

Temple Ethical Futures: Issue 1

# Technology Transforming Theology: Digital Impacts

Maggi Savin-Baden and John Reader



**William Temple**  
Foundation

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## Introduction: Background to the Series

This is the first of a number of documents which will emerge from a workshop held at Trinity College, Oxford on February 19<sup>th</sup> 2018. The title of that event was “Theological Futures: Ecological and Digital” and was itself a follow up to the launch in June 2017 of “Theology and New Materialism: Spaces of Faithful Dissent”. That book is an attempt to address weaknesses in recent theological appropriations of New Materialism by introducing themes from what is called Relational Christian Realism, building in particular upon the work of Bruno Latour as well as some of the philosophers more associated with the works of Deleuze and Derrida. One of the questions that was posed by those who attended subsequent discussions was “who should we be reading?”, to which an answer was Bruno Latour and Bernard Stiegler. That lead readily into the two major themes of the workshop and the documents that will emerge from that, although this will not provide an exhaustive programme of publications which will range more widely as the series progresses. Rather than restricting these to the areas of theology or religious studies, the decision has been to examine more broadly the subject of ethics, hence this is now going to be called Temple Ethical Futures with a view to expanding both the personnel involved and the spread of subjects and thinkers considered. As with any developing project there will be scope for other ideas and other forms of presentation, all of which, we hope, will continue to stimulate both action and debate along these lines.

New developments in technology move rapidly. On the same day in May 2018 that the Church of England announced ‘Alexa’ (<https://www.churchofengland.org/alexa>) to be used for prayers, explanations of the Christian faith and location-based information about local church events and services, Amazon were adding in male voice options attempting to make the current female voice sound less subservient. In the same month, the new General Data Protection Regulations (GDPR) came into force and much time and energy is being expended by organisations responding to these and trying to ensure compliance. This includes of course both churches and schools as well as the commercial and voluntary sectors. With the recent controversy surrounding Facebook and their links with Cambridge Analytica the issue of who holds whose data and what they then do with it is at the

forefront of the political agenda. It is clearly the case that developments in digital technology require new regulatory frameworks, but it is perhaps less recognised that new ethical frameworks are also required. In order to develop those there needs to be a step back to consider the concepts that might shape and inform appropriate responses. This initial dialogue in the new series is an attempt to offer both practical examples of ways in which the digital technology is impacting upon church activities and then to reflect upon the philosophical and theological resources that could assist in developing appropriate concepts. As is the hallmark of the William Temple Foundation this bridges the gap between practice and theory and proposes an approach which is both rigorous and contextual. It also raises the question of connections between environmental concerns and new technologies which are key features of the discussion emerging from this group. At the heart of this is the issue of how humans are both shaping and being shaped by the new challenges we face and for which we are ourselves largely responsible. Is it the case that the speed with which these developments are happening is running so far ahead of our capacity to work out ethical and political responses that our control of the future is slipping away from us? It is hoped that the publications in this series will address this question at both a practical and theoretical level.

This tract begins by categorising a range of approaches which Christians take to technology, through from those who reject it altogether; those who use it sparingly and hesitantly; those who do so but treat it with suspicion; those who are totally into it and employ it without concern; and those who are tethered to it.

# God of Technology?

Maggi Savin-Baden

## Introduction

This half of the tract considers the relationship and challenges of digital technology on church and faith. Numerous Christians today are concerned about the relationship between faith and technology, wondering where God is in it all. This is captured to a degree in the poem 'Pilgrimages', by R.S. Thomas, where (despite all our technology), God is too fast for us, we miss him, he is only ever in our peripheral vision. Many Christians continue to wonder where God, this fast God, is in all this technology, all this speed. It begins by suggesting that most people are digitally tethered and then explores virtual vicars and online churches. The final section examines the more challenging area of digital immortality and artificial intelligence and introduces issues that the church and Christians in general should consider.

## Digitally Tethering

Digital tethering is defined as both a way of being and a set of practices that are associated with it (Savin-Baden, 2015). Being digitally tethered is generally associated with carrying, wearing or holding a device that enables one to be constantly and continually in touch with digital media of whatever kind. Whether we are watching television, walking along the street or sitting on the train, many of us are digitally tethered. Practices associated with digital tethering include being 'always on', 'always engaged', texting at dinner, or driving illegally while Facebooking. In some churches it is common to see teenagers texting or adults googling something the speaker said in the sermon. Yet for many people there is a lack of connection between faith and technology. In the Old Testament Abraham, in the midst of his normal trading, nomadic lifestyle, undertook the long journey to which he was called. God is also present in our ordinary lives in the 21st century – which includes technology. In the New Testament, Jesus shifts his disciples away from legalism and rule-bound lives, reframing the issues and asking difficult questions – which is what Christians in a digital age should be doing. The American theologian who was Professor of Theology and Human Development James Fowler suggests that 'We move from the question "Who am I?" to the question "*Whose* am I?"'. (Fowler, 2000). Thus, as we grow in faith like Abraham, the

sense of our path (or vocation) and the development of our identities relate to the ways in which we respond (or don't respond) to the calls from God. Fowler suggests, then, that our faith refers to our leisure, relationships, work, private lives, public lives and the ways in which we use the resources we have been given.

