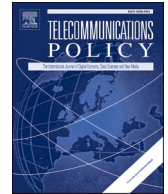




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Digitalization, AI and the rise of techno-religion: Transhumanist promises and the challenge to Enlightenment

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ABSTRACT

Digitalization, currently spearheaded by artificial intelligence, not only disenchant but also re-enchants societies, giving rise to a transhumanism-shaped techno-religion that contests prevailing interpretations of the Enlightenment project in Western societies. This article draws on a long-term perspective on media change and a sociotechnical conception of the digitalization of societies as the Digital Trinity: the co-evolutionary interplay of datafication, algorithmization, and platformization. It argues that this trinity of transformative forces is marked by a transhumanist reinterpretation of Enlightenment and exhibits corresponding techno-religious features. These features are revealed both in societal functions (e.g., handling contingencies, contributing to sensemaking) and in individual experiences of digitalization (e.g., the feedback loop of sacralizing technology and the self). Transhumanist visions of a technically controllable human evolution and transcendence replicate and reinforce belief structures traditionally associated with organized religions. Drawing on critical-theoretical readings of Kant, the article demonstrates how the rise of this techno-religion and its underlying transhumanist reinterpretation of Enlightenment stand in tension with the prevailing Kantian conception of Enlightenment, whose emancipatory aim is to foster “maturity” through critical reason, rationality, and human autonomy. In response, it suggests a next wave of Enlightenment that moves beyond the anthropocentric 18th-century model by combining the safeguarding of traditional values with the overcoming of recognized shortcomings and adaptation to today’s highly networked digital realities. It argues for curbing the mystical side of digitalization; reclaiming public discourse from transhumanist mythologies; and reframing human self-understanding within a networked, more ecocentric perspective, for example, by resisting the strong anthropomorphization of technological systems.

1. Introduction

Today, we stand at the crossroads of several significant forces shaping human history. One of these is digitalization with the rise of artificial intelligence (AI); another is the legacy of the Enlightenment. But are these two forces aligned, or do they stand in conflict? To address this question, the article builds on the critical-theory critique of Kantian rationality and instrumental reason, reinterpreting these insights in light of the algorithmic condition and the emerging techno-religious re-enchantment of society.

From a Western perspective on the long-term history of media change, the societal disruptions brought about by *digitalization* (Baecker, 2017; Balbi, 2023; Latzer, 2022) are comparable to those triggered by the invention of the printing press (Eisenstein, 1979;

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McLuhan, 1962). Throughout human history, media change and societal change have been deeply intertwined. Groundbreaking media innovations like language, writing and the printing press have been associated with paradigmatic changes of societies (Baecker, 2016; Meyrowitz, 2010; Scolari, 2023). Digitalization may be understood as the next transformative leap in this ongoing co-evolution of media and society. Just as the diffusion of the printing press from the late 15th century onward fueled the Enlightenment in Western societies – facilitating the transition to modern societies through print media such as books, newspapers and pamphlets – the socio-technical transformation driven by digitalization and AI, beginning with widespread computerization in the late 20th century and accelerating in the 21st, is once again reshaping the social, political, and economic order towards a new form of society. But there is a key difference. Whereas the predominantly print-based Enlightenment movement sought from the outset to replace religion as the primary source of knowledge and world explanation with rationalism and modern science, today's digital transformation is generating a new social form of techno-religion. Rather than only disenchanting (Weber, 1930) and secularizing society in the spirit of the Enlightenment, a transhumanism-shaped digitalization including AI is also re-enchanting the world, generating its own set of myths and experiences of transcendence.

Importantly, the disenchantment associated with modernity and the Enlightenment did not entail the elimination of religious or magical elements – instead, these dimensions have persisted concurrently; however, the growing dominance of the disenchantment narrative has resulted in the marginalization of the religious narrative (Suddaby et al., 2017). The transhumanist ideology and movement plays a critical role in the process of current re-enchantment (Latzer, 2022). It promotes a blind faith in technological progress and the overcoming of human limitations, while also presenting this pursuit as a moral imperative. Transhumanism gives rise to a “post-secular techno-theology” (Antosca, 2019) that serves as the foundation of the emerging techno-religion. Technology thus becomes a secular substitute for theology that governs our lives (Deagon, 2021). From a long-term historical perspective, this particular role of technology in society can be situated within a “trajectory of myth” (Grant & Moses, 2017). Deagon (2021, p. 82) summarizes this as “a series of explanatory frameworks or narratives that provide the tools to address persisting existential anxieties or desires in a culture, typically centered around the quality and extent of life. Western culture attempted a theological solution to these concerns in the Middle Ages (deity), a political solution during the Enlightenment (the state), then an economic solution after the Industrial Revolution (the market). In the 21st century, the respective failure of each of these attempted solutions has opened the way for technology to emerge as the fourth node in the trajectory.”

This article sheds light on the tensions between the prevailing spirit of the ongoing Enlightenment project and the alternative, transhumanist conception of Enlightenment underlying techno-religious digitalization, including AI. It begins with a sociotechnical specification of digitalization as the Digital Trinity, its infusion with transhumanist thought and the corresponding rise of a techno-religion (Section 2). This is followed by an exploration of how the transhumanist reinterpretation of Enlightenment, promoted by this techno-religion, functions as a digital headwind against the prevailing Kantian spirit of Enlightenment in Western societies (Section 3). Finally, the article outlines a path toward a renewed wave of Enlightenment, aimed at critically engaging both with the techno-religious, transhumanist promises, practices, and implications of digitalization and AI on the one hand, and with the recognized shortcomings of the prevailing Enlightenment conception on the other (Section 4).

2. The rise of the techno-religious Digital Trinity

To explain the rise of a new social form of religion driven by contemporary media change, this article employs the sociotechnical specification of the digitalization process as the Digital Trinity (Latzer, 2022) – three co-evolutionarily connected forces that shape the process and the societal implications of digitalization. This framework gives substance to the otherwise vague and variously used term digitalization, making it suitable for systematic analysis and discussion. For our purposes, this sociotechnical conception helps us to better understand the core socio-economic, capitalistic mechanisms underlying the process of societal digitalization (Latzer, 2022):

First, there is the datafication of life domains, which enables the duplication of the world in the form of data, thereby creating a vast new asset class consisting of small and big data. This process also lays the foundation for the emergence of a cyberworld, another sphere of existence.

Second, the algorithmization of decision-making transforms this new data asset class into economic, political, and social capital, typically through the automated manipulation of users, a form of algorithmic behavioral steering.

Third, the platformization of markets establishes optimal organizational structures that enable and accelerate further datafication and algorithmization across all areas of life, typically through the adoption of two- or multisided market models. This shift contributes to significant transformations in both economic and political power.

This sociotechnical specification of digitalization also shows that what is currently called AI is not separate or independent from digitalization, but rather nothing more than a specific type of automated selection process and thus an integral component of the broader algorithmization process. As will be argued later, the very concept of AI is grounded in a transhumanist vision of the possibility of artificially reproducing human intelligence, one building block in the transhumanist reinterpretation of Enlightenment.

