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Robots, artificial intelligence and spirituality/religiosity: a critical literacy perspective on human development

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ROBOTS, ARTIFICIAL INTELLIGENCE AND SPIRITUALITY/RELIGIOSITY: A CRITICAL LITERACY PERSPECTIVE ON HUMAN DEVELOPMENT

ROBÔS, INTELIGÊNCIA ARTIFICIAL E ESPIRITUALIDADE/RELIGIOSIDADE: UMA PERSPECTIVA DE LETRAMENTO CRÍTICO NO DESENVOLVIMENTO HUMANO

Ensaio Teórico

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ABSTRACT: Artificial Intelligence, a natural language processing tool, connects human learning and interpretation to algorithms whose source code is hidden to us and uses linguistic modeling, a primarily statistical method, for analyzing and predicting character collocation patterns (Peters *et al*, 2023, p. 14). Humans willingly have given in to the charms of a “superior” technological cognition that is incapable, in fact, of thinking critically. In this article we aim at presenting the introduction of the use of AI in spiritual/religious spaces from the perspective of critical literacy (Freire, 1974, 1989, 2005, 2015). Thinking in terms of critical literacy allows for a flexibility of the emergence of meanings from diverse loci of enunciation and it enhances social justice. Drawing on a qualitative and interpretive methodology, this study embraces a sample of illustrations of the uses of AI in different contexts of faith, and one particular experience in a Candomblé house, while the authors analyse them from critical perspectives. The results unsettle modernist conceptions regarding meaning and sense making and move towards more pluriversal and situated relationality regarding AI and faith. We conclude that AI helps to expand inter-religious dialogues, spiritual engagement and accessibility may also be fostered outside institutional frameworks through AI. Despite such advantages, profit-driven

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algorithms can shape spiritual/religious experience, replicate universalized ethics and onto-epistemologies, spread fake news and distort sources of information, while strengthening capitalism, surveillance, racism, not to mention unsustainability.

KEYWORDS: Critical language education. Artificial intelligence. Spiritual/religious spaces.

RESUMO: A Inteligência Artificial, uma ferramenta de processamento de linguagem natural, liga a aprendizagem e a interpretação humanas a algoritmos cujo código-fonte nos é desconhecido e recorre à modelação linguística, um método essencialmente estatístico, para analisar e prever padrões de colocação de caracteres (Peters et al., 2023, p. 14). Os seres humanos renderam-se voluntariamente aos encantos de uma cognição tecnológica “superior” que é incapaz de pensar criticamente. Neste artigo objetivamos apresentar a introdução do uso da IA em espaços espirituais/religiosos na perspectiva do letramento crítico (Freire, 1974, 1989, 2005, 2015). Pensar em termos de letramento crítico permite uma flexibilidade de emergência de significados a partir diversos loci de enunciação apontando para justiça social. De metodologia qualitativa e interpretativa, este estudo abrange uma amostra de exemplos de utilizações da IA em diferentes contextos de fé, bem como uma experiência específica numa casa de Candomblé, enquanto os autores os analisam a partir de perspectivas críticas. Os resultados desestabilizam concepções modernistas sobre construção de sentido e ampliam a relacionalidade de forma pluriversal e situada no que diz respeito à IA e à fé. Concluimos que a IA pode contribuir para ampliar os diálogos inter-religiosos, o envolvimento espiritual e a acessibilidade fora dos quadros institucionais. Apesar dessas vantagens, os algoritmos orientados para o lucro podem moldar a experiência espiritual/religiosa, replicar éticas e onto-epistemologias universalizadas, difundir notícias falsas e fontes de informação distorcidas, ao mesmo tempo que reforçam o capitalismo, a vigilância e o racismo, para não falar da insustentabilidade.

PALAVRAS-CHAVE: Educação linguística crítica. Inteligência artificial. Espaços espirituais/religiosos.

RESUMO PARA NÃO ESPECIALISTAS: A Inteligência Artificial (IA) é uma tecnologia que processa a linguagem humana por meio de programas matemáticos. Ela aprende a partir de grandes quantidades de textos e prevê quais palavras e letras tendem a aparecer juntas. Porém, o modo exato como esses programas funcionam não é conhecido pelo público. Este artigo discute o uso da IA em espaços espirituais e religiosos, com base no conceito de letramento crítico, desenvolvido por Paulo Freire. A perspectiva Freireana de criticidade propõe observar como os significados são construídos em cada contexto e a perguntar se esses usos promovem mais justiça social. A pesquisa é qualitativa e interpretativa: analisa exemplos de IA em diferentes tradições de fé e uma experiência formativa presencial sem o uso de IA em uma casa de Candomblé. Os resultados mostram que a IA pode desafiar ideias tradicionais sobre o sentido e ampliar as formas de relação entre pessoas, tecnologias e espiritualidade. As autoras concluem que ferramentas de IA podem contribuir para o bem-estar emocional e espiritual, oferecendo meditação, cura e orientação religiosa, sobretudo para pessoas sem tempo, dinheiro ou acesso a atividades presenciais. Elas também podem facilitar o diálogo entre diferentes religiões e tornar a vida espiritual mais acessível fora de instituições. Entretanto, há riscos importantes. Como muitas dessas ferramentas são criadas para gerar lucro, elas podem influenciar a experiência religiosa das pessoas, espalhar informações falsas, reforçar preconceitos e vigilância, além de favorecer um modelo econômico e ambiental insustentável.