Perhaps a response to technology is affected by our stage of faith and our response to God. It might be the case that the more secure we are in our call and identities before God, the easier we find it to make informed choices about the value and space that technology occupies in our life. Many people are afraid of technology and others avoid it, but it is important to realise the diverse ways that technology is being used.

### Online Church and Virtual Sacraments

There has been much discussion about how many sacraments there are and the consensus is that they comprise Baptism, the Eucharist, Confirmation, Marriage, Ordination, Penance and the Anointing of the Sick. Baptism, marriage, communion and ordination are the ones most discussed in digital spaces and are seen as being highly contentious, usually because of their theological importance; communion and baptism in particular. Some years ago Estes (2009) took up the challenge to defend online churches.

If we read carefully the criticisms levied against internet campuses, they boil down to some very common and tired themes: Internet campuses and online churches are not true churches because they don't look like and feel like churches are expected to look like and feel like (in the West, anyway). Arguments against virtual church follow the idea that if it doesn't look like church, feel like church, swim like church, or quack like church, it's not a church. This may be a useful test for ducks, but churches are far more complex animals.

Online churches today are seen as more acceptable than in 2009. However, to date, the sacraments are in the main not deemed to be valid if ministered in online. Baptism, the Eucharist, Marriage, and Ordination are the ones most discussed; these are examined next.

### *Baptism*

Online baptisms have in fact, been occurring for over ten years. For example, in 2008 Flamingo Church, Florida undertook its first online baptism where the pastor prayed over the candidate from a distance using a webcam as she was immersed in a bath. It was posted



on YouTube and the video shared with friends and family and currently has had 8,634 views. Unlike communion, as discussed below, baptism is not done by extension and very few churches (if any in the UK) would validate a virtual baptism. Theologically, baptism requires a pouring or immersing in water in the name of the Trinity following confession of faith. Baptism online or in virtual worlds is still seen as unacceptable. What is interesting in a digital age is whether the location is important. Many of us have probably seen or taken part in baptisms in the sea or a swimming pool and Jesus was baptized in the Jordan River. However, there are some (but very few) doubtful options as you might expect, for example, the Prixton Church and University, in the USA offer you Online baptism via their website.

### *Communion*

Hutchings, Research Fellow at the Durham University, points out, in many Christian denominations ‘only real churches, led by real priests or pastors can conduct communion.’ (Hutchings, 2017) Yet there is also still much debate about how online communion should take place. Fiddes (2009) argues for the need for virtual sacraments, rather than the ‘by extension’ over distance as is currently the case. However, as the comment by Peters (2009) indicates, things may be getting rather out of hand.

The majority Christian position (Roman Catholic, Orthodox, Anglican/Episcopalian, Lutheran, but, it is to be noted for this response, not Baptist) holds that Christ is truly present in a distinctive way in the Eucharistic species of bread and wine. A sacrament requires particular ‘matter’. Baptism uses water, Eucharist uses bread and wine. We cannot pour a jar of jelly-beans over someone and say they are baptised. We cannot consecrate a bicycle and say this is the Eucharist. Such sacramental theology is also clear on whom we might confer the sacrament. We cannot baptise a pram. We cannot give communion to a letterbox.

Whilst theologically this is troublesome, it is also unclear as to why priested avatars administering communion in Second Life is seen by some to be more acceptable than administering communion through a webcam.

### *Marriage*

Online marriage seems to raise less controversy than Baptism and Communion. Perhaps this reflects the changed and changing perception of marriage globally, which has brought with it the sense that, as far as the world is concerned, it is no longer the prerogative of the church to marry people. In Christian theology, the marriage vows, the exchange of the ring and the physical consummation cannot be undertaken digitally and the true identity of the couple is required legally. Online marriage largely takes place in virtual worlds such as Second Life. You can get married in the Chapel of Dreams or Snuggles Wedding Chapel and whilst this is not a legal marriage, it is something that many people carry out additionally to celebrate their legal marriage.

There are interesting websites that help couples to consider how to manage social media around their wedding and a growing trend of acceptable social media etiquette for weddings. Walker (2009) in *The Guardian*, remarked,

Although couples who ban social media may be doing so simply to keep control of their own image, they are also commodifying their privacy. Could this be the backlash to digital oversharing? You'll know if the vicar tells you: 'You may now tweet the bride.'

The new social media wedding etiquette often means not posting photos of the bride and groom before they have had a chance to do so themselves and asking people not to use social media at all at the wedding.

### *Ordination*

Like marriage, ordination requires an actual physical presence so the person being ordained must be prayed over by the church and be commissioned, whether in Protestant, Roman Catholic or Orthodox churches. Interestingly, you can also become ordained online at the Universal Life Church. One future priest remarked recently that this would save an awful lot of hassle!

The concerns connected with the sacraments appear to be relatively straight forward in terms of whether or not online version are acceptable, when the complex issue of the churches response to Digital immortality and Artificial Intelligence are considered.

