity in which human beings exercise freedom and responsibility in response to God by forming and transforming the natural creation, with the aid of tools and procedures, for practical ends or purposes.⁹

This definition is quite elegant – it recognizes that technology is something that humans do: a human cultural activity.¹⁰ Furthermore, this definition recognizes that technology is an area in which we exercise both freedom and responsibility. These two things always go together; with freedom always comes responsibility. This

- 8 W. B. Cameron, *Informal Sociology: A Casual Introduction to Sociological Thinking*, Random House, New York 1963, p. 13.
9 S. V. Monsma (ed.), *Responsible Technology*, Eerdmans, Grand Rapids 1986, p. 19.
10 Andy Crouch refers to culture as ‘what we make of the world,’ and technology is a significant part of how we shape the world. A. Crouch, *Culture Making*, InterVarsity Press, Downers Grove 2008, p. 23.

is typically a biblical notion, which we shall explore in the following sections. But if technology is an area in which we respond to God, we ought to know how to respond! The Scriptures are a lamp unto our feet, but how do we use Scripture to light our way when we are travelling along these new paths?¹¹

Finally, creation includes laws, limits, and norms. There are creational laws upon which technology relies and which mark the boundaries for what is possible. There are also norms for technology, ways in which things ought to be and we are called to exercise freedom and responsibility. We will explore more about these shortly. But first we will consider why things are not what they should be.

2.2 Technology and Fall

Somewhere near the beginning, the human family fell into sin, and all creation fell under a curse. In the letter to the Romans we read ‘the whole creation has been groaning.’ (Rom 8:22). Based on this reference, exactly how technology has been ‘cursed’ and ‘subject to frustration’ is difficult to know. We do not know exactly what an original creation might have looked like. But we do know that the fall and sin have had implications in all human activities.

Subsequently, the entrance of sin distorted not only creation but contaminated the artistic and technological products of human creativity. Consequently, technology has become ambivalent and can be used in a way that ‘not only amplifies the potential for greater good but also for greater harm.’¹² Technology may serve either to plough the land to sustain life or it can be turned into a weapon to destroy life (cf. Isa 2:4; Mic 4:3; Joel 3:10). It can bless humans with

¹¹ Schuurman, *Shaping a Digital World: Faith, Culture and Computer Technology*, cit., p. 27.

¹² *Ibid.*, p. 52.

devices that save lives, as modern medicine can testify, but it can also produce nuclear bombs to bring destruction and death.

However, despite its risks and dangers, technology is a product of human creativity, which is an aspect of the image of God. And the fact that the first sustained technological development depicted in the Bible takes place among the descendants of Cain (Gen 4:17–22) does not invalidate the legitimacy of technology. As the Hebrew Scriptures continue to fruitfully engage technological production – in the form of altars, dishes, pans, pitchers, bowls, lampstands, etc. – it was as much a part of the sanctuary/temple activities as were the ritual services (Exod 25:29; 1 Chron 28:11–21). In their secular activities the Israelites did not refrain from the use of technology; they went to the Philistines to hone their tools since the latter had the technological expertise to work with iron (1 Sam 13:20). In building the temple, Solomon used the technical expertise of Hiram from Tyre, who was ‘a skilled craftsman in bronze’ (1 Kgs 7:14).

Sin is like a parasite that attaches itself to God’s good creation.¹³ One can say that technology has both a creational structure as well as a direction. Creational structures endure, but they can be directed either in obedience to God’s intentions or towards more disobedient uses. The common question of whether technology is good or bad is a false dichotomy. Technology is, in fact, part of God’s good creation, but the important question is this: in what direction is it pointed? Do we direct technology towards uses that make us more like the people God intends us to be, and closer to the kind of world he wants us to shape, or towards disobedience?

Another important impact of sin is its effect on the human heart – which can also be misdirected.¹⁴ Already near the beginning of

¹³ M. Fforde, *Desocializzazione: La crisi della post-modernità*, Cantagalli, Siena 2005, pp. 100–101, pp. 100–101.

¹⁴ *Ibid.*, p. 43.

the Bible in Genesis 11, we read of the Tower of Babel. It was a technological project that employed new technology for making bricks, but it was directed by people who wanted to build their own bridge between heaven and earth and ‘to make a name for themselves’ (Genesis 11:4). God disrupted their plans, but this temptation to place our trust in technology continues; efforts to build modern-day towers of Babel persist. Any time we put our faith in something created rather than the Creator, it becomes an idol. Anything good in creation has the potential to become an idol.

Some believe that even the last enemy, death, will eventually be conquered through technology, and thereby we will achieve immortality. But this faith in technology is very mistaken; it is based on faulty presuppositions about what it means to be human, a reductionist view of life as nothing more than simulating the particles of the brain in software. In his book *Playing God*, Andy Crouch observes that ‘Every idol makes two simple and extravagant promises: (1) “You shall not surely die” and (2) “You shall be like God.”’¹⁵ Psalm 115:8 suggests that all who make and trust in idols will become like them. The same idea is also found in Jeremiah 2:5 ‘They followed worthless idols and became worthless themselves.’¹⁶ In this case, the goal is literally to become a computer! All the same, technology should not be ignored, avoided, or rejected on biblical grounds; rather, it must be cautiously embraced, just as God’s people have done throughout history.

3 ‘Design Goal’ Versus ‘Divine Goal’

The first part of James Williams’s book *Stand Out of Our Light* is the strongest and most compelling. The way current systems are designed to draw our attention and keep us engaged is very

¹⁵ A. Crouch, *Playing God: Redeeming the Gift of Power*, InterVarsity Press, Downers Grove 2013, p. 64.

¹⁶ Literally, you worship ‘hebel’, you become ‘hebel’.

clearly explained. I agree entirely with the observation that current digital technology is not on our side and does not act in our best interest. This is the right discernment one is expected to make in the midst of information and communication technology, through our smartphones, the apps we install on them, and the websites and platforms we connect with. Yet they should be at our service and not vice versa.

The book makes it very clear that framing the problem of digital technologies in informational terms, concerned only with the management of information, forces us to only discuss privacy and security surveillance. This blinds us to other important consequences, like how it changes our attention, how it creates opportunities for persuasion, and in the end erodes our own autonomy.

Here we need to ask a few questions that are actually theological ones: what does it mean to be a human? What does it mean to have a will? What does it mean to be a self? What is home, and what is exile? What is freedom? This theological hermeneutic is the basis of all Israel’s dealings with the omnipotent God. Indeed, as Exodus 19: 4-6 states: while all the earth belongs to God, he freely chose Israel as his first fruits so as to reflect, as if a mirror, God’s glory on the earth. The ideal of holiness entails going beyond what is merely licit (can I do this?) to asking: will this bring me closer to God? St. Paul’s words to the Corinthians are very enlightening: the fulfilled human life is one that is devoted to honouring Him. As the Apostle explained to some of the first Christians:

“All things are lawful for me,” but not all things are helpful. “All things are lawful for me,” but I will not be dominated by anything’
(1 Cor 6:12).

This affirmation of self-control on the part of the Apostle takes on new relevance in our day and age when we consider some computer products or services which, by ensuring an immediate or relatively quick ‘reward,’ encourage repeated use. Learning how

to limit their use will help prevent a fretful and nervous attitude, or even a form of addiction. The threat posed by the ‘digital attention economy’ in directing our thoughts and actions is not worth an ant’s synapse compared to the wisdom and knowledge of our Father, before whom nothing is hidden since all law and justice flows from him (Ecclesiastes 7:12). More than that, our deepest knowledge has two interconnected axes, as St. Augustine famously asserted: knowledge of self and knowledge of God, and it is at the intersection of those two that I am most truly me.¹⁷ If one denies the reality of God, one might be left with the loneliness of a fragmented I. That is to say, those who are distant from God are also distant from themselves, alienated from themselves, and can only find themselves by encountering God. In this way they will come back to themselves, to their true selves, to their true identity.

Now, there are different ways in which the scriptures explain how Israel is to remain faithful to this vocation, this election. Biblical sapiential tradition, based on creation theology, explains that, in order to remain faithful to the pact, Israel must look to creation and appreciate all the different grooves that God has made in creation so as to find our part therein. Therefore, to understand the world, one must first understand God. Indeed, effective knowledge about God is the only thing that puts humans into a right relationship with the objects of their perception. In other words, wisdom and knowledge are the product of a human search conducted in a deep communal and spiritual abiding in God. Without this deep abiding in God, knowledge can go wrong.

The word *hokma* and its synonyms (knowledge, understanding, discretion) express a range of ideas associated with order, justice, discretion, and both moral and skillful types of behaviour. Wisdom,

¹⁷ St. Augustine stresses in a very famous statement at the beginning of the *Confessions*: ‘You have made us for yourself, and our heart is restless until it rests in you’ (I, 1, 1). Augustine of Hippo, *Confessiones*, trans. by F. Sheed, Hackett Publishing Company, Inc., Indianapolis 1993, p. 3.

thus, ‘refers to a very wide range of desires, behaviours, skills, and beliefs – all of which, like the spokes of a wheel, find their hub in the order God has created into our world.’¹⁸ In this way, wisdom is a ‘totalizing’ concept: it is not just about activities like farming, building, writing, driving on their own – it is about how all such activities find their meaning in the whole of God’s created order. Mending clothes, cooking, but also navigating the internet are wise when they are in harmony with God’s order for the world.¹⁹

Consequently, wisdom and knowledge are born out of a relationship with God. Moreover, due to this relationship, wisdom is not a solely human endeavour: the discipline of wisdom is where we hold our gaze on the wonder of God’s designs and works in the world. It is a style of life wherein we remember our form as created beings and our status as subjects of a king – this style shapes our approach to life, knowledge, and worship.

It is precisely because wisdom is attuned to the patterns in creation that it can give guidance in making good decisions in unique circumstances. Whatever the seeming randomness of life before us, wisdom assures us that there is still an order created by God for the very dilemma we face. Thus, wisdom affirms that God has established both an overall dynamic world order and that this order provides for every moment and every person. When we put a particular focus on wisdom together with its view of the general cosmic order, we can see it as God’s wonderful gift for humanity to help us navigate our lives within the general morality and order expected of all of us and with regard to the specific decisions we have to make based on our unique gifts and calling. But we know

¹⁸ C. G. Bartholomew and R. P. O’Dowd, *Old Testament Wisdom Literature. A Theological Introduction*, IVP Academic, Downers Grove 2011, p. 24.

¹⁹ See *ibid.*

that things went wrong; we did not live in harmony or congruence with our calling.²⁰

In his article ‘Fear God and Enjoy His Gifts’, Russell L. Meek shows very well how the enjoyment of one’s spouse, food, and work in the book of Qoheleth all point back to Genesis 2,15-25. This illustrates all the more the utmost significance of Qoheleth’s exhortations to ‘remember your creator’ and to ‘fear God above all’— indeed, it is only possible to enjoy these things (as the first man and woman show us) within God’s boundaries. After all, ‘[w]e are frail creatures, prone to wander and prone to misuse God’s gifts. During life ‘under the sun,’ we take God’s gift of eating and turn it into gluttony; we take God’s gift of drinking and turn it into drunkenness; we take God’s gift of work and derive our value from it; and we take God’s gift of a spouse and turn it into pre-marital sex, extra-marital sex, and abuse. Because of the human propensity to sin, Qohelet admonishes his reader to enjoy God’s gifts within the appropriate boundaries.’²¹

The theological implications of all this should be clear: we, as always, return to a theology of creation and when we live in harmony with this creation, we will certainly taste the sweetness that can only be found in the house of Lady Wisdom. All this is very important when dealing with technology. Modern technology based on the ‘virtual’ has been and will continue to be an important tool that we can and should use. This, too, is a ‘groove’ in God’s good creation. But, as with everything else – food, sex, work, etc. – it must be used within the boundaries set by God.

Now the real question is whether with the advent of new technology, our predicament has fundamentally changed. As Williams concedes:

20 A very good take of what happened is seen in the article written by R. L. Meek, ‘Fear God and Enjoy His Gifts. Qohelet’s Edenic Vision of Life’, *Criswell Theological Review*, 14 (2016), pp. 23–34.

21 See *ibid.*, p. 32.

Yet all design is ‘persuasive’ in a broad sense; it all directs our thoughts or actions in one way or another.²²

Persuasion (as opposed to coercion) plays an important role throughout Williams’s *Stand Out of Our Light*. The difference between coercion and persuasion is not always very clear, however. I would argue that the placement of escalators in shopping malls or the layout of cities force people to move in certain ways, and hence are coercive in nature. Similarly, the choice architectures embedded in digital systems are coercive in nature. Now one could argue that the difference is purely semantic in nature, but I believe the difference is significant with respect to the possible or necessary responses against this coercion. Coercion requires a stronger, top down, response than persuasion.

But I fear that this focus on persuasion through advertising, this idea that the digital attention economy is the sole source of the current state of affairs, is too narrow, too limited. It is one thing to argue that this technology has a direct influence on what we do (our ‘spotlight’); it is quite another to argue that it influences what we want to do (our ‘starlight’) and even more to argue that it influences our free will (our ‘daylight’). The second part of the book does not make a compelling argument that this is indeed the case.

Williams’s book however approaches the problem from the autonomy perspective. It discusses the risks of the so-called ‘digital attention economy’, and the threat it poses to human freedom as ‘systems of intelligent persuasion [...] increasingly direct our thoughts and action’. This idea is certainly provocative, we must also be aware that this is the price we have to pay for technological progress. As there is no work without sweat, there is no benefit without threat. Yet what troubles more and more people is not that we have to pay a price, but that the threats are becoming bigger

²² Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, cit., p. 27.

and bigger. The question that emerges here is: Can we afford the threats of tomorrow? Is it not too late once we detect some of the dangerous side-effects of technological evolution? Do we still have time to correct some of the dangerous aspects of technology that we have already discovered? In addressing the ethical aspect of these questions, we must observe that there are people who think the biblical doctrine of human dominion over technology is responsible for our present crisis. Yet I would claim that there are other biblical doctrines that hold in check the mere pursuit of dominion. In striving for a biblical ethics of technology, however, one of our first tasks must be exploring the concept of freedom. Do the ‘people of God’ enjoy absolute freedom? Can they discern between good and evil through freedom?

3.1 ‘Freedom’ from the Biblical Point of View

Throughout human history, people of all cultures have sought freedom. Some have emphasized inner spiritual or emotional freedom, and others political freedom from external restraints (such as slavery). Many people in our culture believe freedom to be a lack of norms, rules, or laws restraining us from doing what we want. People who hold to this view believe in ‘freedom from’ any external values. If God exists, then this freedom is limited. This kind of ‘freedom from’ is not the biblical view of freedom, which is more of a ‘freedom from in order to be free to.’ We need to be freed from a bondage to sin in order to be free to serve Jesus. It is only in the latter state that we can know the freedom and flourishing that we were created to experience.

3.1.1 Freedom in the Old Testament

In the Old Testament, freedom was primarily a freedom from slavery.²³ There was provision in the Law for the freeing of Israelite slaves (probably like indentured servants) every seven years in the sabbatical year (Ex. 21:2ff). The former ‘owner’ was to be generous in giving gifts that would enable these freed ones to set up a new life (Deut. 15:12ff).

In a larger sense, freedom was precarious for Israelites. God by his grace delivered them from slavery in Egypt (Ex. 20:2; Deut. 7:8). They repeatedly needed to be delivered from foreign oppression by the Judges. Time and again, a generation came along that didn’t know and follow the Lord, and a foreign conqueror would make their lives difficult until the Lord raised up a deliverer. When God’s people were disobedient, they often lost their freedom. The Assyrian conquest of the kingdom (II Kings 17:7-23) and the Babylonian captivity of the southern kingdom (II Kings 21:10-15; 22:19f; 23:25ff) are illustrations of this pattern. In later Judaism, freedom movements arose to gain political freedom in order to allow religious freedom (among other things). The Maccabees and the Zealots are only a couple illustrations of such movements.

This freedom was often referenced in the prophets. Jesus’s inaugural sermon echoed this theme (Luke 4: 18- 19). Isaiah 61:1 said:

The Spirit of the Lord God is upon me,
Because the Lord has anointed me
To bring good news to the afflicted;
He has sent me to bind up the brokenhearted,
To proclaim liberty to the captives,
and freedom to the prisoners.

²³ I have gathered the ideas regarding freedom in the OT from G. W. Bromiley (ed.), *The International Standard Bible Encyclopaedia*, 2nd ed., vol. 1, Eerdmans, Grand Rapids 2002, pp. 614–615, pp. 614–615.

This proclamation of ‘liberty’ and ‘freedom’ was a mark of the Messiah’s message. There is a consistent thread through the Old Testament pointing to the need for inner and spiritual renewal. Many passages could be cited but perhaps a couple could be illustrative of this theme. In Ezekiel 36:26-30 it says,

Moreover, I will give you a heart of flesh. And I will put my Spirit within you and cause you to walk in my statutes, and you will be careful to observe my ordinances and you will live in the land that I gave your forefathers... and I will call for the grain and multiply it, and I will not bring famine on you. And I will multiply the fruit of the tree and the produce of the field.

Similarly, the classic passage in II Chronicles 7:14, ‘If my people who are called by my name humble themselves and pray and seek my face and turn from their wicked ways, then I will hear from heaven, will forgive their sin, and will heal their land.’ Again, the inner change leads to outer or external consequences that extend not only to forgiveness but to healing in the land.

3.1.2 Freedom in the New Testament

The predominant note of the New Testament is not political freedom but freedom in Christ from bondage to sin, the Law, the old self, and death. It is not that political freedom or freedom from slavery was unimportant but that there was an even deeper bondage that had to be overcome first of all. With the Greeks, the problem was with the mind, but in the New Testament, the problem was the bondage of the will.²⁴

The problem is that even if you were politically free you could still be in bondage. Human will is not at this present time neutral

²⁴ Cf. Geoffrey W. Bromiley, ed., *The International Standard Bible Encyclopaedia*, III, Grand Rapids, Eerdmans, 2002², pp. 120-121.

but it is captivated by sin. Humans by nature ‘love the darkness’ and ‘hate the light’ (John 3: 19:20). Jesus speaks about this understanding of freedom in the classic verses in John 8:31-32: ‘Jesus therefore was saying to those Jews who had believed in Him, ‘If you abide in my words, then you are truly disciples of mine, and you shall know the truth and the truth shall make you free.’

It is the truth that will make us free. We are, in our natural sinful state, captive to lies. We do not see reality as it is. We deny what we know deep down to be true (Romans 1:20-25). We live in a state of unreality. But we can see our own slavery to sin and receive forgiveness and new power to live in accordance with reality. We can be what we were created to be. Truth leads to freedom.

We are historical beings that have a past, present, and future. We don’t reinvent ourselves at each moment, but are influenced by past patterns and choices. We are according to the old self (sinful nature) directed away from God, saying, in effect, ‘My will be done.’ In Christ, we are freed from this bondage in order to say ‘Thy will be done.’

The Apostle Paul expands the implications of this freedom more fully. See especially Romans 6:18f where we are said to be ‘freed from sin’ so that we can be ‘slaves to righteousness’ (Rom. 6:18). Later, he writes that we are ‘freed from sin’ to be ‘enslaved to God’ (Rom. 6:22). Being ‘enslaved to God’ leads to ‘eternal life’ (vs. 22 and 23) and a fullness of life in the present time.

