

Received: 24 December 2023, Accepted: 18 January 2024

DOI: <https://doi.org/10.33282/rr.vx9il.87>

Integration of AI with Islamic code of Ethics and Opportunities for progress in Islamic values

1. Dr Humaira Khalil

.Assistant Professor

The university of Faisalabad

2. Dr Shazia

Assistant professor

Govt college women university Faisalabad

3. Rabia Faryad

Govt college women university Faisalabad

4. Zujajah

Govt college women university Faisalabad

5. Dr. Makhdoom Muhammad Roshan Siddiqui

Associate Professor GC University Hyderabad

Abstract

Artificial Intelligence when integrated with Islamic ethical code of conduct, present complex structures of both opportunities and challenges in this era of modernization. It is integral to understand that the opportunities lying in Artificial Intelligence for progress in Islamic values solely depend on the utilization of it. If used wisely, AI can open ways toward rapid and commendable preaching of Islamic teachings. Even now, there are numerous software floating online, making Islam more approachable for everyone around the globe. Other than that, Artificial Intelligence powered by breakthroughs in machine and deep learning techniques, has been lauded as the solution to a long range of long standing healthcare concerns. Since Islam has emphasized enough on preservation of human health, AI can fulfil those Islamic teachings as well. Another great example of best AI utilization lies in the working model of Islamic banking. Even though the global financial structure is controlled and run by

west, AI can be highly beneficial in establishing a worldwide banking model based solely on Islamic teachings. Elements like fraud detection and customer support models make the implication of Islamic financial system even more easy. Conservation of environment is yet another factor. International environmental conservation institutes employ AI for environmental sustainability, using sophisticated algorithms in order to observe ecosystem changes and analyze biodiversity data. Therefore, it is understandable that AI can play a pivotal role in general development as well as promoting Islamic values in particular.

Key Words: Islam, AI, technology, challenges, ethics, opportunities, Shariah,

Introduction

Islam is a global religion which covers every aspect of human life. Allah Almighty provided humanity with a complete code of conduct in form of the Holy Quran and Seerah of Holy Prophet (PBUH). In era rapidly moving towards globalization and advancements in tech industry has evolved and transformed the code of conduct of human beings. And these technological advancements demand integration of artificial intelligence into our daily lives. Since religion is an obvious and a very much natural part of our daily life, artificial intelligence has integrated itself into the roots of religious practices as well. It comes with both opportunities and challenges in terms of ethical principles of Islam. It is crucial to understand the weightage of both sides and decide for ourselves whether opportunities outweigh the challenges or vice versa.

Understanding Artificial Intelligence

One of the known aspects of technology in the modern era is Artificial Intelligence which describes how machines that have been programmed to learn, reason, and make judgements based on data are simulating human intelligence. One example of a popular AI based platform is

CHATGPT; a computer program that can be used to communicate with humans. It processes in natural language and provides answers to the questions in a way as if you are talking to a person. People nowadays are also using AI to draw imaginary pictures through platforms that use machine learning to generate images based on textual descriptions. Moreover, it can produce realistic voice from text and much more.

“Artificial Intelligence (AI), a term coined by emeritus Stanford Professor John McCarthy in 1955, was defined by him as “the science and engineering of making intelligent machines”. Much research has humans program machines to behave in a clever way, like playing chess, but, today, we emphasize machines that can learn, at least somewhat like human beings do”¹.

Artificial Intelligence can be defined as both broadest and strictest forms in order to understand the terminology.

“In its broadest definition, AI is equated with algorithms. However, this is not an especially useful approach for our analysis. Algorithms predate AI and have been widely used outside this field. The term ‘algorithm’ is derived from the name of the ninth-century Persian mathematician Mohammed ibn Musa al-Khwarizmi and refers to a specific instruction for solving a problem or performing a calculation. If we were to define AI simply as the use of algorithms, it would include many other activities such as the operations of a pocket calculator or even the instructions in a cookbook”².

AI is not a magic, rather a complex set of combination of mathematical equations and hardware data. It involves algorithms and algos are a part of every software based device we use in day to day life. It can be said in simpler words that; AI is a part of every electronic device that operates for the assistance of humanity.

