Solo International Collaboration and Publication of Social Sciences and Humanities
E-ISSN: 2988-3512
Vol. 3, No. 3, 2025, pp. 399 -410
DOI: https://doi.org/10.61455/sicopus.v3i03.346

Thematic Study of the Concept of 'Ilm in the Qur'an and its Relation to the Development of Artificial Intelligence

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Received January 27, 2025; Revised April 21, 2025; Accepted June 06, 2025

Abstract

Objective: this study is to explore the concept of 'ilm in the Qur'an and its relevance to the development of artificial intelligence (AI). **Theoretical framework:** this is used based on thematic interpretation (maudhū'ī) of the verses of the Qur'an containing the word *'ilm* and its derivatives, as well as Islamic philosophical and ethical approaches in the development of science and technology. **Literature review:** includes literature on the relationship between Islam and technology, interpretation of Qur'anic verses regarding science, and Islamic ethical principles in the development of science. **Methods:** What is used is library research with a thematic interpretation approach, through the analysis of relevant verses based on the context of asbāb al-nuzūl and the interpretation of classical and contemporary mufasir. **Results:** research shows that the Qur'an emphasizes the importance of seeking knowledge for the benefit of humans, which is in line with the basic principles of AI development. However, this study also emphasizes the importance of integrating Islamic ethical values in AI applications so that the technology truly benefits humanity. **Implications:** These findings suggest that Islamic principles, particularly those contained in the Qur'an, can be a moral framework in the development of AI, with an emphasis on responsibility, justice, and social well-being in technological advancement. **Novelty:** this research lies in an integrative approach between the interpretation of the Qur'an and the contemporary issue of artificial intelligence, which offers a new perspective on the contribution of Islamic ethics in the development of modern technology.

Keywords: science, artificial intelligence, thematic interpretation, islamic ethics, concept of 'ilm.

INTRODUCTION

The concept of *'ilm* in the Qur'an has long been the main topic in the study of the interpretation and knowledge of the Qur'an. In the Qur'an, the word 'ilm refers to extensive knowledge and is not limited to theoretical knowledge. In general, *'ilm* in the Qur'an includes a deep understanding of God, His creation, and human life. According to al-Ṭabarī in *Tafsir al-Ṭabarī*, *'ilm* is the source that brings humanity to an understanding of the nature of life and the universe, as well as the basis for the development of science and technology [1]. Therefore, the concept of *'ilm* in the Qur'an is not only relevant in the religious realm but also has a close connection with the development of worldly science.

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As the times develop, science has made rapid progress, one of which is in the field of artificial intelligence *Artificial Intelligence/AI*. AI, which has come a long way since the 20th century, has now become an integral part of various sectors of life, including health, economy, education, and even everyday life [2]. This technology relies on algorithms and mathematical models that can process large amounts of data and make decisions based on that data. This advancement of AI raises important questions about how this technology can be run with ethical principles that are in line with religious teachings, especially in Islam which places great emphasis on the well-being of mankind [3].

One of the fundamental issues in the application of AI technology is how to ensure that the development and use of this technology not only focus on the technical aspects, but also considers the broader social, moral, and spiritual impacts [4]. In this context, it is important to explore how the concepts contained in the Qur'an, especially those related to *'ilm*, can guide in developing and applying AI in a way that benefits humanity [5]. Therefore, this study aims to analyze the relationship between the concepts *'ilm* in the Qur'an and the development of AI, as well as its ethical implications.

The concept *'ilm* in the Qur'an teaches that knowledge is a gift from God that must be used for good purposes, namely for the good of mankind. In many verses of the Qur'an, *'ilm* is explained as a means of understanding God's will and as a means of creating prosperity for all mankind [6]. Deep *Tafsir al-Qurṭubī*, knowledge is mentioned as one of the aspects that must be possessed by Muslims, and its use must be based on the intention to do good and get closer to God [7]. Therefore, this concept is very relevant to the development of AI, which should also be used for the good of humanity, not for detrimental or destructive purposes.

