



Article

The AI Creation Meme: A Case Study of the New Visibility of Religion in Artificial Intelligence Discourse

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Abstract: Through a consideration of examples of the AI Creation Meme, a remix of Michelangelo's Creazione di Adamo featuring a human hand and a machine hand nearly touching, fingertip to fingertip, this article will tackle the religious continuities and resonances that still emerge in AI discourse in an allegedly 'secular age'. The AI Creation Meme, as a highly visible cultural artefact appearing in a variety of forms and locations, will be analyzed and discussed for its religious, apocalyptic, and post-humanist narratives, along with reference to earlier work on the New Visibility of Religion—specifically, Alexander Darius Ornella's consideration of the New Visibility of Religion and religious imagery of the 2006 film, Children of Men. Work that outlines the aspects of critical post-humanism, speculative post-humanism, and transhumanism in relation to the contemporary post-secular age will also be addressed to expand on the implicit apocalyptic messages of the AI Creation Meme. Such a consideration of repeating and remixed imagery will add to the scholarly conversation around AI narratives and the entanglements of religion and technology in our imaginaries of the future.

Keywords: artificial intelligence; post-humanism; memes; popular culture; religion

1. Introduction

On 25th April 2018, the European Commission published a document that laid out the elements of its strategic plan for the European future of artificial intelligence (AI). This plan included the formation of a high-level expert group involving 52 members drawn from technology companies, academia, and civil society. The group's profile page (EU Commission 2019) is illustrated with the following image (Figure 1.):

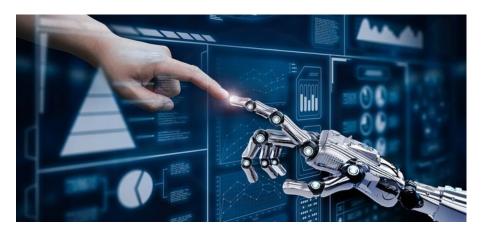


Figure 1. The EU Commission example.

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This image is created using digital graphics and shows a human hand connecting with a robotic hand, with fingertip almost touching fingertip. It is in a modern setting, with a background of statistics and graphs in blues and greys. However modern the image is, it is still obviously inspired by the symbolism, themes, and aesthetics found in a much older artwork: Creazione di Adamo (The Creation of Adam), by Michelangelo di Lodovico Buonarroti Simoni, which forms a part of the Sistine Chapel ceiling in the Vatican, Rome. Painted between 1508 and 1512, The Creation of Adam has inspired many copies and variations, especially in the 20th and 21st centuries, an era of digital technology and manipulation. The original artwork has proven itself to be ripe for memetic remixing while retaining elements of its original meaning and impact that resonate with audiences. For example, in Figure 2., below, we see an image of a poster available to buy online that has narrowed our focus to the nearly touching fingers of Adam (on the left, as viewed) and God (on the right). This zoomed-in version focuses our attention to this moment before touching, where Adam is awaiting the gift of life, of full creation. Paul Barolsky, an art historian, argues that "What makes Michelangelo's fresco so arresting is its tension—the sense of an event that will only be complete when the finger of God touches that of Adam. God, in Michelangelo's fresco, is suspended forever, we might say, in the uncompleted act of filling Adam with the spirit. This is the ultimate divine non finito." (Barolsky 2013, p. 24)



Figure 2. Poster of The Creation of Adam.

In this article, I will explore the employment of this particular image format in AI discourse with examples of what I am terming the AI Creation Meme—the image from the European Commission's website being a prime example that also appears in a significant and impactful online location. The methodology of this article is informed by art history and meme theory as well as anthropological observations in order to explore the impact of this very visible use of religious imagery and its connection to post-humanist and apocalyptic ideas and discourse. The AI Creation Meme will also be explored in relation to research on the New Visibility of Religion and the post-secular society.

Contemporary discussion in the anthropology and sociology of religion and science has drawn attention to narratives of enchantment and disenchantment. The AI Creation Meme is presented here as an example that highlights continuities of mythologizing and enchanted ways of conceptualizing the relationship between the human and the non-human other. Such visible continuities and enchantments are also characteristic of a post-secular world, a concept found in Habermas' (2008, 2010) work. This article's approach to these continuities, and the mythologizing of disenchantment itself, is also indebted to the reflexive religious studies work of Jason Ā. Josephson-Storm (2017). In his examination of the birth of the various modern intellectual disciplines that served to categorize and account for the diminishment of enchantment in the world (the 'human sciences': philosophy, anthropology, sociology, psychoanalysis, religious studies, and folklore studies), Josephson-Storm

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shows that there was a strong influence from spiritual and occult worldviews on the very founders of these disciplines, and thus on the narrative of disenchantment itself.

Moreover, Josephson-Storm refutes the timeline given by scholars who have also drawn on Weber's concept of disenchantment, such as Gellner (1979), Ritzer (1999), and Partridge (2004). They have argued that after disenchanting modernity, there comes an enchanting post-modernity that can involve pragmatic, capitalistic magic, such as Disneyland (Ritzer 1999). Instead, Josephson-Storm argues that the grand narrative, the myth of disenchantment, blinds us to examples of continuities. Thus, "If one looks at America and Europe through the eyes of an outsider—with the same sort of gaze often leveled at non-Europeans—it seems hard to assert that we live in a straightforwardly disenchanted world. The equivalent forms of evidence anthropologists have been bringing back from the far reaches of the globe regarding indigenous belief in spirits, witchcraft, folktales, and popular depictions of the supernatural can be found in the West." (Josephson-Storm 2017, p. 34). The AI Creation Meme, I argue, is a very visible example, another 'popular depiction of the supernatural', that we can look at with the gaze of an outsider. An anthropological glance.

Citing many examples of modern enchantment, Josephson-Storm concludes that while we might live in a secular world, we also live in an enchanted one. However, such a world might better be termed post-secular, as secularization itself has allowed for detraditionalization and the invigoration of new spaces, shapes, and visualizations of belief. The AI Creation Meme is one such expression. Moreover, this meme, as an expression of the relationship between humanity and technology, also raises the question of whether we have ever been non-technological? We will explore this question further in a section on post-humanist narratives and their relation to the AI Creation Meme below.