## Digital immortality and Artificial Intelligence

The concept of digital immortality has emerged over the past decade and is defined here as the continuation of an active or passive digital presence after death. This is an area of which few people are aware and is certainly something that Christians need to understand. This section explains how advances in knowledge management, machine to machine communication, data mining and artificial intelligence are now making a more active presence after death possible; i.e. beyond simple memorial pages and ‘beyond the grave’ updates, from dead family or friends. There are now companies dedicated to creating digitally immortal personas. It is clear that the search for such immortality is grounded in a human desire for control over death as well as life which has both sinister and useful consequences for Christians.

For example, digital immortality is affecting grief and mourning practices, it is creating new forms of legacy as well introducing new issues for the funeral industry, such as whether to use augmented coffins and services that can be watched real-time across the world. However, in order to appreciate this issue, it is important to understand artificial intelligence and its implications for Christian theology and practice.

Artificial intelligence is often thought of as robots or thinking machines. From the popular point of view, artificial intelligence (AI) is seen as science-fiction characters like the Hal 9000 computer from *2001*, or the androids from Channel 4’s *Humans*. In modern marketing terms it is taken to be almost any reasonably complex programme or algorithm – often based on machine-learning principles, yet the complexity and diversity of AI is much broader than this. Recently there have been considerable improvements to AI such as better text-to-speech, improved speech recognition and high-quality avatars (the bodily manifestation of one’s self). The challenge in this area is though still to cross the ‘uncanny valley’; the idea that human replicas may elicit feelings of eeriness in looks, sound and especially behaviour, such as emotional responses, from something that is almost human to something that can be readily mistaken for human. The excitement, and controversy in this area are driven by developments which are actually quite separate, but which are often taken together as representing AI. For example, virtual assistants such as Siri and Alex which provide voice and conversational interfaces to information and begin to deliver on some of the promises of virtual personal assistants. The growth in the use of machine learning techniques to mine

large amounts of data and to make deductions from it that can equal (or even exceed) human analysis. Hern reported that The European Parliament has urged the drafting of a set of regulations to govern the use and creation of robots and artificial intelligence. (Hern, 2017). The areas that need to be addressed are suggested to be:

- The creation of a European agency for robotics and AI;
- A legal definition of 'smart autonomous robots', with a registration for the most advanced;
- An advisory code of conduct to guide the ethical design, production and use of robots;
- A new reporting structure for companies requiring them to report the contribution of robotics and AI to the economic results of a company for the purpose of taxation and social security contributions
- A mandatory insurance scheme for companies to cover damage caused by their robots.

The report also takes a special interest in the future of autonomous vehicles, such as self-driving cars, but as yet there seems relatively little detail about how this might be implemented or developed or indeed what the relationship between AI and virtual humans is. However, in Autumn 2017 Sophia, a humanoid robot gave a speech at the United Nations, to prompt the recognition that there needs to be more debate, as well as legislation in this area.

### Virtual Humans

One of the main shifts has been to move away from a general understanding of AI and instead to refer to different types. One particular growth area is that of virtual humans. Turing (1950) suggested a test he called the 'imitation game', designed to answer the question 'Can machines think?' His prediction was that the test he proposed would be passed by about the year 2000, but this was not the case. However, in the 1980s Searle suggested that the computer is just a symbol processing machine and it cannot be said to think. Searle (1980) argued for weak AI where machines can only simulate thinking and strong AI where machines running the right software could become a mind.

If a machine can play chess better than the very best human player, does that make it intelligent? Searle would claim no, that it is merely the human programmers that are intelligent, who have programmed the machine to implement their ideas.

However, how is this different than a human mentor that teaches a student to play chess? Do we say the mentor is intelligent and the student is merely deterministically following the rules she was taught?

The research on virtual humans has been increasingly adopted, adapted and tested in educational settings and the research indicates that they are of value as mentors and guides for students. It is evident from the literature that the term Virtual Humans tends to be used as an overarching term that includes Chatbots, Autonomous Agents and Pedagogical Agents. Virtual Humans are characters on the computer screen with embodied life-like behaviours such as speech, emotions, locomotion, gestures, and movements of the head, the eye, or other parts of the body. Evidence has shown that many users are not only comfortable interacting with high-quality Virtual Humans, but that an emotional connection can be developed between users and Virtual Humans, resulting in a more positive engagement experience. One of the key features of Virtual Humans is the facilitation of the formation of relationships between the human and the virtual humans. The focus is on enabling the user to interact with the software using everyday language rather than clicking on icons or using menu selections. The proficiency of the agent at imitating human dialogue is important in the formation of human-agent relationships, and efforts to improve the ability of the agent to respond appropriately are currently being researched.

Many people are concerned about the impact and future of artificial intelligence. Whilst some of the worry is warranted, it is important to be aware of the ways in which media coverage can exaggerate claims and get in the way of reality. There are legitimate concerns about artificial intelligence being used to control cars and weapons systems. However, it is probably unlikely that as Stephen Hawking suggests that 'the development of full AI would spell the end of the human race.'