Initial considerations

In the latter decade, we have witnessed the ascendance of Generative Artificial Intelligence⁴ (AI onwards) in various fields of knowledge usually associated with discourses of technological innovation. Although, over time, innovative technologies and practices have carried promises of enhancing human life and societies, those discourses, in fact, reproduce the modern ontoepistemologies of progress and universalities. It seems, once again, they reinforce the power of the West and Western ways of life through the artificial intelligence produced in the Silicon Valley and other strongholds of generative technology production. In addition to the military wars, in the second decade of this century, a highly strategic discursive war produced by the Big Techs is underway. The manipulation of information on the impacts of the use of AI on nature, humans, non-humans and spirituality/religiosity has become a methodological procedure to canker public debate and to erode democratic systems of government. It is in this sense that we open up this paper by considering the importance of critical, affectionate, and responsible linguistic education that takes into account the urgency of thinking about the cognitive sovereignty of students.

The hyper connection between humans, machines and corporations, mediated by electronic devices, characteristic of today's AI-driven capitalism (Verdegem, 2022), keeps people much focused on the things that we have socially invented to interfere in the world, while disconnecting us from other beings to whom, in other times, we were already connected: plants, rivers, clouds, beaches, stones, climate, mountains, and other earth beings (Cadena, 2024). Thousands of years have passed since Natural forces completely subjected us. As we developed ways to understand the dynamics of these forces and create tools to partially control them, we came to believe that humans have emancipated themselves from Nature.

Notably, this highlights the importance of exercising critical literacy (Freire, 1989, 1974, 2005, 2015) in relation to Artificial Intelligence, given the fact that it is a natural language processing tool, which connects human learning and interpretation to algorithms, whose source code is hidden from the users and relies on linguistic modeling, a primarily statistical method, for analyzing and predicting character collocation patterns (Peters *et al*, 2023, p. 14).

This paper is divided into three parts. The first part examines the relationship between spirituality/religiosity and AI-driven capitalism, focusing on the commodification of spiritual practices, the extraction of users' data, and the ethical and environmental implications of

⁴ In this article, the use of Artificial Intelligence includes Generative Artificial Intelligence and robots.

algorithmic systems. The second part discusses critical literacy as a necessary framework for reading AI and the world, considering the risks of misinformation, surveillance, bias, manipulation, and the weakening of embodied, communal, and symbolic dimensions of spiritual/religious experience. The third part explores the limits of translation and the colonality of meaning, with particular attention to Afro-Brazilian and Indigenous spiritualities, religious racism, intercultural encounters, and situated forms of knowledge production. Drawing on a concrete formative experience in a Candomblé terreiro, this final part argues for approaches to AI that recognize spiritual/religious plurality, challenge hegemonic ethical onto-epistemologies, and reorient the conviviality with or without the presence of robots and AI towards material, linguistic, cultural, and spiritual/religious justice.

1. Spirituality/Religiosity: artificially bonding with capitalism

One of the main characteristics of AI-driven capitalism is commodification, a process through which “online and offline objects, activities, ideas and emotions are transformed into tradable commodities” (Verdegem, 2022, p. 730). In this context, the abstract states of spirituality/religiosity are transformed into digital data that are constantly being collected, analyzed, monetized and turned into resources in the data-driven economies, enriching mainly the Big Techs in the Silicon Valley and in China. Those Big Data companies have gained “ownership and control of the three core pillars of the digital ecosystem: software, hardware, and network connectivity” (Kwet, 2019, p. 2). As Verdegem (2022) argues, “using this extracted data as well as the skills workers gained when analyzing it, made platform companies the leaders in the digital economy” (p. 730).

Moreover, digital users often overlook the fact that they need to adapt their behaviors and engagement modes to the particular AI platforms and apps they are accessing, taking into account that each of these platforms “is a machine that uses statistical calculations to analyze data. It is a kind of support for human thinking. It is not another form of human thinking [...] You cannot program emotions such as pain or love. This machine can simulate this type of emotion.”⁵ (Gleiser, 2026, apud Gonçalo Júnior, 2026 unpagged). Therefore, although AI systems can simulate forms of emotional expression, spirituality/religiosity based on the vast

⁵ Original: É uma máquina que usa cálculo estatístico para fazer análise de dados. É uma espécie de apoio ao pensamento humano. Não é outra forma de pensamento humano [...] você não pode programar emoções como dor ou amor. Essa máquina pode simular esse tipo de emoção.

amounts of data they collect and use through the surveillancing of users, their operations are structured by computational processes, whose main target is to make the platforms profitable. Needless to say, the activity that each prompt generates has huge environmental impacts, since AI Data Centers require vast amounts of energy and water to cool down the systems that process the prompts users send.

Researching AI in religious practices in case studies from China, India and Japan, Armstrong (2025) came to the conclusion that there are significant opportunities as well as ethical challenges to be addressed. The theoretical underpinning comprised four ethical principles of Principlism, which foregrounds autonomy, non-beneficence, maleficence and justice when incorporating the use of AI technologies in religious contexts of practices and experiences. Systems should, thus, be constructed to empower freedom of choices concerning religious beliefs to avoid coercion, manipulation, physical and spiritual harm (Akbarighatar, 2024 apud Armstrong, 2025, p. 28). As part of the qualitative methodology, the aforementioned study included sources ranging from academic manuscripts, literature reviews, case studies to retrieval methods on AI spirituality/religiosity to understand the ways AI influences religious beliefs and practices.

When reporting on the benefits of integrating artificial intelligence into religious practice and experience, Armstrong (2025) states that AI-driven tools have proved to have great potential to increase accessibility to digitalized materials for those people who cannot participate in religious gatherings in person, and citizens of diverse faiths can get engaged in virtual communities. Real-time translations into different languages allow users to choose their preferred language. Forum, discussion boards and social media links also enhance connection and speed advanced analyses of massive data and texts. Furthermore, AI customizes learning experiences with personalized guidance, and it might foster deeper understanding of sacred materials, counselling, interactions, shared beliefs while reducing linguistic and geographical barriers. Future generations might be able to access spiritual/religious cultural heritage, including art, documents, and ceremonies for further studies.