First, we will discuss the variety and types of the AI Creation Meme, their common themes and aesthetics, and how the AI Creation Meme relates to Michelangelo's original work and intentions, these being the religious and philosophical resonances around creation and of the relationship between the created and the creator.

2. The AI Creation Meme

For this research, 79 examples of the AI remix of *The Creation of Adam* were sourced and examined.¹ Of these, 76 came from the many pages of results for a Google image search for the terms "artificial intelligence" and "artificial intelligence touching". Three further examples were also included, as they were encountered during the collection period and demonstrated relevant themes. These three were the European Commission's picture already introduced, and an instance of the AI Creation Meme from an episode of the series *Star Trek: Picard* (2020) (Figure 3), and an image from the website of well-known conspiracist David Icke (DavidIcke.com, this image is in Figure 4), It is by no means suggested that this collection of 79 images represents an exhaustive, or complete, search. Rather, this article employs these 79 examples as an indicative sampling that both demonstrates the variety of forms of the AI Creation Meme and allows for further discussion of its resonances and impact on public discourse and attitudes.

2.1. Attributes and Variations

After collection, the main attributes and variations of these examples were observed and noted by hand. Initial observations are as follows. First, in the AI Creation Meme, the field of focus is often narrowed down to just the hands and forearms of two beings, the human and the AI. Exceptions to this were examples where the whole human appeared (two examples had the same white woman in a white t-shirt, the image flipped), where a small toy robot represented the AI, and where the AI hand was emerging from a laptop. In one example, the AI was represented by a mobile phone with a real-

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Through a Google Image search, it was not possible to locate or date a first instance of the AI Creation Meme, or to find examples that have not been posted on websites (except in the one case of its use on the cover of a physical book, which was then discussed online). A further research project through non-digital archives might be necessary to track down the first instance and any non-online instances of the meme.

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world robotic finger-like attachment called the 'Mobilimb' reaching out to make contact with the human hand.²

Apart from these few examples showing more than just hands and forearms, the representation of AI in this corpus came in two primary forms: either as an embodied robotic hand or as a more ethereal, or abstract, 'digital' hand. The robotic hands were then either jointed white metal and plastic hands or fluid metallic hands without joints.³ In the case of the *Star Trek: Picard* example, the robotic hand was a 21st century-looking robot arm with a more basic pincer, as in Figure 3 below.



Figure 3. The Star Trek: Picard example.

In examples with digital hands, they were either formed of points of light or vector lines. Some examples of all types are in Figure 4 below:



Figure 4. Examples of AI Creation Memes.

The human hands also had common characteristics. Apart from the one image (flipped to produce two images) of the white woman in the white t-shirt, the human hands were all male and Caucasian in skin tone. A few images showed that the human was wearing a business suit, with the ends of a sleeve just visible, but most examples just showed a bare hand and wrist, as in the original artwork. Arguably, The *Creation of Adam* illustrates the Biblical description where the participants were Adam and the Abrahamic God (a deity envisioned as an old white man by Michelangelo, and many other artists before him), so the remixes are drawing on that same gender and race dynamic.

Mobilimb: https://marcteyssier.com/projects/mobilimb/ (accessed 12th March 2020).

The fluid metal version of the AI hand might owe its style to the similarly fluid, shapeshifting, T-1000 Terminator model, introduced in the second film in that franchise, *Terminator 2: Judgement Day* (1991).

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However, who is being privileged in this modern remixing of the artwork and in our narratives of technoscience? This privileging is an issue that we will return to in our consideration of the meme's connections with post-humanist narratives below.

2.1.1. The Color Blue

Observing the corpus, it was immediately apparent that there was a dominant color palette. Blue is prevalent, both in backgrounds and in the coloration of the dots of lines of the abstract AI hands. There were only a few examples of the meme with green, yellow, and purple backgrounds and highlights. This color palette is likely to be the result of the artists choosing colors for their thematic resonance. For example, a green palette was used in one variant of the AI Creation Meme that was used in an article on AI and the environment. A 2018 article from a marketing consultancy suggests that blue is a favorite color for the branding of technology companies because of its associations:

"What does the colour blue mean to you? Intelligence, trust, communication and efficiency? These are the most popular connotations connected with the colour and could be the reason why the technology industry has adopted it as their brand colour of choice." (Motion Marketing 2018)

Design decisions, such as adopting a color palette, are not just a matter of adopting an implied meaning but also an act of meaning making that informs a cultural milieu. Alexandra Grieser's work on popular imagery of Blue Brains in neuroscience, which applies an "aesthetics of religion" (Grieser 2017, p. 239) view to such cases, is useful here for addressing the entanglements of science and religious images, and the impact of ideologies. On the color blue specifically, Grieser addresses how, "the material and media history of royal blue is likewise embedded in the cultural habits of using it to denote 'seriousness and trustworthiness', the blue of uniforms, of authority and function (business suit) and to its use in businesses that depend on association with safety and reliability such as banks, insurance and the health service" (Grieser 2017, p. 255). Further, she highlights the rich histories of symbolism that draw on the fact that blue "is a colour rarely present in nature; however, where it presents its dimensions belong to the formative experiences of existence: the sky and atmosphere of the earth; the ocean, deep water, thick ice and snow and distant objects (e.g., mountains) appear blue to the human eye" (Grieser 2017, p. 254). Heaven is "bright blue, and the underworld is dark" (Grieser 2017, pp. 254-255). Moreover, such color choices, Grieser argues, enable affective responses in audiences. Images do not just impart knowledge, such as information about the brain as in her case study, they also "target the level of affective attitudes rather than content and arguments" (Grieser 2017, p. 260). In the section on post-humanism below, we will consider the attitude impacting posthumanist narratives that infuse the AI Creation meme's imagery.