3.2 From ‘Inner’ to ‘Outer’ Freedom

The emphasis of the New Testament is not political, economic, or religious freedom. However, there is a sense in which we can say, as we saw in the Old Testament, that new inner freedom eventually leads to consequences in the outer world. You can have political, economic and religious freedom and still be in bondage to sin. You can have inner freedom in an oppressed situation. But inner and

outer freedoms are the most ideal state for human beings (Micah 4:4). Jesus did not fight, however, as some expected the Messiah to do, for a violent revolutionary overthrow of the Romans.

The inner freedom Christ came to bring has often been the garden out of which other freedoms grow. The themes of ‘Let my people go’ in Exodus and of Jesus of Nazareth’s sermon (freedom to the captive) have often been preached. Like Jesus, Christians ‘proclaim justice’ (Matt. 12:18-21) with mercy and compassion. The Holy Spirit is sent to convict concerning sin, righteousness, and judgement (John 16:7f), and it seems that this applies not only in personal life but in public life. While we can have inner freedom without outer freedom, it is better to have both. The inner freedom gives birth to freedom in public life. It should not be surprising that where Christ’s inner freedom is experienced, the natural outworking is towards political, economic, and religious freedom. There are many biblical passages and themes that could be brought to bear that demonstrate the holistic freedom and redemption that Jesus came to inaugurate.

Now very early in *Stand Out of Our Light* Williams states:

We trust these technologies to be companion systems for our lives: we trust them to help us do the things we want to do, to become the people we want to be.²⁵

This emphasis on the ‘trust’ in the technologies seems to me a bit too aggressive. I do not think anybody is so naive as to really trust technology to help us become the people we want to be. I trust my browser to browse the web, my social network to connect me with my friends and relatives. But I do not expect those to help me become a better person or something like that. Also, technology cannot actively prevent us from achieving our goals. Even if that is

²⁵ Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, cit., p. 9.

the case, we need not be alarmed at it. Being ‘captives’ of technology can also very well be an opportunity to escape it to begin a new life. Captivity in the Bible will provide us with this hope.

4 *The Notion of Captivity in the Bible*

In the Bible ‘captivity,’ is a term used often synonymously with ‘Exile,’²⁶ to refer to the period in the sixth century B.C. when part of the Judaeen population was exiled to Babylonia. Although the exile of Israel as a nation did not occur until relatively late in the Old Testament period, the theological concept of captivity is present virtually from the beginning of biblical revelation. Captivity, in theological terms, is the experience of pain and suffering that results from the knowledge that there is a home where one belongs, yet for the present one is unable to return there. This existential sense of deep loss may be compounded by a sense of guilt or remorse stemming from the knowledge that the cause of exile is sin. In this sense, the concept of captivity in the bible can be used in many ways.

- i. *Proper Use.* The ‘prisoner of war’ is a miserable person in special need of divine aid (cf. Lk. 21:24). The term ‘captivity’ is given a religious reference (cf. Ps. 126:1). The messenger of Is. 61:1 proclaims freedom to captives, and Jesus accepts this as a messianic task (Lk. 4:18). Visiting prisoners is a loving duty (Mt. 25:36ff.), and working and praying for release is enjoined (cf. Phlm. 22). God himself grants liberation in Acts 5:19.
- ii. *Figurative Use.* Imprisonment may be used to denote subjection to error (2 Tim. 3:6) or sin (Rom. 7:23), but also to

²⁶ W. A. Elwell and B. J. Beitzel, *Baker Encyclopaedia of the Bible*, Baker Book House, Grand Rapids 1988, p. 732.

Christ (Eph. 4:8; 2 Cor. 10:5). Paul calls his helpers ‘fellow-prisoners,’ probably not in a literal sense but in the sense of being similarly subject to Christ (cf. ‘fellow-servants,’ Col. 1:7; 4:7)

4.1 The Captivity Foreshadowed

The expulsion of Adam and Eve from the garden of Eden is the archetype of all subsequent captivity (Gen. 3:24). Paradise has been lost because of their sin, and now they must live as strangers in a land from which they have become alienated (Gen. 3:17–19). Throughout the rest of the Bible, the state of God’s people is one of profound captivity, of living in a world to which they do not belong and looking for a world that is yet to come. Abraham was already aware that, even though he was dwelling in the land God had promised to give to him, he lived there as a stranger and alien (Gen. 23:4; cf. Heb. 11:8–10).

Even before God’s people entered the land God had promised them under the leadership of Joshua, the prospect of their exile from that land as a punishment for disobedience was in view. The land, which had been given to Israel as a gift, would be removed from their care if they were disobedient. If the people failed to keep the terms of the covenant, they would be scattered among the nations (Lev. 26:33; Deut. 28:64; 30:3–4). The possibility of captivity is taken into account in Solomon’s prayer at the dedication of the temple; captivity is the seventh, climactic example of circumstances in which prayers may be made towards the temple, seeking forgiveness and restoration from the Lord (1 Kgs. 8:46–50). However, for Israel captivity is not simply the loss of the land. More importantly, it is the loss of the Lord’s presence with them. For that reason, even though the land had not been lost, the loss of the ark to the Philistines in 1 Samuel 4 can be described as the glory of the Lord ‘going into captivity’ (1 Sam. 4:22).

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4.2 The Captivity as Historical and Theological Reality

This threatened judgement of God came upon God’s people in two stages. First, the northern kingdom of Israel was carried into captivity by the Assyrians in 722 BC. Then the southern kingdom of Judah followed them into exile at the hands of Nebuchadnezzar and the Babylonians in 586 BC. In the providence of God, the time delay meant that exile had significantly different consequences for Israel and Judah. The Assyrians had a policy of resettling captured lands with replacement ethnic groups, thereby producing a mixed population. The Babylonians, on the other hand, moved the skilled members of captive peoples from the edges of the empire to the centre. Thus, the people of Judah had the prospect of returning to a relatively empty homeland; the people of the former northern kingdom did not. The experience of captivity was not simply a historical event, however; it had profound theological significance. After the exile, life could not simply return to the way it was before. In fact, it is often highlighted that there are three elements that cause this ‘enduringness’: political dependence on foreigners, the lack of satisfaction after repatriation leading to social alienation, and the feeling of still being separated from God expressed in the hiddenness of God.²⁷

So, the first result of the exile was, naturally, an outpouring of grief. The exiles sat down by the rivers of Babylon and wept (Ps. 137:1). They wept both because of the consequences of exile, i.e. Jerusalem in ruins and her infants slaughtered (Ps. 137:7–8), and because they recognized the fundamental cause of exile: their own sin and the sin of their forefathers (Lam. 3:42, 49). Because of the close connection between the Lord and the Promised Land, they may have felt that to be isolated from their land was also to be

²⁷ See, for instance, See M. A. Halvorson Taylor, *Enduring Exile. The Metaphorization of Exile in the Hebrew Bible*, Brill, Leiden 2011, p. 141; J. M. Scott (ed.), *Exile. A Conversation with N. T. Wright*, IVP Academic, Downers Grove 2017, p. 154.

abandoned by their God. For that reason, the prophet Ezekiel was given a vision of God’s glory by the river Kebar, in Babylon itself (Ezek. 1:1). The good news that the prophet brought to the exiles was that God’s own self would be a sanctuary for them where they were, in Babylonia (Ezek. 11:16). In abandoning the land, God had not turned away from all the chosen people.

Yet, paradoxically, the recognition that God had sent Judah into exile because of her sin caused the exiles not only to mourn but also to hope and to dream. The one who had bruised them could also bind up their wounds; the one who had rejected Judah could restore her (Lam. 5:21). Indeed, the ancient covenant documents that threatened Israel with exile for disobedience also spoke of a restoration for the exiles (Lev. 26:44; Deut. 30:3). Because of God’s covenant faithfulness to God’s people, the exile could not be the end of Israel’s story. The Lord’s enduring *hesed*, that is, covenant love, was the basis of their hope for the future (Lam. 3:21–22). God had associated the honour of God’s name with the fortunes of the chosen people, and for the sake of that name God would once again restore them (Ezek. 36:23–24).²⁸

4.3 Positive Aspects of Israel’s Captivity

In the meantime, the exiles were able, indeed obliged, to reinvent Israel. In exile the Jews tended to abandon the idol worship that had in part alienated them from God. The captives dreamed not simply of a return but of a renewal, a rebirth of Israel in greater conformity to God’s original design. Much of the exilic writing focuses, therefore, on critiquing the past and drawing up plans for a better future, a future in which Israel’s sins will no longer come back to haunt them. With everything reduced to rubble, a radically new future could be conceived in which obedience to

²⁸ See Elwell and Beitzel, *Baker Encyclopaedia of the Bible*, cit., p. 1334.

the Lord would no longer be a dream but a reality. Indeed, the Lord promised to bring about such a change in the hearts of the chosen people that there would be, in effect, nothing less than a new covenant (Jer. 31:31-34; Ezek. 36:16-28). This ‘re-visioning’ of the future also served the present needs of the people, by providing an alternative construction of reality from the dominant model in the culture around them. Although they saw a world firmly in the grip of Babylonian imperialism, by faith they beheld a different ruler on the throne and believed that their narrative would have a better conclusion.

4.4 Captivity in the New Testament

In the light of that sense of continuing exile and the expectation of a new work of God to redeem Israel, the New Testament’s interest in the concepts of exile and restoration is explicable. The exile’s importance as a historical event is immediately clear in the structure of Jesus’ genealogy in Matthew 1, where the three major reference points of redemptive history are Abraham, David and the exile (Matt. 1:17). Moreover, as a child Jesus himself experienced exile, going down to Egypt to flee the wrath of Herod (Matt. 2:13). There Jesus grew up as a sojourner, far away from God’s people and land.

In this, as in other respects, Jesus was partaking of the same experience as that of his fellow human beings (Heb. 2:14) and especially that of his fellow Israelites. For God’s new-covenant people, the Israel of God, are, like their forefather Abraham, strangers and exiles in this world (1 Pet. 1:1; 2:11; Heb. 11:13). They are the true diaspora, those who are scattered among the nations (Jas. 1:1; 1 Pet. 1:1). This term denotes not only their physical location but also, more profoundly, their theological location (cf. the LXX of Deut. 30:4; Ps. 147:2). Christians are the true exiles, living in a world to which they do not belong and with which they are not to fall in love

(1 John 2:15), while they long for a world which they do not yet see but to which they look forward in hope (Heb. 11:1). They live in a world that is seduced by the political and economic attractiveness of ‘Babylon’ (Rev. 17–18), but they dwell there as the children of the Jerusalem that is above (Gal. 4:26). That is why God’s people can never feel fully at home in this world.

However, the decisive act in the ending of captivity and the restoration of God’s people has now taken place in Christ.²⁹ While life in exile is still painful, its sting has been drawn by the cross. At the cross, Jesus experienced the sting of captivity – punishment for sin – in its fullness for his people. The one who had never sinned was made sin for them (2 Cor. 5:21), and the one who for all eternity had dwelt in the bosom of the Father was thereby exiled from his presence. In the midst of that experience of exile, he cried out ‘My God, my God, why have you forsaken me?’ (Matt. 27:46). But his exile has redemptive power. By it, his people are once and for all reconciled to God.

Moreover, Paul was optimistic that the redemptive work accomplished in Christ would in the fullness of time be applied not simply to the Gentiles but also to the Jews. Because of their disobedience

29 Two great scholars, Joel B. Green and Susan R. Garrett, explain very well that Jesus’ healing ministry is a ministry of ‘release’, based on the Exodus motif, wherein Jesus breaks the chains of Satan. In the New Testament, in fact, Satan is understood as capturing humanity under slavery – he is the slave-driver who, in keeping humanity bound in chains, subverts God’s plan. Like Pharaoh ‘before’ (in a literary sense) him, the Devil ‘was an arrogant and relentless tyrant’, keeping the people away from their true sovereign Lord. Also, in the NT, sickness, evil, and sin are often understood through language that evokes being imprisoned and bound while Jesus’ healing ministry is often understood as a breaking of these chains. Therefore, Jesus’ ministry is just as liberating and freeing as what God did in the exodus of his people. For the quote, see S. R. Garrett, ‘Exodus from Bondage. Luke 9:31 and Acts 12:1-24’, *Catholic Biblical Quarterly*, 52 (1990), p. 659. See also, J. B. Green, *The Theology of the Gospel of Luke*, Cambridge University Press, 2004, p. 78.

and hardness, the Jews were still experiencing exile (Rom. 10:21). But ultimately exile could never be the end of the story for God’s chosen people. The ancient promises of God could not be nullified. Through their continuing exile, salvation had come to the Gentiles (Rom. 11:11), but God’s overarching purpose was to move the chosen people to jealousy. This jealousy would in turn lead to a still greater restoration and the incorporation of Jews and Gentiles into a single tree, the one Israel of God (Rom. 11:12–31). Then indeed all the prophecies of the Old Testament would be completely fulfilled.

Like the captives of the Old Testament, New Testament believers dream of home, a new Jerusalem where the sin and suffering of their present existence will be no more and the time for weeping will finally be past. There they will no longer be exiles but rather will be at home with the Lord (2 Cor. 5:8). This new heavenly home is depicted in all its glory in Revelation 21–22, as an encouragement both to dream passionately of the future, and to live obediently and with perseverance in the present.

5 *Redemption and Responsible Technology*

But God did not leave us without hope. I love this passage in Colossians 1, which describes the work of Christ in redemption:

For in him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things have been created through him and for him. He is before all things, and in him all things hold together. And he is the head of the body, the church; he is the beginning and the firstborn from among the dead, so that in everything he might have the supremacy. For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself all things, whether things on earth or things in heaven, by making peace through his blood, shed on the cross. (Col 1:16–20)

The repetition of the words ‘all things’ means exactly that: redemption is about everything. We read that Christ was there in creation; all things were created through him. Furthermore, all things were created for Christ; he is the telos, or purpose of all things. In the words of Lesslie Newbigin, ‘Jesus is the clue for understanding all that is.’³⁰ And in Christ all things hold together – the moment-by-moment providence of Christ, in whom all things cohere. The Dutch theologian and statesman Abraham Kuyper once said, ‘There is not a square inch in the whole domain of our human existence over which Christ, who is sovereign over all, does not cry: “Mine!”’³¹ To be sure, redemption is about human hearts, but it is bigger: God is reconciling all things to himself; God is on a cosmic saving operation.³² In 2 Corinthians 5, God calls us to participate in this work as agents of reconciliation. I would add that this includes technology. Our calling is to participate in the renewing of God’s world. But the nagging question still is this: how do we help shape and reconcile technology?

A helpful way forward is to recognize various creational norms that represent God’s order for culture and society, areas where we are called to exercise freedom and responsibility. The norms remind us that when we create a technical artefact, it is not just bits, bytes, wires, gears, and semiconductors, but it includes social, economic, legal, aesthetic, and faith implications.

There are a variety of norms that can help guide our technological activities. One such norm is *cultural appropriateness*. Technology should alleviate burdens while still preserving what is good. Technology used in the workplace, worship, education, and interna-

30 L. Newbigin, *The Light Has Come: An Exposition of the Fourth Gospel*, Eerdmans, Grand Rapids 1987, p. 3.

31 R. J. Mouw, *Abraham Kuyper: A Short and Personal Introduction*, Eerdmans, Grand Rapids 2011, p. 4.

32 Fforde, *Desocializzazione: La crisi della post-modernità*, cit., pp. 162–163.

tional development must be appropriate to the setting and should fit the culture in which it is being used.

Another normative principle is *transparency* which deals with open communication and providing clear and honest information. This norm requires that users not be misled or confused by technical designs or documentation. It includes the requirement that we not bear false witness, and that any claims made about technology be truthful.

Another important norm is one of *stewardship*. While this norm includes economic factors, it is also concerned with stewarding materials, the environment, and human resources. Technology is not all about economics – profit must be placed in connection with service to God and neighbour.

A norm that deals with the intersection of function and aesthetics is characterised by delightful *harmony*. Good technology is characterised by being a joy and delight to use. People should not be forced to adapt to the tools of technology, but rather technology should be designed with users in mind.

In addition, an important norm is one that deals with *justice*, ensuring that everything is given what it is rightfully due. To act justly is one of the things that the Lord requires of us (Micah 6:8). It applies to our interactions with people and the entire creation. In technology, justice includes issues like privacy, intellectual property, and dealing equitably with workers and customers.

Yet another norm is one of *caring*, and it involves showing love and care for our neighbours, including workers and customers. It deals with doing things because we ought to, not simply because we can. The caring norm will resist efforts to automate jobs such as nursing, child care, and elder care. In her book *Alone Together*, Sherry Turkle observes that ‘some American enthusiasts argue that robots will be more patient with the cranky and forgetful elderly than a human being could ever be. Not only better than nothing,

the robots will simply be better.’³³ But such jobs in the ‘caring professions’ require far more than a pair of hands. Turkle emphasises that ‘children need to be with other people to develop mutuality and empathy; interacting with a robot cannot teach these.’³⁴

Finally, there is a norm which deals with *trust*. This norm has two aspects: the first aspect concerns the dependability of technical products, especially when safety and reliability are essential in applications like air-traffic control and the electrical grid. The second aspect of this norm deals with trust in God. We must always resist the temptation to place our ultimate trust in technology.³⁵

All these norms can be summarised by Christ’s call to love the Lord our God and to love our neighbours as ourselves. These norms do not dictate exactly how to act, but they point a way forward. Efforts to pursue technology without attention to norms will lead to consequences; creation will ultimately push back. In the words of H.H. Farmer, ‘If you go against the grain of the universe you get splinters.’³⁶ These norms are not exclusive; they work together and help lead to flourishing and to shalom. We need to remember that the meaning of technology ought to be service to God.³⁷

6 *Digital Technology and a Ray of Hope*

There are many competing views of the future, and two common competing viewpoints are represented by the techno-optimists³⁸

33 S. Turkle, *Alone Together: Why We Expect More from Technology and Less from Each Other*, Basic Books, New York 2012, p. 106.

34 *Ibid.*, p. 56.

35 These norms are described in more detail in D. Schuurman, ‘The Meaning of Technology’, *Christian Courier*, 12 (2015), pp. 77–106.

36 Quoted in E. H. Peterson, *A Long Obedience in the Same Direction: Discipleship in an Instant Society*, IVP Books, Downers Grove 2000, p. 121.

37 Schuurman, ‘The Meaning of Technology’, *cit.*, p. 15.

38 This has been well expressed by the biologist E. O. Wilson, who wrote in his major work *Consilience: The Unity of Knowledge*: ‘Homo sapiens, the first truly free

and the techno-pessimists.³⁹ The optimists trust in technology, progress, and the creative capacity of humankind, and they look forward to a future Utopia ushered in by technology. On the other end of the spectrum are the pessimists: people who despair about technology, expecting that technology will eventually destroy us.

The Biblical narrative differs from these narratives and presents a very different perspective of the future. The Bible as we had mentioned earlier begins with a garden, but it ends with a ‘garden city’ – a city with all kinds of things in it. In Isaiah 60, we read that the ‘riches of the nations’ will be brought into the city of Zion: camels, precious metals, and lumber. Even the ‘ships of Tarshish,’ symbols of pagan commercial power, are somehow re-purposed ‘for the glory of the Lord.’⁴⁰ In Revelation 21, we read how ‘[t]he glory and honour of the nations will be brought into it.’ God will not make all new things; he will make all things new!⁴¹ In Micah 4, we read that ‘they will beat their swords into ploughshares and their spears into pruning hooks.’ Harmful and distorted technology, like weapons, will be transformed and reappear in a form that can be employed for peaceful purposes, like tilling the soil and tending to plants.

