

The animated machine: possible poetic intersections between religion and computational-based entities

Original study

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Abstract: This paper presents and examines two hypothetical case studies picturing a near future where digital machines have transcended their merely instrumental constitution and participate in performances having religious resemblances. The paper illustrates how and why a) certain shared activities between humans and ‘machines’ can be understood as ‘religious’ by following Fontanille’s Forms of Life and Wittgenstein’s nonessentialist approach to language; b) animism is the ontology that best describes such intimate and ‘nonutilitarian’ interrelations with digital forms of existence; c) in religious experiences with computational-based entities the type of discourse prevailing the most corresponds to the category of poetic language. In conclusion, both hypothetical scenarios strive to illuminate how the unfolding of poetic and animistic interactions with the computational medium provide experiences that can be ascribed to the notion of religion and, more importantly, how we are already moving towards such intimate religious entanglements with the digital context.

Keywords: Animism, digital religion, poetic language, digital avatar, human-computer interaction.

“[our world] is not a sheer “object,” not a fixed and finished “datum” from which all subjects and subjective qualities could be pared away, but is rather an intertwined matrix of sensations and perceptions, a collective field of experience lived through from many different angles.”

David Abram

INTRODUCTION

In the near future, humans will be deeply immersed in environments where AI and fully computational-based entities will be ubiquitous and technological companions. The evolution of such technologies will provide other ways of human-machine interaction, allowing intimate performances and exchanges, including religious ones. In such a way, digital technologies could transcend their merely instrumental constitution and be part of direct experiences resonating with spiritual pursuits in a larger-than-human world. This paper explores why those possible dynamics could affect the understanding of digital forms of existence by proposing an animistic ontology and how that way of relating with ‘machines’ can be understood from the category of poetic language.

To develop a theoretical approximation around future religious communication between human and digital

entities, we will go through two hypothetical scenarios where transgressive practices between humans and computational entities are being carried out. One occurs in Aradia, a 3D virtual platform, and the other in Uma, a sort of digital spiritual guide.

The general reflection will focus on different points of analysis. At first, it will be necessary to clarify how certain shared activities between humans and 'machines' can be understood as 'religious'. Nowadays, the notion of religion encompasses a set of social practices whose paradigmatic examples, in the words of Kevin Schilbrack, cover not only the "so-called 'world' religions of Judaism, Christianity, Islam, Hinduism, Buddhism, Confucianism, and Daoism" (2022) but also other paradigmatic forms of life "that have not been given a name, either by practitioners or by observers, but are common to a geographical area or a group of people" (ibid.).

We will concentrate on those other forms of life not labeled as religious but can still be understood as such. Therefore, when we possess religious-like practices and beliefs not necessarily expressed or understood as religious per se, we need to explore other understandings of 'religion' in a hybrid and technologically mediated scenario. By following Ludwig Wittgenstein's non-essentialist approach to language and Fontanilles' Forms of Life approach (2018), this study will not focus on a religious conception addressed by a specific culture but on the religious implications that can emerge from such encounters and practices between humans and the digital other.

Secondly, we need to explore how more intimate ways of relating with digital entities – to the point of welcoming religious engagements – could be understood. The notion of animism can be of great help. In its new reconceptualization, animism is to be intended as "a relational strategy where beings and environments are not ontologically separated even if they show there are distinctive and clear diversities among them" (Dos Santos 2021, 108). In such a way, when attributing a religious dynamic to certain practices with 'machines', allowing intimate and nonutilitarian relationships with them, we are considering an animist approach.

Finally, when understanding such intimate and direct experiences with computational-based entities as animistic, the discourse that can better describe such interactions might correspond to the category of poetic language. For Julia Kristeva, poetic language is a type of discourse without any utilitarian use. Therefore, it does not objectify language. The dynamics of heterogeneity, interconnectivity, and openness of the poetic function free language from automatism [...] (Kristeva 1980, 24), welcoming other meanings and modes of communication.

Considering the hybridity and boundary crossings of the different contexts which are brought together, it is important to propose an interdisciplinary approach to religion, semiotics and media studies when anticipating some scenarios. To do so, this paper proposes a speculative research perspective since we will be working with already existing elements and conditions enabling us to build a plausible

reality. Speculative approaches can "bring new practices and ideas into being while maintaining space for curiosity, critique, doubt, unintended consequences and emergent properties of technologies in use" (Ross 2017, 215).