In China, roles which were exclusively performed by human monks are now replaced by robots. “Buddhist robotic agents use digital devices for communication. They help followers find and share information and broadcast spiritual hymns and mantras” (Armstrong, 2025, p. 36). This has posed ethical issues because it misses human touch typical of conventional practices. Robots performing rituals and providing guidance may come at the expense of experiential depth and spiritual connection that traditional practices can afford. Even in the context of traditional practices, not all people feel the connection, though. An image of an AI-

powered robot monk, “Buddharoid,” introduced by researchers at Kyoto University and designed to offer spiritual advice and assist with rituals can be accessed at the site after the References in this article.

In East Asia and South Asia, AI performs rituals and it has also raised ethical dilemmas in a changing landscape of faith, culture and technology.

In India, a robotic arm performs the age-old ritual of ‘aarti’ where typically a follower presents an oil lamp as an offering to a deity. This was demonstrated at the Ganapati festival, during which an effigy of Ganesha is immersed in the river at Pune; thus began the journey of the robotic aarti arm that has inspired further prototypes still performing in India, and several other religious robots in East Asia and South Asia (Armstrong, 2025, p. 37).

A corresponding image of this robotic arm can be found at the site after the References. Dependency on AI is also present in Japan. The Kodaiji temple has introduced “technologically effective and AI-enabled android named Mindar for delivering Buddhist teachings” (Armstrong, 2025, p. 39). “Standing 195 centimeters tall and weighing 60 kilograms, the humanoid, dubbed Mindar, has a silicone face, shoulders and hands resembling the skin of a person, though the material is not applied to other parts of his metallic body” (Tominaga, 2023).

Combining modern technology and traditional religious practices to answer visitors' inquiries, Mindar (to be accessed at the last site after the References) also teaches temple visitors according to their specific needs. It still does not operate with total autonomy, as it depends on pre-programmed scripts and chanting scriptures.

Concerning privacy issues, “informed consent must be obtained from users of AI, and education on AI-driven religious practices must be provided for the promotion of transparency and empowerment of individual freedom of choice” (Armstrong, 2025, p. 47). However, believers rarely take the time to read the long and difficult consent texts and transparency is tricky when the ways in which AI systems collect, process, store, and share personal data are not public. Moreover, obtaining formal consent does not necessarily mean that users fully understand the implications of their participation or have any control over their data. Moreover, clauses that restrict rights must be clearly highlighted in the contract, otherwise, they may not be enforceable, depending on each country’s consumer protection law.

2. Critical Literacy and Digital Spirituality: reading the world, reading AI

Incorporating AI into religious practices and experiences is subject to contestation, though, in accordance with Armstrong (2025), it might reinforce existing biases or prejudices,

create new forms of spiritual distraction or addiction, mislead information, generate manipulation, erase accountability: “excessive use of AI in religious rituals can weaken our ability to think critically and engage spiritually” (Armstrong, 2025, p. 41). Algorithms may unintentionally perpetuate biases, leading to discriminatory outcomes, based on race, gender, class, body (dis)ability. Moreover, handling of the user’s data requires protection measures.

Another important point regarding the use of AI in religious rituals should be taken into account: once AI gadgets need to be programmed, there is the danger of imprisoning the meanings in a sense that gradually moves away from the symbolic and the plural. If traditions and religious doctrines are not revised from time to time, there is the imminent risk of them turning into dogmas (Croatto, 2010). Moreover, religious experiences have to do with symbolic meanings that suggest and evoke (Croatto, 2010). Maybe, in short time the symbol, as something that somehow trans-means itself, (Croatto, 2010) may miss the point, and its language get closed to new meanings. Therefore, the role of rituals and their symbolic effects upon the members of a faith community may be at risk as these members doubt the effectiveness of an AI priest blessing pronouncing.

Brumec and Platovnjak (2025) provide examples of AI platforms which enhance personalized content and engagement, network seekers from diverse traditions and promote interfaith dialogue.

Tools like Catholic Answers AI provide instant access to doctrinal resources, helping users navigate complex theological questions ... Tools also exist for exploring texts from other traditions, such as the Bhagavad Gita or Tripitaka, providing valuable comparative insights. (Brumec and Platovnjak, 2025, p. 230-231).

Paraphrasing the authors, while “prayer apps, guided meditation tools, theological chatbots, or esoteric AI companions offer convenience, personalization, and expanded access across religious, secular, esoteric, and hybrid spiritual frameworks, these same authors state that AI lacks intuition, embodied presence, ambiguity tolerance, and the capacity to relate to transcendence” (p. 234).

AI developers and experts should, therefore, work in tandem with religious leaders and groups and through education about AI technologies and their effects related to informed and responsible use. Advocating critical digital literacy and awareness of ethical ontoepistemological issues regarding AI is crucial.

Consequently, checking the sources of information AI uses in its analyses is part of critical and relational intelligence, an important awareness for learning. And learning depends on the articulation of four legs.

There is a quartet here: science, philosophy, spirituality, and the arts. These four things form what I call the human existential quartet. We need the interconnection of these four legs of this chair where our existence sits every day [...] Having these four legs, this human existential chair, articulated, well balanced, and complementary is fundamental⁶ (Gleiser, 2026, apud Gonçalo Júnior, 2026, unpagged).

In a similar vein, empathy, intuition, creativity, emotions and critique solely based on algorithms face challenges and further research is necessary. From the immanent theoretical perspective, spirituality/religiosity is constitutive of the beings, species, entities and the world, and all of them evolve in participatory and entangled modes. Such a view seems more congruent to critical literacy. Nonetheless, some authors place too much emphasis on the centrality of the humans.