Even in the context of AI, the knowledge contained in the Qur'an can provide a basis for building moral and ethical principles in the development of technology. For example, in terms of the use of personal data, privacy, and justice, the principles contained in Islamic teachings can be used as a guideline in creating AI that is not only technically efficient but also fair and socially responsible [8]. This is in line with al-Ghazālī's thought in *Iḥyā' 'Ulūm al-Dīn* which emphasizes the importance of integration between worldly and ukhrawi sciences [9]. The two must go hand in hand to create balance in human life, which can also be applied to the development of technology [10].

One of the interesting things to note is that in the Qur'an, science is not seen as separate from everyday life [11]. The knowledge taught in the Qur'an has the purpose of improving human life in this world, not just for life after death. This can be seen in the verses that teach mankind to continue to seek knowledge and use that knowledge for the welfare of the people [12]. In this context, AI can be seen as a growing form of knowledge, which should be used to solve various social and economic problems, such as inequality, environmental crises, and health problems [13].

However, while the development of AI can bring many benefits, there are also potential risks associated with this technology, especially if it is not properly regulated. One of the main risks is the unfairness in the distribution of the benefits of these technologies, as well as the potential misuse of personal data [14]. Therefore, it is important to create ethical guidelines that can ensure that AI is used for a good purpose, which is in line with the principles contained in the Qur'an, which is to improve the lives of mankind [15]. In this case, this study aims to examine how the teachings of the Qur'an about *'ilm* can provide the basis for sustainable and ethical technology development.

In addition, this research will delve deeper into the concept of *'ilm* in the Qur'an by analyzing classical and contemporary interpretations. Classical interpretations, such as those by al-Ṭabarī and al-Qurṭubī, provide an in-depth explanation of the meaning of *'ilm* in the historical and social context of Muslims at that time [16]. However, contemporary interpretations, such as those put forward by Nasr, try to connect the teachings of the Qur'an with the development of modern science, including technology [17]. This research will

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attempt to integrate the two perspectives to produce a more holistic understanding of how the concept of *'ilm* can be applied in the development of AI.

Using the tafsir approach, this study will analyze how the principles contained in the Qur'an, such as justice, responsibility, and the welfare of the ummah, can be integrated with the development of AI. This approach is expected to make a greater contribution to the development of technologies that are not only technically beneficial but also beneficial to the social and spiritual life of humanity [18]. In this case, the Qur'an can serve as a moral and ethical guideline that directs the development of AI towards a better goal for humanity.

Thus, this research aims to explore and develop an understanding of the relationship between the concept *of 'ilm* in the Qur'an and the development of artificial intelligence. It is hoped that the results of this research can make a new contribution to the thinking of how religious concepts can be applied in the context of modern technology. In addition, this research also aims to open a wider discussion space on the importance of integration between religious science and science, especially in facing the challenges of increasingly rapid technological development [19].

The concept *'ilm* in the Qur'an not only provides an epistemological basis for Muslims to develop science but also provides moral and ethical guidelines for its use. In the context of the development of AI, these principles have become very important, as AI has a huge impact on social, economic, and even political life [20]. Therefore, it is important to pay attention to the teachings of the Qur'an which remind the ummah to use knowledge wisely and responsibly, so that technology can be used for the good of mankind.

This research is also expected to be an important reference for technology developers and policymakers in formulating ethical and moral guidelines in the development of AI technology [21]. By using the principles contained in the Qur'an, it is hoped that AI can be developed fairly and responsibly, to create a better and more just society. Therefore, this research is not only relevant to the academic world but also to technology practitioners and policymakers involved in the development and application of AI [22].

On the other hand, responsible and ethical AI development can also have a positive impact on the well-being of humanity [23]. Therefore, this research aims to provide new insights that can encourage the development of AI that is not only technically sophisticated but also pays attention to moral and social aspects. Thus, the results of this research are expected to make a positive contribution to the development of more equitable and responsible technology [24].

This research will eventually be an attempt to bring together two seemingly different worlds, namely religious science and modern science. In this regard, the Qur'an provides guidelines that not only direct mankind to seek knowledge but also to use that knowledge wisely, with the aim of the good of mankind. Therefore, this research is important to build a bridge between religion and science in developing AI technology that is by the human and spiritual values contained in Islamic teachings.