The Digital Trinity of transformative forces offers an explanation of the phenomenon and dynamics of digitalization, partly comparable to the explanation of God in Catholicism through the Holy Trinity of Father, Son, and Holy Spirit. More importantly, beyond these metaphorical, structural similarities, the Digital Trinity reshapes societies in ways that parallel the typical societal functions, and individual experiences associated with organized religions. Put differently, the transhumanist stream within digitalization exhibits religious characteristics when viewed through both functional and phenomenological understandings of religion (Latzer, 2022). From a functional perspective (Durkheim, 1995; Luhmann, 1977), many of the core societal functions historically fulfilled by institutionalized religions are now increasingly assumed by digitalization including AI (Latzer, 2022): These include the reduction of complexity, the handling of contingencies, contributions to meaning-making, providing answers to fundamental

questions, ensuring ontological security, fostering social cohesion, explaining the unexplainable, and offering experiences of transcendence. From a phenomenological perspective on religion, users' and content creators' (Jaramillo-Dent & Latzer, 2025a) everyday digital experiences, practices and routines exhibit universal religious structures (Schnell, 2003): myths, rituals and experiences of transcendence. This extends well beyond ordinary sensory experiences and exceeds the limits of the tangible.

Altogether, these current developments may best be described as the rise of a transhumanist techno-religion – a syncretistic, decentralized belief structure – that exhibits many of the core social functions and lived experiences traditionally associated with institutionalized religion. Religion can be understood as a specific form of non-secular ideology, whereas the church is an institutional formation. The latter is not a necessary condition in this example of a new, “privatized” (Luckmann, 1967) form of religion.

This characterization of digitalization as generating a new social form of religion or techno-religion is not intended as an all-encompassing claim about every aspect of digitalization. Just as the printing press in the early phase of the Enlightenment was not used solely to replace religion with rationality and science, but also contributed to religious irrationalities such as witch hunts (Doten-Snitker et al., 2024), there are likewise non-mythologized, secular uses of digital technology and AI. Nevertheless, the phenomenon of a transhumanism-shaped techno-religion is significant and prominent enough to warrant critical inquiry.

2.1. Prophets and believers of a transhumanist digitalization

To fully understand how the transhumanist stream within the digitalization of societies operates as a techno-religion, it is essential to examine the social actors who embody and propagate its beliefs – the prophets and believers who give life to its myths, promises, and practices.

As in other religions, the technological belief system includes prophets, believers and a set of core doctrines – though it lacks an official church, ordained ministers, or deities to be worshipped (Epstein, 2024). Prophets from industry and science are spreading the gospel of the techno-philosophical transhumanism movement, which promises to overcome human limitations through technology. Transhumanism plays a driving role in the digitalization of societies (Latzer, 2022), is thoroughly discussed in contrast to post-humanism (Loh, 2018; Puzio, 2022), is situated within a bundle of overlapping ideologies such as extropianism, singularitarianism, cosmism, and longtermism (Gebru & Torres, 2024), and is critiqued from ethical and capitalist perspectives (Thomas, 2024). Among its influential prophets are Google's former Chief Technology Officer and Singularity evangelist Ray Kurzweil (2005, 2024), philosopher and longtermism proponent Nick Bostrom (2005, 2014), and entrepreneur Elon Musk (e.g., brain-computer interfaces, space colonization). In contrast to the philosophical school of posthumanism, transhumanism – with all its current variations between science and science fiction – is both an ideology and a movement. As a movement, it is institutionalized in both secular organizations (e.g., H+, Humanity Plus, with chapters in various countries) and religious ones (e.g., Terasem, Mormon Transhumanist Association, Church of Perpetual Life). Moreover, unlike posthumanism – which challenges the humanist image of the human – it sees itself in the tradition of humanism and the Enlightenment. However, in its various forms, it diverges from these roots and poses – as will be elaborated below – a challenge to the prevailing understanding of Enlightenment.

The strong and often blind faith of transhumanism in a technologically controllable evolution of humans draws not only on the use of digital information and communication technology, but on a new era of “convergent technologies”, frequently described and politically promoted as the NBIC convergence: Nanotechnology, Biotechnology, Information Technologies and Cognitive Sciences (Latzer, 2022). Many transhumanist Silicon Valley entrepreneurs and companies are heavily invested in the whole range of NBIC technologies, like Elon Musk (e.g., Neuralink), Sam Altman (e.g., Retro Biosciences) and Alphabet (e.g., Calico).

While the traditional, prevailing Enlightenment project humanized God, transhumanism now seeks to divinize humans and technology, aspiring to attributes once reserved for the gods: omnipresence (e.g., by colonizing space), omnipotence (e.g., by creating virtual life), omniscience (e.g., via GenAI), and eternal life (e.g., by mind uploading). With the latter – eternal life or longevity – transhumanists promise the same as Christianity, though through different, in this case technical, means. This transhumanist myth-making regarding finitude and mortality can be considered as religious, as an expression of faith in technology (Waters, 2015).

Next to transhumanist prophets, this new techno-religion has its believers, among them politicians who act as secondary prophets, disseminating the often unreflectively adopted promises of the tech industry through political means. Consider the countless national digitalization strategies (e.g., DCMS, 2017) and the corresponding election programs of political parties: they are frequently filled with interest-driven yet scientifically unsubstantiated claims suggesting that digitalization and AI will solve virtually all our problems.

In addition, there are masses of everyday users of digital services. Their digital myths, rituals and experiences of transcendence display attributes of an implicit (Bailey, 1997) or invisible (Luckmann, 1967) religion. It is implicit because, from an external perspective, it appears religious, regardless of whether the users themselves perceive it as such. It is invisible because religions without formal institutions are harder to identify.

Moreover, other religious components can be observed. Leading tech companies not only lure consumers in a religion-like use of digital services, but also strive for religion-like work environments for their employees – encouraging a form of work-worship that ultimately benefits the companies, as individuals sacrifice themselves. A study of Silicon Valley companies notes that work is positioned as a source of wholeness and meaning, it “gives tech workers what their families, religions, neighborhoods, unions, and civic organizations have failed to deliver in the last forty years: meaning, purpose, recognition, spirituality, and community” (Chen, 2022, p. 196).

But high-tech firms in Silicon Valley not only seek to profit from constructing religion-like workplace cultures that nurture self-exploitation. The recruitment of employees from California's highly spiritual New Age scene, with experience of mind-expanding, psychedelic drugs, and thus no shyness but rather an affinity for out-of-the-box goals and solutions, is considered to have boosted the success of Silicon Valley high-tech companies in realizing visionary and unconventional off-limit developments (Rushkoff, 1994).

In this context, traditional spiritual techniques of the New Age are being supplemented – and in some cases replaced – by digital technologies.

2.2. Beliefs and practices as techno-religious drivers

There are two central religious driving forces behind the co-evolutionary dynamics (Bauer & Latzer, 2024; Latzer, 2013) of the Digital Trinity and thus the digitalization of societies: ideological techno-beliefs, and ritualized, unreflective digital practices.

First, there exists a belief system grounded in religious, often blind faith in the technically controllable evolution of humans at its core. This worldview aligns closely with transhumanist goals of overcoming inherent human limitations. Solutionism (Morozov, 2013) is one of the most visible and operational expressions of the belief system of this techno-religion: the conviction that all problems can and should be solved through technological means, via a so-called technological fix. Human enhancement technologies and associated forms of non-medical cyborgization (Frascaria et al., 2025), for example, serve as means to better achieve the transhumanist goal of transcending the boundaries of the human condition.

Second, we can observe an implicit or invisible form of everyday religion (Streib, 1998) embedded in the users' daily digital routines. This is, for example, propelled by the increasingly ritualized use of social media. Empirical research indicates that users adopt theistic narratives and quasi-religious interpretations of algorithmic decisions by digital services (Singler, 2020). Furthermore, "conspirituality" was empirically explored for users' sensemaking in the case of TikTok's recommender system (Cotter et al., 2022). Conspirituality (Ward & Voas, 2011) – a hybrid belief system that merges elements of conspiracy thinking and New Age spirituality enabled by the internet – helps to understand the blind trust that many users place in social media recommendation algorithms. Finally, various types, modes, and instances of enchanted sensemaking can be empirically identified in content creation by social media influencers (Jaramillo-Dent & Latzer, 2025b).

The religiousness of digitalization and AI becomes evident through these two major drivers of the Digital Trinity. As argued above, this claim can be supported by drawing on both functional and phenomenological perspectives on religion. Beliefs correspond to the functional definitions of religion, insofar as they provide meaning and orientation in digital societies, while rituals resonate with phenomenological definitions, as they embody the lived and often unreflective practices through which digital techno-religion is experienced. Moreover, like many religions, digitalization offers a vision of a better society and promises salvation from perceived evils (e.g., social, economic and ecological crises). Unlike traditional religions such as Catholicism, however, the promise of salvation is pursued through technological means and is projected to be realized within this life, rather than in an afterlife.

The techno-religion of digitalization, similar to other religions, contains a number of positive aspects, not least by fulfilling the previously outlined religion-like functions in societies. It not only contributes to satisfy fundamental human needs for reality and rationality but can also fulfill the human longing for spirituality and the sacred. Religion does not vanish in (post)modern, digitized societies; rather, it assumes new social forms (Popp-Baier, 2009). Digitalization, in this sense, generates a syncretistic, and privatized form of religion, arguably a continuation of the dominance of the religious, albeit in different forms and through different means (Bailey, 1997, 2002; Luckmann, 1967). Religiousness should be understood as a stance toward the world, not limited to confessional or organized religion; there is also the possibility of non-theistic forms of faith, including atheistic faith or belief systems that do not rely on a personal God (von Sass, 2022).

In the light of this emerging new form of techno-religion, a critical question arises: Are we witnessing a digital backlash against the prevailing spirit of the Enlightenment in the current formation of a new type of society; one triggered and driven by a new media ecosystem marked by the religious features of transhumanism-shaped digitalization and AI, along with its specific reinterpretation of the Enlightenment?

3. Challenges to the prevailing spirit of Enlightenment

The era of the printing press enabled the transformation from ancient to modern societies (Baecker, 2016; Eisenstein, 1979). One of the central features of modernity is the spirit of the Enlightenment – the liberation from what Kant (1996) called "self-imposed immaturity" guided by the principle of "sapere aude" (dare to know). This intellectual movement – an ongoing process with precursors in the 16th century and peaking in the 17th and especially the 18th century – aimed to bring the light of critical reason into every corner of life, ideally leading to secularization and gains in rationality. This rationalism "was essentially a revolt against orthodoxy, and since the Christian world-view was the principal orthodoxy of the time, it was inevitable that it would be the target of continuous attack" (Postman, 1999, p. 33). Organized religion was to be unmasked as a form of mythology. The Enlightenment's displacement of mythological religions by rational modern science is echoed in Nietzsche's (2014) philosophical declaration "God is dead" from the late 19th century – signifying that religion was no longer needed to explain the world. In the aftermath of this metaphysical collapse, this influential pioneer of transhumanism (Fuller, 2019) envisioned the rise of the "Übermensch", of "superhumans" or elevated rational agents who could take on that role (Nietzsche, 2013).

The understanding of Enlightenment is multifaceted, at times contradictory, and accordingly contested. This article contrasts the transhumanist reinterpretation of Enlightenment with selected prevailing conceptions, with particular emphasis on Kant's (1996) and Weber's (1930) conceptions as a counterpoint and the dialectic Enlightenment critique of Horkheimer and Adorno (2002) as a framework for its interpretation.

For centuries, the Enlightenment has generally been regarded as an aspirational ideal in Western societies. While some praise its success – pointing to empirical improvements in human well-being, such as reduced inequality, increased wealth, better health and relative peace (Pinker, 2018) – others have doubted and critiqued its outcomes. These critiques argue, among other things, that efforts

at rationalization have unintentionally given rise to new mythologies; specifically, to myths surrounding the rational control of nature and even the inner control of human beings. In other words, the Enlightenment paradoxically reverted into mythology. This idea – that one mythology is being replaced by another – was powerfully articulated by Horkheimer and Adorno (2002) in “Dialectic of Enlightenment”. Written under the shadow of fascism, the Holocaust, the work also includes a critical analysis of the cultural (film) industry, through which the authors argue that culture had been reduced to mere commercialization (“mass deception”) in the mid-20th century. Myth is not destroyed by Enlightenment, but reborn through new, secular ideologies. Religion’s mythic structure was displaced, but the Enlightenment’s own secular ideologies took on similar mythic functions. Here, dialectic refers to the Enlightenment turning into its opposite: a force that can become dominating rather than liberating. Rationality, in trying to liberate us from myth, becomes mythic itself – especially when it turns into totalizing systems (e.g., technocracy, instrumental reason, faith in total control) (Horkheimer & Adorno, 2002; Marcuse, 2013).

At the beginning of the 21st century, we are witnessing a continuation and intensification of the original Enlightenment dialectic in a new sociotechnical form (Park, 2024). It can once again be argued – now under the impression of a transhumanist techno-religion and its corresponding reinterpretation of Enlightenment – that in the ongoing course of the Enlightenment, a new (digital) mythology is emerging: this time one centered around a blind faith in the technical controllability of human evolution. This also invites a renewed critique of the contemporary cultural industries, particularly the gigantic digital high-tech companies that are spearheading an algorithmic, data driven commercialization, that is now even expanding deeply into the fabric of our social life through algorithmic, dataveillance-based manipulation (Coeckelbergh, 2022; Crawford, 2021; Latzer, 2022; O’Neil, 2017; Zuboff, 2019). The highly commercialized cultural product is no longer confined to films or broadcasting; social media, too, are seen less as a means of enhancing communication than as a driver of commercialization (Park, 2024), and generative AI is even deemed to be evolving into a “weapon of mass deception” (Sison et al., 2024). Accordingly, the cultural product of today’s media ecosystem and “algocracy” (Danaher, 2016) increasingly consists of our manipulated daily behavior, both online and offline.