If used wisely, AI can serve as a helpful instrument for spiritual exploration, provided that its application remains embedded in human guidance, community participation, and personal reflection. The challenge is not simply whether AI has a place in spirituality—but how to integrate it in a way that sustains the depth, plurality, and human-centered nature of spiritual meaning-making across traditions (Brumec; Platovnjak, 2025, p. 234).

There are two issues in the previous excerpt that we would like to criticize. First, problematizing human hubris, as a product of Modernity, appears pivotal to decenter anthropocentric “spiritual meaning making across traditions” (p. 234). Second, “human guidance” is always already embedded in non-human intelligence, as mentioned in the introduction of this paper. We agree with Haraway (1991) that “perhaps, ironically, we can learn from our fusions with animals and machines how not to be Man, the embodiment of Western logos” (p. 173). In other words, our relationships and connections with animals, plants, mineral, and technologies can challenge the traditional Western idea of what it means to be “human” and, consequently, of what counts as the “spiritual/religious”. Yet, decentering the human does not necessarily mean replacing human forms of meaning-making with computational forms of intelligence. As a result, leaving issues concerning socioenvironmental meaning-making renders commodified spiritual/religious onofflife⁷.

⁶ Original: Existe um quarteto aqui, a ciência, a filosofia, a espiritualidade e as artes. Essas quatro coisas formam o que eu chamo de quarteto existencial humano. Nós precisamos da interconexão dessas quatro pernas dessa cadeira onde nossa existência se senta todos os dias. [...] Você ter essas quatro pernas, essa cadeira existencial humana, articuladas, bem balanceadas e complementares é fundamental.

⁷ This is a coined term to emphasize the entanglement of online and offline life.

This is one of the questions that the Korean-born German philosopher Byung-Chul Han (2025) raises in his book *The crisis of narration*. For Han, Big Data, in fact, doesn't explain anything since it just reveals the correlations among things, which constitute the most primitive form of knowledge. Big Data doesn't establish causal connections or conceptual ones. On the other hand, narratives create an order of things, by relating them to one another and explaining why things behave the way they do. Han's distinction between data-driven meaning-construction and narration thus allows us to further interrogate the relationship between intelligence, meaning-making, and spirituality: while intelligence calculates and computes, narration produces connections, interpretations, and translations. The end of narrative, or the end of theory says, goodbye to the concept as spirit:

Artificial intelligence works very well without the concept. *Intelligence is not spirit*. Only the spirit is capable of bringing about a new order of things, of creating a new narrative. Intelligence calculates and computes. *Spirit, however, narrates*. The data-driven sciences of the spirit are not sciences of the *spirit*, but sciences of data. *Data expel the spirit*. Data-driven knowledge is located at *the zero point of spirit* (Han, 2025, p. 103⁸ italics in the original)

Although we recognize the force of Han's argument, we would like to reflect upon human capacity to seek the Sacred and the spiritual in the realities with which they are entangled, and to suggest that faith narratives are never neutral: they can also reproduce religious violence and even religious racism.

In this sense, the digital circulation of faith narratives does not simply signal the preservation, revival or end of spirituality. Reels of reflective prayer, for example, narrate experiences of the faithful before the Divine and may create forms of spiritual digital community, while simultaneously shaping particular ways of understanding prayer, belief, and religious belonging. Thus, rather than asking whether digital technologies are causing the disappearance of faith narratives, we might ask how platformed forms of storytelling transform, regulate, and sometimes commodify the ways in which spiritual experiences are narrated and shared.

That said, we draw on Freire's foundational critical education, which positions literacy as a site of power and transformation mainly of disenfranchised people and, we assume that

⁸ Our translation: A inteligência artificial funciona muito bem sem o conceito. *Inteligência não é espírito*. Somente o espírito é capaz de uma nova ordem das coisas, de uma nova *narração*. A inteligência calcula e computa. *O espírito, todavia, narra*. As ciências do espírito orientadas por dados não são ciências do *espírito*, mas ciências de dados. *Os dados expulsam o espírito*. O conhecimento de dados está localizado no *ponto zero do espírito*.

faith is deeply embedded in questions of language, subjectivity, identity, culture and meaning making as complex and ongoing processes. As researchers, we also advocate for subjects being capable of dislocating hegemonic attributions of meaning to texts, discourses and spiritual/religious performativity with the use of AI, such as the ones previously described.

We depart from the perception that people can transform their own social historical conditions, following Freirean education.

Reading the world precedes reading the word; therefore, the subsequent reading of the word cannot be separated from the ongoing reading of the world. Language and reality are dynamically intertwined. Understanding a text through critical reading requires an awareness of the relationships between the text and its context⁹ (Freire, 1989, p. 9)

Freire (1989, 1974, 2005, 2015) helped vulnerable people to use critique as a powerful tool for the negotiation of meanings against the backdrop of epistemic injustice. We contend that this is the type of critical exercise that believers are expected to do in connection with robots, platforms or any other digital tool, used for spiritual/religious purposes. Like students, believers are seen as active coauthors of meanings, who can and should understand important aspects while going through the experience in spiritualscapes. Following Freirean orientations, we conceive of a robot as a text to be read in connection with its context of production (usually as a commodity) in confrontation with the believer's sociohistorical and cultural context of meaning making. Furthermore, there is a need to highlight understanding of how different kinds of things, bodies, words, symbolic artefacts, space, emotions come together in particular moments and reconfigure discursive, semiotic and spiritual/religious local encounters and happenings.

What if believers start to consider questionings such as: a) the robot's or any other type of AI's objective and context, b) what it does with the believer, c) how it positions him/her in the spiritual landscape and in the broaden society, d) who gets excluded from the robot (AI)'s perspective, e) who gets included, e) the consequences of accepting or not such ideas, viewpoint and f) the strategies to contest and struggle for more collective justice.