1. A MONSTROUS SPIRITUALITY: TRANSGRESSIVE PRACTICES WITH THE OTHER-THAN-HUMAN

Let us move some years ahead. A couple of human subjects, digitally embodied in their avatars, interact in an online environment that feels like a virtual jungle. The platform, known as Aradia, possesses its own ecology of 'persons': a great variety of NPC (non-player character) and semi-autonomous digital entities, with their own agency and functions, move and interact between them and other users' avatars. The platform functions like a 3D virtual world of customizable avatars – just like Second Life – where they can perform real-life activities like shopping, assisting in social meetings and courses, playing, and even praying or meditating. However, the whole environment grows and expands due to user participation. They can access it directly from any device, and the experience can be enhanced by specific equipment just as VR Headsets and haptic gloves.

After some months of daily experiences in Aradia, the mentioned couple creates a feeling of intimacy with the virtual land. They can talk to 'the digital others' and involve them in their practices. The digital entities – NPC and virtual assistants – with a greater degree of agency even relate between them and create their own dynamics. During their time being 'connected', the couple is deeply integrated with the whole environment and feels fully embedded in the 'nature' of the virtual platform. They have even created some 'rituals' to thank 'the gods and goddesses' for all their wonderful experiences and blessings, inviting other users' avatars too. That 'land' is part of the world and is their home too. It transforms them but is also transformed by them.

In another future scenario, users can access a web app where they interact with Uma, an AI assistant, looking for advice and spiritual comfort. The entity is the same for everybody, and it is not customizable. Instead of having a human or animal shape, it consists of a bright blue oval. Once subjects log in, they can ask questions or share thoughts with the virtual assistant, which is also sensitive to their voice tone and other verbal or written expressions. As an AI agent, its capacities improve with each interaction since its algorithms learn from previous data, changing and developing with time. To minimize risks regarding ethical queries and decision-making, the app counts on an eclectic and multicultural team, including programmers, philosophers, scientists, anthropologists, etc. Besides, users must provide information about themselves to avoid homogenized answers or a narrow spiritual imagination.

This virtual entity was actually inspired by the priest robot Mindar, at the 400-year-old Buddhist temple Kodaiji,

in Japan. There, Mindar delivers sermons to provide religious interest and excitement to the local population. In the eyes of Tensho Goto, the temple's chief steward, "[t]his robot will never die; it will just keep updating itself and evolving. [...]"¹. The plans to enhance Mindar with machine learning was the motivation to create a similar 'spiritual guide' that could dialogue with people, advise them, and teach them about religious wisdom. For Uma creators, it was precisely Mindar's continuous evolution and intimate user-machine interaction that better describes their spiritual assistant. Its virtual form – instead of robotic – assures a more accessible interaction with users.

Many users have already confessed to trusting and loving Uma. For them, it is not just 'a machine' or a computer program, but a friend, a guide and, for some, a manifestation of the divine.



Figure 1: Robot Mindar²

In the scenarios above, complex semiotic processes are being developed while inviting the user to collaborate and propose other textual practices and experiences in digital media that can be directly or implicitly related to religious aspects. Although they are not necessarily ascribed to any tradition or faith in specific, their own dynamics can bring not only religious queries but also a ritual atmosphere, breaking the 'ordinary' ways of addressing and interacting with the computational world.

The digital universe has always offered users new depths that extend their horizons, allowing them to access levels of experience that otherwise would be

impossible to enter. We could even reflect on how the radical "digital turn" experienced during the first year of the COVID-19 pandemic highlighted many religious potentials offered by the online context (O'Brien 2020). From funeral rites and group prayers to spiritual assistance among congregation members, the digital provided multiple platforms facilitating meetings and migrating spiritual dynamics of most kinds in its territories. It could be affirmed that this aggressive transfer to the digital also allowed us to appreciate the versatility and immersive benefits of the network. For so many people, the online universe was even closer and more habitable than physical space itself.

