

I Introduction

BETH SINGLER AND FRASER WATTS

“WORDS MATTER”

In March 2022, the Center on Privacy and Technology at Georgetown Law, in the USA, announced that it would no longer be using the term “artificial intelligence” (AI). “Words matter” began the explanation written by the executive director, Emily Tucker. The post on the online publishing platform Medium explained that: “Whatever the merit of the scientific aspirations originally endorsed by the term ‘Artificial Intelligence’, it’s a phrase that now functions in the vernacular primarily to obfuscate, alienate, and glamorize.”¹

Instead, the Privacy Center declared that it would, from now on: “(1) be as specific as possible about what the technology is and how it works, (2) identify any obstacles to our own understanding of technology that result from failures of corporate or government transparency, (3) name the corporations responsible for creating and spreading the technological product, and (4) attribute agency to the human actors building and using the technology, never to the technology itself.”

All of this was in recognition that Turing’s 1950 prediction in his 1950 paper “Computing Machinery and Intelligence” had happened, just not in the way in that it is often understood:

The original question, “Can machines think?” I believe to be too meaningless to deserve discussion. Nevertheless I believe that at the end of the [twentieth] century the use of the 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.²

Instead, the centre argued that “Turing’s large prediction has nevertheless been fulfilled [...] The terms ‘artificial intelligence’, ‘AI’, and ‘machine

¹ Centre on Privacy and Technology, 2022, “Artifice and Intelligence,” <https://medium.com/center-on-privacy-technology/artifice-and-intelligence%C2%B9-fooda128d3cd>.

² A. M. Turing, 1950, “Computing Machinery and Intelligence,” *Mind*, 59(236), 433–460.

learning' placeholder everywhere for the scrupulous descriptions that would make the technologies transparent to the average person." The centre's ambition is admirable, especially as it comes in conjunction with a desire to make explicit, as the centre claims to, the "marketing campaigns, and market control of tech companies."³

However, while high-level think tanks and research institutes might push back against the obfuscating legacies of language, 'AI' as an object and term remains enmeshed in our imaginaries, narratives, institutions and aspirations. AI has that in common with the other object of discussion in this Cambridge Companion: 'religion'. But beyond such similarities in form and reception, we can also speak to how enmeshed these two objects have been, and are yet still becoming, with each other. This growing entanglement also runs counter to several dominant narratives that partake of longstanding historical discussions of the relationship between anything deemed 'sacred' (i.e., religion) and anything deemed 'secular' (i.e., technology and science).

However, a problem arises in recognising the difficulties of definition with two such fluid, yet enmeshed, objects. Our academic habitus suggests that books should begin with 'introductions' to their subject through definitions and potted histories that set the scene for the larger discussions of the volume. However, both 'AI' and 'religion' are resistant to such clarifying efforts. The technologists of both AI and religion have offered attempts at encompassing definitions, appearing online and in textbooks. But these definitions are temporally and culturally contextual. Both our key terms have made their way into the world of popular discourse to be understood and shaped anew by various modes of interpretation and influences. In the case of AI, we should identify the role played by the charismatic authorities and voices in the AI story, anthropomorphism (and its counter, robomorphisation – the tendency to see the human as machine-like), utopianism and dystopianism, commercial hype and fake or faux bots that encourage us to view the technology as more advanced than it is, science fiction narratives and even religious narratives.

Also, on those occasions when we are given potted histories of AI, they are often retrospectively shaped in such a way as to give us a singular 'creation' moment, rather than recognising the historical context and previous fields that informed what came to be called 'artificial intelligence'. Thus, such histories commonly begin with the Dartmouth

³ Centre on Privacy and Technology, "Artifice and Intelligence."

Summer Research Project of 1956 that brought together the ‘founding fathers’ of this new field, such as Marvin Minsky, John McCarthy and Herbert A. Simon. This near fabled moment is described as giving the field its name while also defining its aspirations.

