

FEATURE ARTICLE

God or the Machine? Personal Religiosity and Negative Attitudes to AI

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Public attitudes toward artificial intelligence (AI) are beginning to take shape as these technologies become more common. We explored whether and how attitudes toward AI might be associated with religiosity, as well as potential psychological mechanisms underlying this association. Two survey studies explored this relationship. In Study 1, we examined the association between religiosity and AI-related anxiety in a nationally representative Chilean sample ($N = 1,021$). Study 2 focused on a sample of U.S. religious respondents ($N = 411$), investigating perceptions of AI as a threat while incorporating refined measures of religiosity and three potential mediators: moral progressivism, belief in creation in the image of God, and aversion to playing God. Through both studies, we found evidence linking higher religiosity to negative attitudes toward AI. These findings suggest that this relationship may be shaped by psychological factors such as social identity and moral attitudes toward interfering with nature.

Keywords: attitudes toward artificial intelligence, religiosity, acceptance of artificial intelligence, artificial intelligence anxiety, aversion to playing God

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In recent years, the adoption of artificial intelligence (AI)-powered technologies has grown at a rapid rate, permeating both professional and personal domains. A global survey conducted by McKinsey revealed that approximately two thirds of respondents reported utilizing AI within their organizations, and the incidence of individuals acknowledging AI usage both at home and at work surged by 40% between 2023 and 2024 (Singla et al., 2024).

The public sentiment toward AI is not uniformly positive. Findings from a global survey with data from over 120 countries indicated that roughly one third of respondents perceived AI as a predominantly

detrimental force for humanity (Lloyd's Register Foundation, 2022). Similarly, over half of U.S. respondents expressed greater apprehension than enthusiasm regarding AI, a trend observed even among those with higher levels of AI familiarity (Tyson & Kikuchi, 2023). Moreover, some research suggests that the less people know about AI, the more receptive they are to it (Tully et al., 2025). Public concerns surrounding AI encompass a diverse range of issues, including job displacement and obsolescence (Gallup, 2023), the militarization of AI (Bricker, 2023), privacy violations, algorithmic bias (Lloyd's Register Foundation, 2022), existential threats, and pervasive anxiety

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Open Science Disclosures:

 The data are available at https://osf.io/zbxef/?view_only=fea9bc0d7cf34091b4f98a7c3f2056a0.

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 The experimental materials are available at https://osf.io/zbxef/?view_only=fea9bc0d7cf34091b4f98a7c3f2056a0.

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(Alkhalifah et al., 2024; Dietvorst et al., 2015; Sartori & Bocca, 2023; see also Lin & Ng, 2024).

Considering attitudes and their affective, cognitive, and behavioral components, previous research has identified several individual-level factors associated with AI attitudes. These include age, gender, education level, technological literacy, past experiences, and levels of trust (Bartneck et al., 2024; Dietvorst et al., 2015; Glikson & Woolley, 2020; Park & Woo, 2022; Shin, 2020, 2022; Shum & Lau, 2024). Notwithstanding, limited attention has been given to religiosity as an individual difference related to AI attitudes. Meta-analyses of studies on trust in automation and robots (Hancock et al., 2021; Schaefer et al., 2016), as well as studies on trust in AI (Kaplan et al., 2023), adoption of AI in education (Lu & Lin, 2025), and user satisfaction of AI-based chatbots (Xie et al., 2022), have not included religiosity as a factor. Similarly, religiosity as an individual difference is absent in recent systematic reviews on trust in AI and chatbots (Aquilino et al., 2025; Bach et al., 2024; Mehrotra et al., 2024; Ng & Zhang, 2025), risk perception of AI (Krieger et al., 2025), algorithm aversion in decision making (Burton et al., 2020; Mahmud et al., 2022), AI anxiety (Kim et al., 2025), and attitudes toward AI-enabled e-government services (Savveli et al., 2025) and health care (Chen et al., 2022; El Arab et al., 2025; Jermutus et al., 2022; Mousavi Baigi et al., 2023; O'Connor et al., 2022; Tun et al., 2025; Vo et al., 2023). In the context of the global proliferation of AI-powered technologies, a closer examination of the relationship between AI attitudes and religiosity is critical for developers and policymakers seeking to design and implement technological solutions that align with the values and expectations of religious communities and societies, as noted by several scholars (Caidi et al., 2025; Kaya et al., 2024; and Zhang, 2023).

Our study aims to contribute to the scientific literature by further exploring this association and providing a preliminary approach to identifying the mechanisms through which religious individuals might exhibit more negative attitudes toward AI.

Religiosity, New Technologies, and AI

How does religiosity relate to AI attitudes? Based on secularization theory frameworks, many theorists have suggested and intrinsic antagonism between scientific and technological progress and religious worldviews (Bénabou et al., 2015; Rivers, 2006; Wilson & Bruce, 2016). Traditionally, people would rely on supernatural explanations of natural phenomena; once scientific knowledge provides logical and testable accounts of the same phenomena, religious ideas, leaders, and institutions start to lose their power and influence (Dawkins, 2006).

However, literature exploring the association between religiosity and attitudes toward scientific and technological advances has revealed a more complex relationship (Rutjens et al., 2018). Consistent with the secularization narrative, religious people do show less faith in science (Francis et al., 2025; Rutjens & Preston, 2020; Rutjens & Van Der Lee, 2020) and in social and technological progress (Rutjens et al., 2016), as well as more skepticism toward specific theories and technologies, such as evolution, vaccination, and human gene editing (Rutjens & Van Der Lee, 2020; Rutjens et al., 2022; Večkalov et al., 2023). However, a small effect or no relationship at all is found between religiosity and the endorsement of cutting-edge technologies, such as nanotechnology (Brossard et al., 2009; Vandermoere et al., 2010; Večkalov et al., 2023) or hydrogen technology

(Achterberg et al., 2010). Moreover, individuals higher in religiosity tend to perceive greater compatibility between science and religion than those who hold stronger beliefs in science alone (Zarzechna et al., 2025). Cross-national studies, however, have found important between-country variations in the association between religiosity and attitudes toward science (Chan, 2018; Payir et al., 2021). Rutjens and Hornsey suggest that this “rocky relationship” between religiosity and attitudes toward science, rather than a straightforward general opposition, should be considered heterogeneous in terms of domains, social (religious) identities, and countries (Rutjens & Hornsey, 2025). Rather than a linear process of explanatory replacement of religion by science, as secular theorists might suggest, the literature points to a more complex and nuanced relationship.