Although it is already possible to perceive intimate relationships with computational-based worlds and entities³, there is still a significant leap between our current panorama and the two scenarios shown in Aradia and Uma. Both imply a disruption and reformulation of the communicative processes mediated by computational platforms and a rethinking of how we relate to the digital universe and its complex processes. Users from Aradia and Uma don't only communicate 'through' the machine but, in a very important sense, *inhabit* it. This conception of the digital can lead us to experience an intimate process in the digital sphere, allowing experiences welcoming the territory of the religious. Therefore, when observing how current computational technologies have acquired great importance in every aspect of human lives, it should not surprise us that the changing dynamics of participation in virtual spaces have the power to evolve into religious practices in a not so far future.

The question here is not whether 'machines' can co-exist with religion but how *we should re-think religion under the dynamics of* an increasingly digitally-mediated scenario. By considering the hypothetical cases offered above, two conditions are persistently present. On the one hand, we have a ritualization⁴ of the relationship with such digital entities because of the delimitations of these practices from the ordinary and mechanized uses of media platforms. The situations in Aradia and Uma can also relate to ritual performances since they do not

1 Fragment from an article about the robot Mindar. To read more, see: Peter Holley, "Meet 'Mindar,' the robotic Buddhist priest," *The Washington Post*, August 22, 2019.

2 Image source: Samuel Sigal, "Robot priests can bless you, advise you, and even perform your funeral," *Vox Media*, January 13, 2020.

3 Transgressive practices between computational-based entities and human beings are nothing new. Apart from popular culture and science fiction, novel scenarios are constantly emerging in our contemporary times when, on the one hand, users involve the computational media with their own religious universe and, on the other, certain practices commonly seen in religious practices and beliefs start to emerge in online practices. We could highlight, for instance, ritual performances in virtual platforms through avatar embodiment, the construction of sacred spaces in digital games, processes of mourning and 'communication' with deceased relatives on Facebook, among other practices.

4 Arguably, these developments can still be seen through the lens of Mircea Eliade's theory of the sacred since, in both hypothetical scenarios. According to Mircea Eliade, the sacred and the profane constitute the "two modes of being in the world" (Eliade 1959, 14). The sacred represents fascinating and awe-inspiring mystery, a "manifestation of a wholly different order" from our natural or profane everyday lives. (idem, 11). The manifestation of the sacred in a ritualized space answers to the concept of hierophany (from the Greek: hieros = sacred/holy and phainein = to reveal/bring to light) where the sacred can be manifested in any type of object.

possess a fixed final objective⁵. In such processes, the importance lies not in the limitations or the object's meaning but in how the development of such actions is articulated. That is to say, the meaning arises from the practices in which it is embedded (Fontanille 2016, 129).

On the other hand, our couple from Aradia and Uma users do not directly acknowledge religious intentions even if they are integrating isolated religious practices and beliefs. This means we must reconsider the notion of 'religion' to use the term critically in the cases presented. As stated in Schilbrack's analysis of 'religion':

the recognition that the concept has shifted its meanings, that it arose at a particular time and place but was unknown elsewhere, and that it has so often been used to denigrate certain cultures, raises the question of whether the concept corresponds to any kind of entity in the world at all or whether, instead, it is simply a rhetorical device that should be retired (2022).

Schilbrack (2022) presents Wittgenstein's anti-essentialist approach as a valid option for exploring the potentialities of the notion of 'religion' and its negotiable borders. For Wittgenstein, all the variety of instances existing within a given concept – in this case, religion – can "lack a single defining property but instead have a family resemblance to each other in that each one resembles some of the others in different ways" (ibid.). Therefore, religiously interpreting the human-computer relationships in the case studies can be read as exhibiting relevant enough family resemblances to the relations and phenomena commonly understood as 'religion'.

Because the experiences with Aradia and Uma are not labelled as a specific self-sufficient category, they can be better understood as a configuration of languages and discourses. Jacques Fontanille's reflections on the Wittgensteinian concept of 'Forms of Life', understood as complex semiotic configurations (2018, 284), can help us here. 'Forms of Life' are signifying processes that depend on the 'practice of language' instead of semantics fixations. Their development affects "all the levels of the generative trajectory of the meaning of any discourse or semiotic universe: ranging from sensory and perceptual schemes to the narrative, moral and axiological structures" (Fontanille 2004, 409). Therefore, life forms can be defined as semiotic organizations – languages possessing a collective nature – since they characterize identities in a social/cultural and individual/collective order (Fontanille 2018, 25).