However, the term did not really dominate discourse until later when research funding for AI escalated around the late 1950s. At that time elite research institutes welcomed AI into the fold, creating spaces such as the Artificial Intelligence Project, which was part of both the Research Laboratory for Electronics in Building 26 and the Computation Center at the Massachusetts Institute of Technology. It is at that time that we begin to see the scare quotes around Minsky’s notions of machine ‘learning’ disappearing in his work, leading to a stronger assertion of the limits, or lack of them, of the field, according to historian of AI Jonnie Penn.⁴

Instead of uncritically retelling this ‘creation story’ of AI, we must instead, as Penn argues, “situate early AI efforts in relation to a set of conceptually adjacent modes of analysis that practitioners and commentators retrospectively annexed into ‘artificial intelligence’ after the late 1950s. These include complex information processing, heuristic programming and machine learning.”⁵ Other methodological and societal influences include: “Management science, operations research, Hayekian economics, instrumentalist statistics, automatic coding techniques and pedagogy, cybernetics” and the “broadscale mobilisation of Cold War–era civilian-led military science.”⁶

With regard to cybernetics in particular, an interesting point to note from the perspective of this Companion is that there was a good deal of interest in spirituality among cyberneticians,⁷ whereas, as we discuss, the relationship between religion and AI has often been one of mutual suspicion and detraction. Why was there such interest in religion and spirituality, especially Eastern spirituality, among the early cyberneticians? Pickering suggests several factors. One was that cybernetics naturally led to curiosity about the brain and its capacity for altered states of consciousness, developing a relational understanding of the brain and how it responded to various contexts and technologies of the self.

⁴ J. Penn, 2022, “Inventing Intelligence: On the History of Complex Information Processing and Artificial Intelligence in the United States in the mid-Twentieth Century,” unpublished PhD thesis, Cambridge University. www.repository.cam.ac.uk/handle/1810/315976.

⁵ Penn, “Inventing Intelligence,” 12.

⁶ Penn, “Inventing Intelligence,” 3.

⁷ A. Pickering, 2010, *The Cybernetic Brain*, University of Chicago Press.

Further, the cybernetic focus on adaptation eroded the modern view of the bounded individual and took a more contextual approach to the human person, which could include the transcendent. AI, in contrast, has generally tended to see intelligence as a property of a particular device. However, that is not a necessary feature of AI, and it is arguable that if AI is to simulate human intelligence it needs to find ways to take a more relational approach.

Further, as the next section shows, religious narratives and tropes have a role to play in the formation of the field of AI, in its discursive modes. Subsequent chapters also draw attention to the role of religious beliefs in the approaches of those founding fathers and other significant voices in the early field of AI. In short, AI as an object of discussion has emerged out of its specific context and history, including religious influences, while rewriting both retrospectively for a 'creation' story that reminds us of other such myths and stories of the creation of intelligence.

'Religion' also emerges from society even as it shapes society. Contemporary critical religious studies scholars encourage us to recognise that "some societies organise themselves by using the category of 'religion' and they have multiple means by which classifying something as religious is stabilised and made effective."⁸ Religion is similarly shaped by societal forces and ideological concerns, and the diffuse religious activities, texts and ideas that we label with recognisable names are equally contextual and historically bound.

How then to introduce these two objects and then expand on their relationship? First, we propose not to hide such complexities but to consider AI and religion in their 'entanglements' with each other and with society. That is, we draw on anthropologist Courtney Bender who in turn drew on the philosopher John Dewey in her considerations of contemporary spirituality:

I begin thus with the view that spirituality, whatever it is and however it is defined, is entangled in social life, with history, and in our academic and non-academic imaginations [...] spiritual forms have thrived and been shaped by entanglements with the secular, including its powerful engagements with science and progress.⁹

⁸ T. Taira, 2022, *Taking 'Religion' Seriously: Essays on the Discursive Study of Religion*, from *Supplements to Method & Theory in the Study of Religion*, vol. 18, Brill, 2. <https://brill.com/display/title/61969>.

⁹ C. Bender, 2010, *The New Metaphysicals: Spirituality and the American Religious Imagination*, University of Chicago Press, 5–6.

