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## Believing in bits: Afterword

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## **Afterword: Religious and digital imaginaries in parallel lines**

**Simone Natale, Diana W. Pasulka (questions and editorial work)**

**Carole Cusack, Massimo Leone, Jeffrey Sconce (responses)**

Written from a cross-disciplinary perspective to interrogate the relationship between digital media and the supernatural, this book challenges established boundaries within fields and areas of expertise. In this afterword, we asked three leading scholars, whose work explores the intersections of media, communication and religion from different viewpoints, to enter in dialogue on the subject. Carole Cusack is a historian of religion, author of groundbreaking works about the relationship between religion, imagination and popular culture; Massimo Leone is a semiologist whose work has stretched the boundaries between the study of religion and the study of signs, both linguistic and non-linguistic; Jeffrey Sconce is a scholar in film and media studies whose pioneering monograph *Haunted Media* (2000) placed the theme of the supernatural at the forefront of studies in media and communication. Their responses provide a map of potential trajectories to further explore the connections between digital media and the supernatural.

**Cusack:** It is tempting to start by quoting Arthur C. Clarke's memorable line, "Any sufficiently advanced technology is indistinguishable from magic," but that is only true in certain descriptive ways. That is, magic has internal logics and in systematic forms possesses a "rational" quality, but actually technology involves hardware skills that evolve and build upon earlier discoveries, whereas magic involves apparent physical changes or results that are caused by conceptual or symbolic means rather than mechanical or scientific advances. I think that magic has a much longer history than the advanced technologies we experience in the twenty-first century (and its close relative religion does too), and every culture has a language that describes magical phenomena, so popular accounts of computing developments draw upon

that language due to analogies or resemblances between our encounters with IT and what we all know of magic from childhood fairy tales and the like.

Yet, I still get a frisson sometimes when online, even at work, because it is a separate mode of existence that has been superadded to my life. I'm 56 this year and got my first computer (black screen, orange text, no hard drive) in 1989 aged 27. That was a useful addition to my research for my PhD but I did not feel that frisson. That came later with the Web and the graphics interface, and browsers (though retrospectively Mosaic was terribly clunky). But now Google, Amazon and various other players CAN read my mind. Well, I know they just follow my searches, but the realization of how accurately this happened came about 18 months ago when I was reading about the American novelist Joy Williams, whom I admire, and when I went back to Google and typed "Alison" it immediately completed that tentative beginning "Lurie American novelist". I thought, holy fuck this thing can read my mind (and I know it can't, but the language is irresistible).

**Leone:** I think that in the domain where religion and spirituality intersect with digital technology and communication, two dimensions can be distinguished. On the one hand, some features of the latter may be metaphorically evoked with reference to the former. In this case, the metaphor does not actually grasp any substantial characteristic of digital technology and communication, but limits itself to compare them to phenomena that are familiar to popular culture. The marketing of digital technology and communication plays an essential role in such circumstance. For instance, Apple has chosen to design its logo and name with reference to one of the most famous myths of the Jewish and the Christian civilization, that of the apple eaten in Eden by Eve and Adam. Similarly, the possibility to upload data in a server, instead of saving them into a hard drive, is currently known as "cloud", with subtler but also evident spiritual connotations. In these and other similar examples, though, it is not technology that contains an intrinsic religious or spiritual value, but it is rather the marketing of it that exploits the popularity and potential virality of some religious memes in order to better spread a brand, a product, or a practice.

On the other hand, digital technology and communication may be underpinned by more structural dynamics, which resemble those that underlay religions and spirituality more in depth. For instance, since the quantitative logics by which computing algorithms usually proceed is strongly diverging from the qualitative trends of human cognition, the magnification of the former's role in society and culture may give rise to a sort of estrangement effect: humans have created software so as to complement their cognitive abilities, yet software produces results that are now so uncontrollable by human cognition that the relation between creators and creatures is sometimes and increasingly thought of as reversed: we have the impression that we are created by software more than we have created it. That contributes to bestow on digital technology and communication an aura of uncanniness that is akin to that traditionally attributed by some cultures to their deities.