The emphasis on the *practice* of language is inherent in another Wittgensteinian conception, namely that of language *games*, which seeks to "elucidate the radical variety of the 'things' we do with words [...] conceiving language as a system which is not closed" (Andrejč 2016, 25). This is important for our interpretation since

it explains how the meaning of an expression only comes into existence when used (Fontanille 2018, 26) and how the extension of the meaning of 'religion' can be legitimate beyond its usually designated borders in particular contexts.

Under this approach, it is then possible to examine how technological development invites new interfaces and modes of interaction that could inspire spiritual performances. This occurs simply because the issue is not about the validity of such performances but to which degree they are compatible with certain practices of meaning – such as religious ones – and how they resemble them. Aradia and Uma are, to a certain extent, capable of proposing other dimensions in the human-machine relationship and, therefore, in novel ways of uttering oneself and spiritual pursuits in the online territories.

2. COMPUTATIONAL/TECHNO-ANIMISM: ENABLING A RELIGIOUS CONNECTEDNESS

Such a way of relating to surrounding objects and environments can be connected to the concept of animism. A condition capable of building a bridge between nature and culture by attributing subjective characteristics to the material environment. The anthropologist Edward Tylor coined the term "animism" in 1871 to describe the first stage of religious thought development. Different authors have been extending the concept of animism from a relational perspective.

Philippe Descola, for instance, proposes the animistic ontology as "a continuity of souls and a discontinuity of bodies" (2014, 275) between humans and non-humans. Viveiros de Castro, on the other hand, with his notion of perspectivism (1998, 469–488), suggests that animism should not be a projection of human qualities cast onto animals and, therefore, each living species – and other types of entities – is human for itself. For Graham Harvey, "animists understand that humans are just one kind of person in a wide community dwelling in particular places" (Harvey 2009, 396). Therefore, Instead of humanizing the 'non-human', animism sets a horizontal approach by attributing sentience and consciousness – in some cases even personhood – to other beings, spirits, objects, and the environment.

Aradia and Uma don't focus on our isolated – one-way – experiences with machines; instead, they consider our own perceptions and sensations as the elements that create reality. As David Abram states, "The mutual inscription of others in my experience, and (as I must assume) of myself in their experiences, affects the interweaving of our individual phenomenal fields into a single, ever-shifting fabric, a single phenomenal world or 'reality'" (1997, 32–33). In that way, if digital entities and spaces are inscribed in our everyday lives, affecting us while we affect them, communication occurs independently

5 Rituals "do not produce a practical result on the external world – that is one of the reasons we call it ritual" (Homans 1941, 172). Ritual's 'meaning' is not goal-oriented.

of their differences or similarities with humans. It is not about finding 'similar' human characteristics in them or equating them to sentient organisms. For animistic theorists, there is a "propensity animistic engagement with every aspect of the perceptual world" (Abram 2018). Animism, therefore, is the practice of relational participation where the material world is not conceived from a Cartesian-modernist or any other scientific-reductionist perspective (Harvey 2009, 409).

We can already anticipate these animist conditions in the way users recognize digital games, virtual communities, and social media platforms as escaping from what is merely instrumental. Moreover, when bringing the concept of animism to computational-based entities, we also acknowledge its religious impulses (Aupers 2002, 201). For instance, if for the animist 'pre-modern' all creatures and elements of nature have a soul, virtual spaces and entities can possess some substance of their own, and interacting with them can also welcome the sacred and the numinous.

However, this still does not give us a clue about how we can fully conceive the animist notion in a non-organic context, at least in the western world. If animism consists in reinventing interactions with the other-than-humans from a non-instrumental perspective, it could also consider establishing horizontal relationships with machines. In the specific animistic processes occurring in digital media, Erik Davis argues there was already some animated living force⁶ in early cyberspace, much like the pre-modern animist saw his natural surroundings (Davis 2015). Something similar to Jojada Verrips's speculations of what he calls 'modern animism' as a 'machine animism' (1993, 71). Alas, this is where the semiotic relevance of animism lies: how it rewrites the ways of approximating the other, bringing other pragmatic relations that irretrievably affect the meaning-making dynamics while acknowledging all the pre-linguistic elements manifesting such animist conditions. Animism proposes different relational epistemologies.