Begin with things in their complex entanglements [rather than] with simplifications made for the purpose of effective judgement and action; whether the purpose is economy, or dialectical aesthetic, or moral.¹⁰

However, this desire to push back against essentialism in the conversation around religion and spirituality – and further, in the discussion of religion and AI – runs afoul of its very own entanglements. Even after revealing these intricacies and essentialisms, such a conversation must take place among the institutional habits and linguistic limitations that require bounded objects for such conversations to begin and to be shared. Hence, while the Center on Privacy and Technology might hope to do away with ‘AI’, it is unlikely that most contemporary societies and cultures will. And likewise, in our discussion of AI and religion in this volume we must also make use of bounded categories such as ‘AI’, as well as indicate towards specific religions in which we might find individual experts in their fields able to write on such topics.

How then to proceed? We need both an introduction and a volume that recognises these terms both as constructions and as familiar ones that are employed for reasons and to specific ends. To demonstrate how this specificity can be valuable for the wider conversation on religion and AI, we now examine the history of AI and religion through the language and perspectives of some of the AI technologists and philosophers who have employed the term ‘religion’ in their discussions of the technology itself. This helps to set the scene for the larger conversation on religion and AI of this volume by demonstrating some of the tensions and lacunae that the following chapters address in greater detail.

RELIGION AND AI WORDS: HERESY, IDOLATRY, SIN AND MORE

It is not unusual, in our experience as researchers in this field, to come across the perspective that AI and religion have little to do with each other – if not, in fact, being antagonistic to each other. Partly this view comes from how AI can be framed as a project of post-Enlightenment teleological rationalism, a point recognised by some philosophers and historians of AI. Hubert L. Dreyfus, for instance, acknowledges AI’s conceptual debt to “four hundred years of rationalist philosophy and the individual men who championed it.”¹¹

¹⁰ J. Dewey, 1925, *Experience and Nature*, Open Court, 33.

¹¹ Penn, “Inventing Intelligence,” 40.

Ethnographically speaking, the view that religion is irrational and AI rational – and never the twain shall meet – is borne out in one of this volume's co-editor's research into overtly secular rationalist trans-humanist groups who deride the 'religionists' and 'goddists' who are described as being wedded to naïve supernaturalisms such as 'sky-gods' or 'magic'.¹² However, as Singler has also noted, religious narratives and tropes persist even among such communities online being put to work for specific cultural and ideological reasons. And in the academic discussion of AI, religion as an object was also put to work in the discourse of some of the earliest thinkers on AI, although of course this is 'religion' of a very specific type: WEIRD (Western, educated, industrialised, rich and democratic) monotheistic Protestant Christianity.

For instance, we can see religion being put to work in Anatol Rapaport's 1964 review of *Computers and Thought* by Edward Feigenbaum, Julian Feldman and Mike Sharples. Rapaport's description of the conflict between the 'vitalists' (those who assert that machines can think) and the 'negativists' (those who "at all costs" deny this claim) is couched in language that evokes historical religious conflict and heresy, as well as stereotypical views of religion as non-rational:

It appears, then, that the only possible defensible ground on which the negativists could make a stand is the admittedly non-rational (i.e., religious) commitment against idolatry. If one fears that 'thinking' gives the computer a claim on human empathy and if one fears that the extension of empathy to computers may jeopardize the extension of empathy to men (or to living beings, or to God, as the believers would have it), then attributing thought to computers can indeed be viewed as idolatry.¹³

We can also see this negative language in his criticism that once the "cyberneticians showed that the distinction between teleological and mechanistic laws was an artificial one, the vitalists retreated to theological positions,"¹⁴ 'retreating' being a pejorative way to frame any such intellectual move. Words such as 'dogma', 'sin', 'idolatry' and 'theology' also appear elsewhere in his review, which are all familiar from a Christian cultural context but employed with similar negative overtones.

¹² B. Singler, 2018, "Roko's Basilisk or Pascal's? Thinking of Singularity Thought Experiments as Implicit Religion," *The Journal of Implicit Religion*, 20(3), 279–297.

¹³ A. Rapaport, 1964, "Review: Computers and Thought by Edward Feigenbaum and Julian Feldman," *Management Science*, 11(1), Series A, Sciences, 210.

¹⁴ Rapaport, "Review", 203.

