

# The Possibility of Producing Reliable Religious/Islamic Knowledge Through AI Developed Under the Influence of Positivist and Secular Thought\*

### Muhammet Yurtseven

 $\frac{0000-0003-2604-440 X}{\text{muhammetyurtseven@sdu.edu.tr}}$  Süleyman Demirel University, Faculty of Theology, Department of Islamic Law, Isparta, Türkiye ROR ID:  $\frac{04\text{fitte}88}{\text{muhammetyurtseven}}$ 

#### **Abstract**

This study critically analyzes the structure of artificial intelligence (AI), shaped within the framework of the secular-materialist paradigm and transhumanist perspectives. It questions the instrumentalization of human beings and all human-related aspects by reducing them to data under the hegemony of secular positivism, sidelining moral and spiritual values, and neglecting the transcendental (metaphysical) dimension in the processes of producing religious knowledge. The study explores how AI can be reinterpreted in line with Islam's ontological, moral, and human-centered values and discusses how unique models can be developed accordingly. The research examines the effects of AI on the production of religious knowledge by considering its background operating with secular positivist and transhumanist perspectives and it addresses the opportunities/challenges related to this with new perspectives and suggestions. In this context, the neglect of the metaphysical dimension by AI in producing religious knowledge, its construction upon a secular perspective, and its shortcomings in contextual analyses are discussed. Furthermore, the cultural hegemony reflected in the use of AI as a tool within the colonial power matrix is critically evaluated through the lens of the literature, addressing the possibility of producing religious knowledge from multiple dimensions. The study emphasizes the necessity for Muslim societies to develop indigenous knowledge systems harmonized with their unique cultural frameworks and provides recommendations on the foundational elements for such an endeavor. This analysis aims to explore ways AI can contribute to the prosperity of humanity and the establishment of justice. Methodologically, the study adopts qualitative research techniques, analyzing the epistemological and ontological foundations of AI within the secular positivist paradigm through a literature review. The potential of AI in producing religious knowledge is examined comparatively, considering traditional reasoning methods in Islamic thought, such as qıyās, istihsān, and istiqrā', alongside modern algorithmic approaches. Additionally, the potential opportunities AI may offer and the risks it may pose in the production of religious knowledge are evaluated based on evidence from the literature. The findings indicate that AI is historically and philosophically rooted in secular paradigms and is designed, within transhumanist approaches, as a technology that compels humanity to transcend biological and cognitive limitations. It is utilized as a tool of cultural hegemony and operates under these motivations in the processes of producing religious knowledge. The hegemonic impacts of AI in knowledge production are discussed within the context of Aníbal Quijano and Walter Mignolo's "colonial power matrix" framework, analyzing its role as an instrument of colonial spatiality. Furthermore, modern technologies are evaluated through examples in the literature as factors that can lead to the decentralization, decontextualization, and loss of the authentic character of religious knowledge. Other findings reveal that AI has inherent limitations in the production of religious knowledge, as it tends to prioritize secular and materialist perspectives despite the presence of metaphysical principles in scientific knowledge. In contrast, integrating classical methods with modern technology -through the synthesis of traditional Islamic knowledge production methodologies and AI reasoning techniques- offers a new perspective for producing religious knowledge. Additionally, the necessity to redesign AI in accordance with Islam's moral and human-centered values is emphasized to preserve and transmit the unique character of religious knowledge. The study concludes that Muslim societies must establish indigenous technological infrastructures to structure AI on the principles of accessibility, justice, and inclusivity.

### **Keywords**

Islamic Law, Artificial Intelligence, Religious Knowledge, Epistemology, Islamic Thought

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the sources used have been properly cited.

\*This article is dedicated to the scientists, students, health workers, religious officials, **Ethical Statement** 

journalists, babies, children and innocent civilians who lost their lives because of Israel's brutal, barbaric, inhumane and illegal attacks on universities, schools, hospitals, refugee camps, homes, mosques and churches in Gaza. Israel's displacement of more than two million Gazans from their homes and lands is inhumane and unlawful. All Israeli occupations and attacks that violate international law, human rights and freedoms are crimes. Therefore, Israel must be tried for war and genocide

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### Pozitivist ve Seküler Düşüncenin Etkisinde Geliştirilen Yapay Zeka Aracılığıyla Güvenilir Dini/İslami Bilgi Üretiminin İmkanı\*

### Muhammet Yurtseven

0000-0003-2604-440X | muhammetyurtseven@sdu.edu.tr Süleyman Demirel Üniversitesi, İlahiyat Fakültesi, İslam Hukuku Anabilim Dalı, Isparta, Türkiye ROR ID: 04fitte88

Öz

Bu çalışma, yapay zekanın seküler materyalist paradigma ve transhümanist perspektif çerçevesinde şekillenmiş yapısını, eleştirel bir bakış açısıyla analiz etmektedir. Yapay zekanın seküler pozitivist hegemonyanın bir aracı olarak insanı ve insana dair her şeyi veri (data) haline getirip araçsallaştırması, ahlaki ve manevi değerleri arka plana itmesi ve dini bilginin üretim süreçlerinde bilginin aşkın (metafizik) boyutunu ihmal etmesi sorgulanmaktadır. Çalışma, yapay zekanın İslam'ın ontolojik, ahlaki ve insani değerleri doğrultusunda nasıl yeniden anlamlandırılabileceğini ve bu doğrultuda özgün modellerin nasıl geliştirilebileceğini ele almaktadır. Araştırma kapsam olarak, yapay zekanın seküler pozitivist ve transhümanist bakış açılarıyla işleyen arka planını ele alarak dini bilginin üretimine etkilerini incelemekte, buna dair fırsatları/zorlukları yeni bakış açıları ve önerilerle ele almaktadır. Bu bağlamda yapay zekanın, dini bilginin üretilmesinde metafizik boyutu ihmal etmesi, seküler bir perspektif üzerine inşa edilmiş olması ve bilginin bağlamsal analizlerdeki ihmalleri tartışılmıştır. Özellikle kolonyal güç matrisi çerçevesinde yapay zekanın bir araç olarak kullanıldığına dair kültürel hegemonyanın iz düşümleri literatür çerçevesinde incelenmiş ve dini bilginin üretilme imkanı birçok boyutuyla ele alınmıştır. Buradan hareketle Müslüman toplumların kendilerine özgü kültürel bağlarla harmanlanmış yerli ve milli bilgi sistemlerinin geliştirilmesi gerekliliğine vurgu yapılmış ve bu sürecin hangi unsurlara dayalı olarak ele alınacağında dair öneriler sunulmuştur. Böylece, yapay zekanın insanlığın felahına ve adaletin tesisine katkıda bulunacak şekilde sevk edilmesine dair arayışlar irdelenmiştir. Yöntem olarak çalışmada nitel araştırma teknikleri benimsenmiş, literatür taraması yoluyla yapay zekanın seküler pozitivist paradigmadaki epistemolojik ve ontolojik temellere dair bulguları analiz edilmiştir. Yapay zekanın dini bilgiyi üretme potansiyeli İslam düşüncesindeki kıyas, istihsân ve istikrâ gibi geleneksel akıl yürütme yöntemleri ile modern algoritmik yaklaşımlar çerçevesinde karşılaştırmalı olarak incelenmiştir. Ayrıca, yapay zekanın dini bilginin üretiminde sunabileceği potansiyel fırsatlar ve karşılaşılabilecek riskler literatürden kanıtlarla ele alınmıştır. Çalışmanın bulguları arasında yapay zekanın seküler paradigmalarla ilişkilendirilen tarihsel ve felsefi temellere sahip olduğu, transhümanist yaklasımlar cercevesinde insanı biyolojik ve bilissel sınırlarını aşmaya zorlayan bir teknoloji olarak tasarlandığı, kültürel hegemonyanın bir aracı olarak kullanıldığı ve dini bilgi üretim süreçlerinde de bu saiklerle hareket ettiği görülmüştür. Özellikle Aníbal Quijano ve Walter Mignolo'nun "sömürgeci/kolonyal güç matrisi" teorileri bağlamında yapay zekanın bilgi üretimindeki hegemonik etkileri tartışılmış ve sömürgeciliğin uzamsal bir aracı olduğuna dair tespitler incelenmiştir. Ayrıca, modern teknolojilerin dini bilginin merkezsizleşmesine, bağlamsızlaşmasına ve otantik karakterini kaybetmesine yol açabileçeği literatürdeki örneklerle değerlendirilmistir. Arastırmanın diğer bulguları, yapay zekanın dini bilgi üretimindeki sınırlılıklarının olduğu, bilimsel bilgi içerisinde metafizik ilkelerin olmasına rağmen dini bilginin metafizik boyutlarını ihmal ettiği, seküler ve materyalist bir bakış açısıyla bilgi üretme eğiliminde olduğunu da ortaya koymaktadır. Buna karşın klasik yöntemlerin modern teknolojiye entegrasyonu sayesinde -geleneksel İslami bilgi üretim metodolojileri ile yapay zekanın akıl yürütme yöntemlerinin- meczedilmesi dini bilgi üretiminde yeni bir bakış açısı sunabileceğine dair öneriler ele alınmıştır. Ayrıca yapay zekanın İslam'ın ahlaki ve insani değerleri doğrultusunda yeniden tasarlanma gereksinimi dini bilginin özgün karakterinin korunarak üretilmesine ve aktarılmasına imkan tanıyabilmesi, Müslüman toplumların bu alanda yerli ve milli teknoloji altyapıları oluşturarak; erişebilirlik, adalet ve kapsayıcılık temelinde yapay zekayı yapılandırmalarının zorunluluğu ortaya konmuştur.