## Conclusion

Not only are we seeing advances in knowledge management, data mining and artificial intelligence but also in merging our human bodies with technology. This 'body hacking'

includes inserting chips into our arms to open doors and pick up metal objects, and implanting antenna into our brains to translate the colour spectrum into different vibrations, enabling the user to 'hear' colours. Whilst for some people this is seen as art, and for others as playing with technology, there are useful advances such as the creation of bone implants that enable the mounting of a replacement arm on to the skeleton which can then be controlled naturally, using brain signals.

Some churches and denominations are more likely than others to use digital technology within the church building. However, invariably the use of PowerPoint in church rarely has a deep impact on the way we use (or do not use) digital technology to support our journey of faith. What is perhaps more important is understanding the ways in which particular types of technology can support, and even challenge, our relationship with God. Whatever our views on this body hacking, being tethered to technology or being able to create a digitally immortal copy of ourselves, the digital age is here to stay.

## Linking the Digital and the Ecological: Theological Reflections

John Reader

One of the challenges identified by the Trinity group is to establish links between the areas of environment and technology (particularly digital technology) while maintaining an appropriate distance between them and respecting the differences and integrity of the disciplines and thinkers involved. A starting point for this is Pope Francis' "Laudato Si", itself the motivation behind another conference which took place in Oxford, at Campion Hall in December 2017 and to which some of the authors of this series were invited. In Chapter 3 of that document in which the Pope looks at the human roots of the ecological crisis, he suggests that despite the obvious progress that has been made as a result of technological advances, the power that is now apparently available to the human race is itself a temptation to exercise a dominance over creation which then leads to environmental degradation and exploitation. The moral sense and range of values which might be required to temper the excesses of human control have not developed at the same pace as our technological advances (Laudato Si P53). What he calls the technocratic paradigm also tends to dominate economic and political life. As was noted at the Campion Hall conference, however, beyond this ambivalent and sometimes negative attitude to the technological, the document itself contains little which might be a basis for a more nuanced and complex engagement with the area. There is a related temptation to search for responses to the ecological crisis within the purely technological and divert attention from the deeper issues of what it means to be human in the light of developments in both areas.

A further dimension of this is that there are very distinct practical impacts of the technological upon the environmental which remain below the surface of the debate. For instance, Smart ICTs (information and communication technologies) consume significant quantities of energy and are thus potentially unfriendly towards the environment. In his book on "The 4<sup>th</sup> Revolution: How the Infosphere is Reshaping Reality", Luciano Floridi draws attention to the fact that in 2012 data warehouses around the world consumed about 30 billion watts of electricity, roughly equivalent to the output of 30 nuclear power plants (P212). A single data centre can consume more energy than a medium sized town. This figure will continue to rise with an estimate that by 2020 ICT related emissions will surpass the aviation industry's carbon footprint. Floridi says we are taking a gamble that ICTs will

benefit the environment in the longer run despite short term harmful impacts. He is optimistic that this will work out positively, but others might be less sanguine on the issue. Even he agrees that there is an urgent need for more environmentally sustainable technologies which enable us to do “more with less”; “more with left” and “more with different” (P215). In which case one cannot definitively separate concerns for technology from concerns for environment. Instead the two need to be kept connected in our minds as well as in practice.

### Practical Examples

Should you happen to be driving around Oxford you might well have encountered an autonomous car, models of which are being tested in the area. Given the traffic problems in the locality you might think this is the best option for road travel, but the prospect of more of these vehicles coming into circulation is a perplexing one to say the least. Apart from the question as to what purpose they actually serve, this raises questions of insurance, safety and indeed any ethical concerns that might be associated with these developments. In March 2018 a pedestrian was run over and killed by such a vehicle being tested by Uber in the USA. I begin with this example as it seems a classic one of the principle that if human beings can find a way of developing a new technology, they will do so, regardless of the consequences or ethical implications. Hence the claim will be made that this is yet another technological breakthrough. What do we learn about ourselves from this and what, if anything, might theology add to such a debate?

I name this section of the document “technology transforming theology” with the intention of being deliberately provocative and to establish the connection with the theme of Relational Christian Realism. It might be easier to frame it along the lines of how theology might benefit from technology, or what ethical principles might be applied to technological developments. But the title I have selected reflects what I believe to be the case in what is perhaps the other major area of human concern, that of the environment, where I also argue that it is theology that must change in the light of the challenges now facing us. It is not quite as simple as that, and I will present ideas where theology can add to or enhance the discussions about technology, but I want to guard against the notion that technology is simply something we use or deploy in an instrumental fashion and argue instead that technologies have always shaped who and what we are as much as we have developed and



shaped those technologies. I cannot emphasize this too strongly so I will repeat the claim. Technology is not something out there or detached from us that we happen to employ when it suits our purposes to do so, it is always already part and parcel of what we are and might become as humans. That is nothing new, and has been the case since humans first began to shape the objects around them in order to enhance their existence, whether for hunting or sheer survival. We live connected to those artefacts and how we develop as a species is in relationship to them. The technology shapes us as we shape and develop the technology. There is however a further argument that I want to present and that is that digital technology is a step change which goes beyond what we already have and requires a greater degree of analysis if we are to understand and respond appropriately. Something more significant is in process that will overtake us if we are not aware of it, just as we might be overtaken by a driverless car without even realising it.