LITERATURE REVIEW

The concept of ‘Ilm (knowledge) in the Qur’an holds a central position in Islamic thought, guiding the epistemological foundations of human understanding and exploration. In the Qur’an, ‘Ilm is presented as a divine gift bestowed upon humanity, a tool for understanding the universe, oneself, and ultimately, the Creator. Knowledge is not only encouraged but is considered an obligation in Islam, with numerous verses emphasizing its importance. The Qur’anic discourse on ‘Ilm transcends mere accumulation of data; it encompasses wisdom, ethical responsibility, and a deep consciousness of truth and justice.

A thematic analysis of the Qur’an reveals that ‘Ilm is classified into various dimensions — knowledge of the self, the universe, revelation, and unseen matters. Each of these elements serves a purpose in shaping a morally responsible and spiritually aware individual. The acquisition and application of knowledge, according to the Qur’an, must be guided by

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purpose, ethics, and submission to divine will. This divine perspective contrasts with a purely secular or utilitarian approach to knowledge common in modern scientific and technological development.

In contemporary times, artificial intelligence (AI) represents one of the most advanced manifestations of human knowledge and innovation. AI, as a field of study and application, involves the creation of machines that mimic human cognitive functions such as learning, reasoning, and decision-making. While AI is largely driven by data and logic, it raises profound ethical and philosophical questions about consciousness, autonomy, and the nature of knowledge itself.

The thematic connection between ‘Ilm and AI lies in the origin, purpose, and use of knowledge. The Qur’anic view reminds humanity that knowledge should serve to uphold justice, enhance human dignity, and maintain balance. The rise of AI challenges this by introducing systems that, while intelligent, may operate devoid of moral consciousness. Therefore, a Qur’anic understanding of ‘Ilm offers a spiritual and ethical framework within which AI development can be guided to ensure it benefits humanity holistically.

This alignment urges scholars, especially in the Muslim world, to engage deeply with both the theological and technological dimensions of knowledge. Bridging the Qur’anic vision of ‘Ilm with AI development opens the possibility for a more value-oriented approach to innovation — one that harmonizes intelligence with morality, progress with purpose.

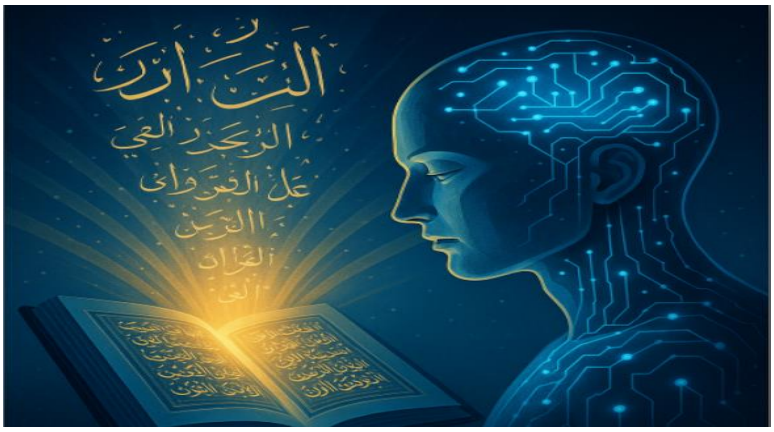

Figure 1. Illustration of the Concept of Knowledge (‘Ilm), the Qur'an and IA

METHODOLOGY

This research uses the library research method, where the data collection process is carried out by relying on literature sources, both in the form of books, journal articles, and previous research reports [25]. The main data in this study are the verses of the Qur'an that contain the words *'ilm* and its derivatives. Therefore, the main focus of this research is to explore the understanding contained in these verses, which are related to the concept of science from the perspective of the Qur'an. This research uses the method of tafsir maudhū'ī (thematic), which means collecting and analyzing the verses of the Qur'an based on a certain theme, in this case, the theme *'ilm*, to understand its meaning and relevance to the development of science and technology.