Also before the emergence of digital media, in many religious imaginaries, human beings have attributed to deities or other supernatural beings the capacity to challenge and defeat the natural limits of the body. For instance, levitation was considered a prodigious attribute of both sacred objects and saintly people in the Abrahamic religions well before that the development of flying technologies enabled common objects and people to actually levitate. Analogously, angels were deemed able to telepathically communicate well before the invention of technology that is controlled directly by the brain without any need for language impulse, and so on. Every time that technology seems to match one of these utopias of the human body, then such technology is often connoted with the same aura that its religious forerunners would enjoy. The phenomenon, however, is surprising only when the deep nature of the so-called 'secularization' is ignored. Although traditional religious tenets such as the belief in spectacular miracles have been marginalized or even ridiculed in post-modern cultures, these continue to hold, in their long-term memory, the anthropological desire for empowering the human body beyond its limits. Digital technology and communication do not bring about any miracles, yet what they bring about is often interpreted with reference to this old spiritual category, although its proper religious manifestations are no longer part of the common imaginary.

**Cusack:** Indeed, the same or similar associations could be observed with earlier technologies. The association of smiths with magic in almost all ancient and medieval folklore and mythology is because they could take rocks and seemingly get gold and silver from them, and they could then make this fascinating but apparently useless hot liquid into swords and so on. The gods Dagda, Goibniu Creidne, and Dían Cécht, in the mythological text *Lebor Gabála Éirenn* (The Book of the Taking of Ireland) are respectively a builder of fortresses, a smith, a wheelwright, and a leech (doctor). They are gods because they have those “magical” skills that are actually technological advances: the opening of the text describes the Tuatha dé Danann, which is the collective name of the gods and means “people of the goddess Danu,” as masters of magic. I could pile on examples, as I started out as a medievalist and still teach units on medieval Christianity and also Celtic and Scandinavian mythology.

**Sconce:** How individuals regard digital technology’s ability to “predict the future” and “read the mind” says much about personal psychology, too. Most of us still operate with the McLuhanesque idea that the media are an extension of our sensorium, so it can seem empowering and flattering that these technologies “think for” or “know” us in helpful ways. Equally McLuhanesque, however, is the idea that these technologies are rewriting us and the world in terms of data positivism. For this reason, I’ve never found the association of the digital and the supernatural all that persuasive. Telegraphy, wireless, radio, television — these technologies evoked the occult in the truest sense of the word, a hidden realm that was otherworldly, other-dimensional, and so on. They were all technologies that suggested something else, perhaps unknowable, animated their miracles of disembodiment.

To me, the digital is the final nightmare of occultism’s positivist encryption, what Baudrillard described as “integral reality” – the translation and visualization of everything as data. In the analog world, there was the potential for an infinity to unfold between the 1 and 0. In the digital, there is either the 1 or the 0. Already we are witnessing the transition to a world where the non-digitized is in danger of evaporating into non-existence. To the extent that the digital evokes the occult, it is more the secular mysteries of power and conspiracy. Who is watching me, optically or as a data profile? How are

algorithms producing information that ultimately dissolves any remnant of human agency? In this respect, simulation through the control of information is more significant than any residual metaphysics of presence and absence. Born of modernity, the analog occult appeared to radiate outward toward the infinite. The digital, in contrast, seems more a secretion of power, an attempt to encode the world as Big but ultimately finite Data.

**Leone:** I agree that the distinction between analog and digital technologies is important. And we can bring this further by taking into account how any different type of technology may have particular implications and evoke specific visions and meanings. A hairdryer is a technological tool, yet it is unlikely attributed any religious or spiritual connotation (except, paradoxically, in the case of some atheist communities, which use it as an instrument and symbol of ‘un-baptism’). Also, much more complex technology, such as that involved in a nuclear power plant, for instance, does not necessarily beget any spiritual or religious metaphor, evocation, or connotation. One might argue, in this sense, that only digital technologies that exert a significant impact in affecting a human group’s cognitive, emotional, and pragmatic relation with the environment are capable of receiving a supernatural connotation. That is the case also because there is a likely causal link between the emergence of new technologies of human cognition and that of new religious trends. The invention of writing played a fundamental role in the rise of monotheisms, that of print with movable characters in the development of modern religions like Protestantism, and it is not to be excluded that digital communication will in the long term bring about religious and spiritual forms that match the new devices, practices, and trends mediating between human beings and their environment.