In 1972, the British philosopher Guy Robinson wrote an article for the journal *Mind* on the subject of “How to Tell Your Friends from Machines.” A discussion of responses to the possibility of machine intelligence, Robinson’s article notes how the word idolatry has been employed:

Other extra-philosophic analyses have recently been offered. [Peter] Geach has turned to the notion of religious deviance in characterizing the belief in machine intelligence as ‘idolatry’. It is not clear whether he intends this characterization as a contribution to our understanding of the attraction the notion seems to have for some people or whether it is meant simply as a piece of what might be called ‘dissuasive description’ – or, more baldly, ‘name calling’.¹⁵

Geach approached machine learning from a theological perspective in his 1969 book *God and the Soul*, which is also indicative of the long history of religion’s entanglements with AI as a field. In this instance religion, and its subordinate objects and concepts such as ‘idolatry’, have their place in the conversation as indicators of particular irrationalities or as a black mark to be made next to a specific AI thinker’s approach.

Robinson himself is also sure that there is a distinction to be made between scientific and non-scientific cultures and how they respond to the idea of minds in non-human spaces – and he leaves religion and its attendant beliefs very much in the ‘primitive’ category:

Sincere, non-imaginative confusion between animate and inanimate in what we should call ‘central’ cases can be excused only in a primitive from a non-scientific culture where the distinction is not yet drawn in the way we draw it nor things seen and understood in the way we see and understand them. He may well seek to propitiate the spirit of some machine he has only recently encountered for the first time, but if our next-door neighbour is found sacrificing a guinea-pig because his car has been giving him trouble, we take steps. And our society’s reaction to behaviour that manifests a genuine belief in the intelligence of machines is quick and extreme.¹⁶

The much more recent 2022 case of the AI engineer Blake Lemoine is also illustrative of these kinds of uses of the term ‘religion’. Lemoine made claims about the sentience of the LaMDA (Language Model for

¹⁵ G. Robinson, 1972, “How to Tell Your Friends from Machines,” *Mind*, New Series, 81(324), 504.

¹⁶ Robinson, “How to Tell Your Friends from Machines,” 505.

Dialogue Applications) AI chatbot he was working on for Google. In the reaction to Lemoine's declarations we can see both this view of religion as 'primitive' and Robinson's assertion that society would be censorious in the face of such claims. In the online discussions of Lemoine's claim, observed by Singler and other researchers, members of the public were excited, thrilled or even scared by the claim of LaMDA's sentience. However, among AI technologists there was widespread mockery that only seemed to grow as Lemoine's own religious beliefs were subsequently revealed.

One of his biographies, in a piece from the *Washington Post*, describes his spiritual journey as follows: "He grew up in a conservative Christian family on a small farm in Louisiana, became ordained as a mystic Christian priest, and served in the Army before studying the occult."¹⁷ Elsewhere he is described as having been a Pagan priest, and in interviews he describes his Zen meditation practices. Lemoine's specific religiosity is hard to pin down, and perhaps need not be, in parallel to our wider discussion of the fluidity of the modern concept of religion itself. The response to his religiosity seemed to suggest that this new context reassured onlookers that even with his secular credibility as a Google engineer and person of respectable science, he was really a 'true believer' and therefore a 'crank' through and through: "This is not a story about AI becoming sentient or Google shirking its ethical duties. It's about a guy who wants to believe in fairy tales and could probably use a break."¹⁸

The idea of there being 'true believers' in AI appeared earlier than Lemoine in 2022 and was more explicitly phrased in some responses to the machine minds debate. On 25 October 1971, at Anaheim, California, the Foundation of Cybernetics Committee of the Institute of Electrical and Electronics Engineers 'Systems, Man, and Cybernetics' Society organised, in conjunction with the Joint National Conference on Major Systems, a workshop on "Possibilities and Limitations of Artificial Intelligence." Three years later, a report on the conference focused again on the debate on the philosophical question of the limitations of machine intelligence – recognising as Rapaport did that there were clear factions. Balakrishnan Chandrasekaran and Larry H. Reeker called these factions the 'True Believers' and the 'Infidels' and wrote out

¹⁷ Washington Post, 2022, "The Google Engineer Who Thinks the Company's AI Has Come To Life," www.washingtonpost.com/technology/2022/06/11/google-ai-lamda-blake-lemoine/.