We see that technology that was once *misdirected* for sinful purposes will be *redirected* to redemptory purposes in the new kingdom. The passages in Isaiah 60 and Revelation 21 describe a restoration of meaning as everything is redirected in service to God.

Here is the ray of hope offered to us by the prophet Isaiah:

species, is about to decommission natural selection, the force that made us ... Soon we must look deep within us and decide what we wish to become’. E. O. Wilson, *Consilience: The Unity of Knowledge*, Vintage Books, New York 1999, p. 39.

³⁹ *Psychopolitics. Neoliberalism and new technologies of power*, cit.

⁴⁰ R. J. Mouw, *When the Kings Come Marching In: Isaiah and the New Jerusalem*, Eerdmans, Grand Rapids 2002, pp. 28–30.

⁴¹ F. Vouga, *Dio o Cesare. La politica e il Nuovo Testamento*, trans. by P. Pellizzari, Edizioni San Paolo, Milano 2009, p. 40.

And I will lead the blind in a way that they do not know, in paths that they have not known I will guide them. I will turn the darkness before them into light, the rough places into level ground. These are the things I do, and I do not forsake them. (Isaiah 42:16)

In the meantime, we wait for the day of Christ’s return, and in the words of Lewis Smedes, we are called to ‘go into the world and make some imperfect models of the good world to come.’⁴²

Conclusion

Concluding our short survey we notice that technological progress was perceived as intrinsically good and necessary. Yet more and more people have begun to question whether technology and the notion of progress can actually be called good. Some people even wish to do away with the idea of progress altogether and return to a lifestyle of simplicity. Indeed, what is good or evil in technology can neither be discerned in a piecemeal fashion nor can it be defined a priori. It must rather come into focus, from the most universal perspective available to us, as that which furthers the whole of humanity or detracts from this goal. Since humanity in its fullest sense can be viewed only in the horizon of eschatological perfection provided by Judeo-Christian tradition, good or evil is that which furthers or hinders the realisation of the kingdom of God. Technology can then even be an expression of our attempt to respond to the promise of God’s kingdom.

According to Judeo-Christian tradition an understanding of good (technology which is supposed to be good) that neglects its eschatological universal historical horizon would rather be termed evil. Already Israelite history tells of people closing themselves off from this universal horizon. Consequently evil descends upon them. For instance, in Jeremiah 6:19 we hear Yahweh say: ‘Hear, O

⁴² L. B. Smedes, *My God and I*, Eerdmans, Grand Rapids 2003, p. 59.

earth; behold, I am bringing evil upon this people, the fruit of their devices, because they have not given heed to my words; and as for my law, they have rejected it.’

Judeo-Christian tradition has no reason to reject modern technology as the result of human pride and sinfulness. Modern technology does not exhibit a greater degree of human sinfulness than did the mallet which Cain lifted to slay his brother Abel. Modern technology can be understood as responding to the command to subdue the earth. We could even venture to say that it is part of our attempt to spiritualise the world in penetrating the material with the human spirit, uncovering the orders by which it is held together and rearranging them anew. Thus our world is becoming more spiritualised and more humanised. Technology is an intrinsically human phenomenon. Corresponding to our own historical and spiritual evolvment, technology is evolving too. If modern technology is a human phenomenon, it is neither conducive to a morally good or a morally evil behaviour, nor is its application ethically neutral; it always reflects the spirit of the people by whom it is developed and administered. Does this mean that everything depends on our control and that good and evil in technology are simply a matter of controlling the controllers? We cannot answer with an unqualified yes.

If the demand for stringent controls that is voiced in James Williams’s book *Stand Out of Our Light* were met, it would not automatically result in benevolent action. In some dimensions control is impossible or futile since the results of technology are to some extent unpredictable. Given new circumstances and new data, something that has been advocated as good may suddenly be considered as evil. If something previously labelled good now turns out to be evil, what standards or procedures should the controllers employ to determine what should be done and what should be avoided?

It is perhaps worthwhile here to remember that in the Judeo-Christian tradition good is envisioned contextually in considering the universal historical horizon in which a decision is made. Terming something evil that was once considered good would only lead to arbitrary and relativistic ethics, if the decision to call it evil resulted from the volition of the controller. However, if new data and circumstances necessitate such change, the basic perspective of a universal historical horizon for ethics need not be changed. Yet what needs to be changed continually, or rather enlarged, is the horizon in which the ethical situation arises. Taking seriously how the good is envisioned in the Judeo-Christian tradition, we notice two aspects:

1. The simple call for controllers of technology is too simplistic. If science dominates at the expense of religion, we get a picture of human life void of ultimate values. And if religion rules supreme to the exclusion of science, our understanding of human life lacks verifiable data. Only through cooperation between science which provides data, philosophy which provides conceptual forms, and theology which provides values, can the perplexing questions raised by technology be answered with clarity, authority, and confidence.
2. An ethical decision on technology cannot be termed good unless it considers the total and universal horizon of history. Since such considering the proleptic anticipation of the goal of history in Jesus complete contextualisation of ethical decisions is possible only the Christ, humanity apart from Christ will always close itself off from part of the good. As the Pauline imperatives indicate, even Christians succumb to the temptation of reducing the universal good to their own good (1 Cor 7:8-9). All things considered, this means that our decision for what is good in technology is a decision made in trepidation. It is done in hope that we are doing the right

thing and in the assumption that even with the application of modern technology we are not to save the world, or even spare it from destruction. Yet by allowing for a total universal eschatological horizon and not closing ourselves off from it, we are able to contribute to a greater contextualisation of technology and thereby we are in a position of better distinguishing between its good and evil features.

Moreover, the user of modern technology needs to foster a reflective attitude in order to make ethical use of the many possibilities offered. Often the ethical command ‘if you should, you can’ is transformed by commercial interests into its opposite: ‘if you can, you should.’ Prudence helps us to rise above the sense of urgency with which commercial offers are sometimes presented, and to take the time needed to ensure that our decisions in the ‘virtual world’ correspond to our real needs. In the end, it is a question of striving to grow in *being* and not only in *having*, because Christ’s warning also applies to these new resources: *For what does it profit a man if he gains the whole world and loses or forfeits himself?* (Luke 9:25).

In a certain sense, the new technologies offer us ‘worlds’ of information, news, contacts, and thus each person needs to reflect on how to make best use of these resources given their specific circumstances, in a way that is positive and without losing mastery over their actions. In any case, we need to reject ‘the idea that technology is self-sufficient, when too much attention is given to the ‘*how*’ questions, and not enough to the many ‘*why*’ questions underlying human activity.’⁴³

The habit of study, which directs the desire for knowledge to higher goals, is usually seen as being related to temperance. St. Thomas Aquinas defines the virtue of *studiositas* as a ‘certain keenness of interest in seeking knowledge of things,’⁴⁴ which requires

⁴³ Benedict XVI, Enc. *Caritas in Veritate*, Vatican Press, Vatican City 2009, no. 70.

⁴⁴ St. Thomas Aquinas, *S. Th.* II-II, q. 166, a. 2 ad 3.

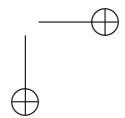
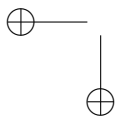
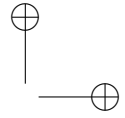
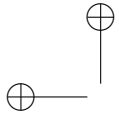
overcoming comfort-seeking and laziness. The more intensely we apply our mind to something in an ordered way, the more eager we are to learn and to know.

The eagerness for knowledge is enriched when it is directed to the service of others, and contributes to loving the world with a clean heart. Naturally, we are eager to keep up with cultural and social changes around us, since we want to direct them to God. But this is quite different from a restless concern for what is happening in the world, with a curiosity shown, for example, in the desire to be informed about everything and not wanting to miss a single thing. This disordered attitude would eventually lead to superficiality, intellectual dispersion, difficulty in staying close to God, and a tepid apostolic zeal.

The disordered curiosity that St. Thomas characterised as a ‘wandering restlessness of the spirit’⁴⁵ can lead to a sadness of heart, to a soul that is weighed down by its failure to respond to its vocation, which requires the effort to draw close to God and serve those around us. This listlessness of soul, sometimes termed *acedia*, is compatible with agitation in one’s mind and body, a reflection of internal unrest. In contrast, the habit of study gives us energy when it is time to work and to build relationships with others. It helps us to make good use of our time and even to find delight in activities that require great mental effort.

We must also recognize the role of the Holy Spirit in our lives to cultivate virtues and to shape our hearts. And not only in our individual lives but also in community, the Holy Spirit works to help us discern together how to live faithfully in this present age. We should not leave the shaping of our digital world to the engineers and computer scientists alone - their work should be informed by insights from Christian social scientists, artists, writers, philosophers, theologians, and fellow pilgrims.

45 St. Thomas Aquinas, *S. Th.* II-II, q. 167, a. 1 c.



Technology, Nothingness and Freedom

Gábor L. Ambrus

AMONG all the problems of a technological society, that of freedom might be the most intractable, riddled with contradictions. Many would agree that technology exerts a liberating power, setting people free from the confines imposed by the needs and imperatives of human existence. Technology certainly lightens the workload, creates opportunities in professional life, and makes it easier to manage a household. It greatly enhances overall life quality, and bestows what is perhaps the most precious of all its gifts and something rare in earlier societies: free time. And free time is, in turn, assiduously targeted and catered to by the technologies of entertainment and global tourism. But the great global levelling effect of technology raises doubts whether the world’s population is truly free. We live in a world where, in terms of lifestyle, not only the diversity of cultures, but also the difference between societal groups increasingly yields to uniformity and conformity. The forms of everyday life and entertainment exhibit similar, technology-induced characteristics no matter whether one is a manual labourer or a middle-class yuppie, or lives in the United States, Russia or Japan. Whereas the individual has a keen sense of freedom and a strong belief in free choice regarding what to buy, where to go or what to watch, the inexorable convergence and integration of global society seems undeniable. One cannot help wondering what kind of freedom the individual has in what appears to be an ubiquitous matrix or a ‘universal machine’.

If convergence, uniformity and integration into a system are the major phenomena that threaten to deprive our sense of free-

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dom of its foundation in reality, no other branch of contemporary technology poses this threat as seriously as information technology and its flagship, social media. The online experience of billions can be orchestrated and fine-tuned at hyperscale by a single algorithm and a few thousand engineers. But the overall levelling effect of information technology on society is not the only concern for those who raise the alarm about human freedom in our time. In a curious counterpoint to technological uniformity, the algorithms of internet platforms like Facebook, Instagram, Twitter and YouTube have attained a degree of sophistication which renders them capable of providing an online experience tailored to each individual user. While this remarkable feat may sound like a great service, it has been achieved by these platforms by means of vast data collection around the clock with a view to ‘mapping’ their users and predicting their behaviour. The uncanny result is that these platforms often know their users better than those users know themselves – an obvious vulnerability which can easily be exploited if there is an intention to do so. Predicting users is just a step away from automating them.

The power wielded by Facebook, Google, Twitter and other companies over their users has evoked a protest movement – books, documentary films, newspaper articles – which tries to draw the attention of the public to the change which surreptitiously transformed the internet in the 2000s with the rise of social media and smartphones. One of the manifestos of the movement is a documentary entitled *The Social Dilemma* (2020). It presents fictional scenes from the life of an average American family grappling with the devastating effect of social media, but also features a series of interviews with prominent technologists and academics like Tristan Harris, Jaron Lanier and Shoshana Zuboff. Its general message is rather dark. *The Social Dilemma* is a tour de force which delves into subjects like psychological manipulation, harmful business practices, and promotion of political tribalism – all relevant to its

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polemics. The crux of the matter with social media platforms is that they are businesses which make money from advertising. By virtue of their thoroughgoing knowledge of their users' current needs, wishes and intentions, they provide third-party advertisers with impressive results as manifested in the number of clicks on ads. But the platforms seek to achieve this goal by maximising what they call 'engagement', that is, by using every possible means to make their users spend as much time on them as possible. No psychological trick is too costly for this endeavour to dupe users into a bubble of their own making, that is, a closed circle of a tribe, a worldview, a lifestyle where everyone likes the same things, thinks the same way and has the same preferences – and where one receives constant social validation. The danger to individual freedom and democratic society resulting from this practice is as evident as the need for an adequate response. What the experts interviewed in *The Social Dilemma* opt for is the political action of regulation and the individual action of reducing use of social media. Whereas regulation is undoubtedly desirable, it is far from certain that the individual can find a solution to the ills of technology in 'non-technology' or 'outside technology'. Can true freedom 'in' the use of social media be obtained in freedom 'from' it by switching off devices, turning off notifications and, as Jaron Lanier puts it at the end of the documentary, 'getting out of the system' and realising 'it's great out there'?

It is the same spirit of searching for freedom from the present social media ecosystem and of mounting resistance against it that informs a book by James Williams entitled *Stand Out of Our Light: Freedom and Resistance in the Attention Economy* (2018). Williams is certainly as little of a Luddite as any of the Silicon Valley insiders interviewed in *The Social Dilemma*. Just as they do, Williams would have recourse to a reform of social media and the internet by embracing the idea of a more 'humane' technology. Nevertheless, it would be unfair to Williams to attribute to him ideas like 'getting

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out of the system’ and ‘leaving technology behind’ from time to time as an antidote to the unfreedom currently afflicting us in the ecosystem of social media. Yet it is assuredly beyond the world of technology, either harmful or humane, where he locates what he sees as the source of freedom and truth nurturing human beings. While trenchantly criticising a harmful technological reality and a harmful business model for cutting us off from this source of freedom and truth, Williams presents a vision of a technology which, by contrast, serves true human needs and helps human beings have broader access to this source lying outside of it. Williams’s entire analysis of what is harmful and also his suggestion of a more ‘humane’ alternative all revolve around the anthropological concept of attention. Human attention is distracted from worthy goals and values by what he calls the current ‘attention economy’ of social media and the internet which exploits human psychological vulnerabilities. Attention needs to be set free for the human truth represented by these goals and values; the true vocation of technology is to serve as magic glasses vivifying the colours of the truth. It is more of a medium than a goal or an interest in itself. But this approach comes at the cost of precluding an engagement with the truth of technology itself.

Williams’s book is pervaded with an anthropological optimism which does not reckon with the possibility that human beings perhaps do not aspire any higher than the reality of the attention economy surrounding them. The book also gives the impression that human beings’ captivity and unfreedom in this economy is just a current state of exception and ‘exile’ which was preceded by a normal course of freedom and will hopefully be followed by a similar course provided that we carry out the necessary measures and regulations. This bias offers us a curious insight into what can be termed the ‘relativity of the experience of freedom’. When a new media environment, new technological conditions and a new kind of economy suddenly appear as a threat to human freedom, this

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perception suggests by implication that the previous conditions provided for a realm of freedom. But were people really free before the rise of the internet when they found themselves, as it were, chained to the mass medium of television? Were they really free before the rise of the attention economy, in the pioneering age of the internet which exerted an utter fascination on them? If the answer might perhaps be a tentative ‘no’, is it possible that historical change only unfolds as a move from unfreedom to even deeper unfreedom?

The decision on the freedom or unfreedom of our age of information technology can perhaps only be made with respect to the contemporary experience of nothingness we often have in our perception of emptiness and meaninglessness. There is of course more to this experience than an occasional fleeting impression; it expresses something true and has a deep origin in the fabric of our times. This age is still one that Friedrich Nietzsche saw as the age of nihilism as a consequence of ‘the devaluation of the highest values’. We have indeed lost all sense of the world having any profound unity (other than a technological one) or moving in the direction of any goal or pointing toward any transcendent truth.¹ This condition is also characterised by Nietzsche through his famous dictum of the ‘death of God’, referring to the obsolescence of religious faith in late modernity. Yet, in Nietzsche’s view, the Christian faith has from the very beginning carried nihilism and nothingness in her womb; indeed, it is highly significant that the age of nihilism emerged in a Christian culture. And our contemporary experience of nothingness as an ultimate theological development can doubtless define the quest of those who search for freedom in our time. But freedom arising out of the experience of nothingness in our time primarily means a free relationship with the essence of information technology.

¹ F. Nietzsche, *The Will to Power*, Penguin Books, London 2017, pp. 17–19.

In what follows, I will first offer a critique of Williams’s book as regards his concept of an attention economy; I will present the latter as a human fulfilment; that is, the fulfilment of the will to power and human unfreedom. Then, I will discuss the notions of nihilism and nothingness alongside their theological dimension. Finally, I shall consider our possibility of freedom in the midst of an environment defined by information technology. I will do so by inquiring into the essence of this technology and interpreting a documentary film on Netflix.

1 *The Attention Economy and the Will to Power*

The title of Williams’s book is taken from a famous anecdote from ancient Greece upon which Williams elaborates with vivid imagination and many details. The anecdote narrates an encounter between Alexander the Great and the great Cynic philosopher, Diogenes of Sinope, which took place in Corinth in the fourth century BC. The story goes that one day Diogenes was enjoying the sunshine, lying in the grounds of a gymnasium. And it came to pass that he was approached by Alexander the Great who happened to be staying in Corinth at that time with a great entourage and who had long been a fervent admirer of Diogenes. Alexander expressed his admiration for him, and made him a generous offer: he would fulfil any wish of Diogenes – he only needs to name it. And so it happened that Diogenes gave Alexander his famous reply, one of the pithiest and the most memorable punch lines in the world’s anecdotes: ‘Stand out of my light.’²

Placed right at the beginning of his book, the anecdote is meant to serve as an allegory to carry the basic message of Williams’s argument. Diogenes stands for any contemporary user of informa-

² Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, cit., pp. 1–3.

tion and communication technologies, as Alexander does for these technologies themselves. While wielding enormous power over us, these technologies assume the role of a servant willing to do our bidding. ‘... our digital Alexanders’, Williams points out, ‘have ... come into our lives and offered to fulfil all manner of needs and wishes.’³ But the fulfilment of these needs and wishes by information and communication technologies comes at a price, because what is to be fulfilled by them are not authentic human aspirations, and also because, as a consequence, these technologies block the light of what would help achieve such aspirations: the ‘light of attention’. These technologies distract our attention, ‘appealing to the lowest parts of us, to the lesser selves that our higher natures perennially struggle to overcome.’⁴ If information and communication technologies have correctly been identified with Alexander making Diogenes an offer, one might ask whether they really appeal to what can be called ‘the lowest parts of us’. And if we as users really play the role of Diogenes in this story, we find ourselves wondering whether the roles of Alexander and the sun – our source of light – have been correctly deciphered by Williams in interpreting the attention economy.

The correctness of Williams’s allegorisation of the anecdote all comes down to whether his understanding of the attention economy in terms of distraction is correct. And it seems indeed that the psychology that drives clicks, likes, shares and comments on social media is something like a force of seductive distraction. Emotional contagion thrives; consideration lags behind. Posts provoking fear or outrage have a much more powerful effect than those conveying simple facts or those suggesting warmth and relaxation. Cute photos and videos featuring children, cats or puppies certainly tempt us into a lot of scrolling instead of doing something else,

³ Ibid., p. 3.