**Sconce:** I would imagine most people consider all electronic technologies to be a black box—something happens in there that is magical, except when the box breaks down and becomes, inexplicably and catastrophically, “dead.” In this respect, I associate supernaturalism more with electronics than the individual media technologies of the past two centuries, or even technology in general. Enlightenment

thinkers believed electricity held the secrets of the universe, but there were always two possible trajectories from this insight. Electricity might be divine, the animating spark that connected humans to God; or, as in Shelley's *Frankenstein*, it was a material force that animated a material bag of bones in a potentially Godless universe. Obviously, we're not thinking about this every time we use our iPhone – but that association between electricity, electronics, and living presence is always there in some way. Even as neurochemistry displaces electronics as the dominant vernacular model of brain and mind, the “wired” body remains salient.

**Cusack:** The relationship between what human beings are at a base level—an unclothed body, foraging for food and sheltering in caves or under trees—and the cultural products that we have created since the first stone tools is a complicated one. I do not subscribe to the Heideggerian position that modern technology is different (challenging forth, which conceals rather than reveals) to older technologies (bringing forth, which reveals truth). Trust and belief in the efficacy of technology is not the same as religious belief; it is only in 1 Kings 18: 20-40 that offerings on an altar (think meat on barbecue that is not fired up) get burnt by fire from heaven. That is because Elijah was a prophet of Yahweh, unlike the 450 prophets of Baal. It helps to be a follower of the “true” god, but of course truth is a slippery thing in religion, as most religious people think their God is the true God. Only a small number of perverse pranksters deliberately venerate deities they think are false ... and even that is ambiguous. Greg Hill and Kerry Thornley, the founders of Discordianism, both came to believe in the reality of Eris, for example.

Yet, every time I put bread in my toaster it turns into toast. Every time I switch on the washing machine my clothes get washed. Every time I get on a plane it flies me to another state or country. I am sometimes struck that it's amazing that a huge heavy airplane flies, but the laws of physics underlie the technology, it's not like the stone boat that allegedly brought the corpse of St James from the Holy Land to Galicia, where it landed at Finisterre, near Santiago de Compostela where pilgrims visit his alleged grave to this day. Stone boats don't float. That being said, I was entranced when I first read Margaret Wertheim's *The Pearly Gates of Cyberspace: A History of Space From Dante to the Internet* (1999). It

now seems easier to see her argument, as narratology and cognitive science have made huge changes to the study of religion, and it's now clear that heaven and hell, bardo and Avalon, reincarnation and sheol are all just narrative worlds that humans have invented, in exactly the same way as Tolkien devised Middle-Earth. The one difference is that they originated such a long time ago that by the time they made it into texts they were so venerable that distrusting the "reality" of such otherworlds was not an option.

**Leone:** Another dimension of this issue is how advances in fields such as Artificial Intelligence and robotics are affecting ideas and visions about agency, life, and humanity. Several scenarios are possible in this domain. On the one hand, human beings might increasingly fetishize their technology, as they partially already do, replacing their customary attention to the human relations that these devices bring about with attention to these devices themselves. Smartphones, for instance, allow human beings to communicate, as social networks enable them to interact; when either of them is valorized independently from the offline relations that they technologically empower, however, the risk of fetishizing them into sources of alienation is high. On the other hand, though, the urge to include non-human agents such as robots or other advanced machines into the ethical sphere might also be beneficial, in the sense of encouraging human beings to divest themselves of the status of ethical center of the universe and consider that other forms of life (or, to include also non-living beings, other forms of existence) deserve a gentle and sometimes even compassionate approach. Whatever is able to make choices is then potentially endowed with the capacity to exist, and whatever exists must enter a relation of possibly peaceful co-existence with other existing beings. Human beings must protect themselves from the potentially harmful choices of advanced machines endowed with artificial intelligence, but must also consider this potentiality as related to an embryo of sensibility and self-awareness, of existential states that deserve dialogue and, in some cases, protection.