The purpose of such criticism is to promote autonomous and mature decisions, in line with Kantian Enlightenment ideals. Enlightenment, in this sense, involves not only liberation from gods and mythologies, but also awareness of the sociotechnical systems, and ideologies (such as transhumanism) that shape lived experience. In combination with humanism, the prevailing Enlightenment project established values and institutionalized human rights, including various forms of freedom (Nida-Rümelin & Winter 2025). The emerging sociotechnical system of digitalization, referred to here as the techno-religious Digital Trinity, threatens with its transhumanist reinterpretation of Enlightenment some of the key achievements of the prevailing Enlightenment – and with them, pillars of democracy. Scholars have repeatedly pointed out that digitalization, including AI, poses risks to both negative liberty (freedom from interference) and positive liberty (the capacity for autonomous, uninfluenced action) (Coeckelbergh, 2022; Harracá et al., 2023; Park, 2024; Scherer et al., 2023). The former is undermined when platforms make automated, algorithmically biased and often discriminatory decisions (e.g., by predictive policing). The latter is compromised through practices such as nudging (e.g., via recommender systems), which subvert autonomous decision-making by presenting individuals with choices that are formally free but effectively manipulated. Kant’s ideal of total autonomy thus proves illusory: the Enlightenment project does not break with the past, but rather reproduces it, now mediated through algorithmic decision systems that often perpetuate past discriminations (Kaluža, 2024; Royakkers & van Est, 2020). Referring to a novel sociotechnical system, shaped by “surveillance capitalism” and the power of the “Big Other” (Zuboff, 2015, 2019), scholars warn of a new form of “organized immaturity” (Scherer et al., 2023), the systematic loss of the capacity to use reason. This represents a pushback against the prevailing Enlightenment project, as autonomous reasoning is increasingly delegated to the sociotechnical system (Harracá et al., 2023; Scherer et al., 2023).

The dialectical perspective on Enlightenment helps us understand the domination of mythical AI and how “artificial intelligence, advanced science and technology, and big data have transcended myths and become religions” (Park, 2024, p. 1293). Myths are a central concept in the debate on religion and Enlightenment. They are often discussed, almost synonymously, with terms such as (big) narratives (Epstein, 2024; Postman, 1999), or ideologies (Balbi, 2023). For the purpose of this article, myths are understood as narratives or stories that explain the world and, at the same time, constitute one of the universal religious structures (alongside rituals and experiences of transcendence). Ideologies are taken more broadly as systems of explanations or beliefs that establish norms and rules of conduct, while religion is defined here as a specific, non-secular form of ideology. When assessing the significance of myths, it is helpful to consider the perspective that “Myth are not true or false, but living or dead.” (Mosco, 2005, p. 3) From this standpoint, living myths are not only symbolic or fictional; they function as forms of reality that shape perception, meaning, and behavior.

One of the original, overarching goals and expected effects of the prevailing Enlightenment was and continues to be the disenchantment of the Western world: the dissolution of religious myths through scientific knowledge, technological advancement, and rationalism (Weber, 1930). However, doubts about the lasting nature of this disenchantment, and arguments for an unintended re-enchantment, have already intensified in line with postmodern thought in the late 20th century; Wexler (2000), for example, points to the emerging social vision of a mystical society. Scholars have pointed to the New Age movement of the 1960s and 1970s – an esoteric counter-culture to overcome rationalization and disenchantment, based on both oriental (e.g., theosophic or Buddhism) and psychological (e.g., Jung, Reich, Maslow) thought – which is also referred to as spirituality, as the “Religion of Modernity” (Houtman & Aupers, 2010). “Modernity does not mean the end of religion, but rather entails its radical transformation” (Houtman & Aupers, 2010, p. 12). The primary distinction between this form of spirituality and traditional religions lies in its focus on “self-spirituality” (Houtman & Aupers, 2010): a shift from the belief in an external “out-there” God to an internal “in-there” God, in other words, to a sacralization of the self – also characterized as “do-it-yourself-religion”.

Technology plays a special role both in the process of disenchantment (or secularization) and the subsequent re-enchantment of the world. The latter is closely linked to increasingly opaque, autonomous and uncontrollable technology and marked by a “sacralization of technology”, particularly through the co-evolution of the digital and the sacred; thus the “sacralization of the digital technology”

becomes the “locus of religious salvation” (Houtman & Aupers, 2010, p. 15). Digitalization has also been identified as a driver behind the resurgence of 1960s spiritual movements in the 1990s, re-emerging in the form of a Silicon Valley New Age, driven by a cyber-spirituality, a high-tech new age, or “New Edge”, which simultaneously secularized the sacred and sacralized technology (Zandbergen, 2010). Moreover, AI-developments can be considered as a kind of technoanimism (Aupers, 2002). There are unforeseen developments of re-enchantment in the technological fields of Artificial Intelligence and Artificial Life. More generally, the ongoing process of rationalization seems to provide a good explanation for the contemporary emergence of technoanimism.

The sacralization of the self and the sacralization of technology are two sides of the same cultural logic within the digitalization of societies. Technology becomes sacred because it enables and extends the self, which is already culturally sacralized through processes of individualization and New Age spirituality. Together, they form a techno-spiritual feedback loop – the structural heart of this new techno-religion.

The re-enchantment outlined above has laid the groundwork for the dynamics of the transhumanist techno-religion of the Digital Trinity, which both continues and amplifies this sociotechnical system. This is not just a reversal back to religion, but a re-enchantment through hyper-rational systems – as already feared by Horkheimer and Adorno (2002). If left unaddressed, it risks contributing to a backlash against the prevalent spirit of Enlightenment, particularly in the absence of appropriate governance measures.

In the following, further challenges of the transhumanist reinterpretation of Enlightenment to the prevailing Enlightenment project are explored through the lens of two central societal transformations driven by digitalization, both of which are marked by the rise of a transhumanism-shaped techno-religion: (1) the changing construction of reality, driven by a growing automated, algorithmic construction; and (2) the changing human-machine relationship, driven by growing technological human enhancement and cyborgization. The envisioned embodiment of AI through robotics is expected to link these two challenges even more closely.

3.1. Newly constructed realities, dataism and resurging faith-driven trust

The first challenge is the novel mode of co-construction of individual realities. It now also includes a growing algorithmic construction that can be described as a governance by technology (i.e., algorithms) (Just & Latzer, 2017; Latzer & Just, 2020), marked by “dataism” (van Dijck, 2014) and changing trust – with consequences for the Enlightenment project. In modern societies, mass media have long acted as central gatekeepers that constructed how people perceive the world (Luhmann, 2000). With the algorithmization of decision-making processes as a core element of the Digital Trinity, algorithms have established themselves as (secondary) gatekeepers, breaking the quasi-monopoly of mass media (e.g., broadcasting and the printing press), and transforming the resulting public sphere and knowledge order in digitized societies (Habermas, 2022; Kaluža, 2024; Neuberger et al., 2023).