Although it is the work of Stiegler that has highlighted this theme for me, others have also made the same point from different perspectives, including a book written from within the field of media studies that adds to both the philosophical and theological elements of the debate. “The Marvellous Clouds: Toward a Philosophy of Elemental Media” by John Durham Peters is a creative and stimulating contribution from within a discipline that is related but perhaps underemployed by many of us. Peters is keen to sustain a balance between the activity of human agency as regards technology and accusations of technological determinism. As such he makes connections with Latour which is helpful for this discussion. The danger is always that of underestimating the power of devices and of overestimating that of humans. Subjects and objects are kept in separate boxes, something that Latour is keen to avoid. The human will can be portrayed as immaterial and disembodied as if we were not already networked creatures and as if matter were inert and inactive. This would assume that our intentions and actions were transparent to ourselves, whereas our bodies are themselves technical systems that are as strange and mysterious as any of the devices we develop (P89). Humans are always already grounded, embodied, implicated and entangled. This is an interpretation that I have presented as essential to Relational Christian Realism in its encounters with New Materialism. Things can be alive, just as humans can be machines. So it is in specific assemblages that one needs to identify the distributed agency

that is the reality of human engagement with the technical which has been the case from the beginning and is not simply a development since the Industrial Revolution.

There are however significant differences with such developments that do need to be considered. As Peters says: “the task is to rethink technology as constitutive of the human being without thereby providing Silicon Valley with one more marketing argument” (P90). It is interesting that he refers to the work of Ian Bogost, a writer from within New Materialism at this point. What is required is a philosophy of media that appreciates the embedment of techniques without sacrificing critical judgement. A key theme that I share and which he comes back to in the conclusion of his book is that we need to profit from distance and absence. Proximity and distance and a dialectic between them is a central argument for my own philosophical and ethical engagement with these issues. One should perhaps note that Floridi from within Communication studies talks about the differences between a first order technology where the links are between humanity, technology and nature: a second order technology where the links are between humanity, technology and humanity; and what is now a third order technology where the links are technology to technology to technology with no human involvement at all. The Internet of Things is a prime example of the latter. Once humans are no longer in the loop we have entered a different world which requires new concepts and even perhaps a new ethics. Hence the importance of our explorations in the workshop and beyond (Floridi Pp 26-29). What exactly is the relationship between humans and technology and could it be the case that any distance between has been so eroded that any sort of critical perspective is lost in the process? How, if at all, can we absent ourselves when the impacts of digital technology are so pervasive and invasive?

### Issues of Privacy

A further example which hit the headlines in the early part of 2018 was that of Facebook and its possible role in allowing the data of 87million people to be accessed by an outside agency who then used it to try to influence elections. Although this is still under investigation and subject to ongoing controversy as to whether or not anything illegal took place, the level of concern raised globally illustrates both the power and range of this particular organisation to impact other areas of our lives. Beyond this particular example there is a general issue of privacy (or lack of it), given the details of our lives that are now

permanently available through our use of the technology. Once again, Floridi has some interesting things to say on this subject.

Talking about the potential impact of digital technology on children, Floridi argues that we must protect children's privacy because ICTs are technologies that shape the self (P122). He begs the question which is at the heart of this discussion. Working back from this position he says that information should be considered in the sense of constitutive belonging rather than as a matter of external ownership and that this must influence any ethical approach to the subject. "Your information" is the same as your feelings, or your body, such a part of you which is more fundamental than any external possession over which you have a legal right. In which case how does privacy enter into the picture when so many of us appear happy to see this compromised in order to gain ready access to the internet and social media such as Facebook and Twitter? As with other aspects of his approach Floridi believes that the technology itself can be used to advantage in this process and is not simply a negative influence (P115). Yet against this we set the fact that a special trait of the information society is precisely its lack of boundaries and its global nature. "We live in a single infosphere, which has no outside and where intra – and inter-community relations are more difficult to distinguish" (P111). This is very different from the caricature of village life where everyone else used to know your business and there was nowhere to hide. These days one doesn't even know who else knows what about one let alone what they are likely to do with that information. Privacy in the future will not mean what it meant before the digital age, so how is this to be protected and how are children to be sheltered from the dangers involved? Once again it is difficult to see how appropriate distance can be achieved.

One possible example was February 6<sup>th</sup> this year which was designated Safer Internet Day. Although Safer Internet day is geared essentially to schools and young people it highlights both the opportunities and risks associated with the increasing dominance of social media. As a school governor I know that children in Key Stage 2 have to sign an Acceptable Use Agreement which commits them to keeping all their private details secret; being wary of anyone trying to contact them over the internet; not opening files from people who are not known to them or who cannot be trusted and alerting a trusted adult if something online makes them uncomfortable or worried. On the other hand, like the rest of us, it is almost impossible to function without reliable access to the internet and emails. One of the

questions which emerges from this is that of the extent to which many of us are now addicted to our digital technology and what, if anything, religious beliefs and practices might contribute to this debate.