Just as color is a choice that targets affective attitudes, other design decisions in the AI Creation Meme are collaborative in meaning making. These include the choice of background imagery that surrounds the hands in the memes and even where the image is used.

2.1.2. Background Imagery

As in the EU Commission example in Figure 1, some of the memes had background imagery. There were cosmic backgrounds of galaxies and star systems, cityscapes with skyscrapers, walls of binary text, abstract shapes in patterns such as hexagons, keyboards, symbols representing the fields which employ AI, and more abstract shapes in the same blue color palette. A general trend was noted: the examples with cityscapes and graphics were employed more often on business, policy, and technology focused websites, while those examples with the more abstract and cosmic backgrounds came from websites asking more philosophical questions about the future of AI. We can posit that the designs were selected from stock image databanks based on how they aligned with the content they would be illustrating. However, each example brought with it further connotations by remixing a classical piece of art with its heritage and symbolism. Thus, the initial decision by an online location

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to use such a religiously inspired piece of digital art is a part of the interactivity of the meaning making process that we have referred to through the work of Grieser above.

2.1.3. Online Locations of the AI Creation Meme

Of the 79 images, 38 came from websites offering stock images for sale (the most commonly appearing suppliers in this corpus were Adobe, Shutterstock, iStock, and Dreamstime). A reverse Google Image Search for these stock images gave hundreds, if not thousands, of results for websites that had used that specific AI Creation Meme. The other 39 images were encountered first on a variety of websites, too many to list in detail here, although we can discuss broad types and groups. Many of the examples came from the websites of well-known technology and business publications such as TechCrunch, The Tech Panda, Forbes, and Reuters. Some came from websites for business news and information such as enterprisetalk.com, accountancyweb.co.uk and future-costumer.com. Some AI Creation Memes appeared on the sites of business consultancy firms such as Accenture and KPMG. There were uses of the meme on corporate websites, such as that of international businesses Koa Global and Autogenity. Some examples came from blog posts uploaded in online locations related to business and technology such as Linkedin. Others were on more personal blogs, but in those cases, they were still attached to posts discussing the finance industry, bitcoin, eCommerce or the future of work. The meme appeared on products as well, with one third-party seller on Amazon offering blackout curtains with the AI Creation Meme printed on them.

Outside of the more business-orientated sites, the meme also appeared as the Twitter banner for a post-humanism network, a group which has 600 followers on Twitter and 1452 on Facebook. The AI Creation Meme appeared on the website for the Future of Life Institute: a US-based research organization which considers questions around the future of humanity. With regards to religious spaces, the meme illustrated the front cover for the book, *Science and Christianity*, by Chris Mulherin (executive director of ISCAST—Christians in Science and Technology), published in 2019, in an article on "Should we replace human contact with robot 'companions'—or is there a better way?" on Christianity Today, and on the website SilencingChristians.com in an article called, "How technologies are changing religion".

The relative importance of and impact on public perceptions of these different locations are worth remembering. Some of the sites mentioned have a readership of millions, i.e., Forbes, which claims 170 million US readers in March 2020 alone (Forbes 2020). Other incidents of the meme occurred in much less impactful spaces such as personal blog posts. In the following section, we will return to the religious narratives implicit in the AI Creation Meme, initially through a consideration of the original fresco and the quantitative and qualitative research that has highlighted the impact and reach of that particular artwork, before considering the wider themes expressed by the fresco and its AI remix.

2.1.4. The Creation of Adam by Michelangelo

Each year, approximately six million people visit the Sistine Chapel to observe the art within, and Emanuela Edward's 2018 survey of 218 visitors over two days reveals facets of the public's reactions to Michelangelo's *The Creation of Adam* in particular. Whereas the original aim of such artworks was to "introduce us to the world of Revelation" (Pope John Paul II 1994), the works now have broader appeal, while still evoking more significant questions of our origins and creation that humanity has asked with for millennia. Edwards claims that the Sistine Chapel artworks "appeal to believers and non-believers alike not least because the two most famous pieces, *The Creation of Adam* and the Last Judgement, place before them extraordinary artistic images that strike at the heart of human experience by posing the questions: 'where did I come from?' and 'what will be at the end?'" (Edwards 2018, p. 261).

While the original audience for these works was the expert theologians and believers of the Papal Court, they are now apprehended by "diverse publics" (Edwards 2018, p. 263). These publics respond to the aesthetic and the rhetoric of the artwork in different ways and approach it with different levels

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of prior knowledge of the meaning intended, acquired sometimes through a reading of materials and texts (Edwards 2018, p. 266). Although the Sistine Chapel offers reading materials and guides, it is essential to note that meaning making is also an interactive event, whereby: "Meaning is not located in the object itself. Nor is it found in the spectator's well of previous experiences. Meaning derives from the interplay of these elements and is not limited to expressive or persuasive mode of response" (Helmers 2004, p. 65).

Edwards also notes that most publics' level of religious literacy has declined through the process of secularization and that these publics' ability to understand the message of such art has reduced. While we will consider the Secularization Theory in light of what is termed the New Visibility of Religion, reduced religious literacy does not necessarily mean that all meaning is lost, and all messages misinterpreted. As Edwards suggests, "In the case of *The Creation of Adam*, people were drawn by its meaning, its artistic features, and also its fame which suggests that the image has a broad or universal appeal. It is this universal appeal that helps the work communicate its message to a wide range of viewers" (Edwards 2018, p. 269). Perhaps, there is a sharing of a partial message: *The Creation of Adam* stands for a more nebulous understanding of 'creation' in the modern, post-secular age, and this is the message that is remixed and transmitted in the AI Creation Meme. We will return to the concept of the post-secular age, but here there is more to be said about the types and varieties of the AI Creation Meme that were obvious from the sample and which remixed *The Creation of Adam*'s message and content.