Religiosity and Automation

Studying how religious people react to automation-based technologies offers new insights to understand their links to AI—which is a specific type of automation. Specifically, autonomous technologies, such as self-driving vehicles and robots, tend to elicit stronger negative responses from religious individuals (Ma et al., 2022; Modliński et al., 2022). Exposure to automated robot preachers actually decreases religious commitment in terms of temple donations (Jackson, Yam, Tang, Liu, & Shariff, 2023). It has been suggested that the expansion of automation might even contribute to global religious decline (Jackson, Yam, Tang, Sibley, & Waytz, 2023). Religious people display greater levels of robot phobia (Halpern & Katz, 2012; Katz & Halpern, 2014) and stronger feelings of eeriness dealing with robots extremely similar to humans (the “uncanny valley” effect; cf. MacDorman & Entezari, 2015; MacDorman et al., 2009; Mori, 1970; yet, the effect was not found in more recent studies, cf. Grundke et al., 2024).

Interestingly, it seems that not all religions relate to automation in the same way. Differences in attitudes toward robots have been found between Western and Eastern religions. For instance, Ikari and colleagues asked American and Japanese participants to judge moral transgressions “harming” robots based on the care/harm moral foundation vignettes (Clifford et al., 2015). Religiosity predicted lower care for robots in Americans but higher moral concern in Japanese participants (Ikari et al., 2023). Similar results were found in relation to robot phobia (Katz & Halpern, 2014). These associations, in turn, were connected to religion-specific beliefs about anthropocentrism and animism (Yam et al., 2023). Anthropocentrism is a set of beliefs and values, typically held by Abrahamic religions, that underscore that humans are *imago Dei*, that is, created by God in His own image, which involves an emphasis on human uniqueness and primacy over the rest of nature. These anthropocentric beliefs have been found to predict more negative attitudes toward robots (Fortuna et al., 2023). In contrast, animism is a perspective foundational in Eastern religions, such as Shinto or Taoism, that views all things as possessing life or spirit. In this worldview, there is no sharp boundary between human and nonhuman entities as they are understood to have essential qualities in common. In principle, there are different perspectives that could account for East–West differences in attitudes toward automation (Halpern & Katz, 2012; Stein & MacDorman, 2024). This line of research, however, seems to succumb to a fairly common bias in cultural psychology, namely, the dichotomy between Eastern cultures and White, educated, industrialized, rich, and democratic (WEIRD) societies. Studies on these topics rarely include samples

from Latin America, Sub-Saharan Africa, or Postcommunist Europe (Krys et al., 2025).

Religiosity and AI

A growing body of research has been exploring the links between religiosity and attitudes toward AI. Data from public opinion and survey studies have shown negative associations between religiosity and AI in Americans (Zhang & Dafoe, 2019), Serbians (Budic, 2022), New Zealanders (Bartneck et al., 2024), and across 20 different countries (Rice & Wu, 2025). For instance, American individuals who prioritize religion in their daily lives were more likely to perceive AI as a predominantly harmful force within the next two decades, attributing this apprehension to “theological unease” (Lloyd’s Register Foundation, 2022, p. 17). Other studies, however, have found none (Orbán & Stefkovics, 2025; Park & Woo, 2022) or even small positive associations (Brewer et al., 2025).

Researchers have conducted studies specifically addressing this link in different domains. Across three studies, Minton and colleagues found that religious participants or primed with religious stimuli were more likely to display more positive attitudes toward AI and toward companies using AI. The authors found a mediation effect of trust in the unseen, suggesting that is the mechanism through which religiosity impacts AI attitudes (Minton et al., 2022). Also, in the context of marketing, Karataş and Cutright conducted a set of eight studies testing how priming God would impact the acceptance of AI-generated recommendations in multiple commercial domains. Studying on samples from multiple Christian and Muslim countries, they hypothesize that contemplating God makes individuals feel smaller and more aware of human fallibility, leading them to rely less on human judgment and be more open to AI-based guidance (Karataş & Cutright, 2023). Recently, a research team attempted to replicate five of the eight studies in larger samples, yet they failed to find the effects reported by Karataş and Cutright (Moore et al., 2024; see also the authors response, cf. Karataş & Cutright, 2024).

A survey of Hungarian Catholic high school teachers found that higher religiosity was associated with more negative evaluations of AI (usefulness, adaptability, and quality), which mediated lower AI adoption behaviors, and with reduced anthropomorphization of AI, though the latter did not affect adoption. However, all observed effects were extremely small in magnitude, limiting their practical significance (Mátyás et al., 2025). Other studies examining post-millennials’ (i.e., Gen Z) attitudes toward AI-powered technologies showed differences by religion. Students self-identifying as Christians and Muslims showed greater concerns for the silent collection of biometric emotional data feeding into AI-based service enhancement (Ho et al., 2022) as well as the use of these data for human resources management (Mantello et al., 2023). Interestingly, the findings suggest that the association depends on the identification rather than the self-reported level of religious behaviors. Such differences between religious identity and practices have also been found in relation to other constructs, such as prosocial behaviors (Galen, 2018) or emotional protection from harassment (Storm, 2025).

Researchers examined how United Kingdom and Polish students’ religious affiliations affected their emotional responses to AI, measuring reactions like fear, sadness, and anger across Christian, non-Christian, and nonreligious groups. The findings showed significant differences: Christians displayed moderate, slightly positive emotions toward AI; non-Christians expressed more intense feelings in both directions; and

nonreligious individuals exhibited the widest range and strongest intensity of emotions. Overall, religious belief appears to moderate emotional responses to AI, with nonbelievers showing the most varied and intense reactions (Fel & Kozak, 2025). Further analyses on the levels of religiosity of the Polish students showed that religious individuals showed significantly higher levels of fear and anger compared to irreligious and indifferent respondents (Kozak & Fel, 2024).

In summary, the emerging literature on the relationship between religiosity and attitudes toward AI suggests a tendency for negative responses to AI in religious people. However, the findings do not bolster straightforwardly the secularization theory-based hypotheses; rather, it reveals that the predominantly negative responses are characterized by multiple nuances and domain-specific considerations.

Three Potential Explanations

There might be multiple reasons why religious people may show negative attitudes to AI. We advance three potential explanations, drawing on research on the psychological constructs associated with religiosity.