I want to propose that one helpful approach is to think more deeply about the dynamic between proximity and distance and that this is an area where Christian thought and practice might have something valuable to offer. For instance, the impact of smart phones is that the internet is now permanently accessible. So much so that sleep patterns are being disrupted because people keep their phones turned on at their bedside. The blue light that is emitted tells the brain that this is the onset of daylight thus encouraging a constant attention and wakefulness. There is no escape from either the temptation to check one's messages or to decide to google something that raises one's curiosity. It is there, all the time, in your face, demanding attention and a response. It is not simply the permanent presence but also the speed at which these systems operate which creates that potentially damaging proximity. The only moment is now, and if you fail to capture it you risk the danger of missing something important or falling behind. Is it possible to create that distance or detachment from this constant flow of communication with a clear head and a calm conscience?

In his latest book, Thomas L. Friedman offers a critical perspective on the impact of digital technology ("Thank You For Being Late", Allen Lane 2016). In a chapter entitled "Is God in Cyberspace?" he suggests that we have to re-think ethics and search for moral innovation (P 371). "How can we anchor more people in communities and contexts governed by values of decency, honesty and mutual respect?" Friedman's answer is to draw upon a Jewish post-biblical tradition which says that we have to bear witness to God's presence by our own good deeds. Our choices and our autonomy are the only means by which deeper values can be made present. I also think of the Ignatian spirituality principle that God is to be found in all things and my own use of Bonhoeffer's idea of the Beyond in the Midst ("Theology and New Materialism" Palgrave Macmillan 2017, Chapter 2) as responses to the issues of transcendence and immanence which is another version of the proximity and distance dynamic. How would this translate into the Cyberspace question that Friedman raises? Can it simply be a matter of individuals exercising their freedom of choice as Friedman suggests? Do we each sign our own Acceptable Use Agreement and the problems will be solved?

In another book on the subject “Irresistible: Why you are addicted to technology and how to set yourself free” (Penguin, 2017), psychologist Adam Alter proposes a ‘sustainable’ approach to internet usage, similar to that used in environmental debates, but is this the right metaphor? One survey discovered that smart phone users spend a quarter of their waking lives on their phones, the equivalent of 11 years over an average lifetime(P15). This overuse has been termed “nomophobia”. One of Alter’s solutions to this is to reduce the proximity to the technology. If we are unable to totally avoid smart phones, email and the internet, we can at least make efforts to remove ourselves from them at certain times and contexts: “remove temptations from arm’s reach and you’ll find hidden reserves of willpower” (P275). Once again it seems that distance can be successfully created by an exercise of human autonomy, but are we yet to fully understand how we as humans are changing as a result of the technology which is shaping us as much as we are shaping it?

### Being a Christian in the Digital Age

In her work outlined above, Maggi helpfully categorises a range of approaches which Christians take to technology. It might be worth asking where you stand on this spectrum – and why. The idea of being digitally tethered I find particularly powerful as it seems to describe how life has become for many of us now. I use the technology frequently but with little understanding of it and with the usual proviso that if something goes wrong I have to consult a “young person” or one of my children to help me sort it out! I am dependent on it as a parish priest since most communications, including Diocesan ones as well as requests for baptisms and weddings, now come through via email. When I was in the middle of writing a new book in the summer of 2016 my iMac broke down and I had to continue writing by hand until I could source a replacement computer. My children will tell you I am digitally tethered and take my phone with me to check emails and respond far too quickly as I like to stay on top of what is coming at me. I don’t have to deal with the volume of emails that most people in offices do, but, I like to stay connected. That’s me – but where are you in this?

Maggi then goes on to offer examples of how the technology is currently being used – and a lot of this stuff I was not aware of. There are technologies for babies and early years such as monitors that capture and provide feedback on their sleeping patterns; Teddy the Guardian bear who locates and captures their key vital signs (not sure what the adult equivalent

would be?); a watch that tracks their location. There are games popular with primary age children which comprise plastic figurines, positioned on a plastic base and then reflect a virtual avatar which the children can control through a game controller. Children are seen as consumers in this of course. Then for teenagers the range of options is even greater and well beyond my experience or understanding although I am aware of the real concerns that parents have about what can now be accessed and the extent to which remaining permanently connected disturbs sleep patterns and leaves young people open to cyber bullying. Probably like every successive generation of grandparents I am glad that I don't have to face these challenges as a parent now. How does one "police" or protect one's children or perhaps encourage them to use the technology responsibly? Smart homes where the heating can be turned on while you are still on your way back home; fridges which record their contents and re-order when stocks are getting low; all part of the growing "internet of things" which could completely change the way we live our daily lives. Then the realms of artificial intelligence and the use of robots to replace human beings in various working environments. So the list goes on and becomes increasingly overwhelming. Then there are specifically Christian technologies that some of you may already be using. You can access the Bible on your phone of course through appropriate apps. PrayerMate helps you pray for all the people and causes you care about. BIBLY is a fun trivia app to study the Bible. Bytxt is great for those wanting to access the Greek New Testament. Bible Bedtime helps you bring Bible stories to life for your family. It makes me feel like a contemporary Luddite as I still like reading real books rather than screens, but this is the way things are going. There is a research unit based at one of the colleges in the University of Durham (CODEC) which is looking at the ways in which the technology is being employed in a religious context. For instance, if one's only encounter with the major texts of one's faith is through the screen and selected apps, how limiting is this in terms of a fuller encounter with the text and the tradition?