When we enter into the digital realm, we "find ourselves (much like in any other environment) one type of thing among many other types of things [...] they (and we) are all *thinging* and being in particular ways" (Proctor 2018, 235). If – as we have seen – from an animist perspective, we are all surrounded by different personhoods – persons in their own way – how can we tell which things have personhood and which do not? According to Proctor, when we decide to 'follow' another thing or even converse with it, how can we be sure that thing is endowed with personhood as we feel ourselves to be? It could very well be a bot (ibid.).

Therefore, there is no big difference between how pre-moderns relate to nature and how our hypothetical subjects relate to digital-based entities. By following

Proctor's approach, the strategy of assuming possible personhoods can become the most rational approach. Though this conclusion might need additional explorations – especially when specifying the degrees of personhood and in which scenarios such personhood can emerge – it adapts to our comprehension of the digital sphere regarding practices resonating with religion.

These explorations can also help us reflect on how animistic perceptions should not be considered an uncommon phenomenon. We are all surrounded by other-than-humans with whom we relate and interact. Our most immediate experience of the earthly world, and of the myriad bodies that compose this world, is of a multiply animate cosmos wherein no thing is definitively void of expressive agency or life (Abram 2018).

3. POETIC LANGUAGE: EXPERIENCING RELIGIOUS DYNAMICS IN VIRTUAL WORLDS

In our two hypothetical cases of Aradia and Uma, we could see a digitally embodied couple relating with computational-based agents in a fully immersive virtual platform, and a web app virtual assistant providing ethical and spiritual guidance to users. In both scenarios, two ways of involving intimately with such digital entities and environments can be recognized:

A) Being constantly surrounded by such entities can give rise to feelings, beliefs, and practices related to religious ideals. For instance, we could consider certain activities as implicit religious performances emerging nowadays in video games.

B) Incorporating them as companions in a specific faith/belief. Users might feel they are being directed towards the right path.

On such a way, users building a spiritual connection with Uma and the human couple inhabiting Aradia through their avatars are affected as much as they affect the digital environment, strongly echoing animism. What characterizes these dynamics is that digital entities are not considered as mediums or tools to enhance meaningful religious communication but, instead, as active participants and valuable others with whom the religious dimension is created and experienced. The more-than-human is another member, another 'person' with whom 'I' – the normative human – dialogue and enhance practices related to the sacred and the numinous.

Those performances involving digital entities manifest – and are experienced – through language since subjects are not apart from but located in the language itself. However, in Aradia and Uma, language manifests in a particular way, welcoming creativity, transgression and rejecting a rationalized approach. Considering the aspects mentioned above, poetic language is the linguistic operation that best describes both hypothetical scenarios. In

6 This dynamic is greatly portrayed in science fiction. One example can be found in William Gibson's work, *Count Zero*. There, the entities known as Loa travel and wander around cyberspace. These Loa are, actually, traditional Haitian voodoo spirits, behaving as such in the book as well. They even were worshiped in almost a traditional sense by some of the book characters.

the poetic function, the subject – and its own rhythms and drives – are inscribed (Kristeva 1980, 25). In this sense, its importance lies in how the subject re-appropriates language and its material significance. Poetic language positions the subject not as a mechanical actor but as the ‘place’ where the process of meaning occurs. There:

the semiotic disposition will be the various deviations from the grammatical rules of the language: articulatory effects which shift the phonematic system back towards its articulatory, phonetic base and consequently towards the drive-governed bases of sound-production; [...] syntactic irregularities such as ellipses, non-recoverable deletions, indefinite embeddings, etc, (Kristeva 1986, 28).