### Anahtar Kelimeler

İslam Hukuku, Yapay Zeka, Dini Bilgi, Epistemoloji, İslam Düşüncesi

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### Introduction

Artificial Intelligence Artificial intelligence (AI) has emerged as a prominent technological tool shaped by the secular-materialist paradigm¹ and exerting significant influence on the global system.² While this paradigm determines the dimensions of social, economic, and technological transformations in human history, it also paves the way for moral and existential crises.³ AI, with its potential benefits and associated risks, has become a topic of critical discussion for both individuals and societies.⁴

AI systems, built upon secular-materialist values and underpinned by an ideological positivist mindset, reduce humanity to a mere source of data and exhibit tendencies to establish economic, political, and technological hegemony through the exploitation of this data.<sup>5</sup> However, transforming AI into a tool that enhances human well-being and contributes to the establishment of justice requires reevaluating this technology based on moral and human values.<sup>6</sup> It is imperative to consider that artificial intelligence brings forth numerous challenges, including bias, discrimination,<sup>7</sup> monopolization, surveillance and privacy violations, environmental concerns, and particularly the deprivation of capacity utilization.<sup>8</sup> These issues

<sup>1</sup> The secular positivist/materialist paradigm is addressed as a mode of thinking that systematically excludes religion, faith, and values, attempting to interpret human life solely through material realities and Western-centric scientific truths. This paradigm adopts an approach that disregards the spiritual and moral dimensions of human existence, reducing all aspects of life to measurable, objective, and material criteria. For further details on this concept, frequently used to explain the philosophical background of artificial intelligence, see: Syed Muhammad Naquib Al-Attas, *Islam and Secularism* (Kuala Lumpur: ISTAC, 1993), 1-15.

<sup>&</sup>lt;sup>2</sup> King-Ho Leung, "The Picture of Artificial Intelligence and the Secularization of Thought", Political Theology 20/6 (2019), 457-471.

<sup>&</sup>lt;sup>3</sup> Yaqub Chaudhary, "Islam and Artificial Intelligence", The Cambridge Companion to Religion and Artificial Intelligence, ed. Beth Singler- Fraser N. Watts, (Cambridge: Cambridge University Press, 2024), 109-129.

Utku Köse, "Are We Safe Enough in the Future of Artificial Intelligence? A Discussion on Machine Ethics and Artificial Intelligence Safety", Brain-Broad Research in Artificial Intelligence and Neuroscience 9/2 (2018), 184-197.

<sup>5</sup> Cihannüma, Yapay Zekâ ve İnsanlığın Geleceği: Fırsatlar ve Tehditler, Final Report (Ankara: Cihannüma Yayınları, 2024), 28-29.

<sup>&</sup>lt;sup>6</sup> AI operates with big data and is developed by requiring even more data. Big data enables technology to increase its capacity for generating, collecting, storing, and processing data, while the demand for data transforms every aspect of life, including humanity itself, into a structure oriented toward data production. This situation raises the risk of reducing everything to a data format, thereby turning human beings into mere tools. For detailed information, see: Osman Sahin - İhsan Çapçıoğlu, "Toplumsal Gerçekliğin İnşasından 'Büyük Veri'ye Bilginin Dönüştürücü Etkisi", İslami Araştırmalar Dergisi 32/3 (2021), 684-696.

<sup>&</sup>lt;sup>7</sup> To explore studies examining the discriminatory nature of AI and the areas in which it demonstrates bias, see. Cathy O'Neil, Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy (New York: Crown, 2016); Yonatan Zunger, "Machine Learning and the Problem of Bias", 2017; Safiya Umoja Noble, Algorithms of Oppression: How Search Engines Reinforce Racism (New York: NYU Press, 2018); Joy Buolamwini - Timnit Gebru, "Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification", Proceedings of Machine Learning Research (1st Conference on Fairness, Accountability and Transparency, New York: PMLR, 2018), 77-91; Nicholas Thompson, "What is AI Bias? And How Can We Fix It?", Wired (blog) (Access 12.01.2025).

In contemporary global society, disparity in technological access manifests as a novel form of power imbalance. A salient example of this phenomenon is the inequality in access to artificial intelligence technologies on a global scale. Economic constraints (high costs of advanced hardware and software solutions), geographical and geopolitical barriers, systematic disparities in technical education opportunities, and linguistic-cultural impediments are hindering the equitable utilization of these technologies at a universal level, thereby generating the phenomenon of capacity access deprivation. See. Ahmet Dağ, *Transhümanizm: İnsanın ve Dünyanın Dönüşümü* (Ankara: Elis Yayınları, 2020), 220-228.

warrant careful consideration in the development and implementation of AI systems. Otherwise, AI risks becoming a mechanism that drives humanity toward moral degradation and spiritual erosion.

In this context, a crucial question for the Islamic world is whether AI technology can be addressed within the framework of Islam's ontological, moral, and human-centered values. It is essential for Muslims to design AI technologies in a "human-centric" manner that aligns with Islam's truth- and justice-based worldview to minimize the harmful effects of this technology. Furthermore, developing indigenous and localized AI infrastructures is of paramount importance to transform the capacity of this technology into a perspective that is fair, transparent, and oriented toward serving humanity.<sup>9</sup>

The application of AI technologies in religious research has been increasingly addressed in the literature. However, it must also be acknowledged that these technologies often neglect the spiritual dimension of religious knowledge and objectify it by reducing it to mere data. By redefining traditional concepts of thought and intelligence, AI posits the possibility of "thinking without humans," thereby weakening the connection between thought and the spiritual dimension. dimension.

The aim of this study is to highlight the necessity for Muslims to interpret, instrumentalize, and develop unique models of AI technology in accordance with their own value systems, as a response to the impositions of the secular-materialist mindset. Additionally, the study provides a critical analysis of existing AI technologies and explores how they can be more effectively utilized based on religious knowledge and social justice. Through data obtained from the literature this study aims to demonstrate how artificial intelligence can be reimagined and repurposed to align with the ontological, moral, and human-centered principles of Islam.

This analysis underscores the urgency of reevaluating AI technologies to ensure their alignment with ethical and spiritual values, emphasizing the importance of developing indigenous frameworks that reflect Islamic principles. Such an approach is vital not only for

The production of religious knowledge through AI-based applications has been addressed by various disciplines. For some of these studies, see. Ali Polat vd., "An Inquiry into the Application of Artificial Intelligence on Fatwa", Digital Transformation in Islamic Finance: A Critical and Analytical View, ed. Yasushi Suzuki - Mohammad Dulal Miah (London: Routledge, 2022), 274-285; Furkan Çakır, "Yapay Zekâ ve Hadis", Şırnak Üniversitesi İlahiyat Fakültesi Dergisi 32 (2023), 109-131; Muhammet Yurtseven, "İslami Finans Alanında Yapay Zekâ ile Tasarlanmış Fetva Uygulamaları: Robo Shariah ve Smart Müfti Örneği" (İslam Hukuku Araştırmalarına Zemin Oluşturması Açısından "Yapay Zeka") Burdur: Burdur M.Akif Ersoy Üniversitesi, 2022), 81; Siti Rohaya Mat Rahim vd., "Artificial Intelligence, Smart Contract and Islamic Finance", Asian Social Science 14/2 (2018), p145; Fatma Ekinci, "Sanallaş(tırıl)ma Sürecinde Dini Bilginin Hakikat Problemi", Medya ve Din Tartışmaları Sempozyum Bildirileri, ed. Mete Çamdereli vd. (İstanbul: İstanbul Ticaret Üniversitesi, 2016); Sevim Ünal, "İbadetlerle İlgili Fetvalar ve Yapay Zekâ Uygulamaları: Karşılaştırmalı Bir Analiz", Dinbilimleri Akademik Araştırma Dergisi 24/3 (2024), 161-192.

<sup>&</sup>lt;sup>9</sup> Cihannüma, Yapay Zekâ ve İnsanlığın Geleceği: Fırsatlar ve Tehditler, 29-30.

<sup>&</sup>lt;sup>11</sup> In this study, the concept of "religious knowledge" is specifically used within the context of Islamic epistemology and is treated as synonymous with "Islamic knowledge." Therefore, the expression "religious knowledge" throughout the article refers exclusively to the type of knowledge produced, transmitted, and interpreted within the framework of Islam. Knowledge systems in other religious traditions are beyond the scope of this study.

Leung, "The Picture of Artificial Intelligence and the Secularization of Thought", 457-458.

mitigating the risks associated with AI but also for positioning it as a tool that contributes to human flourishing and the realization of justice. 13

### 1. The Nature of AI Within the Framework of Secular Positivism and Transhumanism

One of the most striking areas of discussion in the modern era is the epistemological and ontological inquiries that have emerged alongside the development of AI technologies. While debates on AI continue within the frameworks of secular positivism and transhumanism, the impact of these technological advancements on the production of religious knowledge has become a significant topic in the literature. Although technological advancements provide new opportunities in the processes of producing and transmitting religious knowledge, they also bring about certain limitations. <sup>15</sup>

Particularly, debates surrounding objectivity, freedoms, and access capacity directly influence the production processes of religious knowledge in the modern era. A critical question arises: What are the boundaries of the opportunities provided by technology, and what role do these boundaries play in the production of religious knowledge?

The relationship between secular positivist approaches and religious knowledge has taken on a new dimension with the development of AI technologies. While recognizing the distinct values and methodologies of both types of knowledge on a theoretical level may seem like a potential solution, in practice, this reconciliation is largely absent. While proponents from the religious perspective acknowledge that the critical perspective offered by secular positivism could contribute to the production of religious knowledge, the disregard for preserving the unique character of religious knowledge by the other side often shifts the discussion to an ideological ground. In this context, the role of AI technologies in the production of religious knowledge is an issue that must be addressed in both technical and religious-moral dimensions.

One of the most pressing questions of the modern era is how the opportunities offered by technology can be utilized while preserving the unique character of religious knowledge, the quality of such knowledge to be produced, and humanity's position in this scenario. To move beyond ideological approaches, it is essential to evaluate objectively both the opportunities provided by technological advancements and the inherent values of religious knowledge. The following sections explore in detail whether technological advancements grounded in a secular

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Religious and philosophical debates on AI open a space where technology redefines the roles of creator and creation and impacts belief systems. For related discussions, see. Heidi A Campbell, "Framing the Human-Technology Relationship: How Religious Digital Creatives Engage Posthuman Narratives", Social Compass 63/3 (2016), 303.

Beth Singler, "An Introduction to Artificial Intelligence and Religion For the Religious Studies Scholar", Implicit Religion 20/3 (2017), 215-231; Beth Singler - Fraser N. Watts (ed.), The Cambridge companion to religion and artificial intelligence (Cambridge, United Kingdom: Cambridge University Press, 2024); F. Leron Shults - Wesley J. Wildman, "Simulating Religion", The Cambridge companion to religion and artificial intelligence, ed. Beth Singler - Fraser N. Watts, Cambridge companions to religion (Cambridge, United Kingdom: Cambridge University Press, 2024), 241-273.

To explore discussions on how religious knowledge in the modern era differs in its purposes and methods from traditional approaches and the tendencies through which it is addressed today, see. Tahsin Görgün vd. (ed.) at all, Modern Dönemde Dini İlimlerin Temel Meseleleri (İstanbul: İsam / İslam Araştırmaları Merkezi, 2007), 17-238.

Willem B. Drees, "Religion in an Age of Technology", Zygon 37/3 (2002), 597-604.

positivist background permit such evaluations and the fundamental motivations behind this dynamic.

### 1.1. The Potential of Secular Positivist-Based AI to Produce Religious Knowledge

The secular positivist approach emerges as a significant paradigm in modern intellectual history, questioning the epistemological position of religious knowledge. This approach asserts that knowledge can only be acquired through empirical and measurable data, excluding the metaphysical and spiritual dimensions of religious knowledge from the category of scientific knowledge. Consequently, the nature of religious knowledge and its processes of acquisition are rendered a contentious and often neglected area within this framework.<sup>17</sup>

By its very nature, religious knowledge is grounded in divine sources and interprets human existence within a transcendent framework. This inherently leads to theoretical conflicts and practical divergences with the prevailing secular paradigm. Moreover, the positivist approach, despite the distinct nature of religious knowledge, evaluates it through an ideological lens and attempts to impose the foundational criteria of scientific methodology -testability, repeatability, and measurability- on religious knowledge. However, the essence of religious knowledge transcends these criteria, encompassing the spiritual and metaphysical dimensions of human experience with events and phenomena. Consequently, the methods of positivist scientific knowledge are fundamentally incompatible with the nature of religious knowledge.

At this juncture, artificial intelligence, constructed within a secular positivist framework, must also be critically assessed regarding its approach to evaluating religious knowledge from both ontological and epistemological perspectives.<sup>22</sup> To address the question, "Is positivist modern knowledge independent of metaphysical principles?" the following answers can be provided within the framework of the metaphysical foundations of scientific paradigms:

The assumption that modern scientific paradigms rely solely on empirical observation and experimentation often leads to an oversight of the metaphysical principles inherent in science itself.<sup>23</sup> In fact, the production of scientific knowledge depends on foundational metaphysical assumptions that shape the nature and boundaries of science.<sup>24</sup> One of the most fundamental metaphysical principles underpinning scientific thought is realism. This perspective asserts that

<sup>&</sup>lt;sup>17</sup> Tahsin Görgün, "Batı Medeniyeti İçerisinde İslâmî İlimler Mümkün müdür? Modern Dönemde Dinî İlimlerin Temel Meselelerine Temelli Bir Bakış", *Modern Dönemde Dinî İlimlerin Temel Meseleleri (İlmî Toplantı*), ed. Tahsin Görgün vd. (İstanbul: İsam / İslam Araştırmaları Merkezi, 2007), 11-30.

<sup>&</sup>lt;sup>18</sup> Ahmet Cevizci, Büyük Felsefe Sözlüğü (İstanbul: Say Yayınları, 2017), "Bilgi".

Oolin A. Russell, "The Conflict of Science and Religion", The History of Science and Religion in the Western Tradition, ed. Gary B. Ferngren (London: Routledge, 2000), 11-17.

Thomas McPherson, "Positivism and Religion", Philosophy and Phenomenological Research 14/3 (1954), 319-331.

Adnan Aslan, "Geleneksel Ekolün Modernizm Eleştirisi ve İslâm Düşüncesindeki Yansımaları", İslâm ve Modernleşme (Kutlu Doğum İlmî Toplantısı, İstanbul: İSAM / İslam Araştırmaları Merkezi, 1997), 25-40.

To explore debates surrounding the testability of knowledge through scientific methods, see. Muhammet Yurtseven, "Şer'i Bilginin Epistemik Değeri Açısından Din ve İktisat İlişkisi", Tevilat 4/1 (2023), 220-221.

<sup>&</sup>lt;sup>23</sup> To explore the dilemmas of scientific knowledge and the critiques related to them, see. Erhard Oeser, "Bilimsel Evrenselcilik", çev. Nejat Bozkurt, Felsefe Arkivi 25 (2013), 64-65.

<sup>&</sup>lt;sup>24</sup> Ian G. Barbour, Bilim ve Din: Çatışma-Ayrışma-Uzlaşma, çev. Nebi Mehdi - Mübariz Camal (İstanbul: İnsan Yayınları, 2004), 158-162.

the universe exists independently of the human mind and that there is an objective reality to be discovered. Scientific realism also accepts the existence of unobservable theoretical entities. For instance, while subatomic particles cannot be directly observed, their existence is acknowledged within the framework of scientific realism.

A second significant metaphysical principle is the assumption of regularity and causality in the universe. Science presupposes that the laws of nature are universal and unchanging. This principle of determinism is notably evident in Einstein's objections to quantum mechanics. His famous statement, "God does not play dice," underscores his belief that the universe operates according to defined laws rather than randomness, calling attention to the necessity of embracing metaphysical principles.<sup>25</sup>

The third metaphysical principle is the assumption that the universe is comprehensible, and that human intellect can achieve this understanding. This belief underpins the pursuit of scientific inquiry and the expectation that nature can be decoded by rational thought. Additionally, naturalistic approaches serve as a fundamental presupposition in the production of scientific knowledge, providing a framework for interpreting empirical findings within the bounds of natural phenomena. These metaphysical principles, including realism, causality, and comprehensibility, are not merely philosophical but are intrinsic to the functioning of science itself, shaping its methodologies, objectives, and limitations.

Neglecting the metaphysical foundations upon which modern science is built leads to an incomplete understanding of the structure of scientific knowledge. For instance, subjects such as the origin of the universe in cosmology or the mind-body relationship in studies of consciousness are significant due to their metaphysical dimensions, which cannot be fully explained through purely empirical methods. Phenomena such as Werner Heisenberg's "uncertainty principle" and "quantum entanglement" challenge the boundaries of classical determinism and necessitate the introduction of new metaphysical interpretations into scientific thought.<sup>28</sup>

Furthermore, the metaphysical foundations of the scientific paradigm call into question the claim of absolute objectivity in science. The metaphysical assumptions underlying the production of scientific knowledge demonstrate that science itself is constructed upon certain philosophical presuppositions. This realization necessitates a revaluation of the rigid separation or ideological bias between scientific and religious knowledge.<sup>29</sup> Such an approach encourages a broader and more nuanced perspective, acknowledging the interplay between the metaphysical

<sup>25</sup> Yasar Ünal, "Din ve Bilimin Buluşma Noktası: Yasalılık/The Meeting Point of Religion and Science: Legality", İslâmî Araştırmalar (Derqi) XXXII/2 (2021), 496-516.

<sup>&</sup>lt;sup>26</sup> John F. Haught, Science and Religion: From Conflict to Conversation (New York: Paulist Press, 1995), 8-13.

Naturalism is the claim that "everything is part of nature and can be explained using the methods and methodologies of the natural sciences." For definitions and discussions on naturalism, see. Kemal Batak, Naturalism Çıkmazı: Dennett'ten Dawkins'e Yeni Ateizm'in Felsefi Temelleri ve Teistik Eleştirisi (İstanbul: İz Yayıncılık, 2017); Nicholas Bunnin - Jiyuan Yu, "Naturalism", The Blackwell Dictionary of Western Philosophy (Malden: Blackwell, 2004), 458.

Hans Reichenbach, Kuantum Mekaniğinin Felsefi Temelleri, çev. Deniz Ölçek (İstanbul: Alfa Yayınları, 2014), 9-11; James T. Cushing, Fizikte Felsefi Kavramlar, çev. Özgür Sarıoğlu (İstanbul: Sabancı Üniversitesi Yayınları, 2006), 151-153.

<sup>&</sup>lt;sup>29</sup> Anjan Chakravartty, "Bilim Felsefeleri ve Bilimler Arasında Metafizik", çev. S. Ertan Tağman, *Dört Öge* 11 (2017), 183-199.

dimensions of science and the transcendent dimensions of religious knowledge, thus fostering a more integrative understanding of human inquiry.

The primary rationale behind the positivist paradigm's ideological stance of positioning religious knowledge outside the category of scientific knowledge is to weaken the essence, societal value, and epistemological significance of religious knowledge, ultimately aiming to eliminate its transcendental dimension.<sup>30</sup> This approach, however, leads to the questioning and testing of religious knowledge without offering an opportunity to reconsider its unique methodology and inherent value system. Building upon this, artificial intelligence reconstructs the concept of thought through specific rationalist and computational methods, thereby promoting the secularization -or, in other terms, the demystification- of thought, stripping it of its spiritual dimension.<sup>31</sup>

Based on the above evaluations of the foundations of AI-based thinking and evidence from studies in the literature regarding the use of AI in religious research,<sup>32</sup> the following problems become evident regarding the production of religious knowledge<sup>33</sup> in this domain: (i) Neglect of the Metaphysical Dimension of Religious Knowledge, (ii) Methodological Differences, (iii) Epistemological Limitations, (iv) Issues of Shariah Compatibility, (v) Challenges in Interpretation and Meaning Production and (vi) Neglect of Context.

(i) Neglect of the Metaphysical Dimension of Religious Knowledge: Religious knowledge is not composed solely of rational and empirical data, as claimed by the secular and positivist paradigm. For instance, it encompasses dimensions such as revelation, inspiration, spiritual insight, intuition, mystical experience, and transcendental reality elements that the positivist paradigm is incapable of measuring or evaluating.<sup>34</sup> In this context, artificial intelligence, fundamentally reliant on the data and algorithms of this paradigm, processes knowledge within this framework. As a result, it faces significant limitations in comprehending and producing knowledge aligned with the transcendental/metaphysical dimensions of religious knowledge.<sup>35</sup>

(ii) Ignoring Methodological Differences: The secular positivist methodology underlying the functioning of artificial intelligence is insufficient in understanding and interpreting the metaphysical and value-based dimensions of religious knowledge. This is because religious

<sup>&</sup>lt;sup>30</sup> S. Ertan Tağman, "İslam Epistemolojisi Üzerine Bir İnceleme", *Dört Öge* 6 (2014), 71-86.

<sup>&</sup>lt;sup>31</sup> Leung, "The Picture of Artificial Intelligence and the Secularization of Thought", 457-460.

Randall Reed, "A.I. in Religion, A.I. for Religion, A.I. and Religion: Towards a Theory of Religious Studies and Artificial Intelligence", Religions 12/401 (2021), 1-16; Muhammed Yamaç- Nihal İşbilen, "Religion Paradigm of Artificial Intelligence", Ilahiyat Studies 15/2 (2024), 233-253.

<sup>33</sup> Particularly considering that artificial intelligence is associated with Judeo-Christian apocalyptic discourses in the Western world and is portrayed as an instrument for humanity's salvation, it is academically imperative to evaluate this technology from a critical perspective within the framework of religious epistemology. See, Yamaç-İşbilen, "Religion Paradigm of Artificial Intelligence", 245-246.

<sup>&</sup>lt;sup>34</sup> To explore examples of knowledge types outside the realm of scientific knowledge and their dimensions within Islamic thought, see. Yunus Emre Akbay (ed.), at all. *İslam Düşüncesinde Temel Kavramlar: Vahiy, İlham, Keşf, Sezgi, Firâset ve Rüya* (Ankara: Sonçağ Akademi, 2023).

<sup>35</sup> To explore the fundamental types of knowledge utilized by Al-based computer systems in scientific research processes and the philosophical foundations underlying the act of conducting science, see. Şakir Kocabaş, "Yapay Zeka ve Bilim Felsefesi", Divan: Disiplinlerarası Çalışmalar Dergisi 36 (2014), 15-16.

knowledge is not confined to mere logical inferences, various forms of reasoning, or data analysis; rather, it is rooted in divine truths, spiritual experiences, and revealed knowledge.

- (iv) The Issue of Shariah-Compliance: Artificial intelligence can process religious texts provided to it by employing methods such as semantic analysis, prediction, classification, and adaptation. It can even generate content resembling religious texts or make logical inferences about religious concepts. However, this production can never replace authentic religious knowledge. The Shariah authenticity of religious knowledge and its structure, which arises from the relationship between humans and the transcendent being, exists on a plane far beyond the capabilities of deep learning or machine learning systems.
- (v) The Problem of Interpretation and Meaning Production: AI can analyze religious texts based on its underlying logical inferences and generate new texts through certain patterns. However, this production cannot encompass the divine meaning and spiritual dimension inherent in religious knowledge. The interpretation and understanding of religious knowledge necessitate effort (jahd), human experience, jurisprudential insight (fiqh), and spiritual comprehension, which are beyond the scope of AI's capabilities.
- (vi) The Neglect of Context: AI can only determine the context of verses and hadiths when such context is explicitly provided to it. Consequently, producing religious knowledge based on foundational religious texts without accurately identifying their context introduces numerous challenges. Additionally, an essential consideration regarding context is the ability to distinguish linguistic, situational, and conceptual contexts. AI approaches context determination conditionally in all these areas. Ultimately, AI's ability to identify context in the production of religious knowledge is limited and varies depending on the type and complexity of the context, as well as the quantity and quality of the data it has been trained on.

Based on the limitations, the production and transmission of religious knowledge in AI-based systems in the modern world face the challenges posed by the secular positivist paradigm. Therefore, it is essential to develop new perspectives that address the challenges of the era-taking technological advancements into account-while maintaining caution. In this context, the following sections of the study will propose strategies to address these challenges.

## 1.2. Artificial Intelligence and the Production of Religious Knowledge in the Context of Transhumanism: An Epistemological Examination

Transhumanism, shaped as an extension of secular positivist thought, is built upon the ideal of transcending human biological and cognitive limits. In this context, the role of artificial intelligence in the production of religious knowledge and the influence of the transhumanist perspective on this process constitutes one of the significant areas of debate in contemporary thought. With the advancement of modern technology, it is evident that discussions on the relationship between transhumanism and artificial intelligence are also addressed in the literature.<sup>36</sup>

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To explore comprehensive studies examining the relationship between artificial intelligence, religion, and transhumanism from various dimensions, see. Muhammet Kızılgeçit vd. (ed.), at all, Yapay Zekâ, Transhümanizm, Posthümanizm ve Din Uluslararası Sempozyumu Özet Bildirileri Kitabı (Erzurum: Atatürk Üniversitesi Yayınları, 2021);

However, the relationship between transhumanism and AI in the processes of producing, interpreting, and understanding religious knowledge remains limited in this body of work. In this respect, the impact of transhumanism on the production and interpretation of religious knowledge through AI needs to be examined more comprehensively and in all its dimensions.

The foundational arguments of transhumanism are based on core elements of secular Western thought, such as positivist rationalism, the mechanistic worldview, and the Darwinian biological perspective. In this regard, transhumanism advocates for the idea that humans are beings capable of being "enhanced" or "improved" through technological interventions, while tending to disregard the epistemic structure and metaphysical dimension of religious knowledge.<sup>37</sup> It lacks a human-centered approach, as AI conceptualizes the acts of "intelligence" and "thinking" in a format devoid of human involvement. As emphasized in Ahmet Dag's work, "A World Without Humans: Transhumanism", who conducts significant research in the philosophy of technology and transhumanism, since transhumanism serves as a technological manifesto of secular positivist thought. Consequently, the possibility of producing religious knowledge within this framework must be both questioned and critically debated.<sup>38</sup>

From another perspective, transhumanism's desire for "immortality" and its tendency to "transcend biological limits" also conflict with fundamental concepts of religious thought. For instance, radical ideas such as enabling men to give birth through artificial wombs contradict the divinely defined human nature and the order of creation (*sunnatullāh*).<sup>39</sup> At this point, the role of AI in the production of religious knowledge becomes even more complex.<sup>40</sup>

The impact of transhumanism and AI technologies on religious knowledge must be considered by centring on significant challenges such as "dehumanization," "immortality," and "transcending boundaries." The use of artificial intelligence as "auxiliary tools" in the production of religious knowledge must also be approached from a human-centric perspective. The claim to preserve the unique character and transcendental dimension of religious knowledge while sidelining the human factor appears futile under current circumstances.

From this perspective, the irreconcilability between the transhumanist approach's goal of transforming human nature and the fundamental principle of religious thought defines the limits of artificial intelligence's role in the production of religious knowledge. In this context, the role of artificial intelligence and transhumanist technologies in the production of religious knowledge can only be considered within the framework of the fundamental principles of religious thought and the values intrinsic to religion. Otherwise, while benefiting from the

Muhammet Kızılgeçit vd. (ed.), at all, *Yapay Zekâ, Transhümanizm ve Din* (Ankara: Diyanet İşleri Başkanlığı Yayınları, 2021); Ahmet Dağ, "Posthuman Çap ve Posthumana Geçiş Aracı Olarak: Transhumanizm ve Transhuman", *Yapay Zekâ, Transhümanizm, Posthümanizm ve Din Uluslararası Sempozyumu Özet ve Tam Bildiriler Kitabı*, ed. Muhammet Kızılgeçit vd. (Erzurum: Atatürk Üniversitesi Yayınları, 2021), 17-23.

<sup>&</sup>lt;sup>37</sup> Sinan Canan, İFA: İnsanın Fabrika Ayarları 3. Kitap / Sınırları Aşmak (İstanbul: Tuti Kitap, 2020), 58-63.

<sup>&</sup>lt;sup>38</sup> Dağ, Transhümanizm: İnsanın ve Dünyanın Dönüşümü, 11-13; Ahmet Dağ, İnsansız Dünya Transhümanizm (İstanbul: Ketebe Yayınevi, 2020), 17-20.

