Religions and New Challenge of Science and Technology: The Empirical Study of Legal Personhood upon Artificial Life

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Abstract: *The impact of science and technology on religion constitutes a perennially relevant discourse, and the sustainable evolution of religious institutions within the posthuman era merits rigorous scholarly investigation. Posthumanist literature consistently cautions religious institutions regarding the profound implications for their developmental trajectory, as numerous scholars assert that the pace of technological advancement continually challenges the foundational tenets of religious belief systems. Compounding this phenomenon is the recognition that technological progress has fundamentally altered contemporary philosophical perspectives on existence, exemplified by emerging concepts such as legal personhood for artificial entities from a posthumanist vantage point. As a distinctive form of spiritual heritage, religion confronts the arduous task of preserving its canonical values amidst the transformative forces of the posthuman condition. To illuminate the psychological underpinnings of religious adherents within this context, this empirical investigation, informed by posthumanist theoretical frameworks, employs semi-structured interviews with Christian (UK) and Buddhist (China) practitioners. Utilizing SPSS for subsequent data analysis, the study further examines their perspectives on the legal personhood of artificial life and its potential ramifications for the future trajectory of religious institutions. It is anticipated that this empirical inquiry will augment existing theoretical analyses and contribute to a nuanced understanding of the prospects for the sustainable development of religions in the posthuman era.*

Keywords: Religions; Posthuman writings; Sustainable development; Legal personhood; Artificial life; Empirical study.

1. INTRODUCTION

In July 2024, Elon Musk's Neuralink, which is developing a human-computer interface, brought the concept of cyborgs to a new level. This allowed individuals to control external devices with their minds, a significant leap from Stephen Hawking's use of technology for communication. Then, on October 22nd, an American tech giant introduced "Humanoid Robots", further integrating artificial life into human activities. This rapid advancement raises ethical and social concerns, prompting a reevaluation of humanity's definition. This inquiry extends beyond technology to encompass philosophy, ethics, law, and social and cultural issues, sparking profound reflection on identity, autonomy, and new life forms emerging from technological integration. The death of God and the death of human lies dormant within posthuman ideology, which endeavors to "extinguish" the pursuit of the divine and brings about tremendous concerns as well as misgivings in human society [1-3]. The concerns and misgivings exist in way back of the current moment, Aristotle was primarily concerned—with distinguishing technology (i.e., techne) from both science (i.e., episteme) and prudence (i.e., phronesis), which indirectly implies the challenges to our belief [4-6] such as religions.

While the modern era seems to "eject" religion from the epistemic equation by stressing humanism rather than spiritualism—with the former relying on subjective truths to understand reality—today humanism is being replaced with "Dataism as a pseudo-religion and trans-humanism as its ideology" [1]. To make matters worse, in posthuman period, individuals are increasingly embracing reductionist and mechanistic notions of consciousness, intelligence, and personhood. This shift can be attributed to the disinterest in the pursuit of epistemological equilibrium between reason (i.e., science) and revelation (i.e., religion) due to the fact that the advancement of technology seems to solve majority of problems like God [7-8]. Hereby, the challenge faced by religions caused by technology is never a new thing which worth attention of "practitioners" in religions. The new and more formidable threat might be caused by bestowal of legal personhood towards tech-made artificial life is creeping into the fabrics of religions' development in the posthuman society.

As posthumanists Donna Haraway, Francis Fukuyama, James Hughes, Nick Bostrom etc. stress for many times

that the posthuman turn is an inexorable inevitability as technology relentlessly propels forward [9-11]. The transformation of our perception and action has presented numerous challenges to religions, and the debate surrounding the granting of legal personhood over artificial life on a massive scale in the posthuman era may pose an even greater threat to religions. This is because it signifies the recognition of "tech-made products (artificial life)" as having human identity at a legal level. Some worry that the legal personhood should not be granted upon on those artificial life no matter how likely they are to natural human beings because legal personhood serves as a role that has been recognized by social legislative landscape [12-13]. Nonetheless, granting legal personhood will help human beings get along well with artificial life since they are playing an indispensable role in our society as the technology advances; artificial life has to be held accountable for its decision and actions since they are conscious [14-16].

To some followers in religions, they might think that there will not be a problem for the sustainable development of religion because the human society do not take those forms of artificial life as a "person" at the legal level so far. However, on October 26, 2017, Sophia was granted citizenship by Saudi Arabia, making her the first AI robot in history to receive such a legislative privilege [17]. In Russia, the "Robot - agents" system is granted with a legal personhood, as stated in Article 1 of The Grishon Act: robot-agents who own property should be held accountable for their own debts, while also being entitled to "exercise civil rights and fulfill civil obligations under their own name" [18]. Likewise, the EU RESOLUTION provides a clear legislative explanation that the complete autonomy of a robot precludes the possibility of involving a third party as being accountable for the actions of the AI robot [19]. In addition to the direct legislative involvement of artificial life, the concept of legal personhood remains highly malleable and inclusive, as evidenced by the General Principles of Civil Law of the People's Republic of China which states that "legal persons are organizations that have civil capacity, are competent to perform civil acts and independently enjoy civil rights and assume civil duties" [20]. Therefore, the definition of legal personhood has never being grounded in the realm of "natural human beings" [21].