Negative Attitudes to AI Based on a Conservative World-view. First, personal religiosity has been consistently linked to individual differences that may predispose individuals to resist innovation and change, such as heightened risk perception (Choma et al., 2013, 2014), lower openness to change (Sagiv & Schwartz, 2022; Saroglou et al., 2004), social conservatism, and traditionalism (Brandt & Reyna, 2014; Malka et al., 2012), as well as a diminished belief in social progress and scientific advancement (Rutjens et al., 2016; Večkalov et al., 2023). Evidence shows that conservatism is associated with greater AI aversion and more resistance to interventions that promote AI usage, even using conservative framings (Castelo & Ward, 2021). According to the explanation, religious individuals may exhibit negative responses to AI due to a large network of beliefs that are inherently risk avoidant and skeptical of societal and technological change.

Negative Attitudes to AI Based on Anthropocentrism. Second, the humanlike capabilities of generative AI technologies, such as ChatGPT, may pose a unique challenge, potentially evoking concerns about threats to human uniqueness (Stein et al., 2019; Zlotowski et al., 2017). These concerns may be further amplified by religious beliefs concerning the unique nature of humans as created in the image of God, which have been shown to exert a significant influence on moral judgments (Vishkin et al., 2024). As reviewed above, anthropocentric beliefs are essential in the Abrahamic religious traditions and do play a role in the responses to automation and AI technologies (Fortuna et al., 2023; Spatola et al., 2022).

Negative Attitudes to AI Based on Moral Condemnation of “Playing God”. A third explanation is based on a moral opposition to human interference with natural processes. This serves as a moral heuristic (Sunstein, 2005) that influences people’s moral assessment of “scientific procedures that involve human intervention in nature and sacred aspects of human experience” (Waytz & Young, 2019, p. 2). characterized by discomfort and condemnation of technologies that tamper with natural processes, such as geoengineering, meat cultivation, or nanotechnology (Carter et al., 2021; Chong et al., 2023; Cousse et al., 2024; and Raimi et al., 2020). The “naturalness bias” (Meier et al., 2019) or the preference for natural over human-modified interventions, manifests in religious individuals as an aversion to “playing God” (Waytz & Young, 2019). This aversion to technologies

that are perceived as unnatural has been linked to heightened risk perception, lower acceptance of said technologies, and diminished perceived control over their potential consequences (Meier et al., 2019). Across two studies in Dutch samples, Večkalov and colleagues found that opposition to human gene editing, nanotechnology, and artificial intelligence in religious people is mediated by the aversion to tampering with nature, providing initial evidence for this line of reasoning (Večkalov et al., 2023). Accordingly, religious people might show negative attitudes toward AI because of a moral aversion against playing God through the creation of humanlike entities.

In summary, we explore whether the relationship between religiosity and negative attitudes toward AI might be explained by any of the following aspects. Religious people in general tend to be more skeptical of technologies that might threaten human dignity and social order; they tend to show more anthropocentrism, valuing human uniqueness due to their belief that humans are created in the image of God; and they might hold use moral heuristics to condemn practices intended to intervene in areas such as human life or intelligence, viewing such efforts as an attempt at “playing God.”

The Present Investigation

This article explores the relationship between religiosity and attitudes toward AI in two studies. In Study 1, we evaluate this relationship by using a validated instrument for assessing AI anxiety in a Chilean sample. Scholars have argued that Latin America does not fit neatly into the usual East–West distinction developed by cultural psychologists (De Oliveira & Nisbett, 2017; Kryś et al., 2022), making the relationship between AI attitudes and religiosity in this context a particularly interesting topic. In Study 2, we measure a prescreened U.S. sample of Christians to establish the link between religiosity and negative AI attitudes. Moreover, we explore the three proposed explanatory mechanisms through linear modeling, incorporating mediation analyses within structural equation modeling (SEM) frameworks. Data and materials for replication for the studies can be accessed at the Open Science Framework repository (Rodriguez, 2025, November 9).

Study 1

In Study 1, we conducted a survey on a nationally representative sample in Chile to examine AI attitudes in terms of negative feelings and anxieties regarding AI. To our knowledge, there are no studies assessing the association between religiosity and AI attitudes in Latin American samples. In order to explore different aspects of these concerns, we used a validated multidimensional measurement of anxiety toward AI (AIA; Li & Huang, 2020) as well as items measuring religious identity and religious practices. Based on the mixed findings reviewed above, we are not in a position to make a directional hypothesis. Therefore, we take an exploratory approach.

Research Question 1: Is religious self-identification associated with AIA?

Research Question 2: Are religious practices significantly associated with AIA?

Research Question 3: How is religiosity associated with the multiple dimensions of AI anxiety?

Method

Participants and Procedure

Through Corpa Market Intelligence, a local survey company, Chilean adults from a registered panel were recruited to participate in a study on concerns about technology. We obtained a large, national sample of participants who completed the measures online ($n = 1,012$, Women = 51.48%; see Table 1 for descriptives). The procedure was reviewed and approved by the institutional review board of the Universidad de los Andes, Chile (CEC202314).

Measures

AIA. We adapted, translated, and piloted a Spanish version of the Anxiety Toward Artificial Intelligence Scale (Li & Huang, 2020). Participants are asked to indicate their degree of agreement with 22 statements on a Likert scale from 1 (*totally disagree*) to 7 (*totally agree*). Building on integrated fear acquisition theory (Poulton & Menzies, 2002), the AIA scale transfers its four structural dimensions of anxiety (conditioning, vicarious exposures, transmission of information, and inability to recall a pertinent experience) into AI: direct threats, indirect threats, existential fears, and interpersonal worries. Direct threats are concerns about how AI might directly impact everyday behavior, such as privacy violations or bias (e.g., “AI’s predictions of my preferences, such as well-recommended ads or web pages, make me feel that my privacy is violated,” and “AI treats different people differently, which can make me anxious”). Indirect threats refer roughly to the detrimental societal consequences that the penetration of AI could have, in terms of job replacement or need to learn new skills (e.g., “Understanding AI algorithms requires a high level of talent, which is difficult for me,” “I’m worried that AI will replace many people’s work”). Existential fears refer to ways in which AI systems could endanger humanity (e.g., “AI may harm humans to achieve a goal, which gives me anxiety” and “I am disturbed that AI can deceive”). Interpersonal worries are related to the ways in which AI may be perceived as a conscious entity, whose functioning is not entirely transparent (e.g., “AI has the same level of consciousness as humans, thus challenging the status of humans, which makes me anxious” and “I worry that people cannot figure out how AI makes decisions”). All four dimensions of AIA obtained high reliability: direct threat (Cronbach’s $\alpha = .87$), indirect threat (Cronbach’s $\alpha = .84$), existential fears (Cronbach’s $\alpha = .85$), and interpersonal worries (Cronbach’s $\alpha = .88$). We translated and adapted the items into Spanish and applied the AIA scale on 101 Chilean adults. We compared the null model, that is, all items contributing to one dimension and the original model of four subscales. The model validated by the authors showed a better fit than the null model (null model: CFI = .730, TLI = .697, AIC = 5,163.31; authors’ model: CFI = .854, TLI = .829, AIC = 5,027.98; see all items, their translation, and detailed confirmatory factorial validation of the pilot in Supplemental Tables S1 and S2).