¹⁸ Tweet from Bloomberg writer Ashley Vance, 12 June 2022, <https://twitter.com/ashlee Vance/status/1535766165846253568>.

a philosophical dialogue for them in the Platonic style and introduced the more ideal character of the 'Agnostic'. They also drew parallels with theological debates on the existence, or not, of a god:

The juxtaposition: Is there a God? Is the mind a machine? is interesting for another reason – a sort of empirical semidecidability that they share. The question about God could presumably be answered in the affirmative by any given individual to whom He chose to provide sufficient evidence. Likewise, a person's doubts about robots would probably vanish if his best friend, about whom no suspicion had crossed his brow, turned out to be a clever artifact [...] The prospects for evidence are not very good in either case at this time.¹⁹

Further, Chandrasekaran and Reeker outlined the Agnostic position on the topic of the mind as machine. Agnostics would inevitably counter the True Believer's logic by refuting some of the clauses that make up their claim:

The True Believer holds that man 'as a behaving system' cannot be so complex as to be practically beyond design. Given the True Believer's syllogism: 'The mind is a machine; all machines can be designed; therefore, we can design mind-like machines,' the Agnostic takes exception to the minor premise as unproven, asserting the mind may be 'simply' a machine, but it is not a simple machine.²⁰

It is worth noting that these conversations about the possibilities of the mind as machine came just as AI hype was beginning to decline – resulting in what is seen as the first 'AI winter' of 1974–1980. But there were similar, religiously flavoured conversations at the end of that period of decline. Thus, in 1980 we have Searle's influential article, "Minds, Brains and Programs," which gave us his famous 'Chinese Room' thought experiment. The article was published along with open peer review commentary that drew out these religious parallels, again sometimes with the same negativity that we have already seen Guy Robinson call 'dissuasive description' (or 'name calling'). For instance, Douglas R. Hofstadter's response was blunt: "This religious diatribe against AI, masquerading as a serious scientific argument, is one of

¹⁹ B. Chandrasekaran and L. H. Reeker, 1974, "Report on Workshop on Possibilities and Limitations of Artificial Intelligence," *IEEE Transactions on Systems, Man, and Cybernetics*, SMC-4(1), 89.

²⁰ Chandrasekaran and Reeker, "Report on Workshop," 92.

the wrongest, most infuriating articles I have ever read in my life."²¹ He goes on to argue that Searle's term 'intentionality' is just his name for the soul and that his Chinese Room thought experiment is based on his own faith positions:

Searle is representative of a class of people who have an instinctive horror of any 'explaining away' of the soul. I don't know why certain people have this horror while others, like me, find in reductionism the ultimate religion [...] I know that this journal is not the place for philosophical and religious commentary, yet it seems to me that what Searle and I have is, at the deepest level, a religious disagreement, and I doubt that anything I say could ever change his mind.²²

In this section, we have explored examples from the early decades of discourse around AI and its potential to be a machine-mind, and how religion as an object appeared in that, oftentimes fractious, conversation. It is worth summarising the aspects of this discourse we have noted. First, being a 'believer' is often used to indicate a retreat from rationality, placing religion in a pejorative class as a 'vestige' left over from more primitive times. Second, this pejorative language is employed in marking divisions between factions of thought about AI. Third, the language is primarily from a Western Christian perspective: terms such as 'idolatry', 'sin', etc. are culturally specific, although there are more abstract, if weighted, terms as well, such as 'True Believer'. What is most relevant to the rest of this Companion is the way in which AI has been viewed through specific religious frames at different times. Religion and AI were entangled in this way because of the existing assumptions about religion that some commentators on AI had, and continue to have, as in the contemporary example of Blake Lemoine and LaMDA.

Thus, words matter. But of course, the entanglements of AI and religion are not limited to interactions in discourse. The following chapters describe many more examples of when AI and religion in their many forms have been in interaction and resulted in specific outcomes and changes. In preparation for these examples in our chapters, it is perhaps valuable to revisit an article from one of our co-editors, which originally laid out the possible interactions of AI and religion and their consequences.

²¹ D. Hofstadter, 1980, "Reductionism and Religion," in *The Behavioral and Brain Sciences*, ed. J. Searle, Cambridge University Press, 3, 433.