As language, culture and experience shape the believers' world views, it is also fundamental to equip them with awareness of their own loci of enunciation, from/with which

⁹ A leitura do mundo precede a leitura da palavra, daí que a posterior leitura desta não possa prescindir da continuidade da leitura daquele. Linguagem e realidade se prendem dinamicamente. A compreensão do texto a ser alcançada por sua leitura crítica implica a percepção das relações entre o texto e o contexto.

they construct knowledge and, thus, resist oppression, discrimination or racism and reimagine faith otherwise, fostering spiritual/religious justice, with or without the use of AI. In order to expand the educational horizons, having their voices, silence, memories and narratives to reinscribe other values in a shifting spiritualscape is crucial for critical literacy. We underscore the notion that spirituality/religiosity is not isolated from issues concerning race, ethnics, gender, class, body, refugees' camps, warzones, symbolic tools (prayer beads, bead necklace, holy book, among others), personal trajectories, market, nature (mineral, plants and animals). Instead, it unfolds from feelings, relations of power, experience, contingencies and negotiation and reinterpretation of meanings (including one's own meanings) in particular situations.

According to Freire (1989), students' immediate context is linked to the global ones, and so are the believers' ones. The immediate context comprises their relationship with trees, land, flowers, fruits, animals, smell, touching feelings, touch, taste, sound, colors much before they can walk, speak and/or write, fall and stand-up again. This means the world and language are dynamically co-constitutive and transformative. Children experience fear, happiness and mysteries, while being exposed to adults' language and nonhuman language. Similar sensations, understandings and 'readings' of the robot (AI) might occur when believers attend spiritual/religious events/performativities. No doubt, the integration of artificial intelligence and robotic artifacts into religious rituals and spiritual counselling compels us to think meaning making from below as it depends on the diverse forms of how to interpret their repertoires and resources, which they activate to engage in activities in daily lives. Such repertoires and resources are pluralized and situated in ways that a robot cannot respond individually and more interculturally sensitive.

Language is far from being a substance or an ontological and static system. The fact that believers can choose the language they identify with to receive counseling from the robot priests does not account for the complex and deeply embodied, intersubjective human, non-human phenomenon that we call faith. Faith can also be fluid and therefore hard to be standardized and commodified. Each believer learns, unlearns, relearns differently, according to his/her cultural practices, values, skills and styles. Some of them prefer observation and silence, others appreciate conversations and body and space uses. Questions such as who is a robot teaching (someone from the countryside, from urban space, a migrant, an elderly person, a child etc.), under what conditions, for what purposes and with what resources are not applicable to the robot itself (not yet). Imposing a model of the information-processing system through a robot priest may have the same negative effects such as those produced by what Freire (1974)

denominated the “banking system of education” (p. 126), which homogenizes and oppresses students (in our case, believers) and shapes their futures.

Contrary to that, grassroots education requires learning to appreciate differences and provide opportunities to feel, think and act, other than the top-down pre-programmed scripts of the automated agents or any other sophisticated AI. To sum up, delegating pastoral care to artificial resources reduces ethical accountability, philosophical depth, personal and interpersonal contact with other people and “earth beings” (Cadena, 2024) and undermines critical literacy, which is exercised in fluxes, whose main meaning makers should be the believers. This is an intrinsic immanent experience open to constant resignifications of the sacred traditions.

In his studies of religion, Grego Neto (2026) illustrates such dilemmas with the emergence of griefbots, which simulates the persona of deceased individuals, changing the symbolic rites of passage and absence.

When companies appropriate this data to train AIs, an ontological and economic transformation of the deceased takes place [...] The deceased becomes an inexhaustible resource for the information industry, generating engagement and profit posthumously¹⁰ (Grego Neto, 2026, p. 8).

Data remains alive and algorithms can revitalize them and make them interact with conversational systems of AI. Believers’ data are immortal and can be accessed as a presence on demand. Emotional and/or financial vulnerabilities can accelerate digital dependency, converting faith into a product to be consumed. An ontological transformation occurs to alleviate pain through emotional capitalism in palliative society (Han, 2021), which keeps the subject engaged in the platforms.

Technological impulsiveness may also offer escapism and the elimination of undesirable experiences, instead of stimulating the subject to make new connections with other humans and reconstruct contextualized meanings for understanding such a moment in life. Consequently, faith may be disguised, and it becomes data to be manipulated, launching the “the posthumous avatar” (Grego Neto, 2026, p. 13). Connection to ancestry may no longer be necessary or it may not be meaningful,

¹⁰ Original: Quando esses dados são apropriados por empresas para treinar IAs, ocorre uma transformação ontológica e econômica do falecido [...] O morto torna-se um insumo inesgotável da indústria da informação, gerando engajamento e lucro postumamente.

Exploring vulnerable bodies (cognition, emotion, effort), time, money, nature (water, minerals) by capitalism raises important dilemmas in contemporary society. Would AI be able to transform faith into objectification, that is, a market for whose access, the believer has to subscribe to specific platforms? This is an important question posed by the author (p. 17).

In spite of all these arguments against the interference of AI in the way believers deal with death, for some perspectives, it can be potential mediators, under therapeutic supervision, in cases of sudden deaths, allowing the bereaved to work through emotional issues that could not be addressed in one's lifetime (Grego Neto, 2026, p. 17). Recent studies in Bangladesh have shown that digital engagement and spiritual identity jointly shape sustainable consumer behavior.

Younger, digitally active, and religious consumers are more receptive to AI-enabled green marketing, especially when messages are framed in alignment with their ethical and spiritual values [...] With 78% of respondents identifying as practicing Muslims, the data reflect a demographic in which religious values form a meaningful context for behavior. This supports recent literature showing that religiosity enhances commitment to ethical consumption (Arli et al., p. 9, 2021, p. 9).