Religiosity. We measured religious practice and identification. Participants were asked to indicate their religious denomination, frequency of attendance to religious services (1 = *never*; 5 = *more than once a week*), and how much they think of themselves as being a religious person (1 = *I do not consider myself a religious person*; 4 = *I consider myself a very religious person*). As discussed above, we analyze them as two psychologically different aspects of religiosity (Galen, 2018; Storm, 2025), though both measures were

Table 1*Demographics, Means, and Standard Deviation for the Dimensions of Anxiety Toward Artificial Intelligence*

Demographic	<i>n</i>	%	Direct threat	Indirect threat	Existential fear	Interpersonal worry
<i>M</i>			4.88	4.43	4.58	4.70
<i>SD</i>			1.42	1.40	1.47	1.47
Age						
18–30	297	29.3	4.76	4.29	4.50	4.60
31–40	217	21.4	4.75	4.32	4.44	4.66
41–50	209	20.7	4.95	4.39	4.59	4.69
51–60	169	16.7	5.04	4.73	4.68	4.81
61+	120	11.9	5.05	4.65	4.87	4.89
Kendall's τ			.06**	.08***	.06*	.05*
Gender						
Male	521	51.5	4.73	4.30	4.46	4.58
Female	491	48.5	5.01	4.56	4.69	4.81
Welch's <i>t</i>			3.11**	3.02**	2.53*	2.43*
Familiarity						
<i>M</i> (<i>SD</i>)	4.27 (1.66)					
Pearson's <i>r</i>			-.09**	-.14***	-.10**	-.05
Religious identification						
<i>M</i> (<i>SD</i>)	1.95 (0.83)					
Pearson's <i>r</i>			.06	.12***	.10**	.09**
Religious practices						
<i>M</i> (<i>SD</i>)	1.95 (1.02)					
Pearson's <i>r</i>			-.02	.03	.02	.03
Political ideology						
<i>M</i> (<i>SD</i>)	5.74 (2.43)					
Pearson's <i>r</i>			-.01	.02	.03	.03
Socioeconomic status						
High	311	30.7	4.98	4.43	4.68	4.73
Low	701	69.3	4.82	4.43	4.52	4.68
Welch's <i>t</i>			1.65	0.07	1.69	.53
Geographical region						
North	133	13.1	4.74	4.25	4.50	4.70
Center	717	70.8	4.86	4.43	4.55	4.66
South	162	16.0	5.07	4.62	4.77	4.88
ANOVA <i>F</i>			2.20	2.71	1.63	1.45
Religion						
Atheist/Agnostic	285	28.1	4.65	4.14	4.34	4.53
Roman Catholic	417	41.2	5.04	4.66	4.76	4.89
Evangelical Christian	204	20.1	4.80	4.40	4.57	4.55
Spiritual not religious	105	10.4	4.99	4.38	4.52	4.68
ANOVA <i>F</i>			4.62**	7.94***	10.19**	4.37**

Note. Statistical tests show the association between the anxiety toward artificial intelligence dimension and demographics.

* $p < .05$. ** $p < .01$. *** $p < .001$.

significantly correlated, $r = .51$, $t(1010) = 18.9$, $p < .001$, 95% CI [.46, .55].

AI Familiarity. Participants were asked whether they have heard about AI (yes/no) and how familiarized they felt about it (1 = *not familiarized*; 7 = *very familiarized*).

Demographics. Also, participants were asked to indicate their gender and political orientation. Age range, socioeconomic status, and geographical region data were drawn from the panel registration.

Results

All participants reported having heard about IA (100%), while the question about how familiar they were with IA averaged slightly above the midpoint ($M = 4.28$, $SD = 1.66$).

Regarding RQ1, we found that religious identification, or the degree to which people identify themselves as religious—was significantly associated with three of the four types of anxieties, including indirect threats ($r = .12$, $p < .001$), existential fears ($r =$

$.10$, $p = .001$), and interpersonal worries ($r = .08$, $p = .006$), but not with direct threat ($r = .05$, $p = .061$). In contrast, religious practices (RQ2) were not significantly correlated with any of the four dimensions (all $rs < .03$). We also found a difference in the type of religion, with Catholics showing significantly greater AIA than other religious categories across the four dimensions (see Table 1).

To determine whether religious identification contributes to AIA above and beyond demographics and familiarity with AI, we ran hierarchical linear models predicting AIA collapsed across the four subscales (see Table 2). In the first step, we regressed AIA on demographics (gender, age, socioeconomic status) and political ideology. In Step 2, we introduced familiarity with AI and in Step 3 both religious practice and religious identity. We found that religious identification predicts AIA above and beyond the effect of familiarity. Moreover, the effect of religiosity is robust when regressing the four dimensions of AIA separately (see Supplemental Table S3a–d) as well as when controlling for religious denomination (see Supplemental Table S4).