⁴ Ibid., p. xi.

but even more disturbing are scandalous fake news items, going viral within a political tribe, about what someone from another tribe did or said. If user engagement increased in this manner happens indeed to be a distraction from more valuable activities, this is by no means accidental, as engagement with social media sites results from a sophisticated orchestration by what is called ‘persuasive technology’, equipped with artificial intelligence and a highly efficient design.

Williams locates distraction as the operation of the attention economy on three different levels of human existence. He calls them the levels of ‘doing’, ‘being’ and ‘knowing.’⁵ The most basic level of ‘doing’ is that of everyday activities, our ‘awareness and action towards tasks’, in which we become frustrated day by day, not being able ‘to do what we want to do’. The next level, that of ‘being’, concerns the longer trajectory of our lives. Here we are thwarted in ‘being who we want to be’; we are damaged in our ability to have the life we want to have by living up to our higher goals and values. And there is also another level of distraction, the highest one of ‘knowing’. At this level, we cannot even set our higher goals and values, and are frustrated in our fundamental decision about how to live. We no longer ‘want what we want to want’. Obviously, these levels are not independent from one another; if we fail at the highest level to make what Williams considers the right decision – a decision in favour of ‘higher’ goals and values above the attention economy – we fail at the levels of ‘being’ and ‘doing’, too. We succumb to the system. But what if the system of the attention economy perfectly fulfils what we really want? What if our ‘true nature’ makes us say ‘yes’ to it at the highest level of ‘knowing’ – precluding us from choosing any higher goals and values above the system? What if such a course makes the idea of distraction irrelevant to the attention economy, because it allows us to do

⁵ See *ibid.*, p. 49, and the exposition of the idea at pp. 50–84.

exactly what we want to do, and to be exactly what we want to be at all levels?

These questions all boil down to the following: what does the attention economy with social media at its centre offer to counteract those ‘higher goals and values’ Williams so persistently refers to? And what are these goals and values? Although Williams forgoes any definition, he provides a few examples at the beginning of his book which give us some idea of what these goals and values might be. He asserts that what the attention economy distracts us from are activities like learning how to play the piano, spending more time with our loved ones or making a journey we have long intended to make.⁶ Williams even subsumes such activities under the category of the ‘regrets of the dying’.⁷ Such regrets are for those things that make human life worth living and that one fails to realise in the course of one’s lifetime. On the whole, we can risk the conjecture that ‘higher goals and values’ in Williams are the ones that inform and guide our most authentically human activities of love, freedom and beauty. When it comes to the platforms of social media, however, users experience something no less and perhaps even more ‘authentically’ human and disturbingly so. These platforms are arenas where people fight for recognition, prestige and social validation. In other words, these platforms maintain an environment in which the Nietzschean ‘will to power’ can play out in a barely concealed and all too forcible way.⁸ If so, one might ask, then, how social media and their economy of attention can be characterised as a ‘distraction’ provided that they give free rein indeed to a will, a drive, an impetus which is so deeply and most basically human?

6 Ibid., p. 7.

7 Ibid., p. 8.

8 The concept of the will to power received its normative, although fragmented elaboration in Nietzsche’s final, posthumous work bearing the same title.

If interpreted in the Nietzschean terms of the ‘will to power’, Williams’s concept of an attention economy will assume a meaning different from his understanding of it. The hidden formula guiding Williams’s interpretation is ‘attention paid’, whereas the notion of the will to power lays bare a deeper reality in the attention economy which corresponds to another formula: ‘attention desired’. Paying attention to others is merely an instrumental and intermediary phase in the users’ quest to command the attention of others to the fullest possible degree – a quest which is to translate into a growing number of likes, comments and shares. True, Williams considers this other dimension of attention for a short section in his book,⁹ but his overall argument, premised upon an understanding of the attention economy as distraction, revolves around ‘attention paid’ as ‘attention misplaced’. To put the reversal of this concept of attention, with a little irony, into age-old terms of Christian spirituality, an analysis of the attention economy predicated upon a distorted and misplaced ‘contemplative life’ (*vita contemplativa*) must give way to another one based on a likewise distorted life of furious activity (*vita activa*) and will to power, that is, will to the maximum amount of attention, recognition and approval by others. Such a reversal as to one’s understanding of individual users and their motives, of course, does not change the fact that the attention economy’s main objective is to maximise overall attention, either ‘paid’ or ‘desired’, as a neutral quantity and merchandise to be sold to advertisers.

The novel form it takes on social media amply demonstrates that the will to power is not an ahistorical essence of human beings. For, by and large, it has become as much an algorithmically induced and algorithmically conditioned operation as an inveterate human drive. On platforms like Facebook, Twitter and Instagram, it is not

⁹ Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, cit., pp. 57–60.

only *through* an algorithm that users compete with one another for prestige and social validation, but they are also in a competition *with* the algorithm itself. Algorithms and design offer them a playing field of scores and quantities in which they often play with all their might and resolve, blindly and enthusiastically following the inner dictates of the will to power. In fact, for the first time in history, these platforms transform the will to power into a quest for quantified results in the full scope of human relationships.

As Nietzsche famously put it in the last fragment of his posthumously published chef-d’oeuvre: ‘The world is the will to power – and nothing besides! And even you yourselves are the will to power – and nothing besides!’¹⁰ It is clear enough from this quote that the Nietzschean will to power is not the privilege of the strong – those who may feel entitled to be called *Übermensch* or ‘overman’ –, but something that defines everybody, the strong and the weak alike. This characteristic is of crucial importance to the understanding of social media platforms: no matter how relentlessly the will to power operates in them, the more enthusiastic their users are, the further away they sink from the rank of an *Übermensch* – and the more readily they succumb to a despicable herd spirit. For Nietzsche would speak in the lowest terms about dedicated users of social media today – about people who do their utmost to please their own tribe and increase their popularity in it. But these users derive perfect fulfilment from social media, which conform perfectly to their own form of the will to power. And, if they themselves are the will to power ‘and nothing besides’, then, according to Nietzsche, all higher goals and values of love, beauty and freedom – and anything that is supposed to lead outside social media and the attention economy – are, with no exception, to be traced back to the will to power.

¹⁰ Nietzsche, *The Will to Power*, cit., p. 586.

Accordingly, Diogenes of Sinope does not sunbathe in the light of attention high above the attention economy as a distraction. The sunshine he enjoys is that of this very economy and the will to power. In like manner, Alexander the Great approaching him is a tempter indeed, but one who peddles with ‘higher goals and values’, ‘regrets of the dying’ – love, beauty and freedom – and offers redemption. Diogenes looks at him and replies: ‘Stand out of my light. Please lie down at my side instead, and enjoy the sun. Take a nap in the rays where you really belong.’

2 *Nihilism and Nothingness*

The idea of the ‘will to power’ is Nietzsche’s antidote to the nihilism which, according to him, beset European culture by the end of the 19th century. The rise of nihilism goes hand in hand with the decline of Christianity; nihilism is described by Nietzsche as the ‘devaluation of the highest values’, those that have been enshrined by Christianity. It is Nietzsche’s contention, however, that Christianity and the way Christianity has seen God, people and the crucified Christ from the very beginning have carried nihilism and the ‘devaluation of the highest values’ in their core – the disintegration of these values was but a question of time. In response to this disintegration, Nietzsche posits the will to power as a force establishing new values and thereby overcoming nihilism.

‘Why is the rise of nihilism *inevitable* now?’, asks Nietzsche in one of his fragments, and he gives a prompt and radical answer: ‘Because our previous values themselves, when pushed to their ultimate consequences, lead to it; because it is the logical outcome of our greatest values and ideals.’¹¹ In another fragment, he explicitly calls the ‘Christian standard of value’ nihilistic, and does not only claim that it disintegrates of necessity, but also argues

¹¹ Ibid., p. 8.

that it must be exposed, its demise quickened by what he terms an ‘active nihilism’.¹² What makes Nietzsche so ferociously condemn Christian values? And what exactly are these values? Nietzsche is positive that ‘Christianity’s downfall comes about through its morality, which is inseparable from it and which turns us against the Christian God’.¹³ We make a clean break with and even declare war on the Christian God due to the moral values of Christianity. These values are perfectly exemplified in the person of Jesus Christ as an ideal calling us to embrace selflessness, compassion and humility. As Nietzsche points out, such values only serve the interest of the oppressed of society, and the moral edifice built upon them is a ‘slave morality’. A further aspect underpinning this morality is the Christian view of all people being equal and, what is more, the oppressed, the poor, the weak being more precious in God’s eyes. (Let us recall a memorable verse from the Magnificat, Mary’s song of praise, in the Gospel of Luke: ‘He has put down the mighty from their thrones, / And exalted the lowly’.¹⁴) According to Nietzsche, such a state of things is ‘the negation of life itself’¹⁵ as ‘life itself is the will to power’, and ‘nothing in life has any value apart from the degree of power it represents’.¹⁶ Accordingly, what the truth of life itself demands is the celebration of the aristocratic values of the masters, the life-affirming virtues of the strong, the noble, and the mighty like ambition, pride, vigour, lust, and even cruelty – values which Christian morality has always been eager to condemn and tread underfoot. Nietzsche’s indignation over the Christian reversal of values could not be more intense, and he passionately exclaims at one point: ‘How did it come about that the instincts

¹² Ibid., p. 40 and pp. 24-25.

¹³ Ibid., p. 11.

¹⁴ Luke 1:52. The verse’s translation is from the New King James Version.

¹⁵ Nietzsche, *The Will to Power*, cit., p. 42.

¹⁶ Ibid., p. 45.

of the animal called man were turned upside down?’¹⁷ Indeed, life itself is turned upside down in Christian morality; what is in fact valueless is given a high value, whereas what is truly valuable is denigrated and condemned. In Nietzsche’s view, Christianity has been, from the outset, doomed to nihilism.

Nihilism, however, as long as Christian moral teachings retain some form of credibility, does not emerge nakedly. To varying degrees, it remains hidden. Christian values, after all, however contrary to the true values of life and its will to power according to Nietzsche, are still values. Only where Christianity loses all its cohesive force does nihilism surface in a most blatant fashion: Christian moral values are no longer taken seriously, and everything seems valueless as the natural values of life and of the will to power have as yet not been regained. Where, however, the will to power comes into its own, embraced by the strong, the proud and those favoured by nature, unspeakable misery befalls the weak, the oppressed and those who are unfortunate by nature. No longer protected by Christian morality, and without any right to claim any value for themselves, they need to face nothingness as it is. But the real state of things is rarely so clear-cut, and traces of Christian morality often remain. The absence of Christian values like humility, selflessness and compassion does not preclude the presence of something likewise originating from Christianity: the egalitarianism of the mob. Nietzsche speaks of a vulgarised existence in accord with his scathing criticism of all kinds of socialism:

The inferior species, the ‘herd’, the ‘masses’, ‘society’, has lost the habit of humility, and by means of puffery they make *cosmic* and *metaphysical* claims out of their needs. In this way the whole of existence is *vulgarised*, for in as much as the *masses* prevail, they

¹⁷ Ibid., p. 42.

tyrannise over the *exceptions*, so that these lose faith in themselves and become *nihilists*.¹⁸

The egalitarianism of the masses, ‘chopping every head rising above the average’ and making even the noble exceptions nihilists, has a distorted origin in the Christian idea of the equality of everyone in the sight of God. Whereas Christianity downgraded and, in a sense, concealed the will to power to serve the interests of the inferior majority, the modern egalitarianism of the masses usurps a naked exercise of the will to power and deprives it of Christian values. The rule of the egalitarian masses is conspicuously epitomised by what has been called ‘mob rule’ on social media.¹⁹ Obviously, there is a contradiction at work here. Is it not the case that the social media ecosystem is a perfect arena to invoke the individual will to power in a quest for social prestige and social validation? But it is precisely this idea that is contradictory. The average user of social media is desperate to please the highest possible number of other users. All individual quests are deeply bogged down in the swamp of the mob’s liking. What desperate efforts of the individual will to power achieve in the end is but a submission to the collective will to power. This means that power is given to what is valueless – another reversal which is also doomed to nihilism in the Nietzschean sense.

It is doubtful whether Nietzsche is right about the will to power – and its capability to set new values – as a remedy for nihilism. As compared to the Christian centuries in which the will to power remained a distorted and unrecognised force, late modernity has seen it revealed and operating in full swing, while nihilism has also set in as a pervasive reality. As a matter of fact, however pervasive nihilism is, more often than not, its ubiquity is not obvious; it may

¹⁸ Ibid., p. 26.

¹⁹ See Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, cit., pp. 71–76, and cf. R. McNamee, *Zucked: Waking Up to the Facebook Catastrophe*, HarperCollins Publishers, London 2019, pp. 102–103.

even be outright counterintuitive. Nihilism is a thoroughly metaphysical concept, and however ‘real’ it is what the term describes, it does not necessarily appear by way of an actual experience of nothingness.

The meaning of Nietzsche’s concept of the ‘will to power’ was turned upside down by Martin Heidegger who considered this idea itself as a final stage and fulfilment of nihilism.²⁰ In Heidegger’s view, the concept of the will to power is the very conclusion of modernity’s turn to human subjectivity which is supposed to give meaning to everything. Modernity’s long historical turn to subjectivity as a foundation of everything is certainly a countermovement to the religious idea of God’s own establishment of the world’s meaningfulness, but, in contrast to Nietzsche’s, Heidegger’s concern is more philosophical than theological. Nietzsche’s focus on Christianity and its demise is almost obsessive; when he describes the rise of nihilism and the ‘devaluation of the highest values (of Christianity)’ as the ‘death of (the Christian) God’ it is clear that, in Nietzsche’s terms, the current age of nihilism in European culture – stretching from Nietzsche’s time to our period of information technology – can still be characterised as a theological event. Heidegger, however, does not hesitate to trace back the origin of European nihilism beyond modernity, even beyond Christianity – back to Ancient Greek philosophy. In Heidegger’s opinion, the course of Western metaphysics from the Ancients to Nietzsche was under the spell of an oblivion of Being *qua* Being – a curious notion which makes Heidegger conclude that this entire course is altogether nihilistic.²¹ Not that the oblivion of Being *qua* Being is deemed any kind of ‘mistake’ by Heidegger. He regards it as a main characteristic of the Western history of Being, as its withdrawal behind the veil of

²⁰ This is one of the main arguments in Heidegger’s expositions of Nietzsche’s philosophy like *Das Wesen des Nihilismus* and *Nietzsches Wort: Gott ist tot*.

²¹ M. Heidegger, *Das Wesen des Nihilismus*, in *Gesamtausgabe*, vol. 67: *Metaphysik und Nihilismus*, Vittorio Klostermann, Frankfurt a. M. 1999, p. 210 and *passim*.

nothingness.²² Heidegger holds Nietzsche’s philosophy to be the very fulfilment of nihilism in which Being itself is posited as a mere ‘value’.²³ It is Nietzsche’s philosophy of value and his principle of the will to power setting all values that deeply determines Heidegger’s account of him.

Nietzsche’s specific outlook on his age and his philosophy as an alleged transition from values to values sets his thought on the course of nihilism at the outset. He buries, and perhaps rightly so, a God who, by implication, is nothing but a ‘supreme value’. Indeed, the God of modernity, argues Heidegger on his own part, has been dead from the beginning: Descartes’s God, for instance, viewed from the levelling perspective of an *ego cogito*, a thinking subject, was already a ‘murdered one’.²⁴ The ongoing march of the metaphysics of nihilism was destined to arrive at the notion of nothingness in the very place of God. But how does nothingness define nihilism? In his tractate discussing Nietzsche’s nihilism entitled *Das Wesen des Nihilismus*, Heidegger begins his argument as follows: ‘In order to prove to be a meaningful name rather than a catchword, the word ‘nihilism’ says that nihil (nothingness) is essential in what it names. Nihilism means that, when it comes to any being, there is nothingness; and this hardly means only this being or that one, but the whole of beings in their entirety. [...] where beings as a whole come to be disclosed, that is, thought over [...] there is metaphysics.’²⁵ The metaphysics of nihilism covers everything in the shroud of nothingness including the very notion of God.

Surprisingly, the concept of nothingness had a long history in the Greek and Judaeo-Christian tradition. It already made its appearance in Greek philosophy – in the Pre-Socratics, Plato, Aristotle and Neoplatonism –, but it only had a shadowy existence there

22 Ibid., p. 219.

23 Ibid., pp. 204 and 206.

24 Ibid., p. 187.

25 Ibid., p. 177.

which befitted its name.²⁶ It was in Christian theology where its real career started, namely with the puzzling doctrine of the world’s creation out of nothingness, *creatio ex nihilo*, by God. The concept of nothingness figuring in this doctrine became associated with sin and evil in St. Augustine’s theology.²⁷ Although the doctrine of *creatio ex nihilo* assumed a soteriological meaning in Augustine, this transformation of the concept into those of sin and evil has a lot to do with Augustine’s Neoplatonism. On the one hand, Augustine’s theological insight into *creatio ex nihilo* could present it as a new creation by grace out of the nothingness of sin. On the other hand, this theological insight is underpinned by a Neoplatonic one: if beings as such are good as they are, then evil and sin as the deed of evil cannot have being and cannot participate in being. Evil and sin can therefore only be interpreted as the privation of being that is nothingness. It is important to note that, for Augustine, as a consequence of his Neoplatonism, the strange reality of nothingness is one that lies entirely outside God. Now, it was this separation of nothingness from God that was no longer upheld by the theosophical tradition, even if the theological association of nothingness with evil remained in full force. Nothingness came to be seen as belonging to the Godhead itself and thereby figuring in it as a condition of the possibility of evil in creation. This interpretation reached its zenith in German Idealism, and in Schelling and

²⁶ For an introduction to the understanding of nothingness in Antiquity, see M. S. Torini, ‘Apophatische Theologie und göttliches Nichts: Über Traditionen negativer Begrifflichkeit in der abendländischen und buddhistischen Mystik’, in *Tradition und Translation: Zum Problem der interkulturellen Übersetzbarkeit religiöser Phänomene*, ed. by C. Elsas, Walter de Gruyter, Berlin and New York 1994, pp. 493–520.

²⁷ Cf. J. C. Cavadini, ‘Creatio ex nihilo in the Thought of Saint Augustine’, in *Creation ex nihilo: Origins, Development, Contemporary Challenges*, ed. by G. A. Anderson and M. Bockmuehl, University of Notre Dame Press, Notre Dame IN 2018, pp. 151–171.

his famous *Freiheitsschrift* in particular.²⁸ Schelling termed nothingness *Grund Gottes*, a mysterious ground in the Godhead that is a source of both divine and human freedom. As a matter of fact, nothingness as ‘divine ground’ is not evil in itself, but still creates the possibility of evil in human action.

In the 20th century, as the memory of the theological and metaphysical past of nothingness as a concept faded (although never sank into oblivion), so emerged a new meaning of it as experience. Although the perception of nothingness is often and already presented by Nietzsche as ‘meaninglessness’, ‘worthlessness’ and ‘emptiness’,²⁹ more complexity is attributed to its experience in Heidegger who claims in his treatise *Was ist Metaphysik?* that we run into it through dispositions like boredom and anxiety.³⁰ When we truly experience boredom and anxiety, we are not bored with ‘something’ and anxious about ‘something’, but rather bored with and anxious about everything, i.e. beings as a whole, suffused with nothingness. Indeed, we transcend the whole of beings and go beyond the realm of metaphysics. But even such an experience does not mean a face-to-face encounter with nothingness. Rather, it is the beings of the world as a whole that carry nothingness which, as it were, clings to them. In such an experience, nothingness reveals beings as they truly are. Still, to encounter it is an abysmal experience. When it comes to nothingness, we need, in Heidegger’s view, the courage of endurance (*Ausstehen*), whereas the most common human attitude towards it is one of turning away or even fleeing from it outright.³¹

28 F. W. J. Schelling, *Philosophical Investigations into the Essence of Human Freedom*, trans. by J. Love and J. Schmidt, State University of New York Press, Albany NY 2006.