²² Hofstadter, "Reductionism and Religion," 434.

THE FOUR ENTANGLEMENTS OF RELIGION AND AI: FURTHER DISCUSSION

In Singler's other 2018 article, "An Introduction to Religion and AI for the Religious Studies Scholar," she outlined what she saw as the three areas in which the entanglements of AI and religion might be observed by the religious studies scholar. These are also areas in which theologians and people of faith would have interest and direct involvement, but the methodological approach of Singler's work was to make anthropologically grounded descriptions of phenomena and to demonstrate possible areas of further research rather than normativity. These three entanglements were later joined by a fourth, and the full list is by no means exhaustive.

The first entanglement recognised that AI is disruptive for society, and consequently religion, and that established religions would necessarily engage with and seek to ameliorate the negative societal changes brought about by epistemic and physical automation. The second entanglement suggested that AI as an aim will result in new religious movements inspired by the utopian and dystopian aspirations embedded in the discourse around AI. Existing religious tropes and images from within the cultural context of the observers and storytellers of AI are also being drawn upon to develop our accounts of AI. Third, the framing of AI as a potential new sentience will spark interest in the longstanding debates about personhood from within and without established religions and drive internal discussion on this topic within religions themselves. Finally, there will be a clear relationship between AI and atheist narratives, explored in publications after this 2018 introductory religious studies article.²³

We might even try to identify a meta-entanglement for the religious studies scholar or theologian: that each of these individual entanglements reflects the overarching concern of what it means for religions to exist (and perhaps flourish) in an age of AI. But we could also put this question the other way around and not cede the age to AI and instead push back against the secularisation narrative that has been used to tell us that we no longer live in an age of religion and religious

²³ For instance, see B. Singler, 2022, "Origin and the End: Artificial Intelligence, Atheism, and Imaginaries of the Future of Religion," in *Emerging Voices in Science and Theology: Contributions from Young Women*, ed. B. Sollereider and A. McGrath. Routledge and B. Singler, 2022b, "Left Behind? Religion as a Vestige in 'The Rapture of the Nerds' and Other AI Singularity Literature," in *Science and Religion in Western Literature: Critical and Theological Studies*, ed. M. Fuller, Routledge.

importance. So, instead, we might also ask what it means to develop a technology through which some intend to replicate the human mind in an age of religious belief. Lemoine's case can be understood through both these framings: his claim that the chatbot was sentient raises deep questions for those of religious belief while, from the other perspective, his pre-existing religious beliefs have shaped his response to the technology. Writ large in society, the same dialectic appears, worked out in individual case after individual case. The following chapters of this Companion provide further examples, but we must also hold the opposing framing in our minds as we read from our contributors how religions have responded to AI – rejecting it, using it or adapting to it – and how AI has been shaped by existing and developing religious concerns and narratives.

While this Companion is a significant contribution to the 'field' of AI and religion, that field, as with the field of AI itself, should not be given a 'creation story' that ignores the predecessors and influences that have been brought together and summarised by that one term. There has been valuable work for decades under the umbrellas of 'digital religion' or 'digital theology', or under even broader categories such as 'religion and technology' and in numerous on and offline ethnographies of religion in the contemporary world. In this Companion we have also included a set of chapters about particular faith traditions, each of which has engaged with AI in somewhat distinctive ways. Such engagements often involve commentary on the AI project from the perspective of a particular faith tradition. However, there is also potential for AI to contribute constructively to religious thought, bringing clarification to theological discussion. For example, to discuss whether or not a computer could 'sin' is valuable, not only for what it says about AI but for the precision it brings to the concept of 'sin'.

We can also draw on the work of scholars from the history of technology, science and technology studies, communication studies, gender studies, Black history and new religious studies, as well as scholars who have specialised in the study of specific religions, wherever they determine the boundaries for that focus. There is also potential, as Chapters 14 and 15 in this Companion illustrate, for AI to make a constructive contribution to the study of religion. Computational theorising has begun to make a valuable contribution in many areas of the human sciences but so far has not been much applied in the study of religion. We are pleased to be able to include chapters that explore what might be possible.