Table 2*Nested Regression Models Predicting Anxiety Toward Artificial Intelligence in Study 2*

Predictor	Model 1				Model 2				Model 3			
	<i>b</i>	<i>SE</i>	β	<i>p</i>	<i>b</i>	<i>SE</i>	β	<i>p</i>	<i>b</i>	<i>SE</i>	β	<i>p</i>
(Intercept)	4.63	.14	.02	<.001	4.94	.18	.04	<.001	4.79	.19	.05	<.001
Gender [0 = <i>female</i> , 1 = <i>male</i>]	−0.26	.08	−.21	.001	−0.24	.08	−.20	.002	−0.22	.08	−.17	.006
Age [ref: 18–30]												
31–40	0.03	.11	.02	.810	0.02	.11	.02	.837	0.00	.11	.00	.967
41–50	0.11	.11	.09	.326	0.11	.11	.09	.342	0.08	.11	.07	.469
51–60	0.27	.12	.22	.024	0.26	.12	.21	.033	0.22	.12	.18	.072
61+	0.32	.14	.26	.021	0.28	.14	.22	.050	0.24	.14	.19	.095
SES [0 = <i>low</i> , 1 = <i>high</i>]	−0.02	.09	−.02	.782	−0.05	.09	−.04	.547	−0.05	.09	−.04	.587
Political ideology	0.01	.02	.02	.590	0.01	.02	.02	.517	0.00	.02	.01	.823
Familiarity with AI					−0.07	.02	−.09	.003	−0.07	.02	−.09	.003
Religious practices									−0.06	.04	−.05	.206
Religious identity									0.16	.05	.11	.004
Observations		1,010				1,010				1,010		
Model <i>F</i>		$F(7, 1002) = 3.056$		($p = .003$)		$F(8, 1001) = 3.744$		($p < .001$)		$F(10, 999) = 3.883$		($p < .001$)
R^2/R^2 adjusted		.021/.014				.029/.022				.037/.028		
<i>F</i> change						$F(1, 1001) = 8.690$		($p = .003$)		$F(2, 999) = 4.220$		($p = .014$)
R^2 change						.008				.008		

Note. Model 1 includes demographic variables and political ideology; Model 2 adds familiarity with AI; Model 3 introduces both measures of religiosity. Significant values appear in bold. AI = artificial intelligence; *SE* = standard error.

Discussion

In Study 1, we explored the relationship between religiosity and AI attitudes in a Chilean sample using a validated measure of AI anxiety. The data revealed a small but significant association between religious identification and AIA that is not explained by age, gender, socioeconomic status, political ideology, familiarity with AI, or religious denomination. Interestingly, the effects of age and gender seem to diminish once religiosity is included in the model.

We found that self-identification as a religious person, rather than the frequency of attendance at religious services, is significantly associated with AIA. This may suggest that the relationship between negative attitudes toward AI and religiosity does not stem from specific psychological traits or constructs related to religious practices but rather from religious identity. The found effect of religious self-identification, instead of religiosity or church attendance, is consistent with other studies on AI attitudes and religiosity in international samples (Ho et al., 2022 and Mantello et al., 2023). This aligns with prior research indicating that religious attitudes and behaviors can operate independently of the social dimensions of religion (Galen, 2018; Saroglou, 2003). The religious identity might be the driving force behind reticence to AI, rather than actual participation in religious rituals and communal practices. However, this finding might not be generalizable due to the particular context in which the survey was conducted. In societies undergoing particular processes of political and cultural secularization, as is the case in Chile, religious identities become more distinct and psychologically salient (Bellolio, 2024; Riley et al., 2020).

Our results also show a consistent effect across all dimensions of the AIA construct, indicating that the link to religiosity is not directly associated with a single aspect of aversion to AI, such as job replacement, fear of existential annihilation, potential biases and misuse of information, or worries about humans connecting with artificial entities. Apparently, for religious people, AI in general is the object of concern, and not specific aspects of it.

From a cultural perspective, anthropocentric concerns have been associated with Western cultures and Abrahamic religions, which in turn involve negative attitudes toward AI (Gray et al., 2025). The association found between religiosity and negative attitudes toward AI aligns is, therefore, consistent with the literature, considering that the Chilean sample was mostly Christian.

Study 2

In Study 2, our main goal was to examine three potential psychological mechanisms for the negative relation between religiosity and AI attitudes: values associated with traditional worldviews, anthropocentrism—that is, believing that humans are created in the image of God—and moral rejection of tampering with nature. These three constructs were operationalized through moral progressivism (Graham et al., 2009, 2015), belief in the creation in the image of God (Vishkin et al., 2024), and aversion to playing God (APG; Waytz & Young, 2019), respectively. In addition, we used a validated measure of religiosity that incorporates both personal aspects of religious commitment and the interpersonal aspects of religious commitment. Interpersonal aspects of religiosity often occur through religious practice (e.g., Ginges et al., 2009). Thus, these aspects are similar to personal religious and religious practice, respectively, that were assessed in Study 1. Considering that in Study 1, all AIA subscales behaved in a similar fashion, in this study, we simplified the operationalization of the dependent variable—that is, negative attitudes toward AI—as the perception of AI as a threat. Conceptually, anxiety refers to the emotional distress produced by threat appraisal (Barlow, 2004). Thus, in this study, we ask participants directly about their perceptions of AI as a threat to themselves in different ways. Based on the findings of Study 1, we pose the following hypotheses and research questions:

Hypothesis 1a: Higher scores in religiosity will predict higher levels of perceiving AI as a realistic threat.

Hypothesis 1b: Higher scores in religiosity will predict higher levels of perceiving AI as a symbolic threat.

Research Question 4: Is the association between religiosity and AI as threat mediated by any of the following constructs: moral progressivism, anthropocentrism, or APG?

Method

Participants

Participants were Prolific workers located in the United States. To obtain a sample with sufficient variance in religiosity, they were preselected based on their level of religiosity. After excluding data from 25 participants, a total of 411 valid responses were included in the analyses (female = 56.8%; $M_{\text{age}} = 44.14$, $SD_{\text{age}} = 14.3$, ethnicity: White = 65.8%, Black = 19.9%, Asian = 4.1%, mixed/other = 8.2%). The study received institutional review board approval from the Technion – Israel Institute of Technology (Approval Number: 2024-035).

Measures

AI as a Threat. People's perception of AI as a threat was measured with regard to pragmatic and concrete concerns (realistic threat) as well as more symbolic and abstract ones (Rodríguez, 2024; Stephan & Stephan, 2000). Each item began with the same prompt: "How concerned are you that artificial intelligence will." Responses ranged from 1 (*not at all concerned*) to 5 (*extremely concerned*). Two items measured AI as a realistic threat (i.e., "leave people unemployed by replacing their jobs" and "pose a risk to the economic stability of society"), while the other two measured AI as a symbolic threat (i.e., "reach a level of consciousness similar to humans" and "become hard to distinguish from humans").

Religious Commitment. To assess religiosity, we used the Religious Commitment Inventory (Worthington et al., 2003), a 10-item measure that assesses the extent to which people adhere to their religious values, beliefs, and practices on a scale from 1 (*not at all true of me*) to 5 (*totally true of me*). The inventory had high reliability (Cronbach's $\alpha = .97$).