This novel co-construction of individual realities in digitized societies influences how we perceive the world, whom and how we trust, and – consequently – how we act. It leads to outcomes that differ significantly from those shaped by the analog media system that dominated much of the 20th century. Today’s co-construction includes three overlapping elements: traditional face-to-face reality construction (Berger & Luckmann, 1966), mass media reality construction by print and broadcasting (Luhmann, 2000), and algorithmic reality construction via social media and other digital services (Couldry & Hepp, 2017; Just & Latzer, 2017). Together, it is marked by significant changes in gatekeeping, agenda setting, and framing (what becomes part of the public sphere, what is discussed, and how it is discussed). These processes directly impact individual opinion formation and are highly influential in shaping trust in persons and systems, in expertise, and in experts.

It is important to note that within this newly composed co-construction of realities, the algorithmic part differs significantly in its effects from the mass-media share in reality construction. The differences are increasing personalization (e.g., in the efforts of behavioral steering), power shifts due to changing actor constellations (e.g., gigantic tech companies whose revenues are higher than the GDP of many countries; new players like content creators/influencers with millions of followers), and increased commercialization (e.g., changing decision criteria for their content moderation in gatekeeping). This commercialization is now extended to the datafied social sphere, mostly with the help of fast-growing social media use. At the same time, transparency, predictability, and controllability decrease with the rising complexity of the digital environment, challenging traditional political governance systems (Just & Latzer, 2017).

The algorithmic part of reality construction is shaped by what is often referred to as dataism (van Dijck, 2014). This refers, in essence, to the mythical belief in a “data religion” (Harari, 2016; Mosco, 2017), that additional knowledge can be gained purely from data correlations and detected patterns in big data only – without the need for theoretical frameworks (Anderson, 2008). However, such correlations cannot replace theories; they merely automate and simulate understanding (boyd & Crawford, 2012; Haggart & Tusikov, 2023). These epistemological shifts brought about by dataism are in conflict with the traditional ideals of the Enlightenment, which are grounded in knowledge production based on modern science, theory, and rigorous scientific methods. In contrast, transhumanism-shaped dataism tends to promote science as a form of myth or ideology, as a new form of religion, that relies more on the mere belief in extracted big data patterns than on rigorous and transparent knowledge creation processes (Harari, 2016). At its core, the prevalent Enlightenment’s commitment to rigorous scientific inquiry is at stake. Like traditional religions, the emerging techno-religion ignores or contradicts scientific insights (Latzer, 2022). In its transhumanist worldview, for instance, mind and body can be separated, human evolution can be controlled in a targeted manner, and human beings can be reduced to mere algorithms within a supposedly fully computable world. The epistemic authority of science is partially undermined, not only through the disregard of scientific findings, but also through a broader shift in epistemic power (Neuberger et al., 2023). Just as the printing press once contributed to breaking the church’s knowledge monopoly in Europe, digitalization including AI is now increasingly used, through its search and prompting capabilities, to partially erode the knowledge monopolies or epistemic hegemony of science. Opaque AI systems participate in shaping what is considered as true, relevant or “scientific” (Park, 2024). Some scholars speak of a re-enchantment of

science in the epoch of big data-driven, digital reason (Reader et al., 2021; Suddaby et al., 2017). Epistemic authorities appear to be at risk of devaluation through the transhumanist stream within digitalization alongside other social, political, and economic factors, a process that affects not only science but also journalism (Kaluža, 2024; Neuberger et al., 2023). In both cases, this development is driven by a form of knowledge democratization, as laypeople (via social media or citizen science) and automated algorithmic systems (e.g., chatbots) increasingly compete with professional content creators.

In connection with this, we also observe a transformation of trust – a fundamental precondition for a functioning economy and society, the foundation of all our decision-making. With emerging digitalization, trust is grounded less in rational, informed knowledge and increasingly in a religion-like, blind faith in algorithms. This development runs counter to the traditional Enlightenment's intended rationality gains (Latzer, 2022). Trust has both rational and irrational dimensions, it results and builds on a mixture of knowledge and ignorance, of knowing and not-knowing (Luhmann, 2014; Simmel, 2013). Faith represents the not-knowing, the irrational basis of trust. It compensates, for example, for intransparency, for the lack of knowledge and awareness regarding how algorithmic-selection systems function and what kind of risks there are involved. Knowledge, by contrast, can be considered the rational part of trust.

Both faith and trust, the extent of which is decided at the individual level, are recognized means of coping with or reducing complexity. Before the Enlightenment and the process of secularization, faith and trust were largely exchangeable terms (Seiffert-Brockmann, 2015). Blind trust or faith in God guided human decision-making and actions – whether in private, political or economic matters. The Enlightenment, by contrast, strengthened trust in human rationality, in one's own abilities, and in rational decision-making grounded in scientific expertise and the authority of experts. Today, digitalization, including AI, is altering the course of this development: there is a resurgence of faith – but now a transhumanist faith in God-like technology and humans. The consequences of this turn towards blind faith in digital technology are the denial – or fading out – of contingencies (Keymolen, 2016), decreasing criticism, and that the unambiguousness of the digital becomes dominant (Baecker, 2017). As a result, there is little space for coincidences or the unforeseen in a reality constructed on the basis of strong faith in technology.

Comparable to an oracle, algorithmic (AI) services are consulted as sources of action-guiding, transcendent wisdom (Seiffert-Brockmann, 2015; Harari, 2016). This oracular function of digital, algorithmic applications – such as expert systems, prognosis and recommendation algorithms, and transformers – replaces traditional forms of guidance for decision-making. The social significance of these big data-based digital oracles lies less in the accuracy of their prophecies and more in individuals' blind faith in big data and algorithms (Gransche, 2016). This development creates a rift between faith (in the sense of not knowing) in God-like, inscrutable machines (black boxes) and the Kantian Enlightenment ideal of trust and confidence in one's own reasoning and experience.

Transhumanist entrepreneurs, politicians and researchers are pointing out that our capabilities are rising and even transcending. But at the same time, other capabilities may be lost. This could result from blindly trusting ourselves to technology (Kiran & Verbeek, 2010), from relying blindly, for example, on GenAI services, GPS-based applications, or Googling instead of memorizing, from placing blind trust in recommendations of health/fitness applications, instead of listening to the inner knowledge of our bodies. What emerges is not a simple substitution of rational human decision-making, but rather the establishment of graduated, hybrid forms of human and algorithmic reasoning – which leads us to questions regarding the new understanding of humans and humanity.

3.2. Human enhancement and cyborgization

The second major societal challenge stems from the dominant transhumanist visions and ideals underlying digitalization and AI, in other words, from the belief system of the Digital Trinity, which places blind trust in the technically controllable evolution of humans, surpassing biological evolution as the sole path in the further development of human beings. As a result, when compared to traditional Enlightenment ideals, the *Menschenbild*, the image and understanding of humans and humanity, shifts under the impression of a transhumanist ideology and its reinterpretation of Enlightenment. This affects how we define humans, how we relate to machines, and how we envision human development – an intellectual discussion that is often categorized as part of a “critical posthumanism” (Ferrando, 2019; Loh, 2018; Thomas, 2024).