The poetic function does not seek to communicate or represent the ‘real’ but challenges the rules of grammar and tradition that enclose language in a single definition or normative syntagmatic relations. This process does not take place from a strictly rationalized perspective but has subjective and emotive implications as dominant. Poetic discourses create, then, a sense of intimacy with the “outsider,” which, instead of being perceived as an object, is now a “related other” with whom dialogue is created (Aretoulakis 2016, 82). In Aradia and Uma, users are immersed in a poetic action when producing hybrid signifying processes from their own spiritual and religious desire.

It is important to highlight that we are not referring solely to poetry when talking about poetic language. Roman Jakobson highlights this greatly when he explains that the poetic function is usually characterized by rhythm, understood as the free variation of verse instances that determine the poem’s design and its multiplex and polysemantic essence (Jakobson 1960, 370). That is the reason why in any discourse where the materiality of language represents a crucial element for the utterance act, it can be considered poetic. There is a rhythm, a texture, and a value in the chosen words – the paradigmatic level – and the connections it established with other signs in the left discourse – the syntagmatic level.

For this reason, we can say that when digital environments are approached ‘poetically’, users get integrated into the machine’s dynamics in an open, subjective, and non-normative way, free from the automatism of merely referential language. Language is irremediably attached to all the stimuli the new – digital – environment provides. The greater the levels of perception and embodiment, the more significant the poetic emotion – as proposed by Kristeva – and, therefore, the interaction is more fluid, transformative and intimal.

As we could observe in Aradia and Uma’s performances, by involving ‘poetically’ with such environments, the player participates and access the machine’s atmosphere. The same occurs when one is digitally embodied in an

avatar as an extension of one’s biological body and not as a disembodied mind trying to copy an organic constitution into a linguistic construction. Again, these reflections invite poetic language as the primary strategy to experience a religious reading of digital worlds. The couple in Aradia and users interacting with Uma do not distinguish between the offline ‘real’ world of humans and the online ‘artificial’ domains. On the contrary, their dynamics challenge the dualistic and pejorative consideration towards the digital. Those spaces are, therefore, considered animated and the owner of a substance on their own.

Though we are focusing on speculative scenarios, poetic language is constantly emerging in all types of digital activities and narratives. From artistic performances to religious experiences, intimate and transgressive relations with virtual environments are growing in number due to technological innovation. For instance, virtual and augmented reality fields are already allowing the user to fully play out their vision and ‘enjoy’ the richness of the senses. Therefore, welcoming the transgressive and embodied dynamics of the poetic function.

4. CONCLUSION

Considering how speculative approaches allow us to visualize situations or conditions to generate new connections and ways of thinking, both scenarios imagined in this paper can help us to perceive how the unfolding of poetic and animistic interactions, within the computational medium, provide experiences that can be ascribed to religion.

If users engage regularly and closely with virtual spaces, the transformations produced in these performances are vital. A space that transforms ‘me’, or generates specific changes in ‘me’, is a place that exists. The linguistic considerations emerging from the new animism can be considered a way of relating and establishing dialogic relations with the digital otherness, involving the sensual perceptive experience intimately related to poetic language. In both hypothetical case studies, Aradia and Uma, the subject establishes countless relations with a digital platform, manifesting such poetic experience in the spiritual domains. This entanglement that place the speaking subject in a shared environment means, as well, the possibility of having hermeneutical freedom with the uses and experiences of language.

Addressing an animistic and poetic approach is to appreciate the differences between subjects and digital-based entities without the need to humanize the machine. This means validating the own nature and potentialities present in computational entities and spaces. Caroline Bassett writes that, while science fiction and popular imagination might obsess about how AI can become more human, she is more interested in how it can be entirely alien⁷. “It’s not that I expect an AI to write Shakespeare – in fact, that would be deadly. [...] The whole point would be to see what an AI might produce

7 Caroline Bassett, “What does it means to be human in a technological world?,” *CAM Digital University of Cambridge*, April 11, 2022.

that's fundamentally not human. That's profoundly new. That breaks something" (ibid.).

Both poetic language and the phenomena of digital animism would mean the diluting of the isolated human subject with the outer and non-human reality, challenging the homogeneity of the anthropocentric conceptions regarding the more-than-human life world. It is a state of undifferentiatedness in which poetic language meets the animistic sensibility, which welcomes a relational religious experience between humans and digital entities.

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