**Sconce:** I find the other side of this equation also interesting. No doubt robotics and human-machine interactions will become more fluid and "natural" (from a human point of view) – but along with these



more accommodating interfaces is the growing recognition that we are being asked to function more and more like machines. Examples of this are legion. Neo-liberalism demands that everyone think in terms of utility, marketing, and transactional interfacing – essentially tasking us with the worries of constantly updating our operating systems to remain socially and economically functional. And then, on a more mundane level, human minds are now expected to memorize (or at least access) dozens of passwords just to get through the day. Truly, we are the weakest link in this system!

At present, futurists continue to grapple with a branding problem. For many, Mark Weiser's idea of "ubiquitous computing" suggested an Orwellian nightmare. There followed the "Internet of things," a savvy appeal to techno-modernity's insatiable desire to own objects and receive services. But of course this term also had the potential to remind users they, too, are simply "things" within this system. Of late, I've noticed a turn toward the "Internet of you" – perhaps this will do the trick of integrating human egos more seamlessly into systems of data management. Much of the energy in digital futurism focuses on robotics and A.I., but in the long run the smartphone may be the more impactful intervention. The future as imagined by Ray Kurzweil and other technophiles imagines information as yet another "standing reserve" out there to be harnessed, typically in the service of enriching human experience. But as the smartphone suggests, we are gradually becoming the "standing reserve" for technology's agenda. Already the smartphone has rewritten the world in terms of mandatory access and compulsory participation. This incessant demand that we remain "in contact" at all times is rewiring the brain by evaporating any lingering interiority. As early as 1959, Max Horkheimer predicted an emerging information economy that would have little need for individual knowledge, wisdom, or experience, preferring instead to exploit the youthful capacity for energetic and instantaneous executions of corporate directives. I see little reason to revise this vision of the future. Now that neural implants and interfaces are becoming science rather than science-fiction, it can only be a matter of time until the smartphone assumes its inevitable destiny as a "brain chip." Perhaps we will still cling to the Cartesian ego, even as cyborgs. Then again, our mass implantation may force a philosophical crisis as we confront our status as nodal points in a network that needs us more than we need it.

**Cusack:** The question of beings that are not humans that exist in the “real” world (for want of a better term) and how humans relate to them is complicated but again I’d argue that the difference between avatars and robots and other sorts of “others” (animals, teddy bears) is less than many would have us believe. My own – very sad – response to questions like this is that we live on a planet where of the seven billion people the number that have the rights that we enjoy in the West, the developed world, whatever you want to call it, is WAY too few. Why are people worrying about people having sexual relations with rubber dolls or robots, if all over the planet real live humans, male and female, children too, are locked in rooms and used as sex slaves, if people die from lack of water, and basic medicine? We in the West are aghast when a few people (our own, Western people) die in terrorist attacks, where millions are displaced by war, mutilated and living out their lives in huge refugee camps without hope. I love my four cats, the magnificent Ka, Sam, Venus and Lucy, and I love soft toys, and sometimes I have to remind myself that real humans suffering, my species, I should care more about. It does concern me though, that a preponderance of 20 year olds that I know are glued to their phones every hour of the day and don’t seem to know what to do with actual people they meet.

Another aspect of this is the relationship between reality and fiction. Fiction based religions have overlapped with IT subculture since the 1960s and 1970s. The web presences for religions in the text-based, Usenet era were way stronger for alternative religions than they were for mainstream religions. There was also far greater decentering and interactivity: that’s still true today, if you look at the Vatican website it is sophisticated and informative, but it gives the party (church) line; there is no opportunity for the faithful to change anything, or even to have input that is critical. In 2016 I wrote an article with a former student, David Pecotic, on the Gurdjieff Work online, and we noted that some sites were just information providers, like the Vatican. But others were partially interactive, and the Gurdjieff Internet Guide (GIG) was fully interactive, people could do inner work online. Amazing for what had been a secretive, esoteric, initiatory tradition only twenty years ago.