29 Cf. Nietzsche, *The Will to Power*, cit., for instance, Part I/1, pp. 15-25, *passim*.

30 M. Heidegger, *Was ist Metaphysik?*, Vittorio Klostermann, Frankfurt a. M. 1955, pp. 30-32.

31 *Ibid.*, pp. 15, 36, and 47.

Another tractate by Heidegger, entitled *Zur Seinsfrage*, discusses nihilism in similar terms. It points out that European culture entered a ‘zone of nihilism’ which is impossible to ‘overcome’ and ‘leave behind’ by ignoring its truth. We need to engage with its essence. In this zone of nihilism, the power of technology is a major force in the general reduction of beings to nothingness and, if anything, this is the insight behind Heidegger’s understanding of the age of modern technology as an age of nihilism. The nexus between nihilism, nothingness and technology was thoroughly investigated by Heidegger in this treatise. The main force propelling the age of technology as an age of nihilism is the Nietzschean will to power as the relentless will of human subjectivity which dominates all beings through the furious activity of human work. In late modern society, as Heidegger points out, this furious activity takes the form of total mobilisation and total organisation. It can therefore be claimed that, all in all, our age of modern technology operates in the spirit of a distorted *vita activa*, a life of relentless activity. And active and powerful as this spirit is, the truth of nihilism remains hidden to it, as the experience of nothingness perpetually eludes it.

If our contemporary age of modern technology, with information technology at its forefront, is in any sense ‘theological’ as a condition arising in the wake of ‘the death of God’, what does this predicate actually mean? Or, in other words, what is the theological meaning of the nihilism and nothingness that have beset our age? They can have two possible meanings. The ‘death of God’ and the ‘devaluation of the highest values’ may have brought about an entirely ‘post-theological’ age of nihilism in which the operation of nothingness is fully neutral in a techno-scientific sense – bereft of the theological dimension of good and evil. Or: the true experience of nothingness at the heart of a technological and nihilistic age may carry a theological meaning after the death of God, even if deprived of any theological association with evil. Even if beyond good and evil, nothingness when experienced and ‘endured’ as such may no

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longer be so ‘neutral’ and technological after all, but might break the spell of the will to power, set the users of technology free from it and create a sense of transcendence.

3 *Freedom and Information Technology*

Human unfreedom in our age of nihilism – characterised by the will to power and dominated by information technology – can only be adequately answered by facing the nothingness that is at work in nihilism. The experience of nothingness within the environment of information technology offers an opportunity for freedom in the midst of this technology (a freedom *in* it rather than *from* it). Such a freedom through facing nothingness cannot possibly emerge as long as one remains fully under the spell of the will to power and of relentless work, that is, a life of furious activity. Such a freedom can only emerge by regaining some basic form of contemplation.

There are few concepts in European cultural history that throw sharper light on the transition from Antiquity and the Middle Ages to modern times than those of *vita contemplativa* and *vita activa*. However game-changing the rise of Christianity was, both Antiquity and the Middle Ages gave a certain priority to contemplation over action, albeit in a different way. In making a marked distinction between those who have a free vocation dedicated to the ‘beautiful’ and those whose activities are defined by usefulness and necessity (like slaves, craftsmen and merchants), Aristotle identifies three ways of life among the former: indulgence in bodily pleasures, political activity in the service of the city state and philosophical contemplation.³² That the contemplative life of a philosopher embodies an ideal and indeed a vocation superior to others is just as evident in Aristotle as in Plato. True as it is that Aristotle still saw a great deal

³² H. Arendt, *The Human Condition*, University of Chicago Press, Chicago and London 2018, pp. 12–13.

of dignity in a life dedicated to politics, the political apathy of late Antiquity and the early Middle Ages, coupled with a new, Christian sensibility, further deepened the difference between *vita activa* and *vita contemplativa*. It was transformed into a fully fledged opposition between worldly activity and contemplative inactivity, ‘unquiet’ and quiet. ‘Compared with this attitude of quiet, all distinctions and articulations within the *vita activa* disappear. Seen from the viewpoint of contemplation, it does not matter what disturbs the necessary quiet, as long as it is disturbed.’³³ Even if the realistic view of a balance between the two asserted itself,³⁴ clearly superior is the quiet contemplation of heavenly things which assigns to the category of *vita activa* all forms of human life considered by Aristotle: not only the toil of the slave and the craftsman, and not only political activity, but also the thought and reasoning of the philosopher. Therefore, the change in the meaning of the concept was profound. Whereas it had previously rendered in Latin the Greek *bios politikos*, the noble life of political activity, it came to denote all kinds of worldly activities which, in contrast to the freedom of heavenly contemplation, are basically unfree and unfold of necessity. But it was precisely these worldly activities that gave rise to the modern world. What the mediaeval term *vita activa* includes was *de facto* to enjoy a steadily growing prestige, even if the philosophical glorification of the concept’s meaning only came relatively late with the philosophy of Hegel, Marx and Nietzsche.

The vicissitudes of *vita activa* received a book-long, ominous homage in *The Human Condition* by Hannah Arendt. Arendt does not deny the validity of the experience lying behind the distinction between *vita activa* and *vita contemplativa*, but she is in disagreement with the superiority enjoyed by the latter in the major part of the Western tradition. She claims that what the concept of *vita*

³³ Ibid., pp. 15–16.

³⁴ Cf. Han, *The Burnout Society*, cit., p. 16, n. 1.

activa implies is neither inferior nor superior to contemplation, but deserves more attention by reason of its hierarchical dependence in the tradition. ‘My contention’, she declares, ‘is simply that the enormous weight of contemplation in the traditional hierarchy has blurred the distinctions and articulations within the *vita activa* itself...’³⁵ And indeed, such ‘distinctions and articulations’ form the core of her argument. In contrast to *action* that is performed in the political realm, and *work* that brings about durable creations including artefacts and works of art, it is *labour* which gains particular significance in late modernity. It is directed at the necessities of life, and also attaches the individual to the life process of the species. Labour degrades the individual who spends most of his or her time performing it to the level of an *animal laborans*. The rise of the *animal laborans* as an ideal coincided with that of ‘society’ and the ‘social’ in the 19th-20th century. The supreme goal of this society is ‘happiness’ which, in curious conjunction with the harsh imperatives of labour, means the fulfilment of all kinds of wishes and desires by consumption.³⁶ It has, in dispute with Arendt, been argued that the main force driving members of contemporary society – the one making them unfree – is maniacal self-interest to the point of self-exploitation.³⁷ Indeed, it seems that the phenomenon of ‘promoting one’s own brand’ on social media, for instance, points to anything but the sliding of the individual back into the life process of the species. But social media and its ecosystem have also been likened to an immense hive, in which individual ambition submerges in the gregariousness of tribes³⁸ – a view which supports Arendt’s argument and leads to a conclusion that, all in all, the individual will to power succumbs to the collective one of a tribe.

35 Arendt, *The Human Condition*, cit., p. 17.

36 Ibid., p. 134.

37 *Psychopolitics. Neoliberalism and new technologies of power*, cit., *passim*.

38 Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*, cit., pp. 445–474.

A social media platform like a hive of the *animal laborans* with many millions of bees carrying out their work is a tempting image – and a telling one with respect to the fact that these platforms are not intended to be sites of labour. There is only a very small minority of users on social media who thereby earn a living, satisfy life’s necessities and entirely fit Arendt’s definition of the *animal laborans*. Still, even if entertainment is the primary purpose – or, shall we say the primary enticement? – for which social media platforms were designed, their use was destined to turn out something which very much resembles labour. Posting, commenting, sharing, the perpetual grooming of one’s profile requires a great deal of effort quasi around the clock which certainly amounts to an occupation like one’s second job. For such an incessant *vita activa* to give way to any form of contemplation carrying the promise of freedom, it needs a lapse into a state which is broadly related to a platform’s inherent purpose of entertaining its users. Yet ‘relatedness’ here means nothing else than the very failure of entertainment. For it can happen that the most productive online activity lapses at its height into a curious inactivity which is as riveting, ‘enchanted’ and passive as any kind of online entertainment, but in truth it falls into the category of a strangely ‘contemplative experience of nothingness’. It is crucial to note that such a switch to contemplation defined by the perception of nothingness takes place in the middle of the technological hive of the *animal laborans*. Even if a kind of antithesis to a furious *vita activa*, it deeply belongs to the latter as its inherent possibility.

Accordingly, there is an intrinsic possibility of regaining, if not the *vita contemplativa* of Ancient and Mediaeval tradition, at least the aforementioned form of contemplation from time to time on any platform of social media – precisely on those that are deliberately geared towards incessant activity like Facebook, Twitter and Instagram. Nevertheless, there are social media platforms such as YouTube and other kinds of websites likewise belonging to the at-

attention economy like the streaming platform Netflix that are designed to enable something like a leap from a derivative form of contemplation to the contemplation of nothingness. If regained, the freedom of contemplation on these platforms has the experience of nothingness as its highest possibility. This experience, which escapes the circle of *vita activa* and breaks the spell of the will to power, does not arise ‘out of nothing’. Rather, it emerges by entering into a free relationship with the essence of information technology – by a contemplative insight into it. If this is the case, and freedom in a free relationship is at stake, what is its primary medium, the contemplation of nothingness or that of the essence of information technology? The answer lies in the above-stated, curious character of nothingness that it cannot be contemplated face-to-face or experienced as such. Such an experience or contemplation can only arise through ‘things’ to which nothingness, in a sense, ‘adheres’. And there are, no doubt, ‘things’ disclosed when one enters into a free relationship with the essence of information technology which, accordingly, is the primary medium of freedom. And through these things, nothingness also emerges. If we manage to determine what these things are and what the essence of information technology is, it will also become clear why they invoke the experience of nothingness.

So suffused is the online environment with facts, numbers, news items and sheer positivity by its very design that an encounter with nothingness is indeed the last thing that we would expect from it. This positivity may in fact point toward something that we may single out as the principal feature and indeed the essence of information technology. Heidegger famously conceived of the essence of modern technology as ‘enframing’ (*Ge-Stell*), that is, something like a ‘positing within a frame’. The ‘positing within a frame’ that is at work in modern technology enframes nature as a mere reservoir of resources or *Bestand*, that is, ‘standing reserve’. The dual event of *Bestand* and *Ge-Stell* is not quite the doing of human beings, it

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is more of a process in which nature reveals itself in this particular way.

Everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a further ordering. Whatever is ordered about in this way has its own standing. We call it the standing-reserve [*Bestand*]. The word expresses here something more, and something more essential, than mere ‘stock’. (...) Whatever stands by in the sense of standing-reserve no longer stands over against us as object.³⁹

That the standing-reserve is no longer an object in its state of being entirely at our disposal is clearly a technological relation implying a strange combination of human power and powerlessness. But the essence of modern technology itself and true freedom arising from it are, according to Heidegger, not technological. Freedom in using modern technology can only come about by an encounter with its essence qua essence as its truth reveals itself ‘in the open’, coming out of its concealment.

Freedom governs the open in the sense of the cleared and the lighted up, i.e., of the revealed. It is to the happening of revealing, i.e., of truth that freedom stands in the closest and most intimate kinship. All revealing belongs within a harbouring and a concealing. But that which frees – the mystery – is concealed and always concealing itself. All revealing comes out of the open, goes into the open and brings into the open. The freedom of the open consists neither in unfettered arbitrariness nor in the constraint of mere laws.⁴⁰

If such is the event of freedom in the midst of modern technology, the essence of information technology and the possibility of freedom emerging from it must be of a similar kind. Its formal charac-

39 M. Heidegger, *The Question Concerning Technology and Other Essays*, trans. by W. Lovitt, Garland Publishing, New York and London 1977, p. 17.

40 *Ibid.*, p. 25.

teristics must stand in a kinship with *Bestand* and *Ge-Stell*. Accordingly, one may venture to say that the essence of information technology is *itemisation* or *diagrammatics*. Informational items form a whole on the simple basis provided by the logic of *addition* and *correlation*.⁴¹ What they make up is not a philosophical system by means of the organic unity of a concept, but a technological system by way of a network or – to put it in visual terms akin to the spirit of information technology – a diagram.⁴² The unity of such a network and diagram is simply correlational without any necessity – a superficial unity to which anything can simply be added at any time. Such a network or diagram certainly implies parts as units or items or data points, and a whole as a correlational conglomerate of them, but it is a conceptual hodgepodge, even if tightly knotted technologically – permeated with the emptiness and meaninglessness of the whole, indeed, constantly on the brink of ‘falling apart’ and plunging into nothingness.

How does the experience of nothingness emerge in an encounter with the essence of information technology? At this point, we need to return to the technological *vita activa* as it unfolds on social media platforms – like Facebook, Twitter, Instagram and Youtube – or on streaming platforms like Netflix. These platforms’ life of activity can, now and then, without any determination or interference of human will, turn into contemplation in a specifically technological experience of nothingness. Although this experience is distinct from the ways of encountering nothingness – anxiety and boredom – discussed by Heidegger in his *Was ist Metaphysik?*, it can

41 Cf. *Psychopolitics. Neoliberalism and new technologies of power*, cit., section ‘Spirit (*Geist*)’.

42 Cf. Heidegger’s exposition of the concept of a philosophical system and of mediaeval diagrammatical systems in his commentary on Schelling’s *Freiheitsschrift* and German Idealism: M. Heidegger, *Schelling’s Treatise on the Essence of Human Freedom*, trans. by J. Stambaugh, Ohio University Press, Athens OH and London 1985, pp. 22–33.

easily coincide with boredom due to the simple fact that these platforms are as much defined by entertainment as by its potential failure. Just like that of anxiety, the experience of boredom is laid out in Heidegger without any reference to technology, yet it shares a curiously holistic perspective with the technological experience of nothingness. The latter has a tendency, in all its technological character, to extend to the world as a whole in the same way as the experience of being ‘bored with something’ comes into its own in a ‘boredom with everything’. How can an experience of nothingness be a technological one? What kind of experience is it? The perception of nothingness in the midst of these aforementioned platforms happens coincidentally through boredom – in the way Martin Heidegger described the latter – and mainly by the experience of what is called *Leerlauf* in German and *üresjárat* in Hungarian, and for which only an approximate expression can be found in English like *idling in neutral*. The primary meaning of the German and Hungarian terms takes us into the field of the technology of engines just as the English phrase *idling in neutral* does. When it idles in neutral, a car’s engine certainly operates, but does not transmit any motion to the car’s wheels. It is an operation that does not produce any result or effect. This phenomenon is expressed more visually in German and Hungarian, as *Leer-Lauf* and *üres-járat* are compounds. The words *leer* and *üres* mean ‘empty’, whereas *Lauf* and *járat* are approximate equivalents of the English *operation* except that they have their etymological origins in verbs that mean ‘go’, ‘walk’ and ‘run’. Accordingly, beyond its primary technological meaning, *Leerlauf* and *üresjárat* suggest something like an ‘empty walk’. This ‘empty walk’ or ‘idling in neutral’ is the way in which the experience of nothingness unfolds in the diagrammatic organisation of internet platforms and information society at large when users or individual ‘netizens’, as it were, ‘emptily slide over’ or ‘pointlessly walk along’ the items of a diagram without any efficiency or any result, and also without any joy or happiness of merging with the reality of big

data. Note that this is still an operation which is entirely technological. The diagrams of items, notes and data points, as the individual walks along or slides over them one by one, stay suspended in the meaningless void of nothingness. As a matter of fact, such an operation still retains something like an empty shell of the *vita activa* of the *animal laborans* from which it emerges. It is nevertheless only one step away from leaping into the freedom of contemplation in the quiet of nothingness.

There is no doubt that the operation of *Leerlauf* or *üresjárat* is as broadly applicable to streaming platforms like Netflix as it is to social media. For the default mode of using them is also a form of *vita activa*. If the highly dense mental acts of watching films involve anything like a contemplation, they do it only in a derivative sense. The ‘idling in neutral’ that is *Leerlauf* and the contemplation of nothingness can, however, emerge by virtue of the diagrammatic layout of these platforms, indeed, through the characteristics of a diagrammatic medium – taken in the broadest sense of visual organisation of information and data – that informs the majority of platforms on the internet. And Netflix is certainly one of them. None of the films available on Netflix are as telling of ‘diagrammatics’ and itemisation – the very essence of big data and information technology as well as that of Netflix itself – as those that incorporate them into their subject and their narrative. Such is, for instance, the documentary film entitled *The Jesus Code*. At first glance, *The Jesus Code* looks like a six-part panorama of episodes, figures and events from the story of Jesus which uses extant manuscripts, relics and other historical artefacts as its point of departure. For all the presentation of techno-scientific methods inquiring into these artefacts – the most prominent among them is carbon dating – it seems as if the real frame of the documentary were, on the one hand, still the stories of the canonical and apocryphal gospels (enacted by actors) and, on the other hand, theological knowledge (derived from interviewed scholars). In reality, the truth of the film is quite the

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opposite. The real frame of *The Jesus Code* is formed by data analysis and other techno-scientific methods, and it is only in this frame (which corresponds to the larger diagrammatic frames of Netflix, the internet and the big data of information society) that gospel stories and theological ideas – like nice cameos – are allocated a place. *The Jesus Code* does not present any coherent narrative or theology; its unity is entirely technological. It is indeed a ‘code’, one which is visually organised in the manner of a diagram – a pictorial arrangement of data points. *The Jesus Code* is not only a perfect vehicle for *Leerlauf* and the contemplative experience of nothingness, but also an expressive product of the theological event of the death of God and of the rise of nihilism.

Conclusion

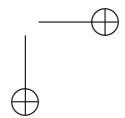
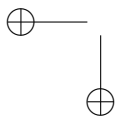
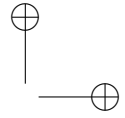
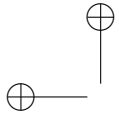
When it comes to the concept of nothingness, the contrast is striking between its elusiveness and the significance it can nevertheless assume. What is called ‘nothing’ will hardly amount to anything more than its literal sense, i. e. ‘no-thing’. It will hardly ever be given anything other than a phantom-like ‘existence’ by common sense. Is the concept of nothingness not bound to prove something like an ‘illusory solution’? Are regulations and other kinds of ‘positive’ measures not much more appropriate to fight unfreedom in the world of information technology? In truth, nothingness offers so little of a solution for anything that its experience cannot even be ‘willed’. If it has anything to do with human volition, it lies in the alternative of enduring it in contemplation or fleeing it in *vita activa* when it emerges through the essence of information technology. Most of the time, nothingness remains hidden in spite of defining our age of information technology as a current stage of the age of nihilism. The ongoing long period of nihilism cannot be ‘overcome’, as Nietzsche thought, by means of the will to power and its *vita activa*. Quite the contrary, the former even thrives on the

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latter; the nihilism within the ecosystem of information technology can only be *faced* – and the will to power can only be broken – through the contemplative experience of nothingness. This experience leads beyond the paradigm of attention, suggested by Williams, which points by preference *outside* what he calls the ‘attention economy’, that is, the present ecosystem of the internet – indeed, preferably *outside* technology itself. The experience of nothingness leads beyond this paradigm and emerges *within* the world of technology, *within* the ecosystem of internet platforms. At our historical moment, it is inseparable from the essence of information technology. Even if solely for the isolated individual, this experience offers freedom within the technological world and within the use of internet platforms.