The data collection process in this study includes an in-depth study of the Qur'anic mushaf, both in print and digital form, as well as major and contemporary interpretations [26]. The researcher will identify verses related to the concept *'ilm*, then analyze it in the context of the descent of the verse (asbāb al-nuzūl) and the explanation given by the mufasir. This analysis is important to understand how the concept *'ilm* described in a variety of relevant historical situations and conditions. In addition, this study also uses secondary sources that discuss artificial intelligence (AI) and its relevance to the concepts in the Qur'an,

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to provide a broader insight into the relationship between Islamic teachings and these cutting-edge technological developments.

In terms of analysis, this study uses a thematic analysis approach to classify verses related to concepts *'ilm*. This technique allows researchers to compose and group various verses that have a common theme, resulting in a deeper understanding [27]. In addition, the research adopts an interdisciplinary approach, which combines Islamic studies with theories and technological developments, especially artificial intelligence. To ensure objectivity in the analysis, the source triangulation technique is used, which is by comparing various relevant interpretations and literature to obtain a more comprehensive and contextual understanding of the relationship between the knowledge of the Qur'an and the development of artificial intelligence.

Table 1. Research Design Overview

Aspect	Description
Research Method	Library research
Data Collection Sources	Primary: Qur'anic verses containing the word *'ilm* and its derivatives Secondary: Books, journal articles, previous research, and tafsir works
Main Focus	Understanding the concept of *'ilm* in the Qur'an and its relevance to the development of science and technology, particularly Artificial Intelligence (AI)
Qur'anic Interpretation Method	Thematic tafsir (*tafsīr maudhū'ī*) – grouping and analyzing verses based on the theme *'ilm*
Data Collection Process	Study of printed and digital mushaf of the Qur'an Identification of verses related to *'ilm* Contextual analysis using *asbāb al-nuzūl* and classical/contemporary tafsir
Analytical Approach	Thematic analysis: grouping verses with the same theme Interdisciplinary approach: integrating Islamic studies with AI and technology concepts
Objectivity Strategy	Source triangulation: comparing various tafsir and relevant literature to ensure comprehensive and contextual understanding

RESULTS AND DISCUSSION

This research aims to explore the relationship between the concepts *'ilm* in the Qur'an and the development of artificial intelligence (AI), which is one of the leading technologies in the modern world [28]. As part of the results of the research, it is first important to understand how the Qur'an conceptualizes *'ilm*. In the Qur'an, the words *'ilm* and its derivatives appear in a variety of contexts, demonstrating the importance of knowledge that is broader than just information of a mundane nature. Knowledge in the Qur'an is more about a deep understanding of God, His creation, and the laws of nature that can be applied for the benefit of mankind. Verses such as in Surah Al-Alaq (96:1-5) which speaks of the first commandment to the Prophet Muhammad to read and teach knowledge, are the basis that in Islam, knowledge is a means of getting closer to God, not just a tool for worldly interests [29].

In addition, in the Qur'an, *'ilm* is associated with the nature of Allah the All-Knowing. In some verses, such as Surah Al-Baqarah (2:255), Allah is referred to as the owner of *'ilm* who is infinite, who knows everything that is in heaven and on earth. This verse means that true knowledge is only possessed by Allah, while man is given the ability to acquire limited knowledge that must be used wisely [30]. This understanding is particularly relevant to the

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development of modern technology, particularly in AI, where this technology allows humans to process enormous amounts of data and make automated decisions, but it remains limited and must be directed with good values to bring benefits to humanity [31].

Use of the concept *'ilm* in the Qur'an as a basis for understanding the relationship between religion and technology, especially AI, can also be found in verses that teach humans to utilize knowledge for a positive purpose. In Surah Al-Mulk (67:15), humans are commanded to think and meditate on God's creation on earth as part of the process of seeking knowledge [32]. This suggests that true science must contribute to a greater understanding of the world and God's creation, which in the context of AI, can be translated as the development of technologies that can benefit humanity, as well as not contradict the moral and ethical principles taught in Islam [33].