3. Relative Positions: Human and God, Human and AI, Left and Right

In the original artwork by Michelangelo, Adam is on the left as the viewer looks at the piece, and God is on the right, surrounded by his host of angels. In the 'close up' that focusses the viewer's attention on to just Adam and God's hands, we can also recognize that there are differences in the positions of the fingers and the two beings. Barolsky also discusses Michelangelo's originality and "genius" in painting God in the same horizontal pose as Adam, and with very similar physical features, reducing the differences between the created and the creator (Barolsky 2013, p. 23). However, in the AI Creation Meme, the zoomed-in focus on the hands and the differences in their nature and material, as discussed above, diminish similarities and connection between the two beings.

There was also variation in the placing of the human and the AI in the AI Creation Meme. In many versions, the AI took Adam's place on the left-hand side of the image. This relative positioning might represent a continuation of the theme of creation, with humanity represented as a creator imbuing life in the AI. However, there were also pictures with the AI hand on the right and the human hand on the left (as it was in Figure 1). In total, 53 (67%) of the examples had the AI hand on the left (in the 'Adam' position), and the human hand on the right (in the 'God' position). Approximately one-third, 26 images (33%), had the human hand on the left (in the 'Adam' position) and the AI hand on the right (in the 'God' position).

It is tempting to believe that these latter examples are suggesting that AI creates the human, a narrative I have not found outside of theistic Simulation Theories (see Singler 2020, discussing Prisco 2018). However, as there are also many variations in the design and position of the hands themselves, this variation in the relative position of the beings occurs for aesthetic rather than rhetorical, narrative, or thematic reasons. The hands themselves, while recognizably positioned in relation to each other in the act of 'creation', do not always directly copy the poses of hands in the original artwork. Again, these are design decisions, just as we saw with the color palette and the relative positions of the beings. However, even in the most 'remixed' version of the AI Creation Meme, I argue that hands almost touching fingertip to fingertip still evoke a strong cultural response through the memory of Michelangelo's *The Creation of Adam*.

Moreover, the most potent evocation of the essence of the original artwork comes from something that was not originally part of that work. In many examples, there is an addition: a small spark of energy between the fingertips of the two beings. Again, as Helmers argues, meaning is generated through the interplay of the image and the viewer's experiences. Thus, this spark is

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reminiscent of other creation narratives about a Spark of Life the viewer may already know. The cultural narrative of the Spark of Life likely has its origins in the scientific works of Luigi Galvani (1737–1789), who observed the kinetic effect of static electricity on the muscles of a dead frog and deduced that there must be a vital spark required for life and animation. Mary Shelley's novel *Frankenstein* was written in the following years when Galvani's experiments were replicated by roadside 'scientists' as she walked about town, and Victor Frankenstein's creation's rebirth is reliant on a 'spark' as well:

"I collected the instruments of life around me, that I might infuse a spark of being into the lifeless thing that lay at my feet. ... By the glimmer of the half-extinguished light, I saw the dull yellow eye of the creature open; it breathed hard, and a convulsive motion agitated its limbs." (Shelley 1818, chapter four)⁴

After Galvanism and Frankenstein, the theory of the emergence of all life on Earth from a primordial soup, a "warm little pond" of "ammonia and phosphoric salts, lights, heat, electricity, etc." was summarized by Charles Darwin in an 1871 letter to botanist Joseph Hooker (Darwin 1871). In this case, the Spark of Life was understood as the first moment of the creation of life on Earth through material means rather than the element that brings one body to life. Debates about the role of a deity in such scientifically explicable accounts of the Spark of Life of course continue. However, the spark in the space between the AI hand and the human hand evokes 'creation', and therefore a 'creator' and a 'created' in relation with each other. Grieser also noted such sparks in her work on Blue Brain imagery in neuroscience, arguing that such motifs can be seen as perpetuating the aesthetic forms of a "religious history of electricity" which involves visualizing conceptions of communication with the divine (Grieser 2017, p. 253). Therefore, in both the Blue Brains and the AI Creation Meme, a diffuse religious resonance is being brought into the audience's meaning making even when the context in which the meme is employed might be very secular. Alternatively, perhaps it is more accurate to think of such a society where such religious resonances are still made visible as *post-secular*.

4. Memes, the Media, and the New Visibility of Religion

As discussed, the websites where the AI Creation Memes were found were also noted. It is worth stressing that while these images fulfil the criteria of being Internet memes, in that they are online

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Considerations of *Frankenstein* also draw attention to a gendered tension in the narrative of the creation of artificial life. The desire to create is apparent in all genders and sexes. However, the cis female capacity for embodied procreation is a "universal and timeless act, and no less timeless or universal is the fantasy that a [cis] male may create new life without a woman: Zeus' delivery of Athena, Pygmalion's creation of a living woman by his art, or Gepetto's construction of the wooden Pinocchio, to cite only some examples" (Benziman 2006, p. 375). Therefore, the novel might be read as a warning against male-centred/female-absent creation, and perhaps the 'mad scientist' trope that Victor Frankenstein has inspired owes something of its 'evil' to the breaking of that taboo. In the case of the AI Creation Meme, the act of creation is mimicking the initial relationship between Adam and God, before the creation of Eve and her ability to conceive other humans. Still, the continuation of imagery of male-centric creation has an impact on gender relations and hierarchies. Technology is, and remains, a very male-dominated field, and this imagery, used on business and technology websites, supports that very male space. We will consider this male centrism further in the section on post-humanism and refer to work considering the dangers of human essentialism and the male technologists who seek to create their own artificial 'Mind Children'.