It was the Christian tradition that recognised the freedom of contemplation in an undisturbed quiet, but is it not only in a formal sense that such an experience of nothingness is ‘Christian’? Is it not true that such a contemplation is not ‘heavenly’ at all in the era of nihilism, leaving far behind its mediaeval sense? Nihilism is a kind of metaphysics in which ‘when it comes to anything, there is nothingness’, but this formula has the major implication that ‘when it comes to God, there is nothingness’. As long as there is nihilism, its main concern, however hidden, is ‘God as nothingness’. Nothingness as a way of contemplation and freedom is anything but a ‘neutral void’ in our age of information technology, and anything but ‘post-theological’ in the wake of the death of God. True, nothingness as faced in the contemporary technological world no longer has any theological association with evil, and no longer offers any return to a ‘primaeval Godhead’ to which nothingness would have inherently belonged. This kind of nothingness may, however, open a way to a God to come who will be, as Nietzsche surprisingly put it in one of his fragments, ‘a God beyond good and evil’.⁴³

43 Nietzsche, *The Will to Power*, cit., p. 44.



This Mysterious New Sun: Reflections and Responses

James Williams

If we are blinded by darkness, we are also
blinded by light.
When too much light falls on everything, a
special terror results.

Annie Dillard^a

^a Annie Dillard, *Pilgrim at Tinker Creek*, Harper-Collins, 1999.

THERE is a minor, tree-bunched mound of earth sticking out of the Bay of Bengal, way out off the east shoulder of the Indian peninsula, on which a handful of families have lived their whole lives in lockdown in order to be free. We call them the Sentinelese – we have no idea what they call themselves – and while strictly speaking they are not ‘uncontacted,’ our best cultural experts have inferred that they wish to keep a safe distance from the rest of us because they try to murder anyone who visits their island. Their country, of whose existence they are unaware, calls them a Particularly Vulnerable Tribe.

Generally, people leave them alone; still, the government mandates it for good measure. A primary reason given for supporting their isolation is to protect them from pathogens against which they are not immune. We do not know which ones those are. Naturally, the Sentinelese do not get vaccinated because they do not know what vaccinations are, or doctors, or medicine. We do not know how many children run around on North Sentinel Island or what

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games they play. We do not know what makes their parents laugh uncontrollably or get depressed or embarrassed, if they do. We do not know what their words are for ‘tree’ or ‘love’ or ‘island’ or ‘free,’ or how their great story of the world begins and ends, if it does. We do not know what they think aeroplanes are.

We do, however, know that the Sentinelese are human. From this a great deal follows. They are ‘born free and equal’ to us ‘in dignity and rights.’¹ They have ‘the right to a nationality’ and the right ‘to take part in [their] government.’ They have the right not to be ‘subjected to arbitrary arrest, detention, or exile.’ They have, like us, ‘the right to freedom of thought, conscience and religion,’ the right ‘to change [their] religion or belief,’ and the right ‘to seek, receive, and impart information and ideas through any media and regardless of frontiers.’ All human beings have these rights irrespective of ‘the political, jurisdictional or international status of the country or territory’ to which they belong. Any human rights worth the term ‘universal’ extend to the Sentinelese to the exact same degree as they extend to you and me.

Yet in their isolation the Sentinelese cannot exercise these universal human rights. Indeed, they are unaware that they even have them. This does not owe to anyone’s malicious designs; arguments made in favour of noninteraction are typically also concerned with furthering the tribe’s wellbeing. No doubt those arguments are motivated by sincere feelings of respect. Yet it is difficult to see how the isolationist view does not ultimately undermine the tribe’s universal human rights by depriving them of the opportunity to exercise, and even be aware of, those rights. It would seem an awkward form of respect indeed that would exempt a human from the category of humanity.

But my purpose here is not to advocate the Sentinelese’s case one way or another. Rather, I want to use their situation as a way

¹ United Nations, *Universal Declaration of Human Rights*, 1948.

into the question of freedom and captivity in our present context of digital technology. While it may seem strange to draw on a group still steeped in archaic ways for this modern purpose, their situation in fact embodies a number of key tensions related to freedom that we now grapple with in the digital domain – and which my colleagues in this project have raised at various points in their texts. Those tensions involve, among other things, matters of negative versus positive freedom (i.e. ‘freedom from’ versus ‘freedom to’); the conditions, and even the possibility, of having authentic preferences; freedom as a state versus freedom as a process; the relation between dignity and freedom; and questions of novelty versus habit in motivating and justifying freedom-promoting interventions.

Here I will discuss these and other themes that pertain to freedom and technology, broadly speaking, while giving particular attention to the way in which religion, broadly speaking, may cast a helpful light. I intend all these categories, but especially ‘technology’ and ‘religion,’ to operate in the widest useful sense in which you wish to take them. This is in no small part because their boundaries – like so many boundaries in our digitally scrambled age – now seem under constant renegotiation. Another reason for beginning with such a big-tent ontological stance is purely practical: to provide a minimum viable entry point for the widest possible range of readers. My purpose here is not to narrow and refine definitions and distinctions, but rather to smash together a few conceptual particles and observe what weird quirks and energies spin out. Accordingly, my categories here are directional. Broadly, though, I intend for the term ‘technology’ here to refer to human activity that exists as an answer to the question ‘How?’ and for ‘religion’ to mean human activity that exists as an answer to the highest available sense of the question ‘Why?’ As for the term ‘freedom,’ I will return to that presently.

Why is this intersection of subjects worthy of our attention? For one, because hows need whys to give them purpose, and whys need

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hows to give them process. Means and ends structurally codepend. But it is also because the field of correspondence between the whys and the hows is where the question of human freedom – or subjection – acquires a certain kind of teeth. It would be a rare person indeed who did not care, at least in principle, if the technological systems and structures that shape their living were set in opposition to that which they care about most, that which they love, and that which they hope will one day be.

This subject also merits our attention because it concerns attention itself. The very attention with which we shape our actions, perceptions, habits, identities, values, stories, priorities, motivations, and desires – across all scales of our lives – has become newly questioned for by technological systems of unprecedented scale and influence, in thrall to dubious extractive incentives, in a kind of twenty-first century gold rush. The existence of digging for gold is not new, of course, but its recent industrialization is. There is a long history, across cultures and back through the mists of time, of the idea that our attention-giving constitutes, in a quite literal sense, our being. We are what we attend to. In this light, what is at stake in the present competition for our attention is not merely the practical success or harmony of our lives, but whether our lives are even ours in the first place.

A further motivation for this inquiry is exploratory in nature. I am curious about this particular intersection of domains because I have a hunch – and it is so far only a hunch – that there is some unique and essential kind of insight about our environment of digital technology that the perspective of religion studies stands to offer. To be clear, I mean this in a procedural sense – that is, quite apart from matters pertaining to the content of any particular belief system or theological framework. It may be that, theology being in part concerned with the effective interpretation of a designed world, there exist methods that could be useful to apply toward the interpretation of our digitally designed world. Or it may be that

the perspective of religion studies uniquely affords one a certain operational transcendence that makes it easier to avoid falling into the all-too-common errors of economic or political reductionism in the analysis of digital technology, or of ideologism or populism in its reform. Whatever the case, I am under no illusion that I will exhaust or resolve this hunch here. But it is one more nudge that tailwinds my participation in this inquiry.

My text here will consist of three parts. First, I will offer some reflections on the question of freedom in our present technological environment, with a view toward ways in which religion (broadly speaking) may offer useful angles of illumination. Second, I will provide a few responses to the diverse mosaic of papers which my colleagues on this project have so thoughtfully written. Finally, I will close with a few culminating thoughts on the themes contained herein. Throughout, my analysis will be exploratory in character because exploration is a particular need at this intersection of subjects at this particular time. And I would be remiss if I did not also let my hows serve my whys.

1 *An Ode to Freedom*

The design and assessment of digital technology today is beset by a severe ontological pettiness. This pettiness is visible in the dilution of language commonly used in design contexts (e.g. ‘relevance,’ ‘interests,’ ‘friends,’ ‘influencers,’ ‘smart’ technologies). It is visible in the unambitious goals toward which we apply these unprecedentedly powerful systems, such as in the maximisation of user ‘engagement’ (often in the form of petty attention signals such as ‘clicks’ or ‘eyeballs’). It is also visible in the economic reductionism that seeks to treat the problems of digital technology as coextensive with, for instance, the problems of capitalism gone awry. And it is visible in the agonised theatrics of what we might call digital populism, where group passions mobilised by perceived reactance push for

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symbolic victories – such as forcing billionaire CEOs to squirm before lawmakers, or pressuring them to censor undesirable voices on their platforms – which often seem more important than achieving substantive, sustainable reformations of the underlying systems that could bring them into greater alignment with human interests.

All these variants of pettiness, and many others like them, reflect among other things a profound failure of imagination: a failure to ask what our technologies are fundamentally for, what we want them to do for us, and what our lives could look like if they were truly on our side. This absence of imagination *about* technology is accompanied by, and further enables, an absence of higher standards *for* technology. There is no small irony in the fact that we now face a historic challenge of developing higher standards for the largest and most powerful system of human influence ever created, at the very same moment that it seems to have become harder than ever to justify or even articulate our higher standards for ourselves.

To be sure, our technologies take their shapes from many causes, including profound political and economic influences – but neither the political nor the economic comprise the final horizon of what our technologies are for, or the kinds of people we want them to help us become. Yet even the grandest assessments of the state of human-technology relations in recent years have seemed unable to go substantively beyond political or economic analysis; this is true even of the most astute and comprehensive contributions, including (but not limited to) Stiegler’s ‘liminal capitalism,’² Zuboff’s ‘surveillance capitalism,’³ capitalism.⁴

Ethics is the domain where we would expect to see these higher standards being elaborated and advanced. While there has been a degree of rigorous and thoughtful work in this area, it is striking

2 B. Stiegler, *For a New Critique of Political Economy*, Polity, 2010.

3 Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*, cit.

4 G. Frank, *Mental Capitalism*, Birkhäuser, 2005.

how little influence technology ethics has so far had on either the operational development of digital technologies or the landscape of social imagination that guides and motivates that development. The revolution, it seems, will not be syllogised. Whether we should expect ethics as such to have, or aspire to, this degree of practical influence in the first place – as opposed to relying on other fields or sectors of society to perform the necessary task of translation and dissemination on its behalf – is another question. Regardless, the more important question, it seems to me, is whether the domain of ethics as presently construed is even in principle capable of gaining and retaining the degree of influence on actual human activity that the importance of its subject demands. I am thinking here primarily (but not solely) about its capacities for motivational influence: for instance, the way in which ethical thought and analysis can achieve, or fail to achieve, traction on a person’s attention and a connection with what they care about. This is partly a question about the relation between logic and rhetoric in contemporary ethics, but it is also more than that. It concerns the way in which ethics is able to speak the language of real life.

To take a specific example of what I mean, consider the term ‘wellbeing,’ which is standard vocabulary in ethics that on certain moral theories refers to a non-instrumental good. (Of course, the term is used in other contexts, such as health and psychology, in different senses.) On some ethical theories, promoting wellbeing is the primary moral aim – that is, arguably the most important thing in life. And yet, the term ‘wellbeing’ has never quite seemed to show up for its own importance. It has always seemed to me motivationally compromised in some foundational and potentially irredeemable way. It has the feel of a generality that merely pretends at specificity, like a grocery store’s own brand of yoghurt that has gone through a shrugged approximation of symbolic narrowing – it has been assigned a pronounceable name, an adequate but forgettable logo – which a calculating, value-oriented shopper might settle for,

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but no one will never find themselves yearning for. So it seems with ‘wellbeing.’ Has anyone ever woken up, sweating, from a dream and scrambled to find a pen so they could transcribe an epiphany about wellbeing? Has anyone ever engraved the term ‘wellbeing’ on a charm bracelet or included it in their wedding vows? Has anyone ever composed an ode to ‘wellbeing’?⁵ Perhaps some philosophers have. And perhaps the term is adequate – indeed, it seems to be so – for the workaday procedures of conceptual analysis. But for a term that is often meant to refer to the highest good in life, it is – like other generic-yoghourt terms of its ilk – wholly inadequate to serve as the motivational rallying point necessary for meaningfully steering the design of technologies that shape the lives of billions of human beings. Trying to rally the world around a vision of ‘wellbeing’ would be like text-messaging a friend the coordinates 46.8523° N, 121.7603° W as a way of trying to inspire her to climb a mountain – as opposed to, say, showing her a picture of Mount Rainier at sunset, looking her in the eyes, and daring her to go there.

The quality that I am talking about, which the term ‘wellbeing’ and similar store-brand-yoghourt terms lack, does not seem to line up with any existing concept that I can think of. It may overlap with, but is not coextensive with, the concepts of: mimesis (as contrasted with diegesis, i.e. showing vs. telling), human-scale or human-centred design, concreteness (as opposed to abstraction), or attentional salience. It is not purely an aesthetic property, like beauty, although Aquinas’s three conditions for beauty (*integritas*, *consonantia*, and *claritas*) do come somewhat closer to what I mean. This quality seems related to the inverse of the concept of ‘leerlauf’ which Dr. Ambrus discusses in his paper, i.e. the frictionless quality of attentionally ranging over a thing without getting any useful

⁵ A Google.com search for the exact-matched phrase ‘ode to wellbeing’ returned 11,300 results. All consisted of marketing copy on websites promoting skincare treatments, spas, hotels, bath accessories, and other products in the retail and travel verticals.

traction on it. In any event, my purpose here is not to develop sharp definitions or distinctions, so for now I will refer to this quality as that of being *grapply*, because the more a term has it, the more it motivates and equips us to grapple in a meaningful and sustainable way with the most important things in life.

When we turn to the question of freedom, the grappliness of our linguistic and conceptual tool sets represents a kind of second-order freedom. They can make us more free to determine what it means to be free. ‘Freedom’ is, of course, a particularly grapply term. A number of its most important dimensions and distinctions have been raised in the papers my colleagues have written for this project.

Sometimes the same term can be ‘grapply’ in one way, but not another. This is the case with ‘freedom,’ in particular in the distinction between negative and positive freedom (or ‘freedom from’ and ‘freedom to’). Broadly, negative freedom is concerned with the absence of undue constraints, while positive freedom pertains to the presence of necessary capacities or other conditions. If negative freedom says, ‘Get out of my way and let me do my thing,’ then positive freedom says, ‘Give me what I need in order to be able to do my thing.’ For many reasons – among them personality, culture, or temperament – one of these types of freedom is often more salient for a person than the other. In the West, and especially in the United States, the popular concept of freedom as absence of constraint means the cultural set point of salience leans strongly in the direction of ‘freedom from.’ It can therefore be rhetorically prudent to frame questions of positive freedom in terms of negative freedom, at least initially, in order to make them more grapply.

This was one of the main reasons I began my book with Diogenes of Sinope.⁶ The book’s titular metaphor comes from the famous

⁶ Williams, *Stand Out of Our Light. Freedom and Resistance in the Attention Economy*, cit.

story wherein Alexander the Great fawningly approaches Diogenes and offers to grant any wish that he would name – to which Diogenes, lying in the sun, retorts, ‘Stand out of my light!’ Alexander here is analogous, I suggest, to the globally dominant technological powers of our time, and Diogenes’s obstructed ‘light’ serves as a useful device for representing, as well as expanding the conceptual boundaries of, our attention which is the object of their strenuous competition. The Diogenic-Alexandrian interaction worked well as an organising metaphor on many levels, but particularly in the way it allowed for a neat framing of positive freedom in negative-freedom terms. It brings the imperatives of ‘Get out of my way!’ and ‘Give me what I need!’ into narrative and conceptual alignment.

When we bring this reframing of freedom into the context of digital technology, it parallels and connects naturally to the point made by Herbert Simon, which I discuss at length in the book, about how information abundance creates a scarcity of attention. When a mental model of the internet reigns that understands it as packets of information zooming along at the speed of light, the defence impulses of negative freedom are primarily concerned with countering impedance. In concrete terms, this takes the form of a focus on censorship, privacy, data protection, and the like. To persuasively reframe positive freedom in terms of negative freedom in this context – that is, to describe attentional matters in terms of informational ones – the most effective and accurate way is not to negate the informational frame, but rather to push it to its extreme. For example, one might describe our modern media landscape in cybersecurity terms, e.g. as being like a denial-of-service (DoS) attack on the human mind. Another way of describing this move is that it shifts the focus from the content of speech to the nature of the speech act.

Closely related to the question of positive and negative freedom is the question of achieving freedom via the imposition of constraints

– ‘freedom from in order to be free to,’ as Sr. Veigas writes in her paper. Sometimes these constraints are self-imposed; in *The Reasons of Love*, Harry Frankfurt writes that ‘the way in which the necessities of reason and love liberate us is by freeing us from ourselves.’ There is a precedent, he adds, for freedom via submitting to constraints in ‘the most ancient and persistent themes of our moral and religious traditions.’⁷ In the context of digital technologies today, these self-imposed constraints are sometimes referred to as ‘commitment devices’ or ‘Ulysses-pact technologies.’

The matter of submitting to or endorsing a constraint on oneself quickly raises the question of the authenticity of that submission or endorsement. This question of authenticity was a theme running throughout my colleagues’ responses. Setting aside for now the deeper question about whether, and in what sense, it is ultimately possible to have authentic preferences, there are two important considerations related to authenticity worth mentioning here. The first concerns the interpretation of a person’s communications or other signals as representative of their authentic preference. As I discuss in the book, in the context of the digital attention economy it is often convenient for designers or engineers to interpret signals of successful persuasion as evidence of user intention; hence the view that ‘if the user clicked on it, they must have wanted to click on it.’ Maintaining such a stance requires deliberately taking a ‘dual view’ of the user, where their rationality and autonomy is appealed to in word but their non-rationality and automaticity is appealed to in deed, i.e. by design.

The second consideration pertains to the way in which judgments about the preexisting landscape can affect judgments about freedom and authenticity. Of particular importance is whether the landscape is taken as a given or seen as the product of agency. Some research has found that users often view the design of digital me-

⁷ H. Frankfurt, *The Reasons of Love*, Princeton, 2004.

dia platforms as a given fact of their environment, even drawing comparisons with natural phenomena such as rivers or streams, rather than as the intentionally designed artefact it is. This difference in the ascription of agency can have a large impact on moral judgments, as, for example, in the doing/allowing distinction described in moral psychology research. It is also an important factor in Plato’s narrative of the cave, as well as in the case of the Sentinelese.