Moral Progressivism. Endorsement of progressive moral views was assessed using the 30-item version of the Moral Foundations Questionnaire (Graham et al., 2011). After estimating

each moral foundation, we followed a common procedure of estimating the moral progressivism score by subtracting the mean of the three binding foundations from the mean of the individualizing foundations (Clark et al., 2017).

Belief in Creation in the Image of God. As a proxy for anthropocentrism, we measure the degree to which religious participants believe that humans are created resembling their creator. Thus, we used a validated set of 10 items (Vishkin et al., 2024). Participants are asked to rate their agreement to multiple statements regarding this core belief (e.g., "Humans are created in the image of God," "Godliness is reflected in human existence," and "Humans are the crown of creation") and had high reliability (Cronbach's $\alpha = .97$).

APG. Moral rejection of humans tampering with human life and nature were assessed using a validated scale, the APG measure (Waytz & Young, 2019). Participants were asked to indicate their agreement with seven related statements on a scale from 1 (*strongly disagree*) to 6 (*strongly agree*; e.g., "Playing God is morally wrong," "Decisions about life and death are better left to God than to humans," and "There are some matters in the world that are beyond the sphere of human influence"). The scale had good reliability (Cronbach's $\alpha = .85$).

Results

Zero-Order Correlations

Table 3 below shows means, standard deviations, and zero-order correlations between both types of AI threats and the rest of the variables of interest. Both AI symbolic and realistic threats were significantly associated with religiosity and with APG, while only AI as a symbolic threat also correlated with all other variables.

Regression Models

To determine the specific contribution of each variable to either perception of AI as a threat (H1a-b), we ran two hierarchical, theory-driven regression models, one for each type of threat. First, we introduced demographics (Model 1), then religious commitment (Model 2), and then the potential explanatory variables (Model 3), namely, moral progressivism, belief in creation in the image of God, and APG.

Table 3

Zero-Order Correlations (Study 3, $n = 411$)

Variable	Range	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. AI realistic threat	1 to 5	3.33	1.25	—					
2. AI symbolic threat	1 to 5	2.89	1.28	.651***	—				
3. Religiosity	1 to 5	2.85	1.37	.117*	.147**	—			
4. MF progressivism	−1.66 to 4.30	0.89	1.01	−.033	−.116*	−.507***	—		
5. BICIG	1 to 6	4.43	1.53	.076†	.148**	.656***	−.475***	—	
6. APG	1 to 6	4.37	1.16	.179***	.179***	−.596***	−.448***	.686***	—

Note. MF progressivism = measure of progressivism based on the Moral Foundations Questionnaire (progressivism = average score individualizing foundations – average score binding foundations). BICIG = belief in the creation in the image of God; APG = aversion to playing God; AI = artificial intelligence; MF = moral foundations.

* $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .1$.

AI as Realistic Threat

As shown in Table 4, gender is the only demographic with a significant association with realistic threat from AI. Adding religious commitment as a predictor yields a significant coefficient and a notable increase in the explained variance of the outcome, supporting H1a. Furthermore, in Step 3, introducing potential mechanisms significantly improves the model by increasing the amount of explained variance while diminishing the association with religious commitment below significance levels. Among these variables, only APG predicts AI as a realistic threat.

AI as Symbolic Threat

For AI as symbolic threat, no demographic variable predicted the outcome significantly, while in Step 2, personal religiosity showed a significant association, providing support for H1b. Interestingly, in Step 3, none of the explanatory variables showed significance nor improved the model.

Mediation Analyses

We conducted mediation tests using the R package *lavaan* (Rosseel, 2012) to assess whether any of the explanatory variables mediated the relationship between religiosity and the perception of AI as either type of threat (RQ4). Moral progressivism did not mediate this relationship for either realistic ($\beta = -.02, p = .535$) or

symbolic threat ($\beta = .03, p = .327$). Similarly, belief in the creation in the image of God showed no evidence of mediation for realistic ($\beta = .00, p = .988$) or symbolic threat ($\beta = .06, p = .159$). In contrast, APG significantly mediated the relationship, both in terms of viewing AI as a realistic threat ($\beta = .10, p = .005$) and as a symbolic threat ($\beta = .08, p = .019$; for complete estimates, see Supplemental Table S5a–c).

Multiple Mediation Model

To further assess the mediation effects between personal religiosity and AI as a threat (cf. RQ4), we ran a multiple mediation model. Based on the SEM framework, this analysis provides a method to simultaneously estimate mediation between variables accounting for their reciprocal connections and reducing measurement and type II errors (Van Kesteren & Oberski, 2019). Thus, we introduced the three proposed mechanisms as mediating the path from religiosity to either type of AI as a threat.

Figure 1 shows the path diagrams along with the standardized coefficients for each parameter (see Supplemental Table S6 for full estimates of direct, indirect, and total effects). Personal religiosity does not directly predicts any type of AI threat, while APG does for realistic threat ($\beta = .25, SE = .065, z = 3.86, p < .000$) and for symbolic threat ($\beta = .14, SE = .066, z = 2.11, p = .035$). No path from any other mediator has a significant effect on perceptions of AI as a threat. The indirect effect of religiosity via APG is significant for

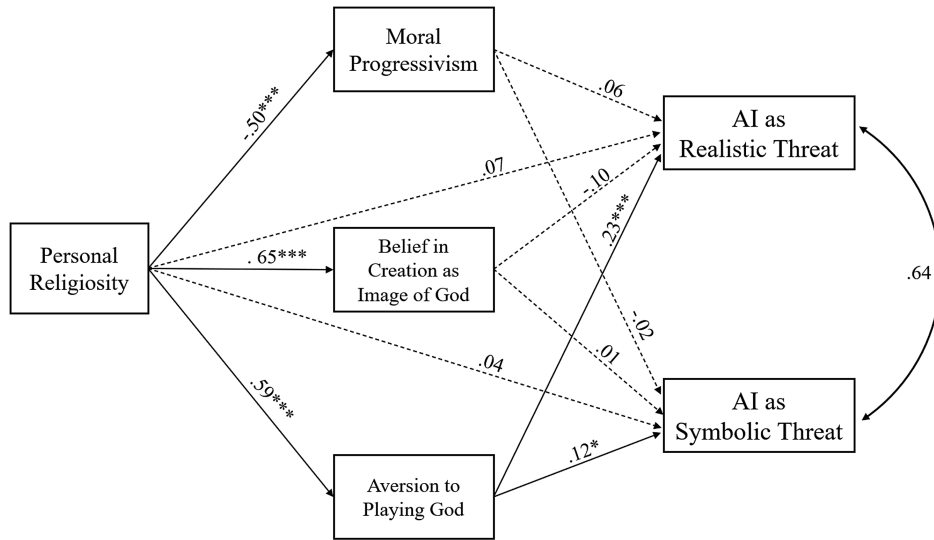
Table 4

Nested Regression Models Predicting Perception of AI as Realistic Threat (4a) and as Symbolic Threat (4b), Study 3