## Neuroscience

Another more theoretical area that relates strongly to these issues is that of neuroscience, and a brief foray into this seems appropriate if we are to deepen our understanding of what this contributes to the overall discussion. For instance: a rather simplistic view might argue that our patterns of behaviour are being shaped and determined by the technology we now

encounter, and that our synapses and neural pathways are themselves being impacted in a definitive way by our constant and regular use of the internet. This is certainly familiar territory when people come to express their concerns about the ways in which young people are being influenced by the technology. The danger is that this can become a form of determinism. In other words, x automatically leads to y, so once the patterns are in place there is nothing that can be done to change them. This is a counsel of despair suggesting that we are now being controlled by forces beyond our comprehension. The problem is to present the evidence and the arguments in such a way that one can see the very real dangers of the ways in which the technology is indeed shaping our behaviour and our relationships, but without abandoning all hope of ever challenging or changing these.

The work of the French philosopher, Catherine Malabou is helpful in this regard. She talks about neuroplasticity, and the extent to which the patterns of behaviour that we adopt limit the prospects for change. At what point does regular practice so reinforce the actual synapses in our brain that other alternatives are ruled out? To what extent are our synapses malleable, plastic and open to further development or influence, and how can one keep the options open and guard against the addictions or set patterns of behaviour that are subject to being shaped by the digital technology? I don't think we know enough yet to be able to answer this definitively, but we can see how constant and regular usage does indeed influence and impact our behaviour and therefore our relationships. If we are constantly connected we limit the possibilities of direct face to face contact and patterns of relationship that might previously have been assumed as central to the practice of our religion. What would theology make of this?

I think it is necessary to delve a little more deeply into this discipline to see what confirmatory research might be discovered. For this I refer briefly to the work of the US neuroscientist Lisa Feldman Barrett and accessed in her "How Emotions are Made: The Secret life of the Brain". Although her main concern is to examine theories of human emotion, she does in the process reveal a great deal about current research. One of the traditional views of the brain that is now being questioned is what she calls the triune picture which suggests that there is an inner reptilian brain focussed on survival; a second layer identified with the limbic system and supposedly the seat of our emotions. Then an outer section known as the neocortex which reputedly contains our cognitive faculties and

thus the centre of human reason and our critical faculties (P82). This has become so well established that it leads to a host of misleading practices and assumptions. In fact, argues Barrett, the whole is much more complex, interconnected and fluid and it is a mistake to try to identify specific areas of the brain with particular forms of human activity.

The alternative picture is that the brain contains at least 86 million neurons connected into massive networks, and which do not lie dormant waiting for some external stimulus but are constantly in motion and active in their own right. These intrinsic networks of neurons consistently fire together, operating something like a sports team, able to draw upon whichever player is ready to function and respond. One of the key ideas that Barrett adds to this is that of prediction (P58). The brain has to figure out in each instance what is going on through the scraps of sensory information available to it, and then decide how to interpret and react. Past experiences are used as a guide to this although mistakes can be made and then adjustments must follow. Intrinsic brain activity is millions and millions of non-stop predictions that are taking place all the time before we are even aware of them. This is our way of navigating the world, making sense of it, and then responding. Because this is the case humans are not reactive but proactive at this level, and capable of creating and shaping how we behave. We construct our world through the concepts that we learn to employ as we grow and develop, including the wide variety across cultures which we call our emotions. This prediction loop can be represented as a process whereby one predicts, then simulates and compares (with past experiences), resolves errors if mistakes are made, and then moves forward (P63).

What might this suggest about the issue of technological determinism and the capacity – or otherwise – of humans to exercise some degree of control or autonomy in respect of responses to digital media? It would propose that there is such a capacity, and that we are not wholly or definitively shaped by the external technologies that we encounter or develop. Yet our experiences and their frequency will play a part in how we interpret and respond to new encounters and opportunities. I am not sure how to reconcile prediction as described by Barrett with what I read of Stiegler who argues that the speed with which digital technology functions risks pre-empting our critical faculties and our capacity to take time to consider and reflect. If everything in our brain always already operates at such a pace that we are not even aware of it, how can one take account of “the slow work of time”



and such practices as contemplation or meditation? This perhaps needs further exploration and explanation.