But there is another perspective on the connection between the Internet and invented religions. Things spread faster online, and people who are geographically distant can find each other quickly, as research by Venetia Robertson on Therianthropy and Otherkin shows, so community is facilitated and solidified. Some religions are primarily online, for example the now-defunct Heaven's Gate which is now an exercise in museology, whereas the Church of All Worlds has digitized much of their print publications and have a very rich online archive, while maintaining a strong "real world" presence. The existence of virtual worlds like Second Life where religions mainstream and weird flourish is particularly relevant, in that is a clear example of participation in a world "apart" or "other" than the mundane. My friend and colleague Helen Farley has an active Second Life presence, I'm always amazed how anyone can, my real world life is so full I can barely manage it, so I'm not looking for another life!

**Leone:** The desire and ability to imagine a possible world separated from the 'real one', and to endow the former with characteristics that overcome the disliked limits of the latter is probably consubstantial with the cognitive functioning of the human species. It is a byproduct of the human linguistic capacity as well as of the imagination that it brings about. From this point of view, a novel or a movie are not necessarily inferior to an immersive videogame in granting their receivers an experience of otherworldliness. The increasing digitalization of the body in the interaction with such fictional possible worlds, however, might in the long term deeply affect the relation with the non-fictional environment. Significant technological steps forward will be necessary, though, to bring about total immersion. Digitalization is often considered from the point of view of its achievements but it should be considered from the point of view of its shortcomings too: there are still many senses that escape digitalization (smell, taste, partially also touch), not to speak of the difficulty of digitally rendering proprioception and self-awareness.

**Sconce:** No doubt new media affordances will have an impact on religion, just as they have on other spheres of human activity. Particularly fascinating in this respect is the digital's place in an emerging form of molecular materialism. The resurgence of Deleuze in media theory speaks to this in the academy,

a search for a materialism that sidesteps the boring and ultimately messy dynamics of social formations and cultural production to imagine a more occult play in the realm of ceaseless “becoming.” In the realm of hard science, meanwhile, there are the ongoing efforts at “Whole Brain Emulation” – the belief that one’s unique consciousness might be digitized and uploaded into a giant computer to animate a holographic avatar. There are serious scientists working very seriously on this project, fully operationalizing N. Katherine Hayles’ critique of cybernetics as a theology that believes information can exist independently of material form. Having killed off God as the ego’s only defense against its mortality, this branch of (im)materialism imagines we will one day live forever (or at least until the heat death of the universe) as data.

On a less cosmic level, perhaps the most pressing challenge concerns the body politic, a phantasmic entity conjured with increasing zeal over the past two centuries. With Trumpism, the typically abstract debate over the merging of fact and fiction came to an unexpectedly early crisis. Ironically, many on the left who previously critiqued the contingency and relativism of “truth” now find themselves in the role of defending some phantom and fading notion of social reality. The right, on the other hand, appears much more willing to embrace information warfare as a strategy for rewriting the world according to its own terms. After Trump’s election, many pundits, critics, and politicians called for a return to a shared foundation in facts, but it is unclear how this would actually happen. And as most media theorists would acknowledge, this “shared world” of facts was always an ideological illusion of fake consensus. As many have predicted, the end of “mass media” may well bring an end to the very “mass” posited by these media in the first place. Despite the continued networking of the world, we may be facing an immediate future that looks less like a “global village” than a proliferation of information bunkers.

But, to be more positive about the situation, perhaps this fragmentation of shared truths will bring more attention to the role of fantasy in daily life. Psychoanalysis has long sought to disabuse us of the notion that we have a direct, objective relationship to either the self or the social. Perhaps acknowledging that we all live in our own idiosyncratic yet also socio-historical fantasy formations is the first step toward the media accommodating difference rather than sustaining fictions of false unity.