Predictor	Model 1				Model 2				Model 3			
	<i>b</i>	<i>SE</i>	β	<i>p</i>	<i>b</i>	<i>SE</i>	β	<i>p</i>	<i>b</i>	<i>SE</i>	β	<i>p</i>
A. AI as realistic threat												
(Intercept)	3.57	.22	.06	<.001	3.27	.24	.05	<.001	2.66	.39	.04	<.001
Age	0.00	.00	−.04	.422	0.00	.00	−.05	.292	0.00	.00	−.04	.399
Sex [0 = <i>male</i> , 1 = <i>female</i>]	−0.27	.13	−.22	.030	−0.29	.12	−.23	.021	−0.27	.13	−.21	.036
Ethnicity [0 = <i>White</i> , 1 = <i>non-White</i>]	0.06	.13	.05	.639	0.09	.13	.07	.520	0.10	.13	.08	.458
Religious commitment					0.12	.04	.13	.010	0.07	.06	.08	.264
MF progressivism									0.03	.07	.02	.692
Belief Image God									−0.09	.06	−.11	.141
Aversion Playing God									0.24	.08	.22	.001
Model <i>F</i>	<i>F</i> (3, 407) = 1.769 (<i>p</i> = .152)				<i>F</i> (4, 406) = 3.035 (<i>p</i> = .017)				<i>F</i> (7, 403) = 3.241 (<i>p</i> = .002)			
<i>R</i> ² / <i>R</i> ² adjusted	.012/.005				.029/.019				.053/.036			
<i>F</i> change					<i>F</i> (1, 406) = 6.879 (<i>p</i> = .009)				<i>F</i> (3, 403) = 3.443 (<i>p</i> = .016)			
<i>R</i> ² change					.014				.017			
B. AI as symbolic threat												
(Intercept)	3.21	.22	.12	<.001	2.86	.25	.11	<.001	2.53	.40	.11	<.001
Age	0.00	.00	−.04	.442	0.00	.00	−.05	.289	0.00	.00	−.05	.301
Sex [0 = <i>male</i> , 1 = <i>female</i>]	0.00	.13	.00	.971	−0.02	.13	−.02	.858	−0.04	.13	−.03	.776
Ethnicity [0 = <i>White</i> , 1 = <i>non-White</i>]	−0.23	.14	−.18	.095	−0.20	.14	−.16	.138	−0.18	.14	−.14	.185
Religious commitment					0.14	.05	.15	.003	0.05	.06	.05	.461
MF progressivism									−0.04	.08	−.04	.564
Belief image God									0.01	.06	.01	.847
Aversion playing God									0.13	.08	.12	.096
Model <i>F</i>	<i>F</i> (3, 407) = 1.283 (<i>p</i> = .249)				<i>F</i> (4, 406) = 3.312 (<i>p</i> = .010)				<i>F</i> (7, 403) = 2.634 (<i>p</i> = .011)			
<i>R</i> ² / <i>R</i> ² adjusted	.010/.003				.032/.022				.044/.027			
<i>F</i> change					<i>F</i> (1, 406) = 9.081 (<i>p</i> = .002)				<i>F</i> (3, 403) = 1.707 (<i>p</i> = .164)			
<i>R</i> ² change					.018				.005			

Note. Model 1 includes only demographic variables, and Model 2 introduces only religiosity; Model 3 introduces three potential explanatory variables (progressivism, belief in the image of God, aversion of playing God). Significant values appear in bold. MF progressivism = measure of progressivism based on the Moral Foundations Questionnaire. AI = artificial intelligence; MF = moral foundations; *SE* = standard error.

Figure 1
Multiple Mediation Model—Study 3 (Standardized Estimates)



Note. Solid lines indicate significant paths; dotted lines indicate nonsignificant paths. AI = artificial intelligence.

* $p < .05$. *** $p < .001$.

AI as a realistic threat ($\beta = .13$, $SE = .03$, $z = 3.83$, $p < .001$) and as a symbolic threat ($\beta = .07$, $SE = .003$, $z = 2.10$, $p = .035$).

Discussion

Study 2 replicated the results of Study 1 as well as revealed aversion to humans playing God as a significant mediator of the relationship between religiosity and negative attitudes toward AI. These findings expand our previous findings by adding a sample from a different country and by using a validated measure of personal religiosity. We found that personal religiosity predicts seeing AI as a threat, both in realistic and symbolic terms. As in Study 1, effect sizes are small but significant. This finding further confirms that religious people show concerns related to AI not only because of the perceived and forecasted social and economic consequences associated with the wider implementation of AI-based systems but also because it is seen as a threat to moral values, such as human uniqueness (Stein et al., 2019; Złotowski et al., 2017). Moreover, in this study, we found no association between age and seeing AI as a threat, while being female was significantly connected to AI threat in all models.

Interestingly, a conservative worldview, usually tied to enhanced risk perception and opposing of scientific and social progress (Choma et al., 2014; Rutjens et al., 2016), showed no impact on either type of concerns of AI as a threat. This finding is inconsistent with secularization theory narratives and with prior research on this question (Castelo & Ward, 2021). As discussed above, however, recent approaches show that religious people do not have a blanket opposition to societal and technological progress (Chan, 2018; Payir et al., 2021) and higher levels of risk perception are domain-specific rather than a general trait of a conservative personality (Choma et al., 2013).

Similarly, anthropocentric values based on the belief idea that humans were created in the image of God was not found to predict receptivity toward AI. Our measurement of belief in creation in the image of God, a proxy for anthropocentrism and concern for human uniqueness, did not show a strong effect on AI attitudes: belief in creation in the image of God was only correlated with AI as a symbolic threat at the zero-order level, but not associated after including the rest of the model, for either perception of AI as a threat.

Finally, we found that a statistical mediation of APG on the relationship of religiosity to AI as a threat. To the extent that religious individuals are more likely to condemn technological practices that resemble the creative power of God, they may be more likely to see AI as a threatening technology. Our results confirm the findings of Večkalov and colleagues, who found that aversion to tamper with nature was the mechanism by which religious people opposed nanotechnology, human gene editing, and artificial intelligence (Večkalov et al., 2023).