Other factors including costs, expertise, and context also influence these people's attitude to afford eco-friendly products with the help of AI-based tools (chatbots, eco-labeling algorithms and other engines), enhancing green marketing. On the other hand, according to Arli et al. (2021) in faith-driven societies such as Bangladesh and Indonesia, spirituality adheres to environmental thinking and commitment. Some appeals are mentioned addressing policy makers, marketers, religious leaders and educators, respectively:

Governments should support investments in green-tech infrastructure, including AI-powered environmental information systems, digital eco-labeling standards, and personalized green education tools that are accessible through mobile platforms [...] Green product marketers operating in digitally advancing markets such as Bangladesh should leverage AI-based personalization engines to highlight the environmental benefits of products in a consumer-centric way [...] Sermons and community programs can include discussions on environmental ethics rooted in Islamic teachings, which would strengthen behavioral follow-through [...] AI-led sustainability education should be localized, linguistically inclusive, and culturally sensitive. ASEAN's digital agenda must ensure that green AI tools are accessible even in rural or underprivileged communities. Digital literacy campaigns should be integrated with environmental literacy, targeting not only youth but also homemakers and informal sector workers who play critical roles in everyday consumption [...]" (Arli et al., p. 9, 2021, p. 10).

Although Arli et al. (2021) argue that in Bangladesh and Indonesia, spirituality adheres to environmental thinking and commitment, we make a point of emphasizing that it is of utmost importance to avoid generalizations. Many people are inadvertently manipulated by AI and by the power of the media in ways that their behavior and actions become naturalized, a point that distances from critical perspectives in language education.

In this way, AI is a complex phenomenon which raises spiritual and ethical questions. Certain religious values, service to the community and care entail unlearning Modernity, a subject for the next section.

3. Beyond Translation: spiritual/religious plurality and the coloniality of meaning

Upon discovering his four-year-old daughter's drawing of an Afro-Brazilian female guardian (the Orixá Iansã, goddess of winds, lightning, and tempests), produced as part of a school activity, the father called the military police force in São Paulo on November 12, 2025. Responding to the call, armed officers entered the municipal public school, where the child studied, claiming that she had been forced to take African-religion classes. The school clarified that the drawing resulted from a pedagogical activity based on the children's book *Ciranda em Aruanda*¹¹, part of the official collection of the São Paulo municipal school program, and grounded on the federal Laws, 10.639/2003 and 11.645/2008, which mandate the teaching of Afro-Brazilian and Indigenous history and culture within Brazilian schools. Witnesses reported that one of the officers carried a machine gun, and a mother described the episode as an abuse of power and a frightening situation for both children and staff¹².

This episode is not an isolated event, but a symptom of broader ethical, ontoepistemological conflicts that characterize contemporary societies. Clearly, racialization and discrimination against Afro-Brazilian religiosity/spirituality are consequences of a long process of colonization in our country, which refuses to recognize natural forces, as the child's drawing of Iansã. Iansã, a figure that embodies wind, lightning, and tempest, as relational and agentive is rendered suspect within Modernity, which separates culture from nature, humans and non-humans and spirituality/religiosity from language education.

¹¹ *Ciranda em Aruanda*, by Liu Olivina, features illustrations of 10 Orixás and presents the characteristics of the deities, in short texts. Oxóssi, for example, is portrayed as the great guardian of the forest.

¹²Source: <https://www.metropoles.com/sao-paulo/desenho-de-orixa-pm-vai-investigar-acao-de-agentes-armados-em-escola>. Access on November 18, 2025.

Concerning the open field of critical language education, drawing attention to social, material and spiritual/religious justice seems to be the norm. Case in point: the inclusion of the Orixá Iansã, goddess of winds, lightning, and tempests in the child's drawing at her school, as part of an institutionalized curriculum, grounded on the Brazilian Constitution (1988), which guarantees religious freedom and not the imposition of a single religion in secular Brazil.

No longer Silva (2021) argues we are all compulsory racists owing to the colonial roots that have maintained such a sociohistorical structure, imitating the colonized elite. Unfortunately, the concentration of capital remains in the hands of hegemonic groups, including the non-white high social classes, always already influenced by the supremacist capitalists. An encompassing view of AI cannot overlook the concentration of ontoepistemic, material and religious/spiritual power, an important issue for contemporary language education.

According to Santos (2024), in Afro-diasporic religions, mainly the Afro-Brazilian ones, orality is a sophisticated technology for the transmission of knowledge. Spoken words, singing, gesture and silence are languages embodied by Axé to preserve memories, secrets, relational dimensions, communal knowledge, connections, and cosmologies. Ethics and mediation regarding the use of digital tools should be grounded on ancestral values. “This implies questioning technologies from outside – not to reject them, but to reorient them¹³” (Santos, 2024, unpagued).

As an example of a black and quilombista technology, the author cites Rede Mocambos, a network developed in partnership with the Ministry of Communications, which operates through telecenters set up in quilombola communities, terreiro communities, indigenous villages, all of them connected through ongoing exchanges of proposals, projects, knowledge, collections, and products with their peers. It comprises approximately 200 partner communities connected by physical, digital, and emotional ties. They have their own servers, local networks, informational autonomy, distributed archive to maintain “quilombola digital cosmos¹⁴” (Santos, 2024, unpagued) that is: “Baobáxia exists to function even when ‘the internet ends,’ reaffirming the idea that axé cannot be trapped in the white cloud of big tech¹⁵” (Santos, 2024, unpagued). Resistance emerges, in this context, from the understanding that, although we may be “trapped” in the modern and capitalistic structures, we can still seek alternative ways of relating and building community that don't conform to the logic of the Big Techs.

¹³ Original: Isso implica questionar as tecnologias de fora- não para rejeitá-las, mas para reorientá-las.

¹⁴ Original: “cosmo digital quilombola”.

¹⁵ Original: Baobáxia existe para funcionar mesmo quando “a internet acabar”, reafirmando a lógica de que o axé não pode estar preso à nuvem branca das big techs.