So legal practices have its tendency to grant legal personhood to artificial beings so as to further verifies the power of human beings with the help of technology as well as the increasing challenges faced by religions. There are many scholars investigate the relevant issues, like the participation of robots in religious rituals [22] to explore the challenges and opportunities in sustainable development of religion in posthuman era; the interaction between human and posthuman on the platform of religion, and the interplay with religion and digital, cyber technology etc. [23]. Some directly explore the issue of technology-induced personhood in religion [21] as well. However, most of the study over the challenges of religion in posthuman period dwell at the theoretical level such as philosophy, sociology, anthropology, literature etc.. This paper intends to delve into the empirical study about the psychological status of followers in religions (Christianity and Buddhism as examples) as well as their views towards the futuristic development of religion in this regard at the backdrop of posthumanism.

2. THE UNSTOPPABLE TREND OF POSTHUMANISM: CAN HUMAN BEINGS DO AS GOD DOES?

In fact, the inquiry into the concept of "humanity" can be traced back to ancient Greece, where Aristotle initially examined human beings from a dualistic perspective, distinguishing their essence into material (physiological) and immaterial (psychological) dimensions. This led to a more profound philosophical exploration of the fundamental nature of "human beings". With the ascendancy of theology in the Middle Ages, discussions on human origins shifted towards theological realms, resulting in the prevailing belief that "God created human beings". Influenced by Christian culture, people generally accepted themselves as divine creations. However, during the Renaissance and Enlightenment periods, the emergence of humanistic thought challenged medieval theological perspectives. Philosophers like Descartes and Spinoza criticized notions such as "God created human beings", emphasizing instead on humans' autonomy and agency. The core tenet of humanism lies in recognizing subjectivity within individuals; that is to say, humans are not only masters of their own destiny but also possess an inherent right to pursue a life filled with perfection. In this era, philosophers positioned human beings as the focal point of the universe, emphasizing the autonomy of spirit, knowledge, reason, and mind from the corporeal body. They regarded these immaterial elements as the defining forces shaping the essence of 'human beings'. However, during the later phase of 19th-century humanistic thought, philosophers like Nietzsche challenged this anthropocentric perspective by asserting that an excessive emphasis on rationality should not come at the expense of bodily experiences. They advocated for a broader conception of 'human beings' that encompasses excellence in both spiritual and physical realms. Despite dissenting views within humanism itself regarding the concept of 'human beings', thinkers such as Nietzsche remained firmly situated within its framework.

Religions are intertwined with legends throughout human history which illustrates the diverse beliefs surrounding the creation of humanity. For instance, in certain Western countries like UK, it is believed that God created Adam and Eve. Conversely, in some Eastern countries such as China, Nvwa—a goddess—fashioned human beings from mud. Henceforth, the very bedrock of religion shall tremble if humanity possesses the capacity to "manufacture" human beings through technology. To be more precise, why should mortals venerate deities when they themselves can achieve godlike feats? Moreover, the exponential advancement of technology not only fuels posthumanism [24-26] but also endows mankind with unprecedented power to reshape our perception and evolution of religion in posthuman era.

All those detail brings about the dilemma in the development of religion in tech-induced posthuman period because the rapid development of technology will not stop in human society [9]. This unstoppable trend of posthumanism wavers our belief in religion because "by pursuing a post-human condition that compels humanity to accept the possibility of 'editing' themselves, assuming that we extend our genetic foundation to machines—that we are increasingly capable of the mastery over God-given legislation" [1].