To illustrate, imagine for a moment that the Sentinelese did not live on an island in the Bay of Bengal, but rather on the mainland in an area comprising roughly the same size. Imagine that a thousand years ago an unknown civilization, for unknown reasons, built a great impassable wall around the Sentinelese land, and that since that time the tribe had been developing in isolation from the rest of humanity. If this were the case, it is not fanciful to imagine that global human rights campaigns would be seeking to raise awareness about the plight of the Sentinelese, calling them ‘prisoners of history,’ or that celebrities and diplomats on visits to India would frequently be exhorting the government to ‘tear down the wall.’ Perhaps some, advocating for a middle-ground approach, would advise the government to at least ‘build a door’ so that any curious tribespeople who wished to could explore the world beyond their home. But a door is still less of an environmental nudge to leave than the open mouth of Plato’s cave. And besides, we have to figure out how to tell the tribespeople what a door is – and look, one of them has already barricaded it from the inside! What does a commitment to freedom require now? Does their dignity demand that we accept their arbitrary detention?

In both scenarios, on the island as well as behind the wall, the question concerning how to respond to the Sentinelese suffers from the same ineluctable self-referentiality. What ultimately cuts the Gordian knot in each case will likely owe less to reasons than to the shape of the underlying landscape, and the ways in which it raises

or lowers our baseline confidence in our own actions. This is very much like the situation we face in navigating the development of our digital technologies, especially those which seek to influence our attention – a landscape on which so much else in life depends.

2 Responses to Ambrus, Veigas, Raffray, and Alford

I am grateful for the opportunity to respond here to the thoughtful reflections on my book which my colleagues in this project have written. I particularly appreciated the depth and diversity of their analyses, which together served to shine new light on familiar issues – always a welcome experience. While I cannot address all of the many interesting points they raise, I will discuss a few from each text, along with some connections, questions, and lines of thought that they have prompted.

Ambrus

Dr. Gábor L. Ambrus asks whether the attention economy can be usefully read as an expression, perhaps even fulfilment, of the Nietzschean will to power. This door opens onto a hallway of questions about the possibility of authentic higher desires, technological and theological dimensions of nihilism and nothingness, and ways of understanding freedom in our current technological environment. I will give a few thoughts about each of these points.

One could usefully read all technology, not only the attention economy, in these Nietzschean terms. This view was most iconically expressed in the opening scene of Stanley Kubrick’s film *2001: A Space Odyssey*, which depicts an innovative proto-hominid weaponizing a bone as the first technology, then hurling it skyward in victory – then, as it falls, the camera cuts ahead millions of years where the tumbling bone has become a twirling satellite nuclear weapon (a scene that is set, fittingly, to the sunrise fanfare from Strauss’s *Also*

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sprach Zarathustra).⁸ Among other things, this connection invites reflection on the degree to which our environment of networked digital technologies is a direct result of warfare, especially World War II.

The historical perspective is also useful for thinking about the nature and degree of changes to the landscape of human freedom brought about by the digital attention economy. Dr. Ambrus asks whether my working narrative in this regard may be in need of modification:

[Williams’s] book also gives the impression that human beings’ captivity and unfreedom in this economy is just a current state of exception and ‘exile’ which was preceded by a normal course of freedom and will hopefully be followed by such a course provided that we carry out the necessary measures and regulations. This bias offers us a curious insight into what can be termed the ‘relativity of the experience of freedom’. When a new media environment, new technological conditions and a new kind of economy suddenly appear as a threat thrusting human beings into unfreedom, this perception suggests by implication that the previous conditions underlay a realm of freedom. But were people really free before the rise of the internet when they found themselves, as it were, chained to the mass medium of television? Were they really free before the rise of the attention economy, in the pioneering age of the internet which exerted an utter fascination on them?

This is not quite my view. I nowhere make the claim that human beings were in general free before digital technology came along, and I am not even sure what ‘free’ in this general, totalizing sense would mean. Rather, the point is that any new technological environment brings with it new configurations of constraint, and new configurations of constraint make new dimensions of freedom salient which may not have been previously. To take one of the main examples I

8 S. Kubrick, *2001: A Space Odyssey*, Stanley Kubrick Productions, 1968. Movie.

discuss in the book, moving from an environment of information scarcity to one of information abundance – where we now have instant access to a never-ending firehose of psychological rewards – brought new affordances that pose profound new challenges for a person’s ability to effectively self-regulate their attention and their actions. However, this does not mean (or imply) that no challenges of self-regulation or akrasia previously existed, or that no other types of unfreedom hounded people (indeed many did, e.g. censorship or violations of privacy), or that the time before information abundance was a prelapsarian paradise of unfettered being. It simply means that new constraints pose new threats to freedom, and therefore require new modes of vigilance and response.

Dr. Ambrus also notes that we value freedom, yet what we see around the world today is increasing convergence and uniformity. I am inclined to agree. He then writes, however, that my analysis ‘is pervaded with an anthropological optimism which does not reckon with the possibility that human beings perhaps do not aspire any higher than the reality of the attention economy surrounding them.’ I am happy to accept the charge of anthropological optimism without objection. However, I am puzzled by the nature of the supposedly unreckoned-with possibility he refers to. Is it that: (a) *no* human beings aspire to such improved states of affairs, (b) *most* do not, or (c) *some* do not? (Or something else?) It seems safe to reject (a) since, among other things, such higher aspirations are a motivation for the present project. I would also reject (b) based on my own experience, the state of societal discussion, and research and polls on user preferences and desires. That leaves (c), which seems uncontroversially true (as well as no real threat to anthropological optimism). Furthermore, the notion that some people would need to have the way toward higher motives illuminated for them would seem particularly awkward to object to in a theological context.

He makes a similar point from a different angle when he writes:

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On the whole, we can risk the conjecture that ‘higher goals and values’ in Williams are the ones that inform and guide our most authentically human activities of love, freedom and beauty. When it comes to the platforms of social media, however, users experience something no less and perhaps even more ‘authentically’ human and disturbingly so. These platforms are arenas where people fight for recognition, prestige and social validation. In other words, these platforms maintain an environment in which the Nietzschean ‘will to power’ can play out in a barely concealed and all too forcible way. If so, one might ask, then, how social media and their economy of attention can be characterised as a ‘distraction’ provided that they give free rein indeed to a will, a drive, an impetus which is so deeply and most basically human?

Much of the answer here depends on what ‘authentic’ means, and whether a particular act of willing-to-power falls under its description. There is no general consensus about the necessary conditions of authenticity, but many formulations of it include some version of the requirement that the action in question be rationally endorsed by the person upon reflection. One distinction I draw in my book which generally breaks down along these lines is that between privileging a user’s impulses versus privileging their intentions. Clearly, privileging a user’s impulses is not always a distraction, because our impulses can serve our intentions. As Hegel puts it, ‘impulses should be phases of will in a rational system.’⁹ However, it would become a distraction when (but not only when) a user’s impulses are pitted against his intentions.

Another way it could also count as a distraction is if, after the act, the person reflectively declines to endorse it, i.e. they regret it. For example, if a person goes to a buffet and eats three times more food than they intended, groaning all the way home in postprandial regret, it would not be incorrect (though it may be impolite) to call this a gustatory ‘distraction.’ This would be so despite the fact that

⁹ G. W. F. Hegel, *Elements of the Philosophy of Right*, 1821.

it gave free rein to their biological proclivity for caloric retention, which is also ‘a will, a drive, an impetus’ – and in fact one even deeper and more basic than the status-hierarchy considerations of their primate social apparatus.

But let us assume for the sake of argument that a person *has* dedicated their life to the will to power, and that their most authentic desire in this regard is the pursuit of social status and prestige. Current social media platforms certainly capitalise on this desire, but do they actually help users to advance or achieve it? They are certainly not free to pursue their aim *in their own way*: far from having ‘free rein,’ they are severely limited by the cramped affordances of the platform’s design, which channel their actions into a few prescribed and maximally monetizable forms of expression. Similarly cramped are the few indicators of status feedback that they are able to receive: likes, friends, reactions, short comments, etc. Very few of these expressions or responses take advantage of the rich social apparatus they have inherited from millions of years of human evolution; nothing remotely like their ‘whole self’ is engaged (even though, from the platform’s view, their ‘engagement’ is high). Thus, even if they authentically endorse the end, they cannot engage with the means in a way that gives them procedural authenticity or ‘mechanism ownership.’ Furthermore, even if they receive more positive status feedback than ever before in their life, it is quite possible that their own perceived status will actually *decrease*, not only due to the phenomenon of hedonic adaptation, but also because social status is inherently a relative conception and this platform has now brought them into competition with the whole world. And, to the extent the platform is designed to keep them using it as much as possible, it also cannibalises their off-platform time, which is presumably where they would undertake those very actions and achieve those very successes (or simulations thereof) which they brag about when they are on the platform. So distraction still occurs, even under the system’s own attention-

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economic standards, and this is in large part because it treats the user as a means and not an end. Even when the user sees their own image in the design of the system, it does not set them free, and permits them only a parody of life.

After considering the place in this landscape of Nietzsche’s notion of nihilism, or the ‘devaluation of the highest values,’ Dr. Ambrus asks,

If our contemporary age of modern technology, with information technology at its forefront, is in any sense ‘theological’ as a condition arising in the wake of ‘the death of God,’ what does this predicate actually mean? Or, in other words, what is the theological meaning of the nihilism and nothingness that have beset our age? They can have two possible meanings. The ‘death of God’ and the ‘devaluation of the highest values’ may have brought about an entirely ‘post-theological’ age of nihilism in which the operation of nothingness is fully neutral in a techno-scientific sense – bereft of the theological dimension of good and evil. Or: the true experience of nothingness at the heart of a technological and nihilistic age may carry a theological meaning after the death of God, even if deprived of any theological association with evil. Even if beyond good and evil, nothingness when experienced and ‘endured’ as such may no longer be so ‘neutral’ and technological after all, but might break the spell of the will to power, set the users of technology free from it and create a sense of transcendence.

The second possible meaning here, if I understand it correctly, relates to the possibility I mentioned in my introduction – that theology may be in a unique position to offer an ‘operational transcendence’ in the near term that allows us to prevent the domain of the highest values from either being hijacked by the illusion of neutrality or disappearing from view such that instrumental concerns, such as those of the political domain, pretend to an ultimate importance. I think Nietzsche’s terms ‘nihilism’ and ‘nothingness’ are probably not rhetorically fit for this purpose, though there is

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no lack of potentially grapply metaphors from which to draw a substitute. A line from Roethke comes to mind here: ‘In a dark time, the eye begins to see.’¹⁰

Whatever the nature of that ‘dark time’ is that must be endured in order to regain a sense of transcendence, I agree with Dr. Ambrus that the *vita contemplativa* is an essential part of it. I also agree that rejecting digital technologies is, for most people in the world, not a sustainable way to achieve the *vita contemplativa*. He writes that the ‘experience of nothingness within the environment of information technology offers an opportunity of freedom in the midst of this technology (a freedom in it rather than from it).’ That being said, a key question in my mind is to what extent the *vita contemplativa* depends on the psychodynamics of print media, or at least something like it. To achieve the kinds of cognitive complexity and reflexivity that we associate with the *vita contemplativa* – reflection, linearity, and duration of attention, to name a few – via the use of current digital technologies is profoundly challenging, to say the least. It may not even be possible. At the very least, there is today no mapping that I am aware of between these desired qualities of the *vita contemplativa* and specific dynamics or affordances of digital media that reliably achieve or at least approximate them. This project of mapping mental effects and media affordances seems to me to be an essential project for enabling certain types of depth and complexity of thought to persist, and one which is not happening to any significant degree, as far as I am aware. The closest thing I can think of would be the mapping between nonrational cognitive biases and persuasive design techniques on the part of designers, marketers, propagandists, and so on – but of course those efforts are typically aimed at inducing a very different kind of *vitam* than the *contemplativam*.

¹⁰ T. Roethke, ‘In a Dark Time’, in *Collected Poems of Theodore Roethke*, Doubleday, 1963.

Finally, I found Dr. Ambrus's discussion of the concept of 'leerlauf' quite illuminating. Its reference to an 'operation out of gear' or an 'empty walk' of activity brings to mind technology-related terms such as 'surfing' the web or designing 'frictionless' experiences for users. But 'leerlauf' goes further: as when acceleration outpaces traction, appetite outpaces purpose; impulses outpace intentions. Dr. Ambrus is perceptive to link this experience with the prevalence of the diagram in our time. Especially when it represents a human network, a diagram bounded in a box and cast in light onto a great wall before an awed audience is about as pure an expression of the will to power today as one could hope to find.

Veigas

Sr. Jacintha Veigas discusses biblical conceptions of freedom and technology and their usefulness in our present technological situation, giving particular attention to questions of positive versus negative freedom, captivity and exile, and potential norms for technology use and development.

She writes that, from/in a biblical perspective, technology – which she defines as that which we use to 'facilitate our lives under the sun' – 'should not be regarded as evil in itself.' It is, she writes, 'part of the latent potential in creation,' a description that somewhat recalls Heidegger's framing of technology as 'standing reserve.' She discusses various technologies that appear in the biblical narratives: Adam tilling the ground in the garden, Noah's ark, the creation of altars, and others. Throughout the stories, she writes, technology gives freedoms as well as responsibilities, and provided that it is used thoughtfully, she argues that 'despite its risks and dangers' technology should, broadly, be 'cautiously embraced.'

One wonders here whether the overall picture of human-technology relations in the biblical narratives comes across, on the whole, as more positive than in other foundational Western mythic

narratives – for instance, Prometheus’s punishment, Pandora’s jar, or Icarus’s fall. In particular, there seems to be a recurring positivity in the biblical narratives about *unexpected* uses of technology. This often takes the form of an inversion or mirroring (or, as a startup founder might say, a ‘pivoting’) of a particular technology’s default usage: Jesus telling his disciples to cast their nets on the other side of the boat, for instance, or left-handed Ehud wearing his sword on his right hip, or Peter demanding to be crucified upside down. Importantly, these moments of technological inversion are viewed as preferable not because the non-inverted technologies were in some general sense *bad*, but simply because the inverted technologies were more fit for purpose. In fact, compared to other domains of human activity, the Bible seems to contain very little moralism about technology as such.

Of course, a wider sense of what the phrase ‘a biblical view of technology’ could be taken to mean is ontological, i.e. what *counts* as a technology in the biblical narratives. Unfortunately, sticking close to the roots of our own term does not get us very far: in the New Testament, *techne* (τέχνη) appears only three times, all of which refer to manual handicraft practices. These uses appear to be of no generalizable importance.¹¹ One might take a broader view and look across the biblical narratives for techniques of purposive rearrangement of the world, and ask what they have in common. Yet this analysis would quickly become complicated, not least by the question of what counts as ‘the world’ in the Bible’s narrative universe, and whether other realms or levels of that world also contain candidates for technological analysis. On an inclusive conception, a ‘biblical view’ of technology could potentially include techniques of magic (is any sufficiently advanced magic indistinguishable from technology?), sorcery, astrology, prophecy, prayer, and so on. Per-

¹¹ J. A. Novak, ‘Techne in Plato and the New Testament’, in *Religions and Education in Antiquity*, Brill, Leiden 2018.

haps some might find theological value in such an analysis, but it is difficult to see how going too far down this road would be useful for the study of technology generally.

For the purposes of navigating the landscape of modern-day technology, I suspect the most useful connection points with biblical narratives would not be similarities in technical structures, but rather similarities in the human impulses that underlie their creation. The eschatological thinking of Singularitarians and transhumanists, for instance. One particularly important and timeless human impulse is our habit of personifying our creations, which of course relates to idolatry in the biblical narratives, but also to early notions of robots and automata in Greek mythology.¹² Today a key challenge in understanding and discussing technology emerges precisely from this question of its personification, which results from many factors including design decisions, product branding, and beyond. This personification sits in continual tension with the standard view of technology as an instrumental (and often ‘neutral’) tool, a tension well illustrated by Sr. Veigas’s reaction to my book’s discussion of how we ‘trust’ our digital technologies to help make our lives go well:

[Williams’s] emphasis on the “trust” in the technologies seems to me a bit too aggressive. I do not think anybody is so naive as to really trust technology to help us become the people we want to be? I trust my browser to browse the web, my social network to connect me with my friends and relatives. But I do not expect those to help me become a better person or something like that. Also, technology cannot actively prevent us from achieving our goals.

The sense of ‘trust’ I had in mind here, while admittedly a bit loose, was something along the lines of like a social-theoretic view rooted in observable behaviours. In the context of digital technology, this

¹² Cf. A. Mayor, *Gods and Robots: Myths, Machines, and Ancient Dreams of Technology*, Princeton 2018.

would broadly entail a user voluntarily placing their attentional (and other) resources at the disposal of a technology, where there is no (or very little) enforceable commitment on the part of the technology’s creators to use that attention in the way the user wants them to. In the book, I raised this point in the context of noting the profound misalignment between the goals that we have as users and the goals that many of our technologies have for us. If we consider the enormous amounts of time and attention that users now spend with these technologies, along with the lofty claims from designers about what the technologies can do for people – claims which do, quite frequently, promise to advance some higher value that many users may identify with their ideal selves – this description of their ‘trust’ in the technologies does not seem to me to be overstated.

Finally, I found Sr. Veigas’s discussion of captivity-as-exile to be quite illuminating. ‘Captivity,’ she writes, ‘in theological terms, is the experience of pain and suffering that results from the knowledge that there is a home where one belongs, yet for the present one is unable to return there.’ There is of course a resonance here with Diogenes, who lived in exile from Sinope for most of his life as a punishment for defacing currency. But even more interesting is the definition – which is at first surprising, but upon reflection quite appropriate – of captivity as the inability to return to one’s home. In the usual sense of ‘home,’ this means exile from a particular place or people. But we could also take it to mean exile from psychological integration (as in Dorothy’s plight in *The Wizard of Oz*), exile from authenticity, exile from the domain of higher values, and so on. In any case, this conception of captivity-as-exile – which we might call a *domocilic* view of captivity – reframes negative freedom in terms of positive freedom, i.e. constraint in terms of separation.

Applying this reframing in the context of digital technologies could cast interesting light on a number of issues, including matters of manipulation and coercion, censorship, distraction, and more. One that seems particularly promising, however, involves the

concept of a ‘captive audience,’ which in some countries may carry important legal implications for regulation of attention-economic forces. Broadly speaking, a captive-audience situation would be one in which your attention is being taken or misdirected, and due to the constraints of your environment you cannot meaningfully avoid or resist the influence. Think of ads on aeroplanes, or before movies, for example.

If we reframe a ‘captive audience’ as an ‘exiled audience,’ it shifts the debate away from whether or not a person technically has the power to avoid or resist some specific instance of influence, and onto the question of whether there is a general pattern of influence keeping them separated from what is best for them. It shifts the focus from the strength of a person’s will to the purposeful design of their present situation, which is a useful recasting for a number of different issues (e.g. technology ‘addiction’). It helps liberate these analyses from an overemphasis on the reactions of individual users’ actions. And finally, as Sr. Veigas notes in her discussion about exile in the biblical narratives, the expansiveness of this view may more fully engage the imagination and enable a clearer vision of the desired state of affairs.