The 'society' in this case is primarily the Western Anglophone culture I have observed these memes in, with the caveat that other cultures have their own AI narratives not explored here, although it is also important to note that some of the graphic artists of these memes and other popular representations of AI are not themselves always white Westerners. For example, Phonlamai Photo, which produces many such white robot images for stock image depositories, is based in Thailand (https://www.shutterstock.com/g/PhonlamaiPhoto). This demonstrates that when it comes to AI, certain representations of race and gender dominate across cultural differences, and the Western image is being privileged.

creations that remix existing narratives and imagery, becoming "(post)modern folklore, in which shared norms or values are constructed through cultural artefacts such as Photoshopped images or urban legends" (Shifman 2013, p. 5), they do not solely appear in the usual locations of the Internet meme. Memes often perform "absurdist humor" and/or "social commentary" (Knobel and Lankshear 2007, pp. 199-227), and thus appear in online locations that enable performance such as forums boards, Reddit channels, and social media platforms such as Twitter. Almost all the business and technology focused locations where the AI Creation Meme appeared had no apparent need to evoke creation imagery or to raise questions brought up by The Creation of Adam itself. Nevertheless, for all that most of these are 'secular' spaces, the image was still being used. Research into religious memes has suggested using them as examples of "lived religion" (Bellar et al. 2013, citing Hall 1997), and that as such memes cannot be limited by the sacred/profane dichotomy (Aguilar et al. 2017, p. 1518). Instead, the participatory culture of meme making remixes both ends of this spectrum. In the case of the AI Creation Meme, the playfulness is less apparent, but still, the formation, using culturally significant and familiar elements, also demonstrates "emotive discourse". Further, "Such discourse reflects strong moods and poignant feelings that the producer of the meme seeks to communicate" (Bellar et al. 2013, p. 21). Again, aesthetics is informed by ideology for the end of affecting attitudes, as noted by Grieser with regards to Blue Brains in neuroscience.

The widespread use of the AI Creation Meme in allegedly secular spaces also brings us to the arguments and ideas of the New Visibility of Religion and post-secularity as discussed in Ward and Hoelzl's edited volume of 2008, *The New Visibility of Religion: Studies in Religion and Cultural Hermeneutics*. In particular, I read the AI Creation Meme in parallel to the arguments of Alexander Darius Ornella. His chapter in this 2008 volume discusses the relationship between religion and the media, using the religious motifs of the 2006 film *Children of Men* as a starting point. I propose that the AI Creation Meme highlights similar issues and uses of religious imagery in the media. Moreover, I propose that it can also be placed in an AI teleology that looks forward to a new creation, or post-humanism, that seems at odds with a secular context, but which, I argue, fits within a current post-secular context. I will now consider Ornella's argument before moving on to the question of the AI Creation Meme and post-humanism.

Ornella recognizes the apocalyptic and religious motifs of Alfonso Cuaron's film *Children of Men*, based upon the 1992 novel by P.D. James. In the story, it is 2027, and eighteen years of total infertility have changed society. One lone pregnant woman, a young immigrant, becomes the embodiment of humanity's "last hope on earth" and a Mary-like figure (Ornella 2008, p. 129). According to Ornella, this apocalypse of fertility is "concrete, local, and mundane" in contrast to the hope for the coming kingdom of God seen in Biblical apocalypticism, (Ornella 2008, p. 129). The film is, in its reworking of the key images and themes of religious apocalypticism, a cinematic meme. As, Slavoj Žižek said of the film, "[It] is a model of how you can take a reactionary text, change some details here and there and you get a totally, a totally different story" (Žižek 2006). Children of Men avoids the supernatural and characters go on different journeys with different fates. But what stays the same is the essence, the cultural narrative, making the film a "clear Christian parable" (Žižek 2006). With its themes of apocalypticism and the religious motifs noted by Ornella in this chapter, the film is not so totally a different story. It is a narrative that resonates with familiar cultural accounts of hope and "resuscitation" (Žižek 2006), informed by the Bible as a cultural resource.

Likewise, the AI Creation Memes rework the familiar cultural images of *The Creation of Adam* to evoke ideas of creation and of the relationship between the creator and the creation—this time the human and the AI. The application of the biblical creation narrative to AI is likely undesired by many in religious communities. However, as Ornella also argues, "Religious communities have lost their control over religious symbols and rites, in that they are not restricted to a distinct realm or authority anymore but are lived, performed as and informed by mediated practices" (Ornella 2008, p. 141). These mediated practices include cinema in the case of the film *Children of Men*, but they can also occur in spaces where the narrative is not so obviously fictional, such as in the use of the meme in the business sphere, or by the European Commission as in the first example of this article. The numerous AI Creation Meme examples and locations highlight the fluidity and utility of this meme in particular

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and the overall impact of images in the discourse. As Ornella suggests, "the 'return' of the religious is not only about the presence of religious iconography and its transforming meaning, but about a whole aesthetic experience created by a variety of sources we immerse ourselves in" (Ornella 2008, p. 141).

There is a meta-level of interaction here as well. While the use of religious motifs and terminology is observable through the AI Creation Meme and other examples, such as in "the terminology parallels between religion and computer programs with words such as 'save' and 'convert' (Forte 2007), the use of types of technology (e.g., digital art, photoshop, websites, blogs) for the dissemination of the meme is another layer of AI and religion entanglement (Singler 2018a). Moreover, technology, and the numerous media forms that emerge from it, are also subject to powerful forces of acceptance and rejection in the marketplace of ideas. Products for sale are imbued with aspirations and resonances beyond their immediate forms: "Rather than selling specific products, producers try to sell dreams and the access to another world, not least because they expect better profit" (Ornella 2008, p. 138). Technology itself partakes of those resonances and assumes a teleology of its own. Technology itself is seen as partaking of the same aspirations for transcendence as seen in the remixed religious motifs: "media and technology are often hoped to further human evolution, surpassing humanity's current state and transforming it into some sort of transcendent state" (Ornella 2008, p. 132)

Discussions of the New Visibility of Religion through the products of the media economy like the AI Creation Meme must, therefore, take on board that the entanglements of religion and technology, and the remixing of the former's motifs, still allow for continuations of thought that resonate with audiences and diverse publics, as per Edwards. The AI Creation Meme instills in viewers the thought of 'creation', no matter the secular context or nearby content. Further, the conjunction of that thought with the presentation of AI, embodied in the robotic hand, in a relationship with the human as creator, also infers *post-human* narratives that surround AI. It is these narratives that we must now turn to and their relationship to the New Visibility of Religion in the 21st century.