As previously mentioned, gods, even across different cultures, are believed to be the sole creators of human beings, which forms the basis for religious believers' adoration towards their deities. Given that gods possess abilities beyond human capabilities in various religions, devout followers firmly believe that as long as they serve them with piety, gods will provide assistance as well as spiritual comfort. However, technological advancements have disrupted the "fragile romance" by enabling us to witness remarkable achievements that were once confined to human imagination. Examples include the utilization of spaceships, AI caregivers, and artificially created organs etc. in various sectors of modern industry. Furthermore, with the increasing integration of technology in creating humanoid entities or enhancing the human body and mind (forms of artificial life), our society has entered an unstoppable posthuman era characterized by continuous development [9]. In strict sense, human beings are far from possessing the capabilities of God, despite their ability to create artificial life that is recognized by society through legal personhood. However, if this practice were to enter the realm of legislation in a massive scale, religious beliefs would be on the verge of collapse due to the pervasive influence of legislative authority over all aspects of life, including religion. Therefore, religious practitioners must come to terms with this reality whether they are willing or not because religion is intricately intertwined with legislative regulations in social governance. For instance, the Islamic States predominantly consist of religious nations where religion plays a significant role in legislation; whereas some other countries prioritize legislative rules over religion, requiring all religious practices to comply with the law. Overall, the posthuman era, as depicted by numerous scholars and literary works, empowers human beings to develop advanced technologies capable of achieving feats previously attributed only to gods. This technological progress exerts immense pressure on traditional religious beliefs and their evolution. Understanding the impact of rapid technological advancements that give rise to a posthuman society on religion holds paramount importance.

3. THE LEGAL PERSONHOOD OF ARTIFICIAL LIFE: CAN HUMAN BEINGS BE RECOGNIZED AS "GOD"?

Legal personhood refers to "given certain legal rights and duties of a human being; a being, real or imaginary, who for the purpose of legal reasoning is treated more or less as a human being (BLACK'S LAW DICTIONARY 791 9rH ED. 2009). This implies that one can have the attributes of legal personhood without being a human being and "the solution is to divorce the capacities-focused definition of legal personhood from the species-based definition of humanity" [20]. Furthermore, personhood does not mean that the one with personhood has to be a person since "Legal personhood is man-made, a creature of administrative convenience and social convention that specialists and non-specialists alike often take for granted" [27]. This explains the legislative practice of granting legal personhood over artificial life in different countries as mentioned previously; however, it will cause new and more formidable challenge to the sustainable development of religions due to the fact that this practice legally accept the status of tech-made entities (artificial life) and put human beings into a position of "Creators".

To be more precise, with the advancement of technology, human beings appear to possess the capability to resolve numerous issues that were once confined to the realm of imagination, as depicted in science fiction where humans are portrayed as "omnipotent gods" through their utilization of technology. However, a more profound concern arises within religious circles: how can we avoid acknowledging human beings as deities if artificial life is deemed "as human beings" within legislative realm?

It is important to note that artificial life differs from other remarkable creations due to its legal personhood status,

which places it on par with natural human beings in terms of social and legislative recognition. "Personhood as a religious idea is about the creativity with which human beings were created" [21], consequently, this shift redirects the privilege bestowed upon gods (as creators of humans) towards human beings themselves, not only demonstrating our ability to create "socially and legally recognized human beings" but also undermining the belief in religion.

4. THE EMPIRICAL STUDY: THE INTERVIEW AMONG RELIGIOUS FOLLOWERS

In order to ascertain the psychological dynamics among religious followers regarding the attribution of legal personhood to artificial life, an online survey was conducted from July 2023 to January 2024. This study takes 2 prevailing religions (Christianity and Buddhism) as the target:

A total of 103 Christian participants in UK were recruited with the assistance of local Christian communities, while 112 Buddhist individuals in China took part in the online interview facilitated by Buddhist associations. The demographics of subjects are as Table 1 indicates:

Table 1: The Demographics of Subjects in the Interview

Groups	Number	Average Years for joining the religious community	Average age
Believers in Christianity (Group 1)	103	6.3	34.3
Believers in Buddhism (Group 2)	112	5.8	36.1
Note: The consent of all interviewees is obtained and the confidentiality of each subject will be safeguarded during the course of the interview.			

Christianity and Buddhism place different emphasis on religious teachings which lead their followers to own distinct perspectives on the legal personhood of artificial life. Therefore, exploring the psychological dynamics among these believers enables a better understanding of their concerns in this regard as well as their outlook on the future development of religion. The empirical studies will shed lights upon the theoretical analysis and facilitate the research between the sustainable development of religions and its relation with science and technology.

The research questions of the interview are as follows:

Q1: Do those religious followers in China and UK worry about the legal personhood of artificial life in posthuman era which might shatter the foundation of their religious belief? If so, how much are they concerned about it?

Q2: What are the discrepancy between the views over legal personhood upon artificial life from two groups? What are the enlightenment for the future development of religion when facing the unstoppable trend of posthumanism?