However, there isn't much information provided by this. In actuality, all it does is change the way the word "artificial intelligence" is expressed.

There are other countless definitions that describe the terminology better such as:

“Functions appropriately and with foresight in its environment”³.

JohnMcCarthy defines it as:

“Making intelligent machines especially intelligent computerprograms by the science and engineering”⁴

Islam and Artificial Intelligence

Islam is a complete code of conduct as mentioned earlier. it is not bound to a specific civilization or time period. Allah Almighty Completed Islamic teachings and choose it as the final code of conduct for humanity. Its teachings started around 1450 years ago and will remain till the day of judgment. Allah Almighty says in Holy Quran:

وَأَحْسَنُونَ ۚ الْيَوْمَ أَكْمَلْتُ لَكُمْ دِينَكُمْ وَأَتَمَمْتُ عَلَيْكُمْ نِعْمَتِي وَرَضِيْتُ لَكُمُ
الْإِسْلَامَ دِينًا ۚ فَمَنِ اضْطُرَّ فِي مَخْمَصَةٍ غَيْرَ مُتَجَانِفٍ لِإِثْمِهِ ۚ فَإِنَّ اللَّهَ غَفُورٌ
رَّحِيمٌ⁵

“Today, I have completed your Religion for you, and I have perfected My favor on you, and I am satisfied with Islam as a religion for you. And whoever is constrained in scantiness, (i.e. compelled by need) without unfairly (inclining) to vice, then surely Allah is Ever-Forgiving, Ever-Merciful.”

It is impossible that Allah Almighty completed teachings of Islam and those teachings won't include the globalization evolution of 21st century and advancements made in the Artificial Intelligence.

This false notion called the concept of fundamentalism approach does not reflect the teachings of Islam. It is true that basic core principles of Islam cannot and will not be changed, not ever in the future but Islam has evolved throughout the history, catering the needs and wants of different human civilizations but maintaining the roots same and strong. The case of Artificial Intelligence is no different. Infact, Allah Almighty has encouraged and emphasized the importance of observation and evolution through human mind in Holy Quran multiple times. Allah says:

أَفَلَا يَتَدَبَّرُونَ الْقُرْآنَ⁶

“Do they not ponder in Holy Quran?”

Allah commands us to reflect on the verses in His Book, which entails meditating on their significance and giving them serious thought. The Tadabbur of Allah's Book is the key that enables the person to gain access to all the knowledge he seeks. Tadabbur directs one to all that is good and causes their faith to grow. In another verse, Allah Almighty says about the signs of universe for an understanding mind:

إِنَّ فِي خَلْقِ السَّمَوَاتِ وَالْأَرْضِ وَآخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لَآيَاتٍ لِّأُولِي الْأَلْبَابِ⁷

“Indeed, in the creation of the heavens and the earth and the alternation of the day and night, there are signs for people of reason.”

There is no denying the fact that men who observed and experimented the signs of nature unfolded the secrets of universe and divine elements of nature. Human skills are far more superior than that of artificial intelligence. It comes from the fact that every advancement in technology is a gift of human mind's countless capabilities. Allah Almighty has blessed humans with best of minds and skills to not just survive but thrive. Allah says in the Holy Quran:

لَقَدْ خَلَقْنَا الْإِنْسَانَ فِي أَحْسَنِ تَقْوِيمٍ⁸

“Indeed, we created humans in the best form.”

It means that human mind is capable of bestest form of innovations and advancements but Islam's position on the apparent use of AI is controlled through a universal rule upheld by Muslim scholars and jurists, according to which the novelties—outside of ibadah—are permitted until there is clear proof to the contrary. Ibn Taymiyyah in this regard said:

“It should be understood that in principle all things, of various types and categories, are generally halal for human beings and that they

are Tahir (pure) and it is not forbidden for people to handle them and touch them. This is comprehensive rule that is general in application, and it is an important ruling that is of immense benefit and brings much blessing, and the scholars turned to it when issuing rulings on innumerable actions and issues faced by people⁹

So to conclude, it is evident that Islamic teachings promote reasoning and exploration of different ideas. But still, how Artificial Intelligence is perceived by humanity and how it is integrated into Islamic ethical principles are the actual areas of insight in order to understand the opportunities and challenges faced by Islamic ethical system.