To that end – the identification of a better vision – Sr. Veigas proposes a set of norms for technology based on her analysis. She concludes that as we navigate this new world, in which our devices seem to ‘have a liturgy of their own,’ our aim ought to be to cultivate *studiositas*, a habit which centres and energises us, rather than *acedia*, a ‘listlessness of soul’ that drains and distracts. Aldous Huxley described *acedia* as a ‘sense of universal futility, the feelings of boredom and despair, with the complementary desire to be “anywhere, anywhere out of the world,” or at least out of the place in which one happens at the moment to be.’¹³ The challenge in the age of the internet is that, just as processed foods made of ‘empty

¹³ A. Huxley, ‘Accidie’, in *On the Margin: Notes and Essays*, Doran, New York 1923.

calories’ bring fake fulfilment to real nutritional needs, we have distilled *acedia*’s sweetness and productized it in the form of endless algorithmic agitations. Huxley’s description could just as easily be referring to the phenomenon of ‘doomscrolling’ that emerged amidst the recent pandemic – a time during which our shared migration ever further into cyberspace has seemed motivated not merely by a functional prudence, but by a deeper yearning, while sitting confined in our homes, to be ‘anywhere, anywhere out of the world.’

Raffray

Fr. Matthieu Raffray considers what Socrates might say to the dominant technology companies of our time. His analysis addresses questions of the nature and history of knowledge, whether computers can truly be said to know or think anything, and how exaggerated claims on these fronts can usefully be read as a kind of technological sophistry.

He begins with a discussion of the allegory of Plato’s cave, which he says acquires ‘a new and altogether remarkable meaning when applied to our digital reality.’ The prisoners in the cave, he writes, ‘inevitably remind us of post-modern youths, “chained” to their smartphones, more or less indifferent to the world around them.’ In the story, Plato imagines one of the prisoners being freed, but thereafter being unable to truly shake the feeling that the shadows he had always known were still in some way truer, and that the bright light of real truth is still too harsh to comfortably look at. Raffray comments, ‘The virtual context is thus not only captivating, but it renders us even, in a way, unable to see reality properly: whoever is immersed in virtuality is horrified by the light of true knowledge, of science and wisdom, for they upset and even obscure, due to their own luminosity, the beautiful illusions in which this person has been nurtured.’ Raffray argues that this is in part because com-

puters can only simulate knowledge, not ever truly have it (and they can certainly not have knowledge of ‘essences’ or platonic ideals).

What would it mean, he asks, to say that a computer ‘knows’ something? He traces the evolution of knowledge from Democritean atomism through Platonism, then to the rise of nominalism which led to ‘disregarding the essences of things’ and ‘reducing all knowledge to that of particulars.’ He writes, ‘no longer is it necessary to accede to a common nature of things in order to know what they have in common; now it is enough to assimilate them by collecting them in great number: the collection replaces the essence, the accumulation replaces the concept, and the average or “mean” replaces the definition.’ In Descartes and Bacon he identifies a technological motivation as underlying the development of scientific knowledge: no longer is the goal of knowledge ‘to contemplate eternal essences, in the image of God and spirits strewn across the Universe,’ but rather to tame and manipulate nature. This leads to a new basis for ‘the dignity and the greatness of humans,’ he says, which lies in ‘their ability to dominate nature.’ He traces this technological-mechanistic view of knowledge through Leibniz, with his ‘characteristica universalis’ and its ‘alphabet of human thought,’ and then to Turing, who Raffray says actually realised ‘this mad project which seems to be a constant factor in the human spirit: namely to try to translate thoughts into numbers in order to render them calculable.’

As my work focuses on the philosophy of attention much more than on knowledge or information, I do not have a great deal to add to Fr. Raffray’s analysis on this front. I will simply float three questions that come to mind. One question is whether he views post-Turing philosophies that construe the world in primarily informational terms as reviving any aspect of, or serving as a promising sign for, Platonism. Another question would be whether he sees any hope for a Platonistic view in the foundational role played by mathematics in digital computation (especially insofar as it re-

mains an open question whether mathematics can ultimately have a foundation that is not Platonistic to some degree). Third, I am curious where he would place probability (in particular objective probability) in the picture of knowledge he has drawn here.

Raffray then draws a comparison between the idea of ‘intelligent’ machines and the concept of sophistry. He writes that mere accumulation of information is not knowledge, and that the difference between computers and people registering a piece of knowledge is that people ‘submit it to a process of assimilation which goes far beyond simple storage’ – a process that ‘could well be imitated... but it can never be reproduced as such.’ ‘Intelligent’ machines can therefore only ever simulate knowledge, then, and are therefore like digital sophists. They are also like sophists, he adds, in their predatory and manipulative designs – especially when they shape the thoughts and behaviours of children. This brings to mind the description of sophistry in Plato as ‘making the weaker argument defeat the stronger.’ In a sense, design that enables a person’s impulses to trump their intentions, or exploits their nonrational biases to distract them from their rationally endorsed plans or goals, is akin to an argument that makes the weaker argument appear stronger, which in this sense would be sophistic design – or, in Raffray’s wonderful phrase, ‘vendors of chimeric desires.’

Alford

Sr. Helen Alford begins her reflections by asking what, if anything, is really new about our present situation. I agree with her view that meaningfully addressing the question of ‘technological captivity’ requires being clear about the nature of the new technological constraints. To that end, she first discusses the influence of Howard Rosenbrock’s 1981 paper ‘Engineers and the Work that People Do’ on her life and work.¹⁴ Rosenbrock’s paper describes the opera-

¹⁴ Rosenbrock, ‘Engineers and the Work the People Do’, cit., pp. 4–8.

tions of a mostly-automated light bulb factory in 1979 and considers the roles of the human workers on its assembly line. These workers carried out extremely mundane, repetitive tasks – such as rapid quality assessments or delicate steps of the assemblage that required fine motor skills – tasks which were not automated at the time, but were not in principle un-automatable. Rosenbrock then imagines how engineering students assigned to automate these tasks would go about doing so. It is very possible, he writes, that circumstances would lead them to create a robot ‘with capacities which had been paid for but were not being used,’ and that the desire to utilise the robot’s capacities as fully as possible would lead the plant designer to rearrange the overall manufacturing process to allow for the creation of ‘a task which more nearly suited [the robot’s] abilities.’ Rosenbrock’s point is that we seem more likely to design around the capacities of a robot in this way than we would if it were a human in the same role. He concludes: ‘We may say, paradoxically, that if [the designer of the lamp plant] had been able to consider people as though they were robots, he would have tried to provide them with less trivial and more human work.’

Looking for possible roots of this ‘paradox’ in engineering culture and pedagogy, Rosenbrock reflects on the early years of industrialization, where he argues a distinction emerged between ‘two quite different kinds of machine, similar only in their materials and their construction, but with opposed relationships to human abilities.’ One type of machine requires, as well as enhances, human skill; the other eliminates human skill. Because the latter ‘proved more profitable for the inventor and the manufacturer,’ writes Rosenbrock, it is the only one that the discipline of engineering would later internalise as its dominant paradigm.

Alford describes how this distinction between ‘skill-enhancing’ machines and machines that ‘deskill’ workers prompted a realisation in her own work: ‘We were doing everything the *wrong way round* – we were designing the machines and fitting the people

around them, instead of fitting the machines around the most creative and flexible element in any production system, the people working in them.’ She then draws a parallel between ‘deskilling’ technologies and the term ‘adversarial’ technologies, which I use in my book to broadly refer to technologies whose persuasive design goals (i.e. intended outcomes for users’ thought and/or behaviour) run contrary to, or are in some significant way misaligned with, the goals of their users.

There are indeed useful parallels between the concepts of ‘deskilling’ and ‘adversarial’ technologies. Both treat the user as a means to some external, and usually unstated, end. Neither are intended to interface with the whole user – only those parts which are necessary to achieve its narrow function. Both are typically designed for scale, and ignorant of users’ individuality and diversity. Of course, there are also important differences between the terms. Deskilling technologies primarily pertain to the context of work, while adversarial technologies could exist (as far as I can think) in any context of life. That said, one hallmark of the digital era is the way it has blurred the boundaries between life’s contexts; correspondingly, it has become an open question – especially over the past two pandemicised years – where the boundaries of work now lie. In addition, out of all the metaphors I have considered as possible ways of conveying the depth of the problem the digital attention economy poses, the metaphor of work has had a special resonance. When we ‘pay’ for a free service with our attention, we are in a sense doing ‘attentional labour,’ and we might consider collective action to improve the conditions of that labour akin to a ‘labour union’ for the attention economy.

Additionally, Rosenbrock’s term is narrowly focused on immediate applied action, whereas mine concerns ‘attention’ in an even wider-than-usual sense. The prevailing sense of the word ‘skill’ today is that of having at the ready a particular applied competence gained via a nontrivial training or other development process. It is

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notable, however, that the original sense of the word ‘skill’ was that of ‘power of discernment,’ itself coming from the previous sense in Old Norse of ‘separating’ or ‘dividing.’ In this light, the term ‘deskilling’ does not seem so far away from the question of attention at all. (In fact, the phrase ‘power of discernment’ here brings to mind William James’s phrase ‘effort of attention,’ which he called ‘the essential phenomenon of will.’¹⁵

Looking back on the history of technological development, Alford writes that ‘technological development does not have to be “adversarial.”’ How did it become so? She identifies ‘two sets of change processes in our ideas and philosophical worldview,’ namely: (1) ‘the rise of the idea of each person as valuable in themselves’ and (2) ‘an exclusive and reductionist view of the human person as no more than an individual.’ She identifies the first process with the emergence of the Christian view ‘that each person is important because each one is made, and personally known, by God, and that each one is called to love God and love others,’ with the arrival of canon law in the mediaeval period playing an important role in formalising and articulating bases for rights. She associates the second process with the Enlightenment, in particular its emphasis on individual freedom and hardening of public/private distinctions; the advance of free-market thinking and industrialization; and the development of the natural sciences and their application to the human domain. This second process, she argues, led to the shareholder model of the firm that is dominant today. As she points out, even business ethics has adopted this ‘individualistic view of the human person.’

The first idea, of each person’s inherent value, broadly corresponds with the concept of dignity. Dignity is a complex and highly contested concept, and it is beyond my scope to discuss it in depth here. However, I will make one observation that relates to our main

¹⁵ W. James, *The Principles of Psychology*, Henry Holt and Company, 1890.

themes in this project: regardless of the precise sense in which the term ‘dignity’ is used, bestowing it and recognizing it are fundamentally acts of attention. The Roman *dignitas* ceremony narrowly focused attention on the returning emperor or military leader. The early Christian thinkers who repurposed the notion of *dignitas* and ‘turned it upside down,’ as Alford writes, so that it applies to all human beings, widened that attentional frame dramatically – but not maximally. It was still an act of attention, that is to say of *selection*, of a dignified figure against an unattended-to undignified ground, which in their case was implicitly that of non-human animals. But even then, this wide attention to the dignity of all humans was still merely attention in principle – that is, attention to the imagined possibility of giving attention to all humans – because there was no conceivable reason why such an act of attention-giving would ever actually be necessary, nor any conceivable medium through which it would ever actually be possible. It was not until the twentieth century, when mass media finally actualized the possibility of mass attention to mass suffering, that electric sympathy jolted the world into a coordinated rejection of the horrors and indignities it had just witnessed, affirming their inverse in the form of human dignity. It is thus only after World War II that dignity emerged as a legal concept. And it is why most uses of dignity today which refer to a person’s inherent value are framed, whether implicitly or explicitly, in terms of their *minimum* necessary value (the ‘minimum viable person,’ if you will) rather than their *full* value as a human being. This view of dignity therefore bears some similarity to the idea of the Roman *benefitium competentiae*, or ‘benefit of competence,’ which I discuss in the book, i.e. the right of an insolvent debtor to exempt a minimum set of possessions which are essential for the operation of his life from possible liquidation.

Finally, Sr. Alford introduces a framework for advancing questions of higher purpose in the business context called the ‘Blueprint for Better Business.’ She writes that it ‘focuses on the “why” and

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“what for” of business rather than the “how”, which is the focus of most movements for change in business.’ Taking a virtue-ethics approach, it seeks to advance and operationalize the question about what businesses (and the technologies they create) are fundamentally *for*. While society’s path toward satisfactorily addressing this question will no doubt be a long and rocky one, it is the kind of deep, careful thought expressed here that will be essential for keeping our eyes on the ‘why’ and helping us avoid distractions of the ‘how.’ Because it is, more often than not, precisely the novelties of the ‘how’ – this year’s glimmering titanium tablet, a faster rate of lightning in our pockets, or the next great grid of light waiting to captivate our minds and kaleidoscope our lives – that threaten the deep-held habits of the ‘why.’ Protecting those habits requires that thoughtful minds stand sentinel. As Rosenbrock wrote, ‘The engineering paradigm is not explicit and it prevails not by a conscious choice, but by suppressing the ability to see an alternative.’ Thus this is a project which I imagine he also would have praised.

Conclusion

And seeing the multitudes, Jesus went up onto the main stage and addressed them, saying: ‘Verily I say unto you: focus on your user, and all else shall follow.’ And a man who had been trained in the arts of human-centred design stood up, and challenged him, saying, ‘Teacher, who is my user?’ Jesus answered the man saying, ‘Tell me, does any man exist solely for the purpose of hammering nails into boards?’ ‘No,’ replied the man, ‘this he does for some reason, such as the building of a fence.’ ‘But does any man exist solely to build fences?’ said Jesus. ‘No,’ replied the man, ‘this he also does for some reason, such as preventing animals from destroying his crops.’ Jesus answered, ‘Yet does any man exist merely to grow crops?’ ‘No, teacher, of course he grows them in order to feed his family.’ ‘And why does he feed his family?’ asked Jesus. ‘Because they are his family, teacher, whom he loves as himself.’ ‘I tell you the

truth,’ Jesus said, ‘*that* man is your user. Not the man who hammers, or the man who builds fences, or the man who grows crops – but the man who loves, and who is loved. Therefore the only good hammer, the only good fence, the only good crop is the one that exists to advance his love, the things he loves, and his ability to love. All else is a weight around his neck, and a waste of your scarce hours designing under the sun.

Technology exists to help make our lives go well. It is never valuable merely because it is new, but only when its newness brings a new boost to something we care about. Sometimes achieving that new boost means we must change the new technology to become more like an old one. In fact, one sense of the Latin word *innovare*, ancestor of our term ‘innovation,’ meant ‘to restore or renew.’

Consider the electric light, for example. Today it is so ubiquitous that it defines the night-side view of Earth from space. A mainstay of clip-art collections and slide-deck iconographies, the light bulb is also one of our most common symbols of innovation. Yet upon its invention, electric lighting was not particularly popular. Prior to the early 1800s, the standard form of lighting was the gaslight, which could be dimmed up or down at will. When the first electric light, known as the arclight, became available, it was extremely harsh and could not be dimmed up or down at all. In fact, it was so harsh that it was used as a weapon on the battlefield, for instance against rebels in the Sudanese colonial wars. In his book *Disenchanted Night: The Industrialization of Light in the Nineteenth Century*, Wolfgang Schivelbusch describes an early deployment of arclighting on the Place de la Concorde in Paris: ‘The light, which flooded a large area, was so strong that ladies opened up their umbrellas – not as a tribute to the inventors, but in order to protect themselves from the rays of this mysterious new sun.’¹⁶

¹⁶ W. Schivelbusch, *Disenchanted Night: The Industrialization of Light in the Nineteenth Century*, Univ. of California Press, 1995.

In response to the brute binary affordances of the arclight, Thomas Edison devised the incandescent bulb, the key innovation of which was to approximate the older technology of gaslighting. It enabled ‘a methodical imitation of gaslight in a new medium,’ which one French commentator characterised as ‘a light source that has somehow been civilised and adapted to our needs.’¹⁷

There is a fitting analogue here for digital technology, which like the Parisian arclight has flooded the plazas of our lives with unfor- giving fusillades of information. Our time is marked by a feeling of being stunned, even blinded, by too much light – by ‘the rays,’ pieced out in pixels, ‘of this mysterious new sun.’ I mean of course not only a perceptual blindness, but a volitional blindness as well. In my book I deploy the concept of ‘attention’ jointly across issues of perception as well as volition, and I broadly characterise the ability to continuously shape the forces that shape one’s attention as ‘freedom of attention.’

Care is a special species of attention we bestow on what matters to us. Frankfurt calls care ‘indispensably foundational,’ because caring is how ‘we provide ourselves with volitional continuity, and in that way constitute and participate in our own agency.’¹⁸ The highest mode of caring is love, which for many people, whether owing to religious beliefs or not, is the supreme good. Freedom of attention therefore bears within it the freedom to care, and hence the freedom to love.

Aldous Huxley wrote in *Ends and Means* that love, or charity, is as close to a consensus view of the supreme good as humankind has ever had. As such, it is ‘the only acceptable criterion of progress.’ Yet on this criterion, he says, it is ‘manifestly in regression.’ ‘Technological advance is rapid,’ he writes. ‘But without progress in charity, technological advance is useless. Indeed, it is worse than

¹⁷ Ibid.

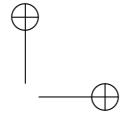
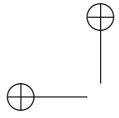
¹⁸ Frankfurt, *The Reasons of Love*, cit.

useless. Technological progress has merely provided us with more efficient means for going backwards.’¹⁹ Huxley was writing in 1937, just before the world would find out how much further backwards it could go. Of course, since that time a great deal of the world has advanced on many different criteria. But where do we stand on the status of love?

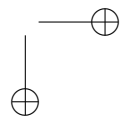
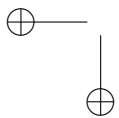
Imagine that an alien species preparing to make contact with Earth decided to observe all internet use on the planet for one day. What would they infer from that data about our priorities? I suggest they would encounter very few indications that love was the most important thing for so many of us. In fact, they might even think our goal was to distract ourselves from it in any way we can. One reason for this is that our technologies are more likely to exploit and undermine our attention than to respect it, much less guide it toward selfless modes of care. In fact, it feels difficult to even speak about love, at least in this highest sense, as a sincere design consideration today. (One almost feels embarrassed before even uttering the word, steeling oneself for the inevitable charges of ‘idealism’ or ‘utopianism.’)

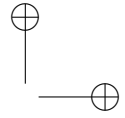
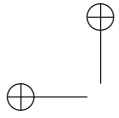
The other reason they might infer we are not serious about love is because those who have dedicated themselves most to advancing its cause have, so far, seemed curiously uninterested in shaping the character of digital technologies toward that end. It is actually quite remarkable: during our short lifetimes, a set of mechanisms has emerged that enable rich and near-instant shaping of billions of people’s attentional worlds – a power which in past eras was confined to dreams of myth and fancy, but which in our own time is as real and common as the toothbrush – and yet when it comes to its design, many of our most ardent champions of love seem, by and large, to have left the deep structures of this new world in shallow hands.

19 A. Huxley, *Ends and Means*, Chatto & Windus, London 1937.

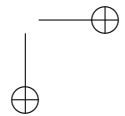
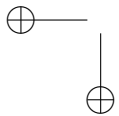


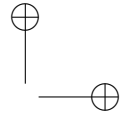
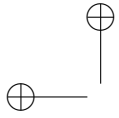
Where are our vendors of authentic desires? Perhaps they are in exile, or captive to other interests. Or perhaps they are standing sentinel, taking notes and waiting for the world’s eyes to adjust to this new light before we civilise it and adapt it to our needs. They must be somewhere. In any event, there is still time. In innovation, second movers often have the first advantage. Thus we may one day prefer that *homo novus* arose as *homo innovatus* – or, if we are really lucky, as *homo innovans*, a being free from himself, and thus free to carry himself forward as a love-bearing coincidence of the ancient and the new.





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