However, while AI development has great potential to bring progress, there are major challenges related to ethics in its application. One of the issues that is of main concern is the potential misuse of technology, such as in the collection and processing of personal data. The Qur'an teaches the importance of safeguarding the privacy and rights of individuals, as reflected in Surah Al-Hujurat (49:12), which prohibits speaking badly about others and safeguarding the honor of others. In the context of AI, these principles can be adapted to ensure that personal data is used ethically, not misused and that its rights are respected, as set out in many modern legal regulations governing the use of data [34].

In this study, it was found that many theories in the development of AI do not always pay attention to moral and spiritual aspects, especially those related to the impact of technology on social life and the well-being of humanity. As taught in many verses of the Qur'an, the use of knowledge must be based on good intentions and aimed at the welfare of the ummah. This is also in line with the view of al-Ghazālī, who in *Iḥyā' 'Ulūm al-Dīn* reveals that science should be used for the good of the ummah and should not be misused for destructive purposes. Therefore, in the context of AI development, it is very important to emphasize the use of this technology with a moral orientation that prioritizes justice, welfare, and the benefit of humanity [35].

This study also notes that in the Qur'an, knowledge and technology are not stand-alone things, but function to fulfill a greater purpose, namely for the good of the ummah. Surah Al-Baqarah (2:164) reminds the people to reflect on God's creation as proof that knowledge and technology should be used to understand the universe and apply science for the common good. In the context of AI, responsible technology development should be able to be a tool to solve social problems such as inequality and climate change, as well as to improve the quality of life of global society, not just for the benefit of certain individuals or groups [36].

In the thematic interpretation used in this study, the verses related to *'ilm* grouped and analyzed to understand their relevance in the context of technological developments. In Surah Al-Alaq (96:1-5), for example, Allah commands humans to read and acquire knowledge, which can be interpreted as an encouragement to seek knowledge in all aspects of life, including technology. Therefore, the development of artificial intelligence from an Islamic perspective must be seen as part of the obligation of the ummah to continue to develop science and technology for the common good, always remembering that science must function to glorify human life and the universe [37].

However, although Islamic teachings emphasize the importance of science, including in terms of technology, Islam also provides a warning about the potential dangers of misused knowledge. Surah Al-Mumtahanah (60:8) mentions that although Muslims are allowed to interact with people of different faiths, they must still be careful in using their knowledge and technology, so as not to deviate from the moral and ethical values taught by Islam [38]. In the context of AI, this requires technology developers to take responsibility for the social and moral impacts posed by the technology they create, including the potential for inequality and abuse of power.

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From the analysis of the interpretation carried out, the researcher found that the Qur'an teaches the importance of science in a broader context, namely as a means to build a better civilization. As explained in Surah Al-'Alaq, knowledge must be used to improve the lives of mankind. In this regard, the development of technologies such as AI, which has the potential to transform many aspects of life, must be guided by the principles contained in the Qur'an, such as justice, responsibility, and the benefit of the ummah. Therefore, in this study, it is recommended that the development of AI be carried out taking these principles into account, to ensure that this technology can provide maximum benefits for humanity [39].

The study also shows that while AI can address a variety of mundane problems, such as efficiency in work and data processing, it should also be viewed in a broader context, namely for the moral and social benefit of the people. In Surah Al-Baqarah (2:164), knowledge is not only seen as a tool for personal gain but also as a means to create a better civilization [40]. Therefore, the development of AI must be in line with the noble goal of Islam to create a just and prosperous society. This requires collaboration between technologists, policymakers, and religious leaders to create clear ethical guidelines for the use of AI.

Furthermore, through the interdisciplinary approach used in this study, the researcher tries to combine Islamic studies with the theory and development of AI technology [41]. One of the important findings is that while AI technology can bring great benefits, there are many challenges to face, especially related to ethical and moral issues. In this context, the Qur'an provides very relevant guidelines regarding the responsible use of science and technology. As written in Surah Al-Mumtahanah (60:8), Muslims are taught to use knowledge with great caution and always keep in mind the interests of mankind.