Opportunities of Advancements in Islamic ethics

1. Education

Islam sees learning as the process of gaining heavenly knowledge. The Arabic term for education is Ilm. Knowledge is not only constrained by Ilm; it also takes moral issues into account. Islam considers education to be a very important tool for knowledge retention. It's a strategy for converting the world's numerous ethnic groupings. It is the only way to spread goodness and wisdom across the universe.

Islam commands everyone; man and woman to learn and condemn those who keep themselves away from the process of understanding and acknowledgement. In fact, the first revelation of Holy Prophet (pbuh) states:

أَقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ¹⁰

“Read, O Prophet (pbuh) in the name of
Allah who created.”

Importance of education can be understood in light of sayings of Holy Prophet (pbuh) as well. He (pbuh) guided the humanity (both Muslims and Non-Muslims) through the darkest eras of ignorance towards the light of faith. About education, He (pbuh) says:

"من خرج في طلب العلم، فهو في سبيل الله حتى يرجع"¹¹

“He who goes forth in the search of knowledge is considered as struggling in the Cause of Allah until he returns”

Another saying of Holy Prophet (pbuh) goes like:

“من سلك طريقًا يبتغي فيه علمًا سهل الله له طريقًا إلى الجنة، وإن الملائكة لتضع أجنحتها لطالب العلم رضا بما صنع، وإن العالم ليستغفر له من في السماوات والأرض حتى الحيتان في الماء، وفضل العالم على العابد كفضل القمر على سائر الكواكب، وإن العلماء ورثة الأنبياء وإن الأنبياء لم يورثوا دينارًا ولا درهما وإنما ورثوا العلم. فمن أخذه أخذ بحظ وافر¹²”

“He who follows a path in the quest of knowledge, Allah will make the path to Janna easy to him. The angels lower their wings over the seeker of knowledge, being pleased with what he does. The inhabitants of the heavens and the earth and even the fish in the depth of the oceans seek forgiveness for him. The superiority of the learned man over the devout worshipper is like that of the full moon to the rest of the stars. The learned are the heirs of the Prophets who bequeath neither dinar nor dirham but only that of knowledge; and he who acquires it, has in fact acquired an abundant portion.”

Islamic Education and AI

Islam is a practical religion which emphasis a lot on the importance of gaining education. This is where AI comes in. It the leading source of information. AI can be used to develop intelligent tutoring systems that offer personalized Islamic education and learning experiences. These systems can adapt to the individual needs and learning styles of students, making Islamic knowledge more accessible and engaging.

There are multiple knowledge pools which provide knowledge about every topic around the globe. These applications include CHATGPT, ModernMuslimAI.com and many more. These applications help understand ambiguity and dept. of any topic.

ChatGPT can function as a responsive chatbot that can assist teachers indeveloping learning tools. The advantage of using ChatGPT in makingadministration, such as RPP, is time efficiency and ease of access. Teachers can save time compiling lesson plans because ChatGPT canrespond quickly to text requests. Whereas, using ChatGPT can used anytimeand anywhere via an internet-connected device. So, using ChatGPT make theteacher easier to access the tool.¹³

The use of ChatGPT in learning process of Islamic Education canpotentially support teachers in delivering material interestingly and interactively.¹⁴

Teachers can design a more individualized learning environment where students can engage with this AI model by utilizing ChatGPT. Instant input from ChatGPT makes it simple to offer further justifications or revisions. Students have the opportunity to learn in an engaging and in-depth manner and acquire a more thorough comprehension of Islamic Education ideas when ChatGPT is implemented in the classroom.

ModernMuslimAI and its use

For individuals looking for information on Islam, ModernMuslim.ai offers a novel solution. You can ask any question about Islam on our platform and get a thorough response in a matter of seconds. ModernMuslim.ai serves a broad range of users with support for seven different languages, the option to select from several sects, and references including the Quran, Hadiths, and Fiqh. You can get an informative and trustworthy answer by just typing your question and selecting your preferences. All people can easily and conveniently learn about Islam thanks to ModernMuslim.ai.

Quranic knowledge in terms of AI

There are several applications which help people in daily life in terms of Quranic use. Quranic apps with easy to use features have made it ten folds easier for people to read and carry Holy Quran's knowledge with them. Moreover, AI based teaching apps are also playing a huge role in increasing Quranic knowledge among those who know little about the subject. These applications include online Quran, Tajweed applications etc.

“TajweedMate is a mobile app that uses state-of-the-art artificial intelligence (AI) to provide immediate feedback on the user's recitation, helping them to enhance their fluency. TajweedMate offers a variety of features, including: Learn the alphabet (Quran elif-ba) and basic recitation of the Holy Qur'an with audio examples. Interactive lessons on tajweed rules and concepts Audio-visual examples of correct recitation Speech recognition technology to analyze the user's recitation and provide feedback Quizzes to test the user's knowledge of recitation Memorization tools to help users learn and retain selected Quran passages TajweedMate is a valuable tool for anyone who wants to improve their Quran recitation, regardless of their age or skill level. TajweedMate is available for free to be downloaded from App store.”¹⁵

AI-driven language processing technologies can facilitate the translation and interpretation of Islamic texts, making them available to a global audience. This promotes cross-cultural understanding and the dissemination of Islamic knowledge.

Islam provides a comprehensive understanding of human growth that emphasizes education and knowledge in equal measures. Islam encourages knowledge acquisition and application for the good of humanity. In this modernized era of schooling, artificial intelligence makes it much easier to acquire knowledge.

2. Healthcare and Life Preservation

AI can assist in medical research and diagnosis, helping to find cures for diseases and improving healthcare services. This aligns with the Islamic principle of preserving life and health.

Given that excellent health is a gift from God, maintaining one's health is a moral obligation. There are several sayings of Holy Prophet (pbuh) about preservation of life and health. It is our

faith that every sickness comes from Allah Almighty and it comes with a cure as said by Holy Prophet (pbuh):

مَا أَنْزَلَ اللَّهُ دَاءً إِلَّا أَنْزَلَ لَهُ شِفَاءً.¹⁶

“There is no disease that Allah has created, except that He also has created its treatment.”

The preservation of health is necessary for life to continue. As only healthy humans are properly able to apply Allah’s law in human societies. It is in fact, a required prerequisite for its execution in human existence.

Imam Al-Ghazali says:

“A proper understanding and implementation of religion, from the standpoint of both knowledge and worship, can only be arrived at through physical health and life preservation.”¹⁷

The modern structure of Artificial Intelligence is quite capable of preserving human life and wellbeing. If used correctly, it can save quite a sum of lives which is exactly what Islamic teachings promote.

“Artificial Intelligence (AI), where computers perform tasks that are usually assumed to require human intelligence, is currently being discussed in nearly every domain of science and engineering. Major scientific competitions like ImageNet Large Scale Visual Recognition Challenges are providing evidence that computers can achieve human-like competence in image recognition. AI has also enabled significant progress in speech recognition and natural language processing. All of these advances open questions about how such capabilities can support, or even enhance, human decision making in health and health care”¹⁸

Treatment Model

“AI has the ability to precisely identify and analyze the signs and symptoms of medical images such as X-rays, CT scans, MRIs, ultrasounds, and PETscans. It helps in faster diagnosis of disease. AI is of benefit collecting information about a patient, diagnosis records, testing process and assorting billing information with the help of medical assistant systems. Hence, AI techniques can be used for better care design and satisfaction of the patient”¹⁹.

Hence, Artificial Intelligence is crucial for life preserving which implies Islamic teachings.

3. Islamic Financial System and AI

The Islamic financial system is a unique and ethical approach to finance and banking that is rooted in Islamic law, also known as Shariah. It is based on the principles of Islamic economics, which seek to promote fairness, justice, and social welfare while avoiding the payment or receipt of interest (usury) and speculative activities that are considered haram (forbidden) in Islam.

“As customers become more sophisticated and knowledgeable, AI becomes extremely critical to Islamic finance. Like other aspects in life, the smart use of AI is a game-changer for the industry. Today’s customers of Islamic financial institutions require greater transparency, personalized products and seamless experience across all channels. Disruptive AI challenges the old models and provides them with greater choice, convenience and reach. It can make proactive recommendations to customers and suggest courses of action based on data, logic and specific circumstances, which helps elevate the customer experience. AI is able to influence the speed and accuracy of this experience too.”²⁰

In this digital age, the inclusion of AI in investment can be seen more widely. In this regard, it is important to ensure that the investments not only generate good returns, but preserve good ethics and values as well.

Environmental Conservation

Islam emphasis on conservation of environment and considers it an integral part of Islamic values. Islam regard all Muslims as stewards with core responsibility towards their surroundings.

If Artificial Intelligence is used rightfully, it can play a very important role in conserving environment.

AI can aid in fight against climate change by analyzing data on gas emissions through greenhouse and weather patterns. This can help guide policies and actions meant to reduce emissions and mitigate the climate change effects.

The ultimate objective of creating "safe" AI is to make sure that it promises the safe application of technology that benefits humanity. Essentially, this indicates that safeguards established to guarantee that developing AI systems continue to be "friendly," they must take the wellbeing of the natural world as a basic component.

There is a significant potential for developing AI-enabled game changers in which the application of Artificial Intelligence, typically in conjunction with other industrial revolutionary technologies has the ability to produce disruptive solutions.

“As with any new wave of technology, alongside huge opportunities, challenges need to be identified and addressed for AI’s full potential to be realized for the environment. Challenges range from increasing climatic change, to biodiversity loss, through to pollution and acidification of our oceans. Central to this is creating the conditions that enable solutions to be developed and commercialized at scale, and to ensure that risks are mitigated, and unintended consequences managed; i.e. creating the right ‘enabling environment’”²²

Even though there are many issues associated with the deployment, scaling, and beneficial impact of AI itself that need severe attention of authorities, we also need to identify and address specific considerations for improving AI for environmental applications.

A Way Forward for Muslims

Islam places a strong focus on advancement and study, two things that our Muslim forebears in the early years of the religion exemplified. Muslims pioneered scientific and technological advancements ranging from Al Razi’s innovative laboratory apparatus to Al Jazari’s gadget that raised water in the 13th century. Also, a key word in artificial intelligence “algorithm” was

supposedly first used by the Muslim scholar and mathematician; Al Khwarizmi in the 9th century. However, it has become painfully clear in later centuries—especially during the colonization era—that Muslims have been losing ground intellectually. Muslims have made a very small and insignificant contribution to science and technology in the recent years.

Considering the growing trends of AI, the Muslims need to have a viewpoint that highlights the significance of utilizing technology while upholding moral standards. Muslims should see AI as a tool that ought to be created and applied in a way that upholds accountability, justice, and fairness. While integrating AI offers a chance to improve society and help humanity, it also raises ethical concerns that must be carefully considered in order to protect human values. Muslims may help shape a future in which ethics and technology work together to build a society that is fair and compassionate by actively participating in the creation and control of AI.

Conclusion

Islam has a positive attitude towards technology, seeing it as a tool to enhance social welfare and improve human life. Muslims have traditionally made major contributions to disciplines like mathematics, astronomy, medicine, and architecture. Islamic traditions place a strong emphasis on learning and knowledge. It has also been stressed by Islamic scholars and intellectuals that technology must be used in a morally upright, ethical, and Islamic manner. Furthermore, a number of Islamic academics have expressed concern that rules and ethical guidelines should govern technology use to make sure that it serves humanity rather than harms it. In general, Muslims see technology as a tool to further the goals for the betterment of society.

AI can contribute to Muslim piety. Like any academic question, AI can give Muslims quick answers to complicated queries that would typically take a professional weeks of research to provide. When learning a new chapter, Muslims can save time and money by having a conversation with an AI bot in place of the conversations they often have with knowledgeable scholars about the meanings of the verses and how they apply today.

When it comes to translating flawlessly into any language, including sign language, and instantly explaining things in a different way as many times as necessary for the curious Muslim to understand the answer to their question, an AI bot can easily outperform a traditional scholar. It can also provide full references in case the reader feels the need for additional reading. This is but one example of the many potential uses; the greatest ones may still have escaped our minds.