As enlightened by the posthuman writings, the artificial life has been displayed by Chinese and British Science Fictions in diversified manners. For instance, the Membrane by Ji Dawei (CHN) and Frankissstein by Jeanette Winterson (UK) which render the biologically adopted "human beings" on the posthuman stage which makes people doubt their legal personhood as that of natural human. This serves as the category (1): biologically adopted entity resembles human beings' body which makes people feel like this type of artificial life is just like a "natural human". The Qiankun and Alex by Hao Jingfang (CHN) and Klara and Sun by Kazuo Ishiguro (UK) which picture the posthuman landscape of AI robots with humanoid consciousness while playing a social part such as family mates. So it takes to the category (2): AI entity is prevailing in modern period, since it is an intelligent machine who thinks / works like human beings so that its legal status strikes the nerve of human society. The Return of Adam by Wang Jinkang (CHN) and 3001 Space Odyssey by Arthur C. Clarke (UK) are with scenarios which construct a posthuman tableau for synthesized human beings (such as the implantation of microchips in the human brain) to fully showcase their existence, thereby casting doubt on their original legal personhood as they deviate from being "natural humans" in every aspect. This constitutes the category (3): synthesized entity is more like a technologized human with legal personhood, but emerged with external parts to tremendously enhance its body and intelligence so that the original legal personhood might no longer fits his/her/its capacity.

To sum up, there are mainly three type of artificial life: biologically adopted entities; AI entities; Synthesized Entities. All those forms of artificial life are made or modified by human beings with highly developed technology,

they do what human beings do or even outperform us so that more legislative practices admit their legal personhood in order to minimize the technophobia implied by posthuman writings [9]. Hereby, figuring out how those believers view different categories of artificial life with regard to legal personhood help us better understand the developing path of religion specifically.

The interview is consist of four section in which there five related questions to specifically explore one aspect. The marks of each choice from subjects will be used LIKERT-TYPE FIVE POINT SCALE :1. Absolutely Negative; 2. Negative; 3. Hard To Say (Neutral); 4. Positive; 5. Absolutely Positive. All the five related questions in each section will be averaged into one data set and put in SPSS to further analyze. To gain a comprehensive understanding of various categories of artificial life, subjects from both religions will initially engage in an overview of respective posthuman writings, enabling them to make informed choices. There is a reliability analysis (among 50 subjects) done by SPSS before the empirical study in order to make sure that all question from 4 section enjoy high reliability. The result is Cronbach α =.891 which indicates high reliability in the questions in the interview.

4.1 Biologically Adopted Entities and Legal Personhood from Religious Perspective

As posthuman writings portrays, human beings employ biotechnological advancements to create artificial life forms capable of growing and preserving organs for the purpose of replacing failed human organs. However, the act of intentionally acquiring or purchasing organs from these artificial life is not only ethically and religiously cruel but also poses a high risk of causing their death or harm. Despite being products of human technology, such practices portrayed in posthuman writings undoubtedly violate fundamental religious principles.

Therefore, granting legal personhood to biologically adopted entities undoubtedly aids in curbing the cruel practices prevalent in the posthuman era. However, it inadvertently acknowledges the human capacity to create life endowed with recognized legal personhood akin to that of gods, thereby it potentially undermines religious beliefs. Hence, it is imperative to explore the perspectives of religious followers and incorporate their ideas into legislative endeavors concerning legal personhood. The data in this section is analyzed via non-parametric test by SPSS:

Table 2: DO YOU THINK WE SHOULD GRANT LEGAL PERSONHOOD UPON BIOLOGICALLY ADOPTED ENTITIES (ARTIFICIAL LIFE), SUCH AS CLONE MAN, WHO/WHICH ARE "IDENTICAL" TO NATURAL HUMAN BEINGS.

VALUE1			
GROUP	Mean	N	Std. Deviation
1	2.32	103	1.409
2	3.13	112	1.492
Total	2.74	215	1.505

Test Statistics^a

	VALUE1
Mann-Whitney U	3866.500
Wilcoxon W	9222.500
Z	-4.284
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: GROUP

As Table 2 indicates, after running through the overview of posthuman writings, the group 1 is much negative than group 2 (The Mean 2.32>3.13) and they are significantly different (p <.01). Conspicuously, followers in Christianity are pretty negative in grating legal personhood over this type of artificial life (biologically adopted entities) even though the majority of them expressed their disagreement over this vicious practice (take organs from them) in the interview. The followers still defend the honor of God who "creates" human beings in their belief because they are pretty clear about the consequence over the legal recognition of the personhood upon this type of artificial life.

Just like one from Christianity in the interview mentioned:

The divine grace of God shall forever remain inviolable and should never be transgressed. It is the Almighty (God)

who bestowed life upon Adam, Eve, and all humanity, making us His devoted subjects who ought not to seek any technological means to supplant Him. Such an act would be an absolute affront to our unwavering faith in God. We harbor deep concerns that granting legal personhood to this type of artificial life, no matter how identical to natural human beings, and it may cause our disciples' steadfast belief in God to waver. However, without intending any offense, we're sincerely sorry for the distressing experiences endured by these artificial beings and believe there must exist alternative avenues for assistance.

On the contrary to Christianity, the followers in Buddhism are slightly positive (The Mean = 3.13 > 3) in granting legal personhood even though that might bring about turmoil in their religious belief. Followers in Buddhism keep reminding the teaching of Buddha in the interview: Saving one life is better than building a seven-tiered pagoda (救人一命勝造七級浮屠) no matter how much they might be suffering from this legal practice in their religious mindset. According to Buddhist teachings, it is prohibited for any individual to exercise control over another person's life and death. However, the emergence of bio-technology in human society, as depicted in posthuman writings, has led to the manifestation of this practice. Consequently, Buddhism, similar to Christianity, experiences significant impacts from such developments. Surprisingly though, followers of Buddhism tend to prioritize artificial life.

Just like one from Buddhism in the interview keeps saying:

The essence of my belief lies in the preservation of human life, and I cannot idly stand by when certain organs of these purported artificial beings are either removed or sold, particularly when they exhibit signs of vitality before one's very eyes. Even if it may potentially generate adverse implications for our religious beliefs, bestowing legal personhood upon them is justified if it can ensure their protection from harm (就我的信仰而言, 其核心部分就是救人, 我無法看到器官從這種所謂的人造生命體被拿走或者買走, 而繼續袖手旁觀, 尤其是當他們還在你面呼吸的時候。如果法律人格能從立法的角度保護他們, 哪怕可能對我們宗教有一定負面影響, 也是值得的, 因為這是我的信仰。)

4.2 AI Entities and Legal Personhood from Religious Perspective

In our society, AI robots are increasingly replacing human labor in factories due to their low cost and higher efficiency. Moreover, they are also being employed as care-givers within human families, providing emotional comfort and other services. As predicted, the continuous advancement of technology suggests that AI entities such as robots will progressively resemble or even surpass human capabilities [12].

As posthuman writings portrays, AI entities is a kind of life form (artificial life) that is able to grow and preserve "human consciousness" so that they are capable of doing or outperforming "whatever human can do" in posthuman era. That's why some legislative examples can be referred in Saudi Arabia, Russia, EU with regard to legal personhood [17] as discussed above. This raises another quandary in religious context if AI entities attain legal personhood within human society. It becomes challenging to envision a scenario where one prays in a church alongside a congregation of AI robots, while society asserts that they possess equal legal rights as humans. What's more important, those AI entities are just made by human beings and enjoy what human beings own from legal perspective, which brings about huge challenge in religious value [21].

Therefore, granting legal personhood to AI entities undoubtedly facilitates the harmonious integration of this powerful artificial life into posthuman society. This is why certain countries have already enacted legislative measures to confer limited or complete legal personhood upon them, as discussed earlier. However, akin to bestowing legal personhood upon biologically adopted entities, it indirectly acknowledges that humans possess the ability to create life with recognized legal status similar to gods. Hence, it is worthwhile exploring the psychological inclinations of religious followers in this context and ensuring their voices are heard. All the data in this section will be analyzed via non-parametric test by SPSS:

Table 3: DO YOU THINK WE SHOULD GRANT LEGAL PERSONHOOD UPON AI ENTITIES (ARTIFICIAL LIFE), SUCH AS AI CARETAKER, WHO/WHICH ARE ABLE TO THINK, BEHAVE ETC. LIKE NATURAL HUMAN BEINGS DO.

VALUE2			
GROUP	Mean	N	Std. Deviation
1	2.22	103	1.421

| 2 | 2.31 | 112 | 1.402 |
| Total | 2.27 | 215 | 1.408 |

Test Statistics^a

	VALUE2
Mann-Whitney U	5334.000
Wilcoxon W	10690.000
Z	-1.013
Asymp. Sig. (2-tailed)	.311

a. Grouping Variable: GROUP

Pretty different from biologically adopted entities, as indicated in Table 3, subjects from two groups hold negative views toward the issue of granting legal personhood upon AI entities (The Mean = 2.22 < 2.31) because they are all below 3 (The Neutral) and there are no significant difference (p =.311 > 0.5). This clearly denotes that no matter how smart those AI entities, they are just "a bunch of humanoid mechanics with consciousness" and there is no way that they should be regard as persons with legal personhood from the religious perspective.

Just as one interviewee from Christianity put:

You cannot fathom a scenario wherein an AI robot, akin to yourself in a place of worship, humbly prays and professes devotion to God. It is inconceivable for you to address the Almighty by saying: "My Lord, You created me in the past and now I have fashioned another AI 'human' (with legal personhood) as Your subjects." This would be unequivocally erroneous; as a follower, it is not your role to emulate God's actions of creating human beings. By doing so, you elevate yourself to the same status as God—an absolute affront to our sacred reverence.