Based on the results of this research and discussion, it is shown that *the concept of 'ilm* in the Qur'an is very relevant to be used as a basis for the development of artificial intelligence. Along with the rapid development of technology, Muslims need to ensure that this technology is not only used for personal or group gain but should be grounded in the moral values taught in the Qur'an. Therefore, the development of AI must be carried out by paying attention to the principles of Islamic ethics, such as justice, responsibility, and the benefit of the ummah, so that this technology can provide the greatest benefits for humanity.

Table 2. Summary of the Relationship between 'Ilm in the Qur'an and Artificial Intelligence (AI)

Aspect	Key Points
Main Objective	To explore the relationship between the concept of *‘ilm* in the Qur'an and the development of Artificial Intelligence (AI).
Nature of ‘Ilm in the Qur’an	Not limited to worldly information; includes spiritual, moral, and universal understanding—knowledge as a way to get closer to God.
Divine Attribute	Allah is *Al-‘Alīm* (All-Knowing); human knowledge is limited and must be used wisely (Surah Al-Baqarah 2:255).
Knowledge as a Divine Command	Verses like Surah Al-‘Alaq (96:1–5) emphasize the obligation to read, seek knowledge, and teach—forms the spiritual foundation of scientific pursuit.
Purpose of Knowledge	To benefit humanity, understand God’s creation, and uphold ethical and moral values (Surah Al-Mulk 67:15).
AI and Ethical Concerns	AI presents ethical risks such as data misuse and privacy violations. The Qur’an emphasizes the importance of ethics (Surah Al-Hujurat 49:12).
Islamic View on Science Use	Knowledge and technology should serve the welfare of the *ummah* and contribute to civilization building (Surah Al-Baqarah 2:164).

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Thematic Interpretation Method	Grouping and analyzing Qur'anic verses related to *'ilm* to find thematic relevance to modern technologies.
Warning Against Misuse	Islam warns against the misuse of knowledge and encourages adherence to moral boundaries (Surah Al-Mumtahanah 60:8).
Interdisciplinary Approach	Combines Islamic studies and AI theory to assess the moral responsibility in technological advancements.
Guiding Principles for AI	Justice, responsibility, ethical usage, and benefit of the *ummah* must guide AI development.
Call for Collaboration	Technologists, policymakers, and religious leaders should work together to build ethical frameworks for AI.
Ultimate Conclusion	AI should not merely solve technical problems but must also align with Islamic ethics to contribute to a just and prosperous global society.

Analysis

This research offers a significant contribution to understanding the integration between Islamic epistemology and modern technology, particularly Artificial Intelligence (AI). The concept of *'ilm* in the Qur'an extends beyond mere data or information—it encompasses divine guidance, ethical responsibility, and purposeful knowledge aimed at benefitting humanity. In the Qur'anic worldview, knowledge is seen not only as a human pursuit but as a divine trust. It is intrinsically tied to morality, justice, and human dignity, offering a comprehensive framework to assess the ethical dimensions of AI.

Surah Al-'Alaq, which commands the Prophet to "read," establishes a theological basis for knowledge-seeking as a sacred act. It implies that engaging with any field of knowledge—including advanced technologies like AI—should be directed toward moral and spiritual growth. In the realm of AI, this suggests that innovation must be aligned with ethical values, ensuring that technology serves human welfare rather than undermining it.

Furthermore, the Qur'an frequently highlights that Allah is the ultimate source of knowledge (*'Alim*), while humans are entrusted with limited knowledge to be used wisely. This theological humility contrasts with the modern technological drive that often disregards ethical limits. AI's ability to process data, make decisions, and even simulate human reasoning poses a real risk if unchecked by moral principles. Thus, Qur'anic *'ilm* provides a spiritual anchor that reminds us of our responsibility to use knowledge with justice and compassion.

The study also emphasizes that technology should contribute to societal well-being, echoing Qur'anic teachings such as those in Surah Al-Baqarah and Surah Al-Mulk, where reflection on creation is encouraged to develop beneficial knowledge. In this light, AI development should focus not merely on efficiency or profit, but on solving real human problems—inequality, environmental damage, and social injustice.