<sup>3</sup>º The concept of "sunnatullāh" mentioned here does not refer to the natural laws governing the universe but rather denotes social laws/mechanisms in the sense of societal functioning.

<sup>&</sup>lt;sup>40</sup> Dağ, İnsansız Dünya Transhümanizm, 103-104.

<sup>&</sup>lt;sup>41</sup> Dağ, İnsansız Dünya Transhümanizm, 21-29.

possibilities offered by technology in the processes of producing and interpreting religious knowledge, there is a risk of failing to preserve the unique character and transcendental dimension of this knowledge. Thus, is AI merely a tool of transhumanist and positivist approaches?

Yes, AI has become one of the most significant tools of both transhumanist and secular positivist approaches. This is because software-based mechanical perspectives and applications in transhumanist discussions are supported by artificial intelligence. Moreover, the neglect of religious and moral values in this process is also a notable reality. For instance, transhumanist instruments that could be utilized in military applications through AI technology hold the potential to fundamentally transform warfare technologies.<sup>42</sup>

From another perspective, the relationship between artificial intelligence and transhumanism is not limited to technical dimensions. Among the social impacts of transhumanist technologies are the deepening of inequalities, deprivation of access, and the increase of moral and societal issues.<sup>43</sup> Inequalities that may arise among societies in benefiting from transhumanist possibilities will also undermine the concept of justice based on religious and moral values.<sup>44</sup> In this regard, the Darwinian approach inherent in AI-based thinking, which emphasizes concepts like "survival of the fittest" and "natural selection," represents an implicit framework where societies capable of accessing, producing, and utilizing these technologies prevail, while others are excluded from this domain.

### 1.3. Artificial Intelligence as an Extension of Secular Hegemony and Post-Colonialism

The production and use of AI can be seen as a modern reflection of historical colonialism. From a post-colonial perspective, the global processes of production and consumption of artificial intelligence reveal the continuation of the West's hegemonic dominance, both economically and politically.<sup>45</sup> In this context, Aníbal Quijano's concept of the "Coloniality of Power" provides a broad perspective for understanding how AI technologies are shaped by Western-centric values and the production of knowledge.<sup>46</sup>

Coloniality of Power refers to modern colonialism as not merely a physical process of colonization but as a hierarchical and systemic structure of power and relations encompassing all aspects of life, including knowledge production, culture, social structures, and economic systems. This system operates through domains such as historical context, the continuity of colonialism, race and ethnicity, knowledge production, economic superiority, and cultural hegemony.<sup>47</sup> In this regard, artificial intelligence technologies must not be overlooked as significant actors within the colonial power matrix. Why?

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<sup>&</sup>lt;sup>42</sup> Dağ, İnsansız Dünya Transhümanizm, 124.

<sup>&</sup>lt;sup>43</sup> Dağ, İnsansız Dünya Transhümanizm, 200-202.

<sup>44</sup> Yamaç-İşbilen, "Religion Paradigm of Artificial Intelligence", 245-246.

<sup>&</sup>lt;sup>45</sup> Rachel Adams, "Can Artificial Intelligence Be Decolonized?", *Interdisciplinary Science Reviews* 46/1-2 (2021), 176-197.

<sup>&</sup>lt;sup>46</sup> James Muldoon - Boxi A. Wu, "Artificial Intelligence in the Colonial Matrix of Power", *Philosophy & Technology* 36/4 (2023),

<sup>&</sup>lt;sup>47</sup> James Muldoon - Boxi A. Wu, "Artificial Intelligence in the Colonial Matrix of Power", Philosophy & Technology 36/80 (2023), 4-5.

Because within the colonial power matrix, AI sustains the continuity of colonialism by maintaining mental and structural interactions along the axes of power, knowledge, and resources through the algorithms operating in the background. Just as the colonial power matrix creates a hierarchy by utilizing racial and ethnic distinctions, artificial intelligence functions as a significant actor in this process. For example, facial recognition technologies produce significantly more accurate results for individuals with lighter skin tones compared to those with darker skin tones (99% vs. 65%). Autonomous job application evaluation systems exhibit bias by considering factors such as race, religion, language, and even the countries visited by the applicant. Risk assessment algorithms used in judicial systems in Europe and across various fields in China demonstrate racial, religious, and even class-based discrimination based on residency. Similarly, large language-based applications express bias through racist, discriminatory, and partisan language in their translations and evaluations. The bias in analysis and evaluations of language-based applications during the events in Gaza on October 7 is another example of this attitude.

The colonial power matrix also utilizes AI as a tool in the production of knowledge.<sup>50</sup> By centring the Western paradigm and universalizing it as the sole producer of valid knowledge and science, while marginalizing and devaluing other knowledge systems, this tendency is also adopted by artificial intelligence.<sup>51</sup> For instance, when fact-based, value, morality, and faith centred analyses are conducted using large language model applications, the analysis often concludes with warnings such as, "These findings may not align with a scientific approach; you should conduct broader research." This serves as an indication of this tendency.

The capitalist economic model emerged from colonialism and continues to sustain itself through center-periphery relationships. While countries at the center (North America and Western Europe) continuously develop and grow wealthier, peripheral countries (Asia, Africa, the Middle East, and Latin America) are exploited under the guise of being developed. The colonial power matrix employs artificial intelligence with a mission to serve this purpose by influencing economic indicators, perceptions of consumer behaviour, product preferences, and decision-making. Al algorithms rely on large datasets, yet these datasets predominantly originate from the economic systems of developed countries. As a result, the economic realities of peripheral countries are often overlooked.

According to a study conducted by MIT and Stanford researchers, facial recognition algorithms identified light-skinned men with 99% accuracy, whereas the accuracy for dark-skinned individuals dropped to as low as 65%. Additionally, Amazon's facial recognition system, "Rekognition", mistakenly matched 28 U.S. Congress members with individuals in a criminal database. Most of those incorrectly matched were Black Congress members. For further details, see. Stephen Buranyi, "Rise of the Racist Robots – How AI Is Learning All Our Worst Impulses", *The Guardian* (Access 12.01.2025).

<sup>&</sup>lt;sup>49</sup> Anja Bechmann - Geoffrey C Bowker, "Unsupervised by Any Other Name: Hidden Layers of Knowledge Production in Artificial Intelligence on Social Media", Biq Data & Society 6/1 (2019).

 $<sup>^{50}</sup>$  Muldoon - Wu, "Artificial Intelligence in the Colonial Matrix of Power", 8-9.

<sup>&</sup>lt;sup>51</sup> Reed, "A.I. in Religion, A.I. for Religion, A.I. and Religion", 1-16.

 $<sup>^{\</sup>rm 52}$  Abeba Birhane, "Algorithmic Colonization of Africa", SCRIPTed 17/2 (2020), 389-409.

<sup>&</sup>lt;sup>53</sup> Muldoon - Wu, "Artificial Intelligence in the Colonial Matrix of Power", 11-13.

<sup>&</sup>lt;sup>54</sup> Abeba Birhane, "Algorithmic Injustice: A Relational Ethics Approach", Patterns 2/2 (2021), 1-9.

Artificial intelligence can also function as a tool of cultural hegemony, turning Western lifestyles, aesthetics, and cultural norms into global standards.<sup>55</sup> In these processes, where AI serves cultural hegemony, cultural practices belonging to the "other" (non-Western) are exoticized and suppressed. This is achieved by employing Western-centric datasets, popular culture, and media algorithms; personalizing user preferences to favor Western-origin products; spreading these preferences through advertising and marketing strategies; and generating knowledge in large language models that operate within an English-centric framework.<sup>56</sup> In all these areas, artificial intelligence acts as a significant agent, marginalizing societies and values outside the West.<sup>57</sup>

### 1.4. New Approaches and Proposals to Produce Religious Knowledge Artificial Intelligence

For artificial intelligence to become a tool capable of resisting the secular positivist paradigm and the colonial power matrix in the production of religious knowledge, foundational steps such as strengthening local knowledge systems, designing ethical and just AI, and adopting an inclusive/holistic epistemology must be taken.<sup>58</sup> In this process, it is a prerequisite for Muslim societies to enhance their knowledge production capacities and develop AI technologies in alignment with their own values. In this context, new approaches and proposals for the use of artificial intelligence in the production of religious knowledge can be addressed under the following headings:

Adopting a pluralistic/holistic epistemic approach in the production of religious knowledge through artificial intelligence is essential. This is because the secular positivist paradigm operates solely with a materialist mindset, considering empirical data as the sole criterion while marginalizing other sources of knowledge (such as values, beliefs, and religion). To address this issue, AI must be designed to accept both empirical and religious/faith-based knowledge systems. Additionally, local and indigenous algorithms are required to ensure that contextual norms are not overlooked and that cultural ties with religious traditions are not severed. Following this integration, a comprehensive religious knowledge epistemology encompassing all theological approaches, including Islamic sciences, can be established.

Secondly, it is necessary to train AI models on indigenous and national datasets, as well as language models in languages such as Turkish and Arabic, to counter the biased and unilateral content of large language models originating from Western and secular paradigms. By training models in this way, data can be integrated with the relationship between language and context, allowing for the desired production of religious knowledge. Furthermore, data analyses should be conducted, and precautions should be taken against synthetic data.

<sup>55</sup> Adams, "Can Artificial Intelligence Be Decolonized?", 176-178.

<sup>&</sup>lt;sup>56</sup> R. Avila, "Against Digital Colonialism", Platforming Equality: Policy Challenges for the Digital Economy, ed. J. Muldoon - W. Stronge (Autonomy, 2020), 1-13.

 $<sup>^{\</sup>rm 57}$  Muldoon - Wu, "Artificial Intelligence in the Colonial Matrix of Power", 13-15.