Transhumanists see themselves as heirs of the Enlightenment, because of the belief that the human species can transcend itself through technological means based on reason and rationality (Huxley, 1957). Importantly, this is viewed not merely as an option, but as a moral obligation (Savulescu, 2005), even if the outcome remains uncertain: “We have a moral imperative to realize this promise of new technologies while mitigating the peril. (...) Overall, we should be cautiously optimistic.” (Kurzweil, 2024, pp. 309, 310)

Although transhumanists often present themselves as aligned with the Enlightenment and its humanism – extending its emphasis on reason, progress, liberation, and well-being – this article suggests that their project represents not a continuation, but rather a mythologized reinterpretation of prevailing Enlightenment ideals: one that sacralizes technology, bypasses critical reason, and revives the very structures of belief the traditional Enlightenment project sought to dismantle. Transhumanism, then, is not the Enlightenment's heir, but rather its dialectical reversal. Transhumanist ideology – at least in parts – deviates from the path of modern science and humanistic Enlightenment, and risks leading to new forms of inequalities.

According to transhumanist ideology, the transcendence by converging technology (NBIC) is expected to lead to improved human species, to “superhumans” (Ettinger, 1972) in an “age of intelligent machines” (Kurzweil, 1990), which, for example, could also enable eternal life through mind uploading (Moravec, 1988). With the help of this technical transcendence, transhumanists believe they can enhance human well-being and prevent looming catastrophes or extinction, either by leaving the planet, or by leaving the body through mind uploading.

The extension of humans through technology is not limited to integrated “insideables” such as implanted microchips, or body-near

human augmentation technologies like digital headbands. Robotics also contributes to the emergence of increasingly networked humans who seek to transcend their limitations. Currently, both robotics and AI are largely limited to special-skills applications. The feasibility of products that can be used for all tasks, such as general-purpose robotics or Artificial General Intelligence (AGI), also referred to as “strong AI”, remains highly contested, and is sometimes linked to dystopian predictions about an uncontrollable AGI that ends humanity. This debate divides transhumanists, who strongly believe in its realization such as Ray Kurzweil (2024), and their critics such as John Searle (1980), who consider it either impossible (because syntactic computers cannot produce understanding), or, at best, extremely unlikely (Karasinski et al., 2024).

The prevailing Enlightenment shaped the anthropocentric idea of sovereign, autonomous human beings – superior to other species and distinct from nature. With the rise of digitalization, however, this notion is increasingly being challenged and replaced by the concept of a highly networked existence. The idea of autonomy was already questioned in the 20th century, for example by Bruno Latour's (2005) Actor-Network Theory, which challenges the notion of isolated human agency. More broadly, Latour (1993) also argued that we have never been modern and that the strict separation between nature and society is an illusion. Now it is further undermined by increasing cyborgization and the accompanying processes of technological human enhancement (Frascaria et al., 2025). Human beings are not autonomous, stand-alone entities, but rather examples of highly networked organisms, interconnected with millions of other living beings such as bacteria, fungi, and viruses within their own bodies. According to transhumanist visions, these networks are now being extended by non-human technological entities such as nanobots and microchips, as part of the ongoing process of cyborgization.

Transhumanism is about enhancing humans, not abandoning them. Humans remain central – not as they are, but as they could become; nature – and also the natural human body – is considered limiting and something to overcome. Transhumanist digitalization creates new demons, characterized by a fusion of humans and converging technologies (NBIC), often referred to as cyborgs. The prevailing Enlightenment ideal of human superiority is increasingly challenged by the perception of potentially superior technologies, particularly in the context of AI. The controversial prophecy and expectation of a technological singularity (Kurzweil, 2005, 2024) – the point at which AGI could surpass human intelligence – is believed by some to hold the potential to lead to the extinction of humanity, due to the emergence of uncontrollable technology (strong AI or AGI). This narrative challenges strong anthropocentrism and can be described as non-anthropocentric, post-anthropocentric, or even post-human (Mellamphy & Vangeest, 2024). Another counter-narrative can be described as weak anthropocentrism, which maintains a human-centered perspective but does not fully embrace the ideals of an ecocentrism – that is, it stops short of equating humans with non-human entities (Mellamphy & Vangeest, 2024). These transformations of anthropocentrism, which are also driven by a transhumanist digitalization and AI, are reflected in the ongoing debate on the Anthropocene (Schütze & Latzer, 2025). The original concept of the Anthropocene (Crutzen & Stoermer, 2000) is rooted in strong anthropocentrism and defines a geological epoch in which human-dominated changes to the living conditions on our planet have become demonstrably evident. The notion of a Transhumanist Anthropocene, characterized by the rise of techno-religion, reinforced anthropocentrism, and increasing reliance on techno-solutionist environmental governance models, further complicates the sustainable management of the climate crisis (Schütze & Latzer, 2025).

“Morphological freedom” is a central transhumanist principle that refers to the individual right to technologically extend or alter humans. It is the individual right to freely choose physical appearance, identity, reproduction, enhancement (prosthetics, life extension/anti-aging), and gender expression without undue societal or legal restrictions. As with the individual freedom advocated in the Kantian tradition of Enlightenment, its only essential limit is typically understood to be the harm principle – that one's freedom should not harm others. However, the transhumanist claim that morphological freedom offers a solution to inequality and discrimination, particularly to discriminatory dualisms, is contested. On the contrary, critics fear that morphological freedom might lead to further threats and harms by new discrimination and inequalities, ableism and eugenics (Gebru & Torres, 2024). Rather than representing progress, such developments could mark a regression from the ethical ideals of humanity shaped by Enlightenment thought.

Transhumanist thought is generally skeptical of state interventions and control, a stance consistent with the highly controversial philosophy of Ayn Rand, the “Goddess of the Market” (Burns, 2009), who is not only cited as a central influencer for conservatives and libertarians in general, but also for Silicon Valley entrepreneurs in particular (Daub, 2020). Rand's rather mystical philosophy of Objectivism, with its exclusive focus on individual freedom, strictly tied to reason and rationality, is reflected in the worldviews and actions of influential tech billionaires such as Elon Musk and Peter Thiel.

The central and formative influence of transhumanism on the direction and character of societal digitalization primarily stems from transhumanist entrepreneurs, engineers, and researchers in the high-tech industry, who largely control the politics of platforms and the trajectory of product development and applications. The direction of societal change by digitalization and AI does not follow a classical democratic process. Radical societal innovations – like radical technical innovations – are not the result of a demand-pull for transhumanist products. On the demand side of digital products, transhumanist ideology and its associated *Menschenbild* represent only a minority opinion. Outspoken criticism of transhumanism comes from the bioconservative side (Fukuyama, 2002, 2004), as well as from critical posthumanism, disability studies, feminist theory, STS, theology, and critiques of capitalism (Thomas, 2024). Nevertheless, there are no significant public protests against transhumanist corporate strategies or visions for the future of humanity.