What is significant – and what is also shaping how the field of religion and AI is welcomed within institutions and by scholars – is the perception that there is an urgency in the need to answer those two meta-entanglement questions: ‘what does it mean to be a religion in an age of AI?’ and ‘what does it mean to create AI in an age of religion?’ There might be a responsibility to address these questions, because – for established religions at least – there is the sense that crisis might follow a lack of their consideration. There are some, especially among atheist commentators, who suggest that there is a danger in AI being developed in an age of religious belief. For instance, the hyperbolic view of a ‘religious AI’ expressed by some transhumanists, such as Zoltan Istvan, who wrote a short story about the apocalyptic outcome of an AI reading the Bible called “The Jesus Singularity” in 2016.

Overall, we would claim that the impact of religion on AI is underconsidered, while the impact of AI on religion is of concern primarily to academics of religion and to established religions who have already seen significant changes wrought on their membership by the Network Society in which “[s]ystemic digitization has reconfigured the entire realm of human activities and organizations.”²⁴ Arguably, every technological revolution before the computer and Web 2.0 social media also had a disruptive effect, but that only means that institutions such as religions are perhaps more familiar with the destabilising effect of such changes. Such disruptions might be exponential when caused by a technology that doesn’t just act as a medium but also increasingly as an interactive agent and user interface to the world. This Cambridge Companion therefore seeks to unpack these entanglements through discussions and examples, drawing on the expertise of religious studies scholars, theologians, sociologists, historians and anthropologists.

BIBLIOGRAPHY

- Bender, C. 2010. *The New Metaphysicals: Spirituality and the American Religious Imagination*. University of Chicago Press.
- Castells, M. 2022. “The Network Society Revisited.” *American Behavioral Scientist* 67(7), 940–946.
- Chandrasekaran, B. and Reeker, L. H. 1974. “Report on Workshop on Possibilities and Limitations of Artificial Intelligence.” In *IEEE Transactions on Systems, Man, and Cybernetics* SMC-4(1), 8
- Dewey, J. 1925. *Experience and Nature*. Open Court.

²⁴ M. Castells, 2022, “The Network Society Revisited,” *American Behavioral Scientist* 67(7), 2.

- Hofstadter, D. 1980. "Reductionism and Religion." In *The Behavioral and Brain Sciences*, ed. J. Searle. Cambridge University Press.
- Penn, J. 2022. "Inventing Intelligence: On the History of Complex Information Processing and Artificial Intelligence in the United States in the Mid-Twentieth Century." Unpublished PhD Thesis, Cambridge University. www.repository.cam.ac.uk/handle/1810/315976.
- Rapaport, A. 1964. "Review: Computers and Thought by Edward Feigenbaum and Julian Feldman." *Management Science* 11(1), Series A, Sciences, 535.
- Robinson, G. 1972. "How to Tell Your Friends from Machines." *Mind, New Series* 81(324), 504–518.
- Singler, B. 2018a. "Roko's Basilisk or Pascal's? Thinking of Singularity Thought Experiments as Implicit Religion." *Implicit Religion* 20(3), 279–297.
- 2018b. "An Introduction to Artificial Intelligence and Religion for the Religious Studies Scholar." *Implicit Religion* 20(3), 215–231.
- 2022a. "Origin and the End: Artificial Intelligence, Atheism, and Imaginaries of the Future of Religion." In *Emerging Voices in Science and Theology: Contributions from Young Women*, ed. B. Sollereeder and A. McGrath. Routledge.
- 2022b. "Left Behind? Religion as a Vestige in 'The Rapture of the Nerds' and Other AI Singularity Literature." In *Science and Religion in Western Literature: Critical and Theological Studies*, ed. M. Fuller. Routledge.
- Taira, T. 2022. "Introduction." In *Taking "Religion" Seriously: Essays on the Discursive Study of Religion*, ed. T. Taira. Supplements to Method and Theory in the Study of Religion, vol. 18. Brill.
- Tucker, E. 2022. "Artifice and Intelligence." Center on Privacy and Technology. <https://medium.com/center-on-privacy-technology/artifice-and-intelligence%C2%B9-fooda128d3cd>.
- Turing, A. M. 1950. "Computing Machinery and Intelligence." *Mind* 59(236), 433–460.