<sup>58</sup> Cihannüma, Yapay Zekâ ve İnsanlığın Geleceği: Fırsatlar ve Tehditler, 38-41.

In this regard, initiatives such as the "Turkish Large Language Model"<sup>59</sup> and the "Safir Big Data" infrastructure project, carried out in Türkiye under the auspices of TUBITAK (The Scientific and Technological Research Council of Türkiye) and the National Technology Initiative (Milli Teknoloji Hamlesi), are significant steps. Additionally, these processes, included within the scope of the "National Artificial Intelligence Strategy 2021-2025", are being developed and supported through national policies.<sup>60</sup>

Current AI algorithms reflect a Western-centric worldview in personalized experiences, evaluating religious knowledge from a secular perspective. In contrast, it is essential to design AI algorithms based on an alternative paradigm. In personalized knowledge design, AI should be trained using reasoning methods inspired by the methodologies of classical Islamic disciplines such as fiqh and  $kal\bar{a}m$ . Additionally, for validation methods, the isnad and textual criticism methodologies of hadith studies should be designed for integration into algorithms.

Fourthly, the limitations or biases in the production and dissemination of religious knowledge through AI must be eliminated. This includes digitizing religious education materials, developing fatwā tools, and teaching AI the methodologies for translating and interpreting religious texts. To achieve this, it is essential for structures established through collective wisdom to play active roles in the training of AI within the framework of a holistic and cooperative approach.

Finally, an equitable and ethical access policy must be established to eliminate access deprivation or limitations, ensuring the full participation of Muslim societies in the production of religious knowledge. In this regard, participatory technological development processes and strategies should be formulated and placed on the agenda of the Islamic world. Otherwise, there is a risk of religious knowledge being produced within an ideological framework belonging to a specific country, region, group, or sect.

The secular paradigm-based data structure of artificial intelligence, its algorithmic biases, ideological operational methods, and adoption of a hegemonic approach restrict the production of religious knowledge while supporting the production of information aligned with its own paradigm. In this regard, artificial intelligence prioritizes Western-centric knowledge systems in all areas, marginalizing alternative forms of knowledge and local values, thereby perpetuating digital colonialism. This makes the positioning of artificial intelligence not only as a technological tool but also as a social and political instrument more apparent. Following the above approaches and proposals, the next section examines how artificial intelligence can benefit from the classical methodological tradition in reasoning methods and outlines the framework it should adopt to produce religious knowledge.

<sup>&</sup>lt;sup>59</sup> Zeynep Duyar, "Yapay Zekanın Türkçesini Geliştirecek ve Türk gibi Düşünmesini Sağlayacak Dil Modeli Geliyor", Anadolu Ajansı, (Erişim 25 Nisan 2024).

<sup>60</sup> CDDO, Ulusal Yapay Zekâ Stratejisi 2021-2025 (T.C. Sanayi ve Teknoloji Bakanlığı & T.C. Cumhurbaşkanlığı DDO, Ağustos 2021).

<sup>&</sup>lt;sup>61</sup> Muldoon - Wu, "Artificial Intelligence in the Colonial Matrix of Power", 1-3.

### 2. The Possibility of Religious Knowledge Through AI's Reasoning Methods

Although some research has been conducted in recent years on the capacity of AI systems to understand and interpret religious texts, the topic has not yet been addressed at the desired level.<sup>62</sup> AI operates as a systemic mechanism capable of performing unique reasoning processes by being trained through specific neural networks based on the algorithms it is given.

The reasoning capabilities of these systems concerning religious knowledge should be approached with new perspectives at the intersection of traditional interpretive methodologies  $(u \circ \overline{u})$  and modern technology. The foundational framework for this issue involves integrating specific reasoning methods in Islamic thought, such as  $q \circ \overline{u}$  (analogical reasoning),  $i \circ \overline{u}$  (juridical preference), and  $i \circ \overline{u}$  (public interest), along with general inferential methods like induction and deduction, into AI systems to establish a holistic epistemology. Indeed, the inferences AI systems make from texts resemble the methodologies of inference  $(i \circ \overline{u})$  found in classical  $u \circ \overline{u}$  al-fiqh (Islamic jurisprudence methodology). However, these systems tend to rely on mathematical and statistical computations to work with much larger datasets and rapidly evaluate different contexts. What role should artificial intelligence play in deriving religious knowledge from religious texts? Before addressing this question, it is essential to examine the current reasoning methods of artificial intelligence.

### 2.1. AI in the Context of Reasoning Methods

Artificial intelligence is fundamentally built upon reasoning methods based on mathematical and statistical models. These methods are structured through an algorithmic process that encompasses learning from data, pattern recognition, and inference-making. Unlike the conscious and subjective reasoning process of the human mind, AI's reasoning method is a data-driven computational and optimization process. In this regard, AI processes large amounts of data to solve a specific problem or enhance its capability in a personalized task.<sup>63</sup> This process typically involves identifying patterns and making decisions based on these patterns. This process operates typically by identifying patterns and making decisions based on these patterns, thus making "predictions" by modeling relationships between data during the learning process or adapting to perform given tasks. The outcomes of these data-driven processes emerge through the training of complex neural networks using various mathematical techniques for prediction/adaptation algorithms.<sup>64</sup>

Artificial intelligence employs embedded methods such as induction, deduction, and probabilistic/abductive reasoning in these processes. However, these methods are optimized for solving specific problems rather than mirroring human reasoning exactly. For instance, a machine learning model learns a statistical pattern based on past data to predict a future event.

<sup>63</sup> Alan Turing, "Computing Machinery and Intelligence", Mind 59/236 (1950), 433-460.

 $<sup>^{\</sup>rm 62}$  Chaudhary, "Islam and Artificial Intelligence", 109-129.

<sup>&</sup>lt;sup>64</sup> Alan Turing, "Bilgiişlem Makineleri ve Zekâ", trans. Füsun Doruker, Aklın Gözü: Benlik ve Ruh Üzerine Hayaller ve Düşünceler, ed. D. R. Hofstadter- D. C. Dennett (İstanbul: Boğaziçi Üniversitesi Yayınevi, 2005), 59-72.

However, since this learning process is entirely data-driven, it is limited in its ability to understand context or make decisions based on cultural or moral values.<sup>65</sup>

The reasoning of artificial intelligence is typically shaped around an objective function. This is a goal-oriented optimization process aimed at achieving a specific performance criterion in the best possible way. For instance, a facial recognition system optimizes an algorithm that minimizes errors to accurately identify faces in photographs. However, this process does not consider moral, cultural, or contextual factors. Unless these factors are explicitly programmed or clearly specified within the data, AI has yet to demonstrate success in understanding or interpreting them. Moreover, as expressed in the previous sections, AI processes can be manipulated due to various motivations. From this perspective, AI's reasoning is significantly limited compared to human intelligence. While the human mind is shaped by intuition, emotions, past experiences, and cultural contexts, AI is confined to data and algorithms. Therefore, although AI reasoning is effective in improving performance for a given task, it does not possess human-like interpretation or cognitive thinking capabilities.

### 2.2. Reasoning Methods of AI in Relation to Religious Knowledge

Although the use of AI technologies in the production of religious knowledge currently faces certain limitations and challenges, it appears likely to become more advanced in the future. 66 Particularly with the development of large language models, image processing, and deep learning systems, AI may offer new opportunities to produce religious knowledge. However, integrating these advancements in a manner consistent with traditional religious knowledge methodologies is crucial.

At present, AI's reasoning processes focused on religious texts can be categorized into two classifications: general and specific. Generally, traditional reasoning methods (induction, deduction, and abduction) and, specifically, semantic analysis, contextual examination, and cross-referencing analysis hold potential for integration into the processes of religious knowledge production through AI.<sup>67</sup> In this context, the classification of AI's reasoning methods focused on religious knowledge, both general and specific, is as follows:

**Induction:** AI systems could use inductive reasoning methods to derive general principles from specific examples in religious texts. For instance, AI applications structured with large language models could identify similar patterns in hadith texts and deduce the general moral principles established by the Prophet Muhammad (peace be upon him).

<sup>65</sup> Katja Grace vd., "When Will AI Exceed Human Performance? Evidence from AI Experts", arXiv, (2017), 1-21.

<sup>66</sup> Russell and Norvig have extensively examined reasoning methods in artificial intelligence systems, while Mitchell has laid the theoretical foundations for generalization and reasoning mechanisms in machine learning through data, making significant contributions to the methodological framework of the field. For detailed information, see. Stuart Jonathan Russell- Peter Norvig, Artificial Intelligence: A Modern Approach (Pearson, 2010); Tom M. Mitchell, Machine Learning (New York: McGraw-Hill Education, 1997).

<sup>&</sup>lt;sup>67</sup> Pearl has made significant contributions to artificial intelligence by developing the reasoning methods within the field through his causality theory, which mathematically models cause-and-effect relationships. For detailed information, see. Judea Pearl, Causality: Models, Reasoning and Inference (Cambridge: Cambridge University Press, 2009), 13-248.

**Deduction:** AI could utilize deductive reasoning methods in a manner similar to classical  $us\bar{u}l$  to derive specific conclusions from general principles found in the Qur'an and hadith texts. For example, by applying universal principles ( $kull\bar{l}iqaw\bar{a}^c\bar{l}d$ ) to issues ( $juz'imas\bar{a}'il$ ), AI could generate responses using deductive logic akin to the classical methodology of  $qiy\bar{a}s$ .

**Abduction:** AI could employ abductive reasoning to generate the most plausible hypotheses to explain ambiguous situations in religious texts. However, this method, which resembles traditional approaches like <code>istiḥsān</code> and <code>maṣlaḥah</code> (public interest) in jurisprudential matters, must be verified within the framework of classical Islamic jurisprudence. Otherwise, it could lead to incorrect interpretations and opinions.