General Discussion

The exponential growth of AI-powered technologies, coupled with their potential to disrupt entire industries, raises important questions about who and why are more or less receptive to AI. This work sought to examine AI attitudes as a function of religiosity, given the profound role of religiosity in shaping people's worldviews, and explore several potential underlying psychological mechanisms. Study 1 examined negative feelings toward AI (measured through the Anxiety Toward Artificial Intelligence Scale) in a representative Chilean sample, finding that personal religiosity—particularly self-identification as religious—is associated with greater anxiety about AI, independent of demographics or AI familiarity. Study 2 expands the investigation to a U.S. sample of religious participants, introducing refined measures of religiosity and AI threat perceptions, as well as exploring potential

mediators like moral progressivism, anthropocentric beliefs and aversion to tampering with nature. It confirmed that religiosity is consistently linked to perceiving AI as a threat, highlighting moral and identity-based concerns rather than specific fears about AI's societal consequences. Taken together, our studies suggest that religiosity is connected with attitudes toward AI, which is helpful for understanding how cultural and psychological factors influence public opinion and the acceptance of emerging technologies. Although the effect sizes are indeed small ($\Delta R^2 = 1\text{--}2\%$), they are statistically significant and independent of the effects of other variables. This is theoretically relevant as it contributes to the broader discussion on the relationship between technology and religiosity. Whether these associations have societal consequences or could serve as a foundation for behavioral interventions aimed at AI acceptance remains an open question.

Our study provided data to explore the relationship between age and gender and negative AI attitudes. It is noteworthy that in both studies, the effects of age were diminished after introducing religiosity and the potential explanations. Gender (i.e., being female), in contrast, showed a more robust association with negative AI views. Although it is relatively well established that age correlates negatively with AI attitudes and acceptance (Brewer et al., 2022; Shum & Lau, 2024; Stein et al., 2024), no research to our knowledge has looked into the potential explanations for this association. Religiosity could be a candidate fit for further exploration.

Finally, the findings point to a mechanism accounting for the association between religiosity and negative attitudes to AI. In contrast to secularization theories (Bénabou et al., 2015; Simpson & Rios, 2019; and Taylor, 2007), the association between religiosity and attitudes toward AI was not accounted for by progressive moral views. The association was also not accounted for by the beliefs that people are created in the image of God and specific concerns of human uniqueness that might be threatened in the face of AI. Findings from Study 2 suggest that a more general aversion to humans being involved in what are perceived as God's affairs is what mainly drives the association. APG, as a morally driven concern, underscores the link between social identity and moral attitudes that bind groups together (Graham & Haidt, 2010; Haidt, 2012). Further studies could explore in more detail whether religious social identity serves as the main factor or perhaps a subset of moral attitudes that can be found in some religious communities but not all of them.

Limitations and Future Research Directions

Our study presents multiple limitations. First, both of our samples were mainly religious people identifying as Christians. Thus, our findings do not provide any orientation regarding questions about differences across religions and culturally different regions. It has been argued that cultural differences in AI attitudes might be associated with culturally shared beliefs about animism and anthropocentrism. Perhaps in Eastern—that is, non-Abrahamic—religions, we could find links and mechanisms between religiosity and attitudes toward AI. Thus, more research is needed to understand how different religions and cultures may have very different reactions to AI. Psychological processes involved in religiosity are shaped by scriptural sources, social and institutional features, and cultural and historical developments (Kollar & Fleischmann, 2022; Miner et al., 2014; Minkov & Kaasa, 2022; Saroglou & Cohen, 2013). Future studies should address these

concerns by developing wider cross-cultural and cross-faith surveys, including detailed questions about specific beliefs and practices, such as ideas about divine power or moral laws.

Second, our studies did not explore further the specific dimensions of religiosity that might be involved in the negative views of AI. In Study 1, we used single-item self-report measures of religious practices and religious self-identification, which may deem insufficient to substantiate robust claims about the role of either of these dimensions. Despite this potential limitation, Study 1 presents valuable data on a non-WEIRD (cf. Henrich et al., 2010) population that is usually overlooked in the literature on AI attitudes.

Preliminarily, our findings suggest a primacy of the social aspects of religion rather than precise psychological constructs, but the interplay between them and AI attitudes remains unclear. Given that ample research has demonstrated that religion is a multidimensional construct, with different dimensions of religion predicting outcomes in different and sometimes opposite ways (Bloom et al., 2015; Ginges et al., 2009; Preston & Ritter, 2013; Vishkin & Ben-Nun Bloom, 2022), it is not surprising that associations are robust for one aspect of religiosity more than for another aspect. However, it is unclear why religious commitment is associated more reliably with negative attitudes to AI than religious practice. In addition, the studies' reliance on correlational data prevents us from making definitive causal claims about the relationship between religiosity and AI attitudes. While the observed associations are robust across the two studies, future research is needed to establish the causal mechanisms underlying these relationships.

Third, our findings linking religiosity, APG, and negative attitudes toward AI are merely correlational. We cannot claim to have found a causal relationship supported by our data. In fact, we cannot assert that participants are aware of the connection between the APG and AI. Participants were never asked, "Do you oppose AI because it feels like playing God?" Based on the correlations, linear models, and SEM results, we suggest this connection, but it is by no means proven by our research. Moreover, the SEM and mediational analyses need to be further confirmed by larger and more powered samples than the one studied here.

Finally, these results should be taken with a grain of salt in terms of external validity. Our studies found associations in a WEIRD and non-WEIRD, but mainly Christian populations, which does not offer robust evidence for the generalizability of the findings. More research is needed to understand how specific features of different religions and cultural contexts impact the link between religiosity and AI attitudes.

Conclusion

The massification of AI-powered technologies is likely to be one of the cultural hallmarks of the first half of the 21st century. One of the main challenges for researchers and practitioners is to understand what shapes people's receptivity to these tools. Our research suggests that religion is an important factor that should not be ignored. Understanding the elucidation of the way religiosity is linked to negative attitudes to AI is a relevant step into designing interfaces and interventions based on a holistic consideration of the human person. Religiosity shapes not only how people interact with each other and with the divine but also how people interact with artificial intelligence.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work, the authors used ChatGPT, Gemini, and Microsoft CoPilot in order to improve the clarity and fluency of the text. After using this tool/service, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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