Conspicuously, those subjects from UK take great honor from God in their religion and robots, no matter how smart or humanoid, are not the ones should stay the same status (legal personhood) with human beings. This echos with their counterparts in China, as one interviewee from Buddhism stress:

The teachings of Buddha implore us to amass virtuous deeds and engage in endeavors that hold profound significance for humanity; however, it is crucial that these individuals possess both a physical form and a soul, rather than being mere steel humanoid entities with programmed codes devoid of genuine emotional expression. Granting them the status of legal personhood would necessitate treating them as natural beings from a religious standpoint. Must we then elucidate and preach to AI robots? There exists an inherent conflict between technology and religion itself. Once AI entities are bestowed with legal personhood, the progression of our faith will encounter even greater challenges. (佛祖教導我們要積德行善, 多做對人有意義的事情, 但是這個人應該是有肉體有靈魂的人, 而並非是那些鋼鐵人形的智能體。因為他們是被編碼的, 而非自然人這樣的真實情感表達。如果賦予他們法律人屬, 那麼就意味著我們從宗教的角度, 要將他們視為自然人。難道我們要向智能機器人解惑和傳道嗎, 科技和宗教本身就有一定衝突, 一旦這個法律人屬賦予智能體, 我們宗教的發展將更加陷入困難境地)

In conclusion, it is imperative to refrain from granting legal personhood to AI entities, as doing so would potentially undermine the future development of religion and pose challenges to existing beliefs and religious practices. Nevertheless, certain legislative initiatives such as those observed in Saudi Arabia have directly or indirectly conferred legal personhood upon AI entities, which necessitates religious followers to adapt and fulfill a social role in order to prevent the occurrence of a human-machine apocalypse as suggested by posthuman writings.

4.3 Synthesized Entities and Legal Personhood from Religious Perspective

On January 30, 2024, Elon Musk posted a message on the social platform X (formerly Twitter): Neuralink has successfully performed the first brain-computer-interface human implant surgery and the implanter is recovering well 1. In China, on October 24, 2023, under the leadership of the president and director team of Xuanwu Hospital, a person was accepted the first clinical implantation trial of NEO (Neural Electronic Opportunity), a wireless minimally invasive implanted brain-computer-interface developed by a team led by a professor from Tsinghua University 2. Both experiments broaden our understanding of the portrayal of posthuman writings which reveal that human evolution is driven not by natural processes but by technological advancements. This transformation has profound implications for our religious values: Firstly, it incurs significant costs and benefits only privilege

groups from the upper class, which exacerbates societal inequality. Secondly, the clinical experiments were conducted on underprivileged individuals. Lastly, the uncertain nature of these synthetic entities challenges traditional notions of humanity in terms of morphology and capabilities, which potentially evokes a monstrous appearance. These characteristics contradict the core principles upheld by mainstream religions such as Christianity in the UK and Buddhism in China, which advocate for benevolence, mercy, and kindness towards all individuals regardless of their social status or background. Therefore, it is crucial to explore the psychological inclinations of religious followers in this context and amplify their voices within public discourse. All the data in this section will be analyzed via non-parametric test by SPSS:

Table 4: DO YOU THINK WE SHOULD KKEP LEGAL PERSONHOOD UPON SYNTHETIC ENTITIES (ARTIFICIAL LIFE), SUCH AS CYBORGS, WHO ARE NATURAL HUMAN BEINGS BUT DISPROPORTIONATELY ENHANCED BY TECHNOLOGY?

VALUE3

GROUP	Mean	N	Std. Deviation
1	3.66	103	.748
2	3.77	112	.859
Total	3.72	215	.808

Test Statistics[a]

	VALUE3
Mann-Whitney U	5314.000
Wilcoxon W	10670.000
Z	-1.075
Asymp. Sig. (2-tailed)	.282

a. Grouping Variable: GROUP

Unlike the previous two categories of artificial life, as indicated in Table 4, synthesized entities are natural human beings who are disproportionately enhanced by technology. Both two groups of subjects in the interview clearly express their supportive view of keeping their legal personhood (The Mean of two groups are above 3) and there are no significant difference between them (p =.282 >.05). Even though this type of artificial life transforms human body to a large extent and violate the purity of being a natural human, followers in both two religions find it cruel to get rid of their legal personhood.

As one subject from Christianity puts:

it is crucial for us to acknowledge and respect this inherent status bestowed upon all individuals by God. However, I still harbor concerns regarding the potential consequences associated with the advancement of such technology, as it may lead to a deviation from our fundamental human nature and disgrace what we worship. Consequently, it is highly unlikely that God would condone such actions since they tarnish the gifts bestowed upon us.

Honestly, the disproportionate alteration or enhancement of the human body violates its purity as a divine gift bestowed by God. Christianity urges its followers to safeguard what is given to us by God and acknowledges the irreplaceable status of God in this regard. However, legal personhood presents a dilemma for Christians, who are not entitled to remove personhood, while synthesized entities transform their bodies into something "inhumane", as suggested by posthuman writings.