Human understandings of spirituality/religiosity make sense of different worlds, while recognizing that these worlds are always entangled. Anthropologist Marisol de la Cadena in her book *Seres Terra: cosmopolíticas em mundos andinos*, makes ethnographic research of her collaboration with Mariano and Nazario Turpo, a father and son, who are both shamans and political leaders of the Quechua people from the region surrounding Cusco, Peru. In her effort to translate the words and practices of the Andean people she writes:

The practices were what my friends did, and the words were what they said; but what those practices did or what those words said lay beyond my understanding. Of course, I described them in ways that I could understand; but when I transformed those practices or words into something I could understand, *that*—what I was describing—was not what those practices did or what those words said.¹⁶ (Cadena, 2024, p. 46). (Our translation)

Even after the long contacts Cadena had had with the Andean Shamans, she insists that she would construct understandings of the language and practices of their culture that would always be full of gaps of what she could not make sense of. The Andean world could never be reduced to Cadena's world. The opposite is also correct, although one world is always included in the other. The concepts used to narrate each world matter, although these concepts are never transparent even to people that, in principle, belong to the "same" culture.

This process of intercultural translation and its limitations can be exemplified with the experience of being in a temple of "another than ours" religion: in a visit to the heritage-listed terreiro Axé Ilê Obá in the Jabaquara neighborhood in São Paulo, that took place as part of the extension activities in the curriculum of the History department of a public university where one of the authors of this paper teaches, during the second semester of 2026, the English Language department was invited to participate after the students produced comic strips that pointed to religious racism (as the priestess of the terreiro repeated various times) in Brazil after reading the chapter "The veil" from Marjane's Satrapi's memoir *Persepolis*. The ialorixá, or Cadomblé priestess, Mãe Paula, repeatedly asked for the demystification of Exu, for example, who is usually seen as an equivalent to the Christian devil, o *Capeta*.

¹⁶Original: As práticas eram o que meus amigos faziam, e as palavras eram o que eles diziam; mas o que aquelas práticas faziam ou o que aquelas palavras diziam escapavam do meu conhecimento. É claro que eu as descrevia em formas que podia entender; mas, quando eu transformava aquelas práticas ou palavras em algo que podia entender, *aquilo* - o que eu estava descrevendo - não era o que aquelas práticas faziam ou o que aquelas palavras.



Image 1. Exú - ÈṢÙ

Source: personal archive

Mãe Paula explained that in the Candomblé religion there is no devil, only the duality of energy; and, in the Yorubá culture, Exu is a realm, with energy and movement. We bring here the painting that is hanging in the temple and the wall label that explains the role of Exu in the Candomblé religion. In the painting, Exu is shown within nature, in the midst of the forest, dressed in a splendid manner, accompanied by a dog while collecting plants and roots. In the label, he appears as the god of communication, a guardian and a messenger between the material and the spiritual world:

EXU – ÈṢÙ

Orisha of communication. He is the guardian of villages, cities, homes, and *axé*, of the things that are done and of human behavior. He is the one who must receive offerings first, in order to ensure that everything goes well and to ensure that his role as messenger between **Orun** (the spiritual world) and **Aiyê** (the material world) is fully fulfilled.

The embodied and formative experience in the Candomblé *terreiro* teaches us to challenge hegemonic onto-epistemologies while developing critical literacy approaches to artificial intelligence that acknowledge spiritual plurality and seek to reorient digital technologies toward social, material, linguistic, cultural, spiritual and religious justice. Critical religious literacy involves developing the awareness that meaning-making is shaped by the locus of enunciation we occupy and by the processes through which concepts, signs, and other semiotic resources are translated across linguistic, cultural, and spiritual contexts.

We, authors of this paper, maintain that people's cognitive, emotional, spiritual/religious well being are under threat since they tend to interact less and less with their companions on a face-to-face basis. Although Artificial Intelligence seems to bring some

advantages such as accessibility for materials, interaction among members from diverse loci of enunciation, fast speed to share information and guidance, it still causes the distancing of bodies among themselves. Likewise, multimodal aspects might be lost, including, gesture, tone of voice, eye contact, opportunities to ask for clarification of misunderstandings, and linguistic and transcultural translations, which are pivotal for understanding *in situ*.

The experience one of the authors has gone through in the house also calls for critical literacy (Freire, 1989) as an invaluable opportunity to rethink the reasons intolerance towards Afro-Brazilian spirituality/religiosity permeates our country. Not only that, but also to reflect upon whose interests are served and whose are not served when it comes to discourses, narratives and performativities, all of them are related to the members' functions in the rituals, the values entangled in courses newcomers take so that they can assume higher posts in hierarchies as time goes by.

Final considerations

In this article, we're trying to move beyond the binary opposition between celebrating artificial intelligence as a means of expanding spiritual and religious experiences and rejecting it as a threat to the sacred. From a critical literacy perspective, the central question is not whether AI should or should not occupy spiritual/religious spaces, but how its presence reconfigures meaning-making, relationality, and the conditions under which faith and the sacred become intelligible and legitimate. It has been observed that powered tools have been supporting mental and emotional well-being through meditation, healing and spiritual/religious guidance mainly for those people who lack time and conditions to search for face-to-face opportunities.

Although AI-powered tools may expand access to spiritual resources, facilitate intercultural encounters, and provide forms of guidance to people who face geographical or even linguistic barriers, these possibilities cannot be separated from the capitalist infrastructures that sustain such technologies. The extraction of personal data, the commodification of emotional and spiritual needs, the reproduction of racialized and colonial onto-epistemologies, and the environmental costs of the digital ecosystems demand a critical examination of whose interests are served, whose faith is rendered visible, and whose spiritual experiences are misrepresented or excluded.