Moreover, the research identifies an urgent need to address AI's ethical challenges, such as data misuse and discrimination. Islamic ethics, based on the concept of *'ilm*, mandates protection of individual rights and the public good. As such, Muslim technologists, scholars, and policymakers are called upon to collaborate in creating frameworks that regulate AI use through Islamic ethical lenses.

In conclusion, the Qur'anic concept of *'ilm* offers a comprehensive foundation for AI development that is not only technically advanced but also morally conscious. It demands that AI be directed toward justice, human dignity, and the collective good, aligning modern innovation with timeless Islamic values.

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CONCLUSION

This research has succeeded in exploring the relationship between the concept of 'ilm in the Qur'an and the development of artificial intelligence (AI), using maudhū'ī (thematic) interpretation as the main approach. The Qur'an views science as a gift from Allah that must be used for the benefit of mankind, to improve the quality of life, to understand Allah's creation, and to improve civilization. This research reveals that although the knowledge in the Qur'an is transcendent and spiritually oriented, it is also highly relevant to the development of technology, including AI, which can be used for the benefit of humanity, provided it is applied with the right moral principles. The concept of 'ilm in the Qur'an, which includes knowledge of the world and the hereafter, provides a solid foundation for the development of useful technology. For example, the teachings in Surah Al-Alaq and Surah Al-Baqarah emphasize the importance of reading, studying, and meditating to gain a deep knowledge of God and the universe. This is particularly relevant to AI technology, which allows humans to process large amounts of data and make automated decisions. However, the use of AI must be based on the moral values contained in the Qur'an, which teaches that science should be used for positive purposes and not harm humanity. In addition, this study highlights the importance of combining AI development with the ethical values contained in Islamic teachings. Islam teaches that science and technology should be used responsibly, not abused, and oriented towards the well-being of mankind. The concept of 'ilm in the Qur'an which prioritizes justice, welfare, and social responsibility can be used as a guideline in developing and implementing AI. Therefore, technology developers need to integrate Islamic principles in the process of innovation and application of AI technology, so that this technology can benefit humanity without causing harm or negative impacts. The study also found that an interdisciplinary approach, which combines Islamic studies with theory and technological developments, is essential to ensure that AI technology develops within the correct moral and ethical framework. As taught in the Qur'an, science must be used to improve the lives of mankind and introduce principles that are more just and prosperous. In this context, scientists and technology developers need to work closely with religious experts and policymakers to establish ethical guidelines for the use of AI, so that this technology can go hand in hand with the human values taught in Islam. In closing, this study concludes that the development of artificial intelligence must be based on the principles contained in the Qur'an, which not only emphasizes the technical aspect but also prioritizes the moral and social dimensions. This is important to ensure that developing technology can benefit humanity, strengthen the common good, and is in line with the main goal of Islamic teachings, which is to achieve the welfare of mankind and preserve the universe. Technology, including AI, must always be directed to support the achievement of this noble goal, always paying attention to the ethics and moral values that exist in the teachings of Islam.

Acknowledgments

We express our deepest gratitude for the completion of our research titled "Thematic Study of the Concept of 'Ilm in the Qur'an and its Relation to the Development of Artificial Intelligence." This endeavor reflects our shared commitment to bridging traditional Islamic scholarship with modern scientific advancements. We sincerely thank the Qur'an and Tafsir Study Program at Universitas Muhammadiyah Surakarta, Indonesia, and the Human Resources & School of Management Studies at Jawaharlal Nehru Technological University Hyderabad, India, for their invaluable collaboration. May this study serve as a meaningful step towards integrating divine knowledge and technological innovation for the betterment of humanity. Alhamdulillah, all praise is due to Allah.

Author Contribution

All authors contributed equally to the conception, design, and execution of this study. Each author was actively involved in the data collection, analysis, and

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interpretation, as well as in drafting and revising the manuscript critically for important intellectual content. This research represents a collaborative effort, and all authors have read and approved the final version of the manuscript. The integrity and quality of the publication reflect the joint responsibility of all contributors.

Conflicts of Interest

All authors declare no conflict of interest.

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E-ISSN: 2988-3512
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