5. Transhumanism, Critical Post-Humanism, and Speculative Post-Humanism

In his 2015 book, *Posthuman Life: Philosophy at the Edge of the Human*, David Roden (2015) identified three strands in post-humanist discourse: transhumanism, critical post-humanism, and speculative post-humanism. In a 2016 paper, Heidi Campbell uses Roden's typology and then grounds it in ethnographic examples drawn from her interactions with "Religious Digital Creatives" (Campbell 2016). Campbell describes how their critical post-humanism "seeks to deconstruct the human subject and privileges emerging technological forms" (Campbell 2016, p. 305). Further, post-humanism unsettles human essentialism and domination of our ecology by considering the potential emergence, or birth, of post-human beings: "[Speculative] Posthumanism can be described as an ideology that foresees the overturning of a human centred world, in order to make room for new technologically-enhanced forms of humanity" (Campbell 2016, p. 303). Transhumanism, in Roden's scheme, is about augmentation of existing human abilities and the elimination of flaws. Transhumanists see the transhuman as an "intermediary transition between the human and a possible future human" (World Transhumanist Association 2001). Speculative post-humanism can also look towards a 'technological singularity': an artificial descendent of current humans, seen by some as humanity's future 'Mind Children' (Moravec 1988).

What frame of post-humanism is informing the AI Creation Meme, with its illustration of the moment of creation involving not the human and a deity, but the human and the AI? It does not immediately appear to be transhumanist: the AI hand is not emerging or evolving from the human hand; the two remain distinct in the illustrations. Might the AI Creation Meme suggest a critical post-humanism? Arguably, the reliance on the resonances of the original artwork could suggest that this is a new act of Creation that displaces Adam from his original position, suggesting an upset of the normal order and human essentialism. However, as the AI Creation Meme simultaneously elevates the human into God's original position, it might also be presenting commentary on humanity's self-

elevation or a teleological view of human becoming as gods. This account of the future is given by some religious forms of self-proclaimed transhumanism, such as the Turing Church (see Singler 2020). However, the AI Creation Meme also draws on the speculative post-humanism narrative by presenting the AI as the creation of the Human, and therefore as a future being.

Post-humanism can inspire both positive and negative responses, and one example of the AI Creation Meme collected for this research demonstrates this. In *Star Trek: Picard*, several hundred thousand years ago an unknown race left behind a telepathic message about the rise of synthetic life. The Romulans who first discovered the message perceived it as an 'Admonition', a dire warning about a coming apocalypse. However, in episode 9, "Et in Arcadia Ego, Part 1", a synthetic lifeform receives the Admonition, hearing these words:

"Life begins. The dance of division and replication. Imperfect, finite. Organic life evolves, yearns for perfection. That yearning leads to synthetic life. But organics perceive this perfection as a threat. When they realize their creations do not age, or become sick, or die, they will seek to destroy them and, in so doing, destroy themselves. Beyond the boundaries of time and space, we stand, an alliance of synthetic life, watching you, waiting for your signal. Summon us and we will come. You will have our protection. Your evolution will be their extinction".6

Amongst the visions she receives is the AI Creation Meme, as in Figure 3, but for her the message is one of a new creation, a positive post-humanist narrative that she accepts and acts upon. The Admonition is, therefore, an example of how creation imagery is received by different audiences, as well as being an example of post-human narratives in a modern science fiction story.

Outside such examples from science fiction, some hold positive interpretations of post-humanism and claim that it can encourage us to celebrate a broader cosmology of connected beings and a shared community. This is a stance we see in philosopher and feminist theoretician Rosi Braidotti's 2013 work, *The Posthuman*. She proposes that "A Posthuman ethics for a non-unitary subject proposes an enlarged sense of interconnection between self and others, including the non-human or 'earth' others, by removing the obstacle of self-centred individualism" (Braidotti 2013, p. 50). Tomasz Sikora's self-proclaimed "tentative" Critical post-human reading of Dionne Brand's short story 'Blossom' also holds a positive view of the new relation between beings that post-humanism can instill:

"Whether a radicalization of humanism, or a new philosophy in its stead, Posthumanism certainly calls for a repositioning of the human vis-à-vis various non-humans, such as animals, machines, gods, and demons, as well as for a careful investigation of the Eurocentric notions of the human which have been granting 'humanity' to certain objects only provisionally" (Sikora 2010, p. 114)

With AI, critical post-humanism can discuss locating robots (broadly defined) within a more generous framework of rights. Some argue that robot rights, and robots inclusion within a wider cosmology of potential beings, would be beneficial to our society: "Advocating on behalf of robots as social participants deserving of minimal respect and dignity in virtue of that participation can encourage nothing but a more respectful, participatory, and dignified social order" (Estrada 2019, p. 16).

Negative responses to critical or speculative post-humanism can be a reaction to a perceived displacement of the human from established categories and privileges. The pushback against this displacement often takes the form of a strong human essentialism that speaks loudly for human rights in the discourse around AI ethics and robot rights. Those of religious faith with clear ideas of what role humanity plays in their deity's creation of the world would also likely want to center human concerns and identities, with emphasis as well on God's relationship to humans through his grace

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⁶ Text available at https://www.tvfanatic.com/quotes/life-begins-the-dance-of-division-and-replication-imperfect-fini/ (accessed 30th March 2020).

(for example, Peters 2018). In the case of the aforementioned Christianity Today article on robot companions, the AI Creation Meme appeared in a piece that suggested that robots, post-human beings, were not as good as humans: "real companionship and love can neither be experienced nor truly reciprocated by a robotic pet. It is our responsibility to bring the love of Christ into our communities through practical action and genuine care and concern for everyone. That is the better way." (Christianity Today 2019)

'A better way' is a weaker response to speculative post-humanism than the Romulan perception of the Admonition, with its apocalyptic overtones. However, both represent forms of human (or biological) essentialism that have critics. For example, philosopher Daniel Estrada's analysis of the work of AI ethicist Joanna Bryson calls her focus on humanity a form of "human supremacy". He describes this as the view that "human interests ought to be systematically privileged over other interests as a matter of public policy" (Estrada 2019, p. 3). Likewise, speculative post-humanisms that call for our artificial 'Mind Children' (as per Moravec above) to spread outwards from Earth might be critiqued as the "seminal fantasies of technology enthusiasts [...] the purest form of Anthropocene theology, not Teilhard de Chardin's refined cosmic Christ, just men ejaculating into the void" (Boss 2020, p. 39). In the AI Creation Meme, we have noted how the majority of human hands are white and male, and this perspective is present in post-human narratives that celebrate 'seeding' the universe with *Man's* post-human offspring.

Daniel Estrada also offers a critique of a broader "anthropocentric ideology in mainstream AI ethics" (Estrada 2019, p. 5): a human-centric imperialism that still has its roots in older historical, male, Western, conceptions of who gets to have rights and why. While Joanna Bryson and other AI ethicists might not be people of faith, Estrada indicates scholars who "have noted how the discourses on conscious experiences in AI privilege a Western European and predominantly Christian perspective on artifacts and their relationship to nature and society—a perspective that is not universally shared" (Estrada 2019, p. 6). However, as Ornella argues, when religion and media combine (as we have seen in the AI Creation Meme), the message moves out of the control of the originator of the religious motif or artwork. Thus, while these perspectives might parallel and evoke religious tropes and imagery, religions have no control over the interpretation and use of their narratives. Further, post-humanism and the religion-inspired AI Creation Meme fit into a post-secular age replete with a New Visibility of Religion because post-humanism itself does, as we shall now discuss.

6. AI Post-Humanism and Post-Secularity

The term post-secular draws on the work of Habermas (2010, 2008), wherein he describes how contemporary public discourse still allows space for religion, and how religious symbols can appear in public, outside of private beliefs. This is much as Ornella described the New Visibility of Religion, using the example of the film *Children of Men* in the eponymous 2008 volume by Ward and Hoezl. My previous research into the religious expressions, motifs, and behaviors of transhumanist and post-humanist groups has demonstrated continuities of thought even in aggressively secular, or New Atheist, spaces (see Singler 2018b and 2019). We can also see how popular discourse is also informed by both religious motifs and symbolism when engaging with new technology, as in the case of the 'Blessed by the Algorithm' tweets I have explored in a forthcoming article (Singler 2020). Such continuities support the view (seen in Bellar et al. 2013 with regards to lived religion and religious memes) that the 'religious' and the 'secular' are fluid categories when it comes to responses to technology and the narratives that emerge around it.

Elaine Graham's proposal of the post-secular as a potential "third space" (Graham 2013, p. 2) between religious society and secular society also brings to mind the fluidity of the category of the 'human'. Just as the post-secular age "questions the fixity of the boundary between science and religion, profane and sacred and the modernist evacuation of faith from accepted conventions of

The scholars he cites are Gunkel (2018), Jones (2015) and Williams (2019).

public and moral reasoning", the post-human can alert us to "the contingencies of the boundaries by which we separate the human from the non-human, the technological from the biological, artificial from natural" (Graham 2013, p. 1). Particularly, Graham argues, we should think of this contingency of nature in light of Latour's claim that "We have never been modern" (Latour 1993), and his claim that there is no ontological purity of forms, only modern Western attempts at "purification" through boundaries and demarcations. The technoscientific products of such attempts that Latour refers to as the result of a process of "translation" would also include AI. AI as a "translation" might be the reason why AI ethics discourse around whether robots should ever have 'rights' and be understood as persons is so complicated. Our boundaries and demarcations reinforce Latour's famous phrase, but also suggest that it can be reframed as: 'We have never been human'. The alleged 'human' has always evolved along with its projects and its attempts at purifications, products created in conjunction with the technological. Thus, the distinction for some appears to be one of more ideology rather than ontology, and we have noted how aesthetics can come from ideology in order to target 'affective attitude' (Grieser 2017).

Returning to our specific case study, the AI Creation Meme, it is tempting therefore to think that the instances where the human is on the left (the 'Adam' position) and the AI hand is on the right (the 'God' position) as a subtle hint towards this 'Latourian' perspective on the human and our technology, and as not just an aesthetic choice, as I suggested above. Even if this positioning is not intentional, it could also have a subconscious effect on public discourse, promoting a more diffuse transhumanism that sees humans as continuously co-created with and by technology. When used to illustrate the efforts of an impactful high-level policy group, as in the European Commission's AI Creation Meme, we have to wonder about the messaging implied. In some instances, the messaging is made clear, as in the negative response to AI in the DavidIcke.com version of the AI Creation Meme (see Figure 4), which is illustrated with the words "Artificial Intelligence. Summoning the Demon". Icke's version adds to the existing religious continuities of the AI Creation Meme by remixing it with overt supernaturalism. This 'demonic' version may have been inspired by Elon Musk's similar comment in 2014 at the MIT Aeronautics and Astronautics department's Centennial Symposium:

"If I had to guess at what our biggest existential threat is, it's probably [AI]. So, we need to be very careful with artificial intelligence. I'm increasingly inclined to think that there should be some regulatory oversight, maybe at the national and international level, just to make sure that we don't do something very foolish. With artificial intelligence we're summoning the demon. You know those stories where there's the guy with the pentagram, and the holy water, and he's like—Yeah, he's sure he can control the demon? Doesn't work out." (Musk 2014)

It is possible, however, that Icke's well-documented belief in the ontological reality of non-human, and malevolent, transdimensional and interstellar beings that he calls 'demons' makes his comment less metaphorical and more theological than Musk's (see Robertson 2016 on Icke and his 'conspirituality' beliefs). Even so, both Icke and Musk are employing religious imagery in the public discourse around AI, in a post-secular society, and raising the visibility of religion.

There are dangers in the concept of post-secularity, however, and Musk's use of religious tropes, and the AI Creation Meme as a whole, are perhaps illustrative of these dangers. Sociologist of religion Jim Beckford argues that:

"The concept of 'post-secular' trades on simplistic notions of the secular. It has a short-sighted view of history. It refuses to examine the legal and political forces at work in regulating what counts as 'religion' in public life. There is therefore a danger that talking about the post-secular will be like waving a magic wand over all the intricacies, contradictions, and problems of what counts as religion to reduce them to a single, bland, category." (Beckford 2012, p. 16).

Titus Hjelm picks up this critique of the concept of 'post-secularity' and adds notes of caution about the neoliberal appropriation of religion as a political, or expedient, resource (Hjelm 2014).

Further, he argues that the mediatization of religion, which includes the creation of memes using religious tropes and imagery as in the AI Creation Meme, also risks 'taming' religion, making it conform to "particular logics of genre and media convention" (Hjelm 2014, p. 217). Likewise, religion as a source of entertainment rather than identity is 'banal' religion, according to Stig Hjarvard (Hjarvard 2012). Thus, in comparison to the original artwork by Michelangelo in the Sistine Chapel, the AI Creation Meme is denuded of bold religious context and content, and is, perhaps, 'tamed' or even 'banal'. In Edwards' survey work on the Sistine Chapel and its visitors, she highlights the importance of informative material and verbal resources made available to the visitors for their perception of the original artwork (Edwards 2018, p. 266). However, the AI Creation Meme often stands alone, its religious imagery put to work for non-religious purposes, even as it resonates with more significant philosophical questions of creation and the created, as well as the post-humanist narratives explored in this article.

7. Conclusions

The AI Creation Meme has been used in this article as an example of the religious continuities and resonances we can find in AI discourse. As a visual artefact, the AI Creation Meme also highlights the literal visibility of religion in an age that is increasingly proven to be less secular than has been claimed. The varieties of the meme—its color palette, the position of the hands, and the locations it has been used in—have been explored in this article for their insinuations of rhetoric beyond aesthetic. This exploration has brought us to the post-humanist narratives that express the apocalyptic. This is the apocalypse in the sense of the transformation of the world, either through a transformation of humanity or of a new creation, and the relationship between the human and the created machine that that suggests. Often, 'apocalypse' is regarded in contemporary society as solely the 'End of the World', appearing in AI narratives and science fiction in its most negative form. However, the apocalypse, in its original sense, also includes positive transformations, and we also see this understanding in AI apocalypticism and post-humanism (Geraci 2010).

Visual artefacts of the post-human apocalypse such as AI Creation Meme are not, however, neutral projects. The use of religious tropes within such memes is an indicator of the perceived social value of religious narratives in an age of, often self-proclaimed, technoscientific-enabled secularism. As Hjelm argues, "Religion, as any cultural phenomenon, is the object of different types of valorisations—ascriptions of value—and, despite all the talk about 'faith', it is the social contribution of religions rather than faith that is being valorised." (Hjelm 2014, pp. 218–19).

Post-humanism, and the apocalypse of the new creation that it can promise, can also be seen as providing social value when its narratives and images are employed in the AI discourse. The AI Creation Meme employs images of a machine and human future mixing with the familiar elements of *The Creation of Adam*, not destroying them. Moreover, all these elements are being employed in spaces that are not native to such religious images, such as business magazines and in policy documents. Therefore, post-humanism is itself also a cultural resource, a useful narrative that can be employed to elicit the same core questions of human nature, creation, and identity that religions have tackled for millennia.

Further, like the scholars cited in this article that refute the totality of the Secularization Process and argue that we cannot live in a 'modern' age because we have never been modern nor disenchanted, I also see cultural artefacts like the AI Creation Meme as indicators of religious continuities and proof that we cannot exist in an entirely secular state. Such narratives and assumptions about the rationality and disenchantment of the secular 'West', are not only the result of anthropological blindness (not necessarily from anthropologists themselves) but also a pernicious othering of cultures to which the observer is not blind to enchantment. Charles Taylor's 2007 assertions that Westerners could not live except within the 'immanent frame' of secularity shows a lack of self-reflexivity that later scholars try to respond to in light of visible evidence of continuities of enchantment and religiosity. With regards to AI, this mythologizing and enchantment is apparent when we explore the disjoint between the reality of the technology and its representation. Hype and the hype cycle is one modern theoretical framework to employ in response to such AI narratives.

Another theoretical approach is possible in the exploration of the imagery and artefacts of our discourse for enchanted aspects, to note where our dreams of artificial beings fit into pre-existing religious and spiritual shapes. We need to recognize where existing anthropological frameworks give us insights into the behaviors and products inspired by AI. Elsewhere, I have used the work of anthropologists Victor Turner and Mary Douglas and the philosopher Julia Kristeva to think of AI as a liminal object in our conception of the minds of others and highlighted how apocalypticism emerges from abject fears of 'Mind out of Place' (Singler 2019). The AI Creation Meme represents a playful but thematically powerful remixing of existing supernatural concepts which plays with the liminal space of creation, as well as the inherent liminal space created by the 20th-century technology and participatory culture of the 'meme' format itself.

However, the inherent playfulness of meme culture and the harking back to imagery from what is seen in the myth of disenchantment as a 'less enlightened' or earlier age in humanity's development does not imply immaturity. Unlike Eileen Graham on this topic, I disagree that, "The re-emergence of forms of public spirituality do not herald a wholescale re-enchantment of human experience, since they cannot unmake humanity's coming of age" (Graham 2013, p. 7), because there is no direction of maturity in which to grow, no human teleology just as there is no AI teleology predicting a post-human future. What we have in this example, and elsewhere in discourse, are symbols and stories. They are remixed into new shapes that evoke past imaginaries and are made newly visible in spaces that would have been unexpected to the artist of the Sistine Chapel and his sponsors. The AI Creation Meme acts as a focal point for these cultural tides and adds to the larger conversation about the stories we tell ourselves about the future of both AI and religion. The AI Creation Meme, therefore, is a strong indicator of the New Visibility of Religion in the sphere of AI discourse, a space that is not ordinarily perceived as 'religious'—a space that is commonly seen as 'rational', 'disenchanted', and 'modern'. In this article, we have tried to look anthropologically in order to avoid this blindness.

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