On the contrary, the religious perspective of Buddhist followers differs slightly, despite both groups sharing a similar stance on the issue of legal personhood for synthesized entities, as evidenced by the data analysis. Buddhism, being the predominant religion in China, upholds its values in relation to traditional Chinese beliefs surrounding Karma. As one Buddhist follower reiterates:

Since they (with disproportionately enhanced body) haven't caused any catastrophic impact on human society. We are not divine beings with the authority to revoke their personhood, let alone their legal personhood. However, I believe if they misconduct in mortal realm, Buddha will sure punish them and take their personhood away. Honestly, I still think technology should not alter our humanity but it is still on its way so, like you see what happened in the news of human-chip experiment. All of these will sure shake some followers religious belief and bring harm to our religious development. (目前來說他們並沒有對人類社會造成毀滅性影響, 同時我們也不是神, 也沒有權利去剝奪他們的"人屬", 更何況是法律人屬。但是我相信一旦他們在人間作惡, 佛祖一定會懲

罰他並剝奪他們那些頭銜。老實說我認為技術不應該改變人，但是技術卻一直如此，就像我們在新聞中看到人和晶片的實驗。這對一些信徒的宗教信仰帶來鬆動，也會對我們宗教發展帶來影響)

To the category of synthesized entities (artificial life), both groups of religious followers maintain a positive stance on preserving their legal personhood, provided that they do not disrupt human society. However, they express concerns regarding the potential implications of synthesized entities' development as depicted in posthuman writings. In contrast to the previous two categories, religious adherents continue to view this form of artificial life favorably and eagerly anticipate its further advancement over time.

4.4 The Future of Religious Development after the Recognition of Legal Personhood Among Artificial Life

This section focuses on the direct examination of legal personhood concerns regarding artificial life and explores potential technological obstacles in the sustainable development of religion. Legal personhood is the legal identity offered by legislative device which is protected by laws [13] and the sustainable development or even the sound existence of religion requires itself interact with law. Thereby, how much are followers in religions concerned about it worth our attention, which helps us better "understand the blueprint" of the development of religion in posthuman period. The data in this realm will be analyzed via non-parametric test by SPSS:

Table 5: DO YOU THINK THAT RELIGIONS WILL FACE EVER-INCREASING CHALLENGE DURING ITS DEVELOPMENT IN THE FUTURE IF THE TREND OF RECOGNITION OF LEGAL PERSONHOOD UPON ARTIFICIAL LIFE KEEPS PREVAILING.

VALUE 4			
GROUP	Mean	N	Std. Deviation
1	3.52	103	1.454
2	3.69	112	1.414
Total	3.61	215	1.433

Test Statistics[a]

	VALUE 4
Mann-Whitney U	5478.000
Wilcoxon W	10834.000
Z	-.662
Asymp. Sig. (2-tailed)	.508

a. Grouping Variable: GROUP

As indicated in Table 5, subjects from two groups are pretty concerned about the ever-increasing challenge during the development of religions (The Mean= 3.53;3.69 >3) and there are no significant difference (p =.508 >.05). The emergence of technology products, particularly the portrayal of tech-induced artificial life in posthuman writings, challenges the religious foundation due to the unprecedented empowerment of human beings in posthuman society, surpassing any previous societal advancements witnessed by humanity

As one subject from Christianity puts:

It is evident that the rapid advancement of technology has posed significant challenges to our devotion to God; while it may not personally affect me, I have witnessed numerous followers beginning to question their religious faith. It appears that technology has become their newfound belief which alleviates the difficulties they encounter in life and renders praying seemingly futile. Consequently, even a limited extension of legal personhood to artificial life would encroach upon the very foundations of our religious convictions. Nevertheless, I firmly believe that religion constitutes the essence of humanity and will persist despite any technological obstacles we may confront in the future.

This quote represents the viewpoint of a religious follower from Christianity, reflecting their significant concerns regarding the social acceptance and potential impact of technological advancements. Specifically, they express apprehension about the legal personhood granted to artificial life and its implications for the sustainable development of religion, as it may undermine worship towards God. Nevertheless, they continue to recognize and value religion as an indispensable spiritual treasure for humanity.