We call for an epistemological and ethical commitment to recognize spiritual plurality and confront religious racism, while acknowledging that meaning can never be detached from the bodies, histories, territories, relationships, and cosmologies in which it emerges. Critical

literacy approaches to artificial intelligence tools in religious/spiritual places seeks to acknowledge spiritual plurality and to reorient digital technologies toward social, material, linguistic, cultural, spiritual and religious justice.

References

ARLI, D., SEPTIANTO, F., CHOWDHURY, R. M. (2021). Religious But Not Ethical: The Effects of Extrinsic Religiosity, Ethnocentrism and Self-righteousness on Consumers' Ethical Judgments. **Journal of Business Ethics**, v. 171, n. 2, 2021. p. 295-316.

ARMSTRONG, C. **Religion and technology**: ethical implications of integrating artificial intelligence into religious practice and experience. Available at: file:///C:/Users/User/Downloads/Religion_and_technology_ethical_implications_of_in.pdf. Access on: Jul 26 2026.

BRUMEC, S.; PLATOVNJAK, I. (2025). **Artificial Intelligence and Spirituality**: A Tool for Engagement or a Threat to Transcendence? Available at: View of Artificial Intelligence and Spirituality. Access on: Jul 02 2026.

CADENA, M. de la. **Seres-terra**: cosmopolíticas em mundos andinos. Tradução de Caroline Nogueira, Fernando Silva e Silva. 1ª ed. Rio de Janeiro: Bazar do Tempo, 2024.

CROATTO, J. S. **As linguagens da experiência religiosa**: uma introdução à fenomenologia da religião. Tradução de Carlos Maria Vásquez Gutiérrez. São Paulo: Paulinas, 2010.

FREIRE, P. **A importância do ato de ler**: em três artigos que se completam. São Paulo: Cortez, 1989.

FREIRE, P. **Pedagogia do oprimido**. São Paulo: Paz e Terra, 1974.

FREIRE, P. **Pedagogia da tolerância**. São Paulo: Editora da UNESP, 2005.

FREIRE, P. **Pedagogia da esperança**. Um reencontro com a pedagogia do oprimido. Notas de Ana Maria Araújo Freire. Rio de Janeiro: Paz & Terra, 2015.

GONÇALO JUNIOR (2026). **Vamos emburrecer se confiarmos cegamente nas histórias criadas pela IA, diz Marcelo Gleiser**. Available at: https://www.terra.com.br/byte/ciencia/vamos-emburrecer-se-confiarmos-cegamente-nas-historias-criadas-pela-ia-diz-marcelo-gleiser,89ffa27f04a9675de540b945d467a98d2tqqnm0r.html?utm_source=clipboard. Access on: Fev 22 2026.

GREGO NETO, L. M. **Entre o sagrado e o algoritmo**: morte, bioética e religião na era da ia generativa. Available at: <https://revistas.pucsp.br/index.php/rever/article/view/74646/50377>. Access on: Sep. 10 2026.

HAN, B. C. **Sociedade paliativa**: a dor hoje. Tradução de Lucas Machado. Petrópolis: Vozes, 2021.

HAN, B. C. **A crise da narração**. Tradução de Daniel Guilhermino. Petrópolis, RJ: Vozes, 2025.

HARAWAY, D. J. **Simians, Cyborgs and Women**: the reinvention of nature. New York: Routledge, 1991.

KWET, M. Digital Colonialism: US Empire and the New Imperialism in the Global South. **Race & Class**, v. 60, n. 4, p. 3–26, 2019. DOI: 10.1177/0306396818823172

PETERS, M. A. et al. “AI and the Future of Humanity: ChatGPT-4, Philosophy and Education – Critical Responses”. **Educational Philosophy and Theory**, 2023. DOI: 10.1080/00131857.2023.2213437.

SANTOS, M. O. (2024). **O Sagrado e a Era Digital**: Oralidade, Tradição e Resistência nas Religiões Afro-Diaspóricas. Available at: **O Sagrado e a Era Digital: Oralidade, Tradição e Resistência nas Religiões Afro-Diaspóricas** | by Mil Onilêto Dos Santos | Medium. Access on: Sep. 02 2026.

SILVA, S. **De racistas compulsórios a antirracistas**: contribuições possíveis para mudanças urgentes. Available at: <https://www.e-publicacoes.uerj.br/pensaresemrevista/article/view/61166>. Access on: Sep. 22 2026.

TOMINAGA, S. (2023). **Robot helps spread Buddhist teachings at a Kyoto temple**. Available at: <https://www.asahi.com/ajw/articles/14861909>. Access on: Sep. 29 2026.

VERDEGEM, P. Dismantling AI capitalism: the commons as an alternative to the power concentration of Big Tech. **AI & Society**, 2022 Apr 9:1-11. doi: 10.1007/s00146-022-01437-8.

Sites consulted

<https://www.instagram.com/p/DVLAx0EeVw/>

<https://muslimmirror.com/robots-are-performing-hindu-rituals-and-may-replace-clergy/>

<https://www.asiaone.com/digital/meet-mindar-humanoid-robot-preaches-sermons-buddhist-temple-japan>

Contribuição de autoria

Mizan: Conceptualization: Reflected on the infrastructure of AI powered tools and the epistemological and ethical commitment to recognize spiritual plurality and confront religious racism. Writing – original draft. Writing – review & editing.

Takaki: Conceptualization: Highlighted spiritual/religious spaces where robots and AI are being used. Problematicized these uses through the lens of Freirean critical literacy, aiming to curb capitalism and promote greater forms of justice. Writing – original draft. Writing – review & editing.

Batista: Conceptualization: Reflected on and contributed to discussions of religiosity/spirituality, sustainability, human development, and the uses of artificial intelligence. Writing – original draft. Writing – review & editing.

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