Empirical studies on transhumanist beliefs and techno-religious experiences with digital services at the population level remain scarce. A representative survey conducted in Switzerland in 2025 (Latzer et al., 2025) shows that such beliefs and experiences are widespread, especially among younger users: Almost half of Swiss internet users (45 %; among 20–29-year-olds: 54 %) believe in the transhumanist vision that, in the future, there will be an Artificial General Intelligence (AGI), a general-purpose tool that is superior to humans in most or almost all areas of life simultaneously. Of these, 59 % expect AGI to already be a reality within the next five years. About one in five also agree with other transhumanist visions: that technology can enhance human abilities (21 %) or even surpass biological evolution (19 %). Younger users are significantly more optimistic: one in five (21 %) of those aged 14–19 believe new

technologies can solve nearly all social problems, compared to just 4 % among those aged 70 and older. Techno-religious experiences are reflected in mythological notions about how digital services operate, in ritualized patterns of use, and in transcendental experiences associated with them. About one in four Swiss internet users (23 %) believe that content recommendations on social media or health apps are controlled by a higher power. Nearly one in three (28 %) describe their internet use as ritualized, a fixed part of daily life. Between 8 % and 16 % report experiences that transcend everyday reality. Among 14–19-year-olds, one in four (26 %) say digital services help them rise above their circumstances, and one in three (34 %) find peace of mind when dealing with problems through regular use.

The entry of transhumanist ideals into politics is both evident and plausible. Technical solutionism is a tempting and attractive narrative for election programs and long-term political strategies. The extensive lobbying efforts of gigantic platform companies and their financial support for politicians is convincing and tempting, and their influence over traditional mass media is also increasing through the co-financing of their digitization projects and the increasing direct ownership of media (e.g., Washington Post, X). The entanglement between politics and transhumanist Silicon Valley prophets, sometimes described as a form of “brocracy”, is intensifying. Cases such as J.D. Vance, a former employee and protégé of Peter Thiel (Dwoskin et al., 2024), ascending to the U.S. vice presidency, and Elon Musk assuming a formal advisory role within the Trump administration exemplify this convergence. Taken together, these developments signal an emerging political configuration through which transhumanist and related techno-ideological currents – such as longtermism, as well as a techno-libertarian strand of accelerationism that regards state interference through democratic politics as a brake on transhumanist achievements – increasingly permeate political institutions, the economy, and society. The alliance between platform capitalism (Srnicek, 2017) and political authority marks a broader reconfiguration of political rationality, in which transhumanist and adjacent ideals progressively shape statecraft and public discourse. This underscores how the platform element of the Digital Trinity operates not only as an economic but also as a political and ideological infrastructure.

4. Toward a next wave of Enlightenment: a path forward

How can this digital headwind to prevailing Enlightenment ideals be effectively addressed? What can we do as users, citizens and scholars? To counter both the transhumanism-shaped, techno-religious promises and practices of digitalization and AI, with their reinterpretation of the Enlightenment on the one hand, and the shortcomings of the prevailing Enlightenment conception on the other, a next wave of Enlightenment is warranted. This wave seeks to preserve its emancipatory potential by reclaiming the values of rationality, skepticism, science, and ethics, while avoiding the risks of overextended rationalization and recognizing the deeply networked entanglement of humans, technology, and other living beings.

Enlightenment can be understood as a permanent, ongoing process that will always need some adaptations, including in the current situation. After its original focus on departing from organized religions as the central authority for explaining the world since the 16th century, the task today is to confront and move beyond a transhumanist techno-religion. While the initial challenge of Enlightenment was to deal with and liberate ourselves from the superiority of nature, the added task of Enlightenment in the 21st century is to liberate ourselves from the supposed superiority of technology – once again, through the use of reason and rationality.

In response to the social consequences of television on our society, a so-called “Second Enlightenment” was already called for at the end of the 20th century, with the aim of preserving helpful 18th century values in the present, particularly the goal of moving away from the uncritical and manipulative consumption of audiovisual media (Postman, 1999). This plea for a next step in Enlightenment already recognized the sensitive societal implications of (media-)technological innovations for the structure of discourse in modern societies, focusing, for example, on the altering meaning of “truth”, “intelligence” and “fact” (Postman, 1999). In continuation of this argument, a further wave of Enlightenment could be categorized as a “Third Enlightenment”, this time arising under the influence of digitalization and AI, which manifests – at least in part – as a new social form of techno-religion.

The responses outlined below can only be addressed in broad strokes. They focus on three broader reform guidelines related to the techno-religious features of the current media transformation and the shortcomings of the prevailing Enlightenment project: curbing the mystical; reclaiming dominant narratives from transhumanist mythologies; and rethinking the Enlightenment’s human-centeredness in light of the changing human–machine relationship.

(a) Curbing the mystical: Agnosticism, Reformation and Digital Humanism

One response to the rise of a perceived techno-religion is the call for “tech agnosticism” (Epstein, 2024) – a rejection of worship and blind faith in digital technology, and a plea for a critical perspective on the promised benefits of this techno-religion for our life. The proposed measure might be described as a “tech reformation”, which, in essence, advocates for a non-religious tech humanism: “we can create a reformation – in our technology, but more importantly, in our common humanity – that might just flower into a renaissance” (Epstein, 2024, p. 283).

Overlapping with this, a plea to preserve humanistic civilization achievements of the Enlightenment in the digital age comes from multidisciplinary advocates of “Digital Humanism”. With orientations and interpretations ranging from religious to Marxist, humanism offers a broad foundation and thus unites many different political orientations under one roof (Nida-Rümelin & Winter 2025). The calls for a Digital Humanism are reflected in research and policy papers, focusing on critical aspects of digitalization and AI – such as market power, democracy, inequality and discrimination – always with the aim of safeguarding the dominance of human over technical agency, the integration of ethical considerations, and the appropriate governance of technical developments by adequate means (Nida-Rümelin & Weidenfeld, 2022; Werthner et al., 2024; Werthner & others, 2019).

The desire to maintain the dominance of human agency does not oppose cyborgization as a technological extension of the human

being but rather opposes the transfer of responsibility to technology. The call for an “Embodied Humanism” (Fuchs, 2020), for example, stands in contrast to the transhumanist belief in a dualism of body and soul – and pushes back against religion-like, transhumanist promises of life without the body. Based on scientific arguments, that there is no thinking without the body, this view rejects the transhumanist beliefs in a reduction of the mind to purely neuronal processes, and against the notion of humans as algorithms (Fuchs, 2020; Harari, 2016).

From organization studies and business ethics comes the twofold call for countermeasures to a re-emerging “organized immaturity,” driven by the current sociotechnical system of digitalization (Scherer et al., 2023): to “disorganize immaturity” in order to increase negative freedom, for example through resistance to interference by platforms; and to “organize maturity” to enhance positive freedom from external control or influence, for example by enabling individuals through social and political rights.

Finally, it should be noted that curbing the mystical does not simply mean turning myth back into reason. This would risk overlooking the critical theory dilemma that reason is both a tool of emancipation and, at the same time, a source of domination when it becomes instrumentalized. Hence, it seems appropriate to open space for a next, more reflexive and pluralistic wave of Enlightenment, one that is aware of these limits.