**Semantic Analysis:** Modern NLP technologies and large language models have shown significant advancements in analyzing the complex semantic structures of classical Arabic religious texts and identifying intertextual semantic relationships. This method could prove highly useful in text-centered knowledge production in religious studies.

**Contextual Examination:** While AI cannot yet analyze the historical, sociological, and linguistic contexts of religious texts to distinguish their temporal conditions and universal messages, it could develop such capabilities through training with relevant datasets.

Cross-Referencing Analysis: Advanced AI algorithms could detect networks of references across various Islamic sources, enabling the discovery of intertextual relationships and consistency analysis. In this context, both verification and the holistic interconnection of Islamic sciences could be established.

After discussing the reasoning methods that artificial intelligence could employ in the production of religious knowledge under the above headings, it is worth reiterating the following point: While artificial intelligence may have the potential to adopt specific methods for interpreting and deriving insights from religious knowledge, it will remain significantly inadequate in reflecting the essence of the texts that serve as the source of this knowledge and in addressing their spiritual dimensions. This is because a text-based analysis deals only with the visible surface of religious knowledge, leaving room for the neglect of its intrinsic meanings and metaphysical dimensions. In this regard, it would be more accurate and realistic to state that artificial intelligence cannot develop a fully comprehensive understanding of religious knowledge.

### **Conclusion and Recommendations**

The rapid development of digital technologies and the widespread use of artificial intelligence have brought about a paradigmatic transformation in the production, access, and dissemination of religious knowledge. This transformation is not merely a technological innovation but has also been assessed as a process that effectively reshapes the impact of religious knowledge on societal and individual life. This complex phenomenon, which must be examined in its epistemological, methodological, and sociological dimensions, has introduced new transformations and challenges in accessing knowledge. The integration of epistemic access and digital transformation into religious knowledge has led to profound changes in traditional

understandings of knowledge and, consequently, in the production of religious knowledge with the proliferation of modern technologies.

Traditionally, religious knowledge was produced and disseminated through religious authorities or institutions. However, digital platforms have decentralized access to this knowledge, creating a significant area of transformation. In this transformation, the decentralization of religious knowledge production processes has emerged as a risk, opening the door to the visibility of alternative approaches outside the traditional sources of religious knowledge. This has necessitated the redefinition of scholarly authority in terms of religious knowledge, questioning the roles and knowledge hierarchies inherent in traditional religious understanding. Structures attributed as mechanisms for producing religious knowledge, such as fatwa councils, have faced the need to evolve into more diversified and complex entities in line with the dynamics of the digital age.

The potential methodological transformation in the production of religious knowledge through artificial intelligence will necessitate the integration of traditional methodological approaches into the process, forcing a profound change. The adaptation of traditional hermeneutical approaches to digital platforms will also provide an opportunity to address various fields of religious knowledge from a broader perspective. In this context, potential methodological innovations could include the application of algorithmic analysis methods to religious texts and the systematic organization of data (text) mining and textual analysis.

The potential contributions of AI to the production of religious knowledge and the possible areas of risk that may arise must also be examined. From this perspective, AI holds pragmatic potential in accessing religious knowledge and analyzing it. For instance, through big data analysis, the intertextual relationships of religious texts can be identified, allowing for a deeper understanding of the meaning of religious texts and facilitating the delivery of their message in all dimensions to people. Semantic networks among religious texts and the creation of meaning maps could enable a clearer understanding of the conceptual structures of these texts. Additionally, multilingual text analyses and comparative interdisciplinary studies could help address the commonalities and differences among various religious texts.

However, applying AI technologies to religious knowledge also carries certain risks. For example, the projection of algorithmic biases and ideologies onto religious texts could lead to misinterpretation and corruption. The loss of context in religious texts could result in neglecting their historical and sociological backgrounds, rendering them incomprehensible. Furthermore, the weakening of the authentic interpretative tradition linked to the divine dimension of religious texts through AI could reduce religious knowledge to mere text and superficialize its message. To address these risks, the following recommendations can be made:

Given the findings, it would be more accurate and realistic to assert that artificial intelligence cannot develop a comprehensive understanding of religious knowledge. Consequently, institutional measures must be implemented to ensure the healthy continuation of religious knowledge production and interpretation in the digital age. Religious institutions, such as the Presidency of Religious Affairs (Diyanet İşleri Başkanlığı - DİB), located in Türkiye, should develop digital transformation strategies and conduct initiatives supporting

technological integration. Raising awareness of the ethics of AI usage from a religious perspective, developing standards, and making these perspectives applicable are essential. In this regard, implementing widespread and ongoing education programs on digital AI literacy will help build societal resilience against new technologies. From another perspective, developing hybrid methodologies that combine traditional and modern approaches in the production of religious knowledge is necessary. Integrating traditional methods of religious knowledge production with AI technologies, strengthening critical thinking skills, and fostering an awareness that approaches knowledge more consciously are crucial steps. Muslim societies must play an active role in this field, both theoretically and practically, to mitigate the potential risks of AI in the production of religious knowledge and to use this technology in accordance with Islam's truth, justice, and human-centered worldview. It has been established that comprehensive and methodologically robust new research is needed regarding whether the epistemological problems emerging about artificial intelligence's capacity to process/produce religious knowledge originate from the quality of datasets or from the conceptual limitations of algorithmic architectures. Future studies on AI modelling that facilitate the production of highquality religious knowledge will also enable Muslim societies to compete in this field.

### References | Kaynakça

- Adams, Rachel. "Can Artificial Intelligence Be Decolonized?" Interdisciplinary Science Reviews 46/1-2 (2021), 176-197. https://doi.org/10.1080/03080188.2020.1840225
- Akbay, Yunus Emre (ed.) at all. İslam Düşüncesinde Temel Kavramlar: Vahiy, İlham, Keşf, Sezgi, Firâset ve Rüya. Ankara: Sonçağ Akademi, 2023.
- Al-Attas, Syed Muhammad Naquib. Islam and Secularism. Kuala Lumpur: ISTAC, 1993.
- Aslan, Adnan. "Geleneksel Ekolün Modernizm Eleştirisi ve İslâm Düşüncesindeki Yansımaları". İslâm ve Modernleşme. 25–40. İstanbul: İSAM / İslam Araştırmaları Merkezi, 1997.
- Avila, R. "Against Digital Colonialism". Platforming Equality: Policy Challenges for the Digital Economy. ed. J. Muldoon W. Stronge. Autonomy, 2020.
- Barbour, Ian G. Bilim ve Din: Çatışma-Ayrışma-Uzlaşma. trans. Nebi Mehdi- Mübariz Camal. İstanbul: İnsan Yayınları, 2004.
- Batak, Kemal. Naturalizm Çıkmazı:Dennett'ten Dawkins'e Yeni Ateizm'in Felsefi Temelleri ve Teistik Eleştirisi. İstanbul: İz Yayıncılık, 2017.
- Bechmann, Anja- Bowker, Geoffrey C. "Unsupervised by Any Other Name: Hidden Layers of Knowledge Production in Artificial Intelligence on Social Media". Big Data & Society 6/1 (2019), Online. https://doi.org/10.1177/2053951718819569
- Birhane, Abeba. "Algorithmic Colonization of Africa". SCRIPTed 17/2 (2020), 389-409. https://doi.org/10.2966/scrip.170220.389
- Birhane, Abeba. "Algorithmic Injustice: A Relational Ethics Approach". *Patterns* 2/2 (2021), 1-9. https://doi.org/10.1016/j.patter.2021.100205
- Bunnin, Nicholas- Yu, Jiyuan. "Naturalism". The Blackwell Dictionary of Western Philosophy. 458. Malden: Blackwell, 2004.
- Buolamwini, Joy- Gebru, Timnit. "Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification". *Proceedings of Machine Learning Research*. 81/77-91. New York: PMLR, 2018.
- Buranyi, Stephen. "Rise of the Racist Robots-How AI Is Learning All Our Worst Impulses". *The Guardian*, Access Date 21.12.2024. https://www.theguardian.com/inequality/2017/aug/08/rise-of-the-racist-robots-how-ai-is-learning-all-our-worst-impulses
- Campbell, Heidi A. "Framing the Human-Technology Relationship: How Religious Digital Creatives Engage Posthuman Narratives". Social Compass 63/3 (2016), 302-318. https://doi.org/10.1177/0037768616652328
- Canan, Sinan. İFA: İnsanın Fabrika Ayarları 3. Kitap / Sınırları Aşmak. İstanbul: Tuti Kitap, 2020.
- CDDO. *Ulusal Yapay Zekâ Stratejisi 2021-2025*. Sanayi ve Teknoloji Bakanlığı & CDDO, Ağustos 2021. Access Date 01.01.2025. https://www.cbddo.gov.tr/UYZS
- Cevizci, Ahmet. Büyük Felsefe Sözlüğü. İstanbul: Say Yayınları, 2017.
- Chakravartty, Anjan. "Bilim Felsefeleri ve Bilimler Arasında Metafizik". trans. S. Ertan Tağman. *Dört Öge* 11 (2017), 183-199.
- Chaudhary, Yaqub. "Islam and Artificial Intelligence". *The Cambridge companion to religion and artificial intelligence*. ed. Beth Singler- Fraser N. Watts. 109-129. Cambridge companions to religion. Cambridge: Cambridge University Press, 2024.
- Cihannüma. Yapay Zekâ ve İnsanlığın Geleceği: Fırsatlar ve Tehditler. Sonuç Raporu. Ankara: Cihannüma Yayınları, 2024.
- Cushing, James T. Fizikte Felsefi Kavramlar. trans. Özgür Sarıoğlu. İstanbul: Sabancı Üniversitesi Yayınları, 2006.