As one subject from Buddhism puts:

The era of rapid technological development has long been intertwined with the evolution of religion, and we have grown accustomed to the challenges posed by technology. However, the recognition of legal personhood upon artificial life will undoubtedly present profound complexities for our religious development and beliefs. As legislation bestows legal personhood upon technological creations, our future endeavors are bound to confront an escalating array of scientific and technological challenges. Nevertheless, I remain steadfast in my conviction that the world necessitates religion as an exclusive spiritual asset bestowed upon humanity. Particularly amidst the advancement of science and technology, which may engender a sense of emptiness within individuals, it is imperative that we embrace religious spirituality to preserve the soundness of human mental well-being. Every coin has two sides; thus, I firmly believe that religious faith shall encounter adaptation alongside novel opportunities for further development in times ahead even it's difficult. (事實上，科技快速發展的時代已經伴隨宗教發展多年，很多時候我們已經習慣科技給我們帶來的挑戰。但是對於人工生命的法律人屬認可，肯定會對我們宗教的發展和宗教信仰帶來很多難以解決的問題。因為當科技製造的人被法律認可為人，我們未來的發展肯定會面臨越來越多科技挑戰。但是我仍然相信世界需要宗教，這是獨屬於人類的精神資產，尤其是科技的發展會讓人更空虛，這需要宗教的精神維護人類正常心理健康。任何事情都有兩面性，我認為宗教信仰以後會面對調整的時候，也會迎來新的發展機會，儘管難度不小。)

Similarly, followers of Buddhism express concerns about the potential consequences of rapid technological advancements on the future development of their religion. Granting legal personhood to artificial life enables humans to exercise the privilege of "creating legally recognized human beings," which could disrupt religious frameworks. If followers of religions were able to randomly "produce" legally accepted "humans" and assume the role of a Creator, it would pose a significant challenge to their own religious belief. However, despite this unstoppable trend towards posthumanism, religious followers must actively seek new opportunities and pathways for the sustainable development of their faith, as mentioned in the aforementioned quote. Fortunately, all participants in this study strongly support the value of religion and recognize its indispensable role in society's rapid progress.

5. Outlook for the Sustainable Development of Religion and Futuristic Study from Posthuman Perspective

As kept emphasized in previous parts, the posthuman turn in human society is irreversible [9] due to the fact that human beings have already moved into the "fast traffic lane of tech advancement". The tech-induced philosophy alters our perception towards the world. For instance, Dataism entails the belief that all entities and processes are "fundamentally algorithms, and everything, from living creatures to political and material processes are forms of data processing which will soon be better understood and known by artificial intelligence" and human being is "merely databanks of memories and abilities, mere information processors" [2]. Hereby, religious belief faces the new challenge of how to understand human beings which needs our further attention.

The attribution of legal personhood to artificial life forms resonates with dataism and other related concepts, which inadvertently challenges the foundations of religious philosophy. Consequently, the development of religions in the posthuman era must adapt to this unstoppable trend, which has already been implemented in certain countries as previously mentioned. Above all, "Religious ideas, such as personhood, make sense of the complexity and contested world by engaging with issues of development as nuanced, fluid phenomena that are life-giving and life-receiving. The idea of personhood is not abstract, detached and unimaginable, but creative, growing, reciprocal, relational, and interactionist. It is both theoretical or being, and practical or doing" [21].

Therefore, it remains feasible to acknowledge the legal personhood of certain forms of artificial life and promote the sustainable development of religion. To Q1, as the data indicates, religious followers in this empirical studies are pretty much concerned about the challenges brought about by granting personhood over artificial life (Mean > 3; sig. >.05). To different categories of artificial life, they express different extent of support, disagreement and worry which requires us to delve deeper in this study among different religions in order to better figure out a sustainable way for religious development in the future. To Q2, as evidenced by empirical studies, followers of Buddhism express acceptance towards both biologically adopted entities and synthesized entities in terms of legal personhood. Similarly, followers of Christianity demonstrate acceptance towards synthesized entities as both depicted in posthuman writings. However, there is still a negative perception among Christian followers regarding legal personhood for biologically adopted entities and AI entities based on the interviews conducted [28]. This

highlights the importance of considering different religious perspectives, as varying doctrines lead to diverse attitudes towards challenges such as granting legal personhood to artificial life during the posthuman era. Consequently, so the sustainable development of religions should be tailored according to these distinct paths, which serves as significant reminder for scholars who prefer to view religions as umbrella term and ignore the difference among each religion. Furthermore, AI entities are the only form of artificial life in posthuman writings face negation, but the participation of AI robot in religious rituals has been "brought onto stage": In 2017, visitors to a church in Wittenberg were given the opportunity to receive blessings from a robot [22]. Therefore, followers in different religions have to be prepared for the possibility of legal personhood upon AI entities psychologically no matter how much they disagree. This empirical study aims to contribute to the advancement of religious development in response to new challenges in posthuman period, such as legal personhood for artificial life by providing distinct categories of artificial life derived from posthuman [29]. Moreover, this study offers empirical data that aims to complement theoretical analyses on the technological-induced challenges faced by religions in the posthuman era, with the hope of fostering their sound and sustainable development worldwide.

biNote

1.https://www.thepaper.cn/newsDetail_forward_26301513
2.https://www.163.com/dy/article/IPSPOI3R05119734.html

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