(b) Reclaiming the narrative

For all steps towards a next wave of Enlightenment, it is essential to reclaim the narrative from strong influences of transhumanist belief systems. Greater attention must be paid to the narratives and terminology we use. Words matter. Consider the term “Artificial Intelligence.” Like the term “nanotechnology”, it does not describe a specific technology but only conveys a transhumanist vision of creating human-like intelligence – a vision that does not reflect the reality of today’s technologies. Instead of reinforcing these transhumanist myths, the focus should be on the concrete technologies that shape our current world – such as large language models and transformer-based software. By grounding our discourse and governance in technological realities rather than in lofty, often misleading, religion-like promises, we can begin to reassert human agency and revive Enlightenment ideals in the digital age.

Realistically, the term “AI” is unlikely to disappear. However, there is potential for more nuanced understanding and discourse – much like how public and political debates around “disinformation” evolved in response to the charged term “fake news.” Talking about a “Machine Intelligence”, a “Machine Mind” or an “Autonomous Created Intelligence” could help avoid misleading transhumanist conclusions (Williams, 2019). Such terminology could contribute to a more nuanced and differentiated discourse within the next wave of Enlightenment – one that acknowledges the existence of diverse forms of intelligence and minds (Bridle, 2022), including those of animals, plants and machines, and one that takes on the challenge, how to network and integrate these different intelligences and (non-human) actors for the well-being of the entire ecosystem (Latour, 1999, 2001).

(c) Rethinking humans: A networked understanding of Enlightenment

Another step toward a next wave of Enlightenment involves (re-)defining humanity and its relationship with technology, the articulation of a desired *Menschenbild* – an image of the human – in a digitized future.

For this, we must critically examine the traditional, prevailing Enlightenment conception of humanity. Enlightenment thinkers portrayed humans as sovereign, autonomous, rational beings who stood apart from nature. Today, however, as previously argued, we recognize that humans are deeply interconnected: not only with other living beings, but increasingly with technology as well, acknowledging a form of “distributed agency” (Rammert, 2008). To fill this “blind spot” of a strongly anthropocentric Enlightenment project, specifically, to “align digitalization with sustainability transformations”, human nature must be redefined, and normative guardrails for both the “technologization of humans” and the “humanization of machines” must be democratically established (Messner, 2020). Hence, the next wave of Enlightenment also involves clarifying wide-reaching concepts such as the Anthropocene and anthropocentrism, as well as engaging with the proposed shift from an anthropocentric toward a more ecocentric worldview and science – one that recognizes the diverse intelligences and agencies of other species, and even of technological systems. Posthumanist theories (Ferrando, 2019; Loh, 2018) decenter the human, offer non-hierarchical and non-dualistic approaches, and thus provide a strong starting point for non-anthropocentric perspectives on digitalization and AI (Coeckelbergh, 2022).

Reflecting on anthropocentrism also involves questioning – or deviating from – widespread anthropomorphism, which attributes human characteristics to non-human entities in order to socially connect or to understand and control non-human agents (Epley et al., 2008). This has historically occurred in traditional religions through the humanization of gods (von Sass, 2022), in our relationships with animals, and – more recently – in the context of an emerging techno-religion, where such projections are increasingly applied to technological systems such as AI (Li & Suh, 2021; Placani, 2024). In the case of AI, this anthropomorphism fuels the (over)attribution of agency to AI, which ultimately undermines our agency over the future (Nowotny, 2023). It not only overstates AI’s capabilities, but also skews judgements of trust and responsibility (Placani, 2024), for instance, when technologies are described as “trustworthy” (AI HLEG, 2019) rather than simply “reliable”, because technologies cannot be held accountable, as they lack emotive states and consciousness (Williams, 2019). When combined with robotics, this issue becomes even more pronounced. It raises complex questions about consciousness and personhood, along with a series of legal problems with sensitive social implications regarding the distribution of power (Williams, 2019). The history of assigning full personhood is deeply problematic, sensitive, and contested. Beyond considerations of race and gender, it also concerns the recognition of different forms of consciousness and minds. This casts a critical light on transhumanism’s eugenic-like belief in a singular, superior form of consciousness. In this context, authors suggest that we could learn from theoretical frameworks on race, disability and gender studies, that are based on the understanding of certain groups that historically have been denied full personhood (Williams, 2019).

Moreover, rather than following transhumanist, techno-religious narratives that seek to construct human-like, living machines, it might be more fruitful – in the spirit of Enlightenment – to acknowledge and engage with different forms of intelligence and mind without imposing a strict anthropocentric hierarchy. Instead, we might draw on historical human experiences with other species, such as animals, and consider how these relationships have enhanced human capabilities and well-being; these findings could then inform how we approach emerging interactions with machines, such as robots, as a potential new “breed” in the evolving ecology of human and non-human relations (Darling, 2021).

Consequently, a next stage of Enlightenment should also move beyond the “Turing Test” as a legitimate means of comparing human and machine intelligence. On the one hand, the test measures only a very specific form of ability, and on the other hand, it evaluates only the output, rather than the arguably more important aspect – the underlying process (Karasinski et al., 2024; Searle, 1980; Williams, 2019).

A balanced shift from a strictly human-centered anthropocentrism towards a more ecocentric worldview could help address not only the challenges posed by digitalization, AI, and robotics, but also the existential threat of climate change (Crawford, 2021; Mellamphy & Vangeest, 2024). After all, the same anthropocentrism that fuels transhumanist, religion-like techno-fantasies has also contributed to – and been used to justify – the environmental destruction we now face. A next wave of Enlightenment, oriented towards ecocentrism and accompanied by a move away from strong anthropomorphism, would enable more realistic expectations of technology and support the broader application of ethical principles to non-human entities within our ecosphere (Rigley et al., 2023).

Many of the issues discussed here also reflect a broader doubt and critique toward modern science, which has been a central driver of the Enlightenment for centuries. In the context of a techno-religious digitalization, science is increasingly coming under pressure on multiple levels: through the selective disregard for scientific knowledge, a tendency often associated with religious worldviews; through the structural amplification of conspiracy narratives (including techno-religious myths), reinforced by the growing algorithmic co-construction of realities in digitally mediated societies; and through systematic structural changes in how information is searched for and disseminated, as search engines and prompt-based systems begin to eclipse traditional search methods and citation practices. This new situation for modern sciences may encourage research practices that are more open, avoiding the immediate dismissal of perspectives that do not fully align with the current state of knowledge. A rigid, Enlightenment-style application of very rigorous scientific rationalization to all areas of life can be perceived as authoritarian, potentially contributing to the rising appeal of conspiracy narratives, which increasingly take on a religious function in societies (Harambam & Aupers, 2015; Hidalgo, 2022). Seen in this light, a more nuanced view frames the issue not as science against religion, but as the task of balancing the limits of scientific rationalization with the enduring role of religious frameworks in providing orientation.

In conclusion, the digitalization of society, though rooted in the legacy of the Enlightenment, now risks destabilizing the balance between rationality and religiosity through the rise of a transhumanism-shaped techno-religion and its reinterpretation of the Enlightenment. Yet by focusing on humanity, ethics, and concrete technologies, by redefining the image and role of the human in our digitized society, and by embracing a next, more networked and balanced wave of Enlightenment, it seems possible to navigate the techno-religious challenges posed by digitalization and AI.

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