- Çakır, Furkan. "Yapay Zekâ ve Hadis". Şırnak Üniversitesi İlahiyat Fakültesi Dergisi 32 (2023), 109-131.
- Dağ, Ahmet. İnsansız Dünya Transhümanizm. İstanbul: Ketebe Yayınevi, 2020.
- Dağ, Ahmet. "Posthuman Çağ ve Posthumana Geçiş Aracı Olarak: Transhumanizm ve Transhuman". Yapay Zekâ, Transhümanizm, Posthümanizm ve Din Uluslararası Sempozyumu Özet ve Tam Bildiriler Kitabı. ed. Muhammet Kızılgeçit vd. 17-23. Erzurum: Atatürk Üniversitesi Yayınları, 2021.
- Dağ, Ahmet. Transhümanizm: İnsanın ve Dünyanın Dönüşümü. Ankara: Elis Yayınları, 2020.
- Drees, Willem B. "Religion in an Age of Technology". *Zygon*® 37/3 (2002), 597-604. https://doi.org/10.1111/1467-9744.00439
- Duyar, Zeynep. "Yapay Zekanın Türkçesini Geliştirecek ve Türk gibi Düşünmesini Sağlayacak Dil Modeli Geliyor", Anadolu Ajansı, Access Date 12.01.2025. https://www.aa.com.tr/tr/dosya-haber/yapay-zekanin-turkcesini-gelistirecek-ve-turk-gibi-dusunmesini-saglayacak-dil-modeli-geliyor/3188401
- Ekinci, Fatma. "Sanallaş(tırıl)ma Sürecinde Dini Bilginin Hakikat Problemi". *Medya ve Din Tartışmaları Sempozyum Bildirileri*. ed. Mete Çamdereli vd. İstanbul: İstanbul Ticaret Üniversitesi, 2016.
- Görgün, Tahsin. "Batı Medeniyeti İçerisinde İslâmî İlimler Mümkün müdür? Modern Dönemde Dinî İlimlerin Temel Meselelerine Temelli Bir Bakış". Modern Dönemde Dinî İlimlerin Temel Meseleleri (İlmî Toplantı). ed. Tahsin Görgün vd. 11-30. İstanbul: İsam, 2007.
- Görgün, Tahsin vd. (ed.). Modern Dönemde Dini İlimlerin Temel Meseleleri. İstanbul: İsam, 2007.
- Grace, Katja vd. "When Will AI Exceed Human Performance? Evidence from AI Experts". arXiv, 1-21. https://doi.org/10.48550/ARXIV.1705.08807
- Haught, John F. Science and Religion: From Conflict to Conversation. New York: Paulist Press, 1995.
- Kızılgeçit, Muhammet vd. (ed.) at all. Yapay Zekâ, Transhümanizm, Posthümanizm ve Din Uluslararası Sempozyumu Özet Bildirileri Kitabı. Erzurum: Atatürk Üniversitesi Yayınları, 2021.
- Kızılgeçit, Muhammet vd. (ed.) at all. Yapay Zekâ, Transhümanizm ve Din. Ankara: Diyanet İşleri Başkanlığı Yayınları, 2021.
- Kocabaş, Şakir. "Yapay Zeka ve Bilim Felsefesi". Divan: Disiplinlerarası Çalışmalar Dergisi 36 (2014), 9-22.
- Köse, Utku. "Are We Safe Enough in the Future of Artificial Intelligence? A Discussion on Machine Ethics and Artificial Intelligence Safety". *Brain-Broad Research in Artificial Intelligence And Neuroscience* 9/2 (2018), 184-197.
- Leung, King-Ho. "The Picture of Artificial Intelligence and the Secularization of Thought". *Political Theology* 20/6 (2019), 457-471. https://doi.org/10.1080/1462317X.2019.1605725
- McPherson, Thomas. "Positivism and Religion". Philosophy and Phenomenological Research 14/3 (1954), 319-331. https://doi.org/10.2307/2104104
- Mitchell, Tom M. Machine Learning. New York: McGraw-Hill Education, 1st edition., 1997.
- Muldoon, James- Wu, Boxi A. "Artificial Intelligence in the Colonial Matrix of Power". *Philosophy & Technology* 36/4 (15 Aralık 2023), 80. https://doi.org/10.1007/s13347-023-00687-8
- Muldoon, James- Wu, Boxi A. "Artificial Intelligence in the Colonial Matrix of Power". Philosophy & Technology 36/80 (2023), 1-24. https://doi.org/10.1007/s13347-023-00687-8
- Noble, Safiya Umoja. Algorithms of Oppression: How Search Engines Reinforce Racism. New York: NYU Press, 2018.
- Oeser, Erhard. "Bilimsel Evrenselcilik". trans. Nejat Bozkurt. Felsefe Arkivi 25 (2013), 63-86.
- O'Neil, Cathy. Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy. New York: Crown, 2016.
- Pearl, Judea. Causality: Models, Reasoning and Inference. Cambridge: Cambridge University Press, 2009.

- Polat, Ali vd. "An Inquiry into the Application of Artificial Intelligence on Fatwa". *Digital Transformation in Islamic Finance: A Critical and Analytical View.* ed. Yasushi Suzuki- Mohammad Dulal Miah. 274-285. London: Routledge, 2022.
- Rahim, Siti Rohaya Mat vd. "Artificial Intelligence, Smart Contract and Islamic Finance". *Asian Social Science* 14/2 (2018), p145. https://doi.org/10.5539/ass.v14n2p145
- Reed, Randall. "A.I. in Religion, A.I. for Religion, A.I. and Religion: Towards a Theory of Religious Studies and Artificial Intelligence". *Religions* 12/401 (2021), 1-16. https://doi.org/10.3390/rel12060401
- Reichenbach, Hans. Kuantum Mekaniğinin Felsefi Temelleri. trans. Deniz Ölçek. İstanbul: Alfa Yayınları, 2014.
- Russell, Colin A. "The Conflict of Science and Religion". The History of Science and Religion in the Western Tradition. ed. Gary B. Ferngren. 11-17. London: Routledge, 2000.
- Russell, Stuart Jonathan-Norvig, Peter. Artificial Intelligence: A Modern Approach. Pearson, 2 nd., 2010.
- Shults, F. Leron- Wildman, Wesley J. "Simulating Religion". *The Cambridge companion to religion and artificial intelligence*. ed. Beth Singler- Fraser N. Watts. 241-273. Cambridge companions to religion. Cambridge: Cambridge University Press, 2024.
- Singler, Beth. "An Introduction to Artificial Intelligence and Religion for the Religious Studies Scholar". Implicit Religion 20/3 (2017), 215-231. https://doi.org/10.1558/imre.35901
- Singler, Beth- Fraser N. Watts (ed.). The Cambridge companion to religion and artificial intelligence. Cambridge: Cambridge University Press, 2024.
- Sahin, Osman- Çapçıoğlu, İhsan. "Toplumsal Gerçekliğin İnşasından 'Büyük Veri'ye Bilginin Dönüştürücü Etkisi- İslami Araştırmalar Dergisi". İslami Araştırmalar Dergisi 32/3 (2021), 684-696.
- Tağman, S. Ertan. "İslam Epistemolojisi Üzerine Bir İnceleme". Dört Öge 6 (2014), 71-86.
- Thompson, Nicholas. "What is AI Bias? And How Can We Fix It?" Wired (blog) Access Date 15.01.2025. https://www.wired.com/story/what-is-ai-bias-and-how-can-we-fix-it/
- Turing, Alan. "Bilgiişlem Makineleri ve Zekâ". çev. Füsun Doruker. Aklın Gözü: Benlik ve Ruh Üzerine Hayaller ve Düşünceler. ed. D. R. Hofstadter- D. C. Dennett. 59-72. İstanbul: Boğaziçi Üniversitesi Yayınevi, 2005.
- Turing, Alan. "Computing Machinery and Intelligence". Mind 59/236 (1950), 433-460.
- Ünal, Sevim. "İbadetlerle İlgili Fetvalar ve Yapay Zekâ Uygulamaları: Karşılaştırmalı Bir Analiz". *Dinbilimleri* Akademik Araştırma Dergisi 24/3 (2024), 161-192. https://doi.org/10.33415/daad.1580752
- Ünal, Yaşar. "Din ve Bilimin Buluşma Noktası: Yasalılık = The Meeting Point of Religion and Science: Legality". İslâmî Araştırmalar (Derqi) XXXII/2 (2021), 496-516.
- Yamaç, Muhammed- İşbilen, Nihal. "Religion Paradigm of Artificial Intelligence". *Ilahiyat Studies* 15/2 (31 Aralık 2024), 233-253. https://doi.org/10.12730/is.1444746
- Yurtseven, Muhammet. "İslami Finans Alanında Yapay Zeka ile Tasarlanmış Fetva Uygulamaları: Robo Shariah ve Smart Müfti Örneği". 81. Burdur: Burdur M.Akif Ersoy Üniversitesi, 2022.
- Yurtseven, Muhammet. "Şer'i Bilginin Epistemik Değeri Açısından Din ve İktisat İlişkisi". *Tevilat* 4/1 (2023), 217-241. https://doi.org/10.53352/tevilat.1307553
- Zunger, Yonatan. "Machine Learning and the Problem of Bias", *Medium*, Access Date 15.01.2025. https://medium.com/@yonatanzunger/machine-learning-and-the-problem-of-bias-c2b1e37e1db2