### The Digital as Pharmakon

In this section I turn to the work of another French philosopher whose main work is in this field. Bernard Stiegler is not yet a familiar name in this country. His writing is complex and dense but some of us have attempted to make his work more accessible. He argues that digital technology is different in kind from previous technologies and brings with it both new dangers and new possibilities. A key term is pharmakon – if you think of the term pharmacological you might get a sense of this. Put simply, a pharmakon can be either a poison or a remedy, or a range of possibilities related to both. So the technology has the capacity to be either a positive or a negative influence upon how we live and the challenge is to identify which and under what conditions. That sounds straightforward enough but is not really so. Digital technology operates in a different way to previous technologies by virtue of the ways in which it takes our thoughts, memories and indeed our habits and speeds up the normal processes through which they operate. It short circuits the longer patterns of thought and behaviour which have constituted our personal and working lives up until now. Not only does it short circuit them, it even pre-empts them by running ahead of us. An example is the use of algorithms by companies such as Amazon and Google to present to us on-line possibilities on the basis of what we have looked at previously. We know that adverts pop up on our screens unsolicited because we have already viewed certain products or websites. It is as if time itself is being reshaped and commercial organisations can come at us from the future on the grounds of what we have done in the past. We also know that marketing groups have used Facebook to enable the US political parties to target people on an individual level given previous knowledge of their interests and concerns as predicted by their Facebook profiles. Should we be worried by this and what could we do about it?

What Stiegler offers as antidotes to this begin to sound like reasonably familiar theological terms. He talks about the need for trust and fidelity as this is being undermined by the use of digital technologies. He also emphasises the need for care, by which he means that which takes time and attention rather than the constant pressure to rush through our lives making decisions determined by commercial pressures. He employs a term derived from Roman

times to talk about the spaces for thought and reflection which are being squeezed out by the pace of life now – otium as the time out for rest and recovery required by the Roman troops as contrasted with the negotium demanded by the business world and normal activity. We might argue, as Stiegler himself does on occasion, that religious practices, symbols and beliefs used to offer an alternative understanding of time and what is required in the building of relationships. Stiegler also thinks that religious groups engaged in community work might offer positive examples of how the digital technologies can be used for benefit rather than harm and that is an interesting challenge to us.

### The Impacts of Theology and Religious Practice

Where is the evidence for a transformation of theology? First in the recognition that digital technology is indeed having an inescapable and profound impact upon human culture and the ways in which we develop as humans in our relationships with each other and the technology itself. We are in constant process ourselves and there are big questions about our own future as a species which our religious beliefs and practices need to address in a realistic and grounded manner.

But there are also interpretations of religion itself which can offer a critical perspective on what is happening. Religion is about making connections, drawing together and assembling the different strands of our lives and societies – *religio* as binding in its original Latin meaning – and if we are also engaged in living out what might be called “forms of life” so a knowledge that cannot be reduced to information but involves knowing how to live more ethically and responsibly. It is also that strand of tradition that holds onto those experiences of God that remain beyond articulation and which therefore cannot be reduced to the commercial to be exploited. Theology therefore has things to offer that need to be brought back to the surface. Shaping, formation, sacrifice, vocation and discipline even are part of our discourse and self understanding – or used to be – and depend upon that different concept of time that could be an antidote to that being presented by the commercialized aspects of digital culture. Religion like technology is a pharmakon, but the challenge is to identify and live out those dimensions of it that offer remedies rather than poison.

Pope Francis suggests that the ecological challenge is at heart a spiritual rather than simply environmental or scientific one. I could argue similarly for the digital technology issue. The

question this raises is that of the relationship between the material and the spiritual. Both environment and technology can be seen as material realities “out there” which we control and manipulate for our benefit, but which come back to bite us when we do so inappropriately. At the other extreme is a view that there is no distinction between the material and the spiritual. We are one with the natural world and indeed with all those material artefacts and technological developments which we have created. The material is always already the spiritual and humans are fully a part of both.

It seems to me that neither of these solutions is adequate. There is both proximity and distance with both the so-called natural world and the technological one and this is the dynamic which we have to grasp and negotiate. In “Theology and New Materialism” (2017) I proposed what I call a disjunctive synthesis between the Relational and the Apophatic as an appropriate theological response to the insights of New Materialism. The Relational acknowledges that humans are always already fully part of and in total proximity to that which we see as external to and separate from ourselves. The Apophatic recognises that there is always also that distance and separation from that which lies beyond our grasp, articulation and understanding. There is no simple reconciliation or synthesis between these two interpretations but only a continuing tension and dynamic working itself out through the immediate ethical challenges we face. The material and the spiritual are indeed related but cannot be readily conflated or reduced to each other. If ‘God is in Cyberspace’ God’s presence there cannot be solely by the force of human will and activity. But quite how a divine presence is to be found there lies beyond our immediate understanding and apprehension. We need to find alternative spaces and times where there can be appropriate distance and detachment but also a continuing ethical engagement and responsible action.

## Questions for Reflection

1. Are we addicted to our emails, smart phones, lap tops, the internet etc?
2. If so, is this a problem and what are the implications for our relationships and indeed our faith?
3. In what ways are we aware of being shaped by the digital technology?
4. What guidelines might be offered to enable a more disciplined and effective approach to our uses of the digital?
5. What links can be identified between environmental concerns and issues relating to technology?

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