All technologies are not created equal. Islam advises its adherents to constantly seek out new information, learn from both Muslims and non-Muslims, and remain vigilant about the risks that emerging technologies may present. When it comes to generative AI, Muslims need to put in more work. Islam is a progressive religion that permits its followers to take full advantage of modern technological advancements. Although artificial intelligence (AI) presents Muslims with many exciting new opportunities, it also poses unprecedented risks to the faith by possibly compromising the Quran's sanctity. Muslims need to be proactive in making sure they reap the rewards of AI while safeguarding themselves against its risks. Islam & AI is a forward-thinking ideology that is revolutionizing the dissemination of Islamic knowledge through artificial intelligence and state-of-the-art technology. Islam & AI's goal is to promote tolerance and understanding while providing users with accurate information. By doing so, it hopes to have a positive, long-lasting impact on individuals and communities worldwide. Without a doubt, as the platform grows and innovates, it will be instrumental in advancing global understanding and peace.

References

1. Christopher Manning, Artificial Intelligence Definitions, Human centered Artificial Intelligence, Stanford University, September, 2022, p. 1.
2. Haroon Sheikh, CorienPrins, Erik Schrijvers, Mission AI The New System Technology, Netherlands Scientific Council for Government Policy, The Hague, p.15.
3. Nils J. Nilsson, THE QUEST FOR ARTIFICIAL INTELLIGENCE; A HISTORY OF IDEAS AND ACHIEVEMENTS, Cambridge University Press, September 13, 2009, p.13.
4. John McCarthy, "What Is Artificial Intelligence?" Computer Science Department, Stanford University Stanford, CA 94305, November 12, 2007, p.2.
5. Al Maida 5:3
6. An Nisa 4: 82
7. Al Imran 3: 190
8. At Tin 95: 4
9. Ibn e Taymiyyah
10. Al Alaq 96:1

- 11.** Tirmazi, JamiaTirmazi, The Book of Knowledge, Chapter: Virtues of Knowledge which is Learnt and Taught for the sake of Allah, hadith no. 1385.
- 12.** Abu Dawood,Sulayman ibn al-Ash ‘ath ibn Ishaq al-Azdī al-Sajistani,Sunan Abi Dawood, The Book of Knowledge, Chapter: Virtues of Knowledge which is Learnt and Taught for the sake of Allah, hadith no. 1388.
- 13.** Fitria, T. N, Artificial intelligence (AI) technology in OpenAIChatGPT application: A review of ChatGPT in writing English essay. Journal of English Language Teaching, 2023.
- 14.** Nailus, S., & Cahyo Hasanudin. (2023, June 27). Implementasi ChatGPT sebagai Inovasi Media Pembelajaran Bahasa Indonesia di Era Society 5.0. Jurnalistik Sebagai Sumber Data Untuk Karya Ilmiah.
- 15.** Ibid
- 16.** Bukhari, Abu ‘Abd Allah Muhammad ibn Isma’il ibn Ibrahim ibn al-Mughirah ibn Bardizbah al-Ja’fi al-Bukhari, Sahih Bukhari, Al-Jami Al-Musnad Al-Sahih Al-Mukhtasir Min Umur Rasul Allah Sallá Allah Alayhi Wa-Sallam Wa-Sunanihi Wa-Ayyamihi Book of Medicine, Chapter: There is no disease except its treatment, hadith no. 5678.
- 17.** Dr M.H. Al-Khayat, Health as a Human Right in Islam, World Health Organization Regional Office for the Eastern Mediterranean ISBN 92– 9021 – 345 – 0, 2004, pg.14.
- 18.** Dolores Derrington, Artificial Intelligence for Health and Health Care, JASON The MITRE Corporation 7515 Colshire Drive McLean, VA 22102-7508 (703) 983-6997, December 2017, p.11.
- 19.** Deeksha Khanna, Use of artificial intelligence in healthcare and medicine, International Journal of Innovations in Engineering and Research Technology, ISSN: 2394-3696, VOLUME 5, ISSUE 12, Dec 2018, p.22.
- 20.** Fahad Ahmad Qureshi, Artificial Intelligence (AI) & Islamic Finance: Point of Intersection, December 9, 2018.

21. Lucas Joppa, Celine Herweijer, How AI can enable a Sustainable Future, A collaboration report of Microsoft and PwC, pg. 37.