

Islamic Ethical Foundations of AI and Its Modern Applications

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Abstract

The study aimed to explain Islamic foundations for such ethics and their contemporary applications, including robotics, computer vision, speech recognition, natural language processing, and expert systems. Using a descriptive analytical design, findings evince that artificial intelligence (AI) represents a civilizational milestone and a civilized face of contemporary man. It is all based on faith in God and observance of the legitimate purposes of the religion of Islam and considering the highest human and civilizational values to preserve the dignity of humanity. It also enhances the values (including God-fearing) of controlling uses of things, human dignity, privacy, honesty and transparency, justice and fairness, responsibility and accountability. The civilizational basis with regard to the uses of artificial intelligence is determined through, benefiting from the data of the universe, and the prohibition of exaggeration in dealing with the unhelpful bids of the universe.

Keywords:

artificial intelligence, ethics, Islamic foundations,

1. Introduction

Artificial intelligence (AI) is no longer an option for societies but a reality. It represents a new era in which the technological revolution is changing the course of human life at a tremendous speed, taking it towards a new form of human civilization. It generally penetrates all aspects of life. In fact, AI's level of attractiveness in our lives caused fascination with it, enabling it to shape our daily behaviors. It shapes our decisions based on its superior ability to deal with big data, sometimes bypassing any human or ethical considerations or principles. Let alone the religious-based controls. It has instigated many countries and organizations to adopt high policies and ethical charters about its risks simultaneously with maximum uses of it.

In the West, recognizing the ethical artificial intelligence foundations draws is based on what Nabent-

wiener raised through his philosophical vision of computer ethics. Specifically, he questions the possibility of

technology turning into a demon that destroys humanity. He devised an ethical policy that limits the expected control of technology on life and principles.

Then, computer ethics crystallized when Walter Manen (cited in [15]) defined it as a branch investigating computer technology's ethical problems. As confirmed by studies and conference proceedings, the need for ethical standards to govern this rapidly growing field has increased. The Third World Summit (2018) document emphasized the need for establishing controls to advance the legitimate, ethical, privacy and security use of artificial intelligence [16]. Moreover, [17] asserted the importance of promoting international cooperation to create robust public policies and a set of ethics for AI.

One of the contemporary challenges is what has emerged from the current global stage in light of the technology and information revolution and the era of knowledge including the artificial intelligence applications in various facets of life.

Objectives:

The objective of this study is to lay the foundations for AI in Islam. The central questions that this study strives to address is this: What are the Islamic ethical foundations of AI and its modern applications?

2. Islamic Foundations of Morals

In order to address this research question, it is necessary to provide, first of all, an account of the concept of Islamic foundations of morals and the status of morals in Islam. The foundations refer to the principles and determinants that include the beginning of a thing, its origins, setting of its determinants, and the comprehensiveness and breadth.

Defining ethics and morals. The term ethics, which is the plural of creation, refers to a state of the soul that calls to its actions without thought or deliberation. This state is either natural from the origin of mood or learned from habit and training. Furthermore, it converges with the meaning of values as standards for judging behavior. It is normative and usually related to the individual's actions and behavior [1, p. 15].

As for the term ethics, it is relatively recent. It emerged and crystallized in the modern era as a result of what was caused conflicting ethical trends about the relationship of science to religion and morals. Let alone the increasing embarrassment caused by science and its applications to morals and moral conscience. This provoked reactions calling for the return of ethics, especially religious, moral values, and in response to that. A new style of thinking has crystallized on the ethical problem resulting from science applications. The so-called ethics that must accompany biology, technology, and others have emerged.

Islamic foundations of AI ethics, in this study, is defined as principles and premises that govern the course of human behavior and define the frameworks and ethical references for science and civilization, religiously, ethically, and civilly. In the AI field, they are based on belief in God and observance of the legitimate purposes of the religion of Islam and considering the higher human and civilizational values to preserve human dignity.

The status of morals in Islam:

Islam has given great care to morals and made it the basis of man's relationship with his Lord, himself, and others. Islam came with every good and beautiful character and forbade all bad and ugly behavior [2, p. 368]. An integrated ethical system of business virtues and guidelines that guide a Muslim in his moral life.

[3] mentioned two postulates of Islamic moral theory. The first is the postulate of the moral character of a human being and the postulate that there is no human being without his morals, and the following facts follow from it:

1. Human identity is moral.
2. Human identity is not a single rank.
3. A person's identity is not fixed but rather variable

The second is the postulate of the religious character of morals. This postulate requires that there is no morality without religion. Perhaps this postulate contradicts "secularism" that only acknowledges the authority of abstract reason and therefore does not fit with the naturalists inhabited by the natural interpretation of things and others [3, p. 148]. Based on this contention, there is no human being without a religion, which supports the human identity in its reality as a religious identity.

In short, [3] affirms that the Islamic moral theory takes the principle that Islamic morals are universal, not local, deep, not superficial, dynamic and not rigid. Moreover, all the morals of a human being these characteristics can only be good morals [3, p. 170].

AI Islamic Foundations

This part dings into the relationship between science and religion and its relationship to ethics-related to religious beliefs about AI. It departs from the importance

of the ethical dimension and its presence in medicine, genetic engineering, technology and other civilizational possibilities and inventions, which are based on the value of the human being himself, without regard to beliefs and the position of religions. The ethical dealing with these discoveries and the goals they achieve in the perspective of Islamic education is based first on faith in God. Islam came to achieve man's interest, for the Islamic religion is the basis of morals, just as morals are the basis of science from the perspective of Islamic education. The Islamic who is the source of the moral order in Islam and is based on his correct belief.

The essence of morals in Islam is based on belief in God who has no partner. Add to that the rules of self-etiquette and rules of behavior for the individual and the group. These make belief in God Almighty the central pillar in the moral system. It is the highest value from which the rest of the values emanate. Suppose AI is the latest science field that has come to control human reality and require a criterion for controlling right and wrong, right, good and evil in its uses, Islamic education decides that "faith, morals, and science all constitute an interconnected and interacting unit" [4, p. 207]. In the Qur'anic value system, faith is the basis of morals and ethics is the basis of correct knowledge, and correct knowledge is the basis of good deeds [4]. Religion is the source of morality in Islam. There is no conflict between religion and science in the Islamic education perspective. It does not conflict with giving rationality to morals, as it is not possible to establish morals without a faith belief [5, p. 16].

In the light of Islam, the uses and applications of AI should not be deviate the fact that the creation and the command and what is related to them are for God the Blessed and Exalted. God Almighty says, "Unquestionably, His is the creation and the command; blessed is Allāh, Lord of the worlds" [14 Sura Al-A'raaf, Ayah: 54]. Hence, the belief in God makes the use of these computer technologies a value that stems from it, which is to organize human life and direct him toward his goals and objectives towards the worship of God and his monotheism and attachment to what God has prepared and promised. And invested his energies, including the applications he has reached in the field of artificial intelligence, which can be used to achieve human dignity and security, meet his needs, and help him achieve his goal, which is the worship of God. Belief in God according to this basis puts things in perspective, for the supernatural power of God alone and the positive swearing of a human being who is created and equipped with the mind, heart, spirit, and soul.

Belief in the unseen is one of the pillars of faith, and on it, the other foundations are based on the use of artificial intelligence and its applications, for the unseen is

known only to God. he says, “[He is] Knower of the unseen, and He does not disclose His [knowledge of the] unseen to anyone” [14, Al-Jinn, Ayah: 26]. Therefore, everything that belongs to the science of artificial intelligence is without knowledge of the unseen and is within the framework of the production of the human mind and its limitations. Whatever this matter is, it remains within the framework of science and knowledge monitored by the mechanisms of the human mind. It stimulates better investment in artificial intelligence and its applications within correct Islamic beliefs and ethical guiding principles.

Touched on above, the belief foundation is of a moral type. It is a scientific basis based on the Islamic conception of the Creator's reality, Glory is to Him, and the Islamic conception of man, the universe and life. Undoubtedly, this places the Muslim mind in a precise balance between the requirements of the soul and the body and the requirements of the life and the hereafter in an ethical framework that derives its law from God Glory be to Him, and from the foundation of faith unlike other theories that derive their laws from the human condition and are often biased towards his man-made beliefs.

3. Intentional Basis Behind AI Uses

This foundation is based on the purposes of Islamic Sharia, which, in turn, is based on the foundation of faith. it is a reflection of it and a practical application of faith in the lives of individuals and groups. The purposes of Islamic Sharia are defined as the immediate and future interests that God Almighty wanted them to enter into Islam and take with His law. They are the goals that the Islamic Sharia aims to achieve in people's interests. The Sharia revolves with the interests of people to achieve interests in the light of the realities of belief in God and its pillars and requirements and about the evil, harm, sin and bad deeds [6, pp. 18-19]. [7] confirms this basis, pointing out that no one doubts that every law legislated for people that its morals aim at the desired objectives of its wise legislator, the Highest, as it has been proven by definitive evidence that God He does not do things in vain.

One of the most incredible things in human creation is his acceptance of civility, the greatest of which is the laying down of laws for him. The law of Islam is the greatest and most upright of the laws. Allah says, “Indeed, the religion in the sight of Allāh is Islām” [14, , Āl-‘Imrān, Ayah 19]. The extrapolation of many shreds of evidence from the Qur'an and the Sunnah necessitates our certainty that the provisions of Islamic Sharia are entrusted with a ruling and causes that are due to the general welfare of society and individuals: [7, p. 12].

The general purpose of Islamic legislation is to preserve the nation's system and maintain its goodness

with the goodness of the dominant, the type of man, for the goodness of his mind, the goodness of his work, and the goodness of what is in his hands of the assets of the world in which he lives [7, p. 60]. Based on the division of objectives into necessities, needs, and improvements, they are considered a basis for the use of artificial intelligence and its contemporary applications in the lives of individuals and groups.

The researcher is limited to identifying the aspect of the five necessities that Sharia came to preserve (religion, soul, mind, money and honor) and how they represent a legal basis for the ethics of artificial intelligence and its applications. The essential purposes by which the five faculties are preserved: religion, the soul, the mind, offspring, and money, are the essential purposes, and everything else is complementary to them, and preserving them is, as Al-Shatibi explained in Al-Muwafaqat that preserving these necessities does two things: one: what establishes the basis of their existence, and the second: what repels the imbalance that It displays it [7, p. 63].

In light of the previous, the ethics of using AI and its applications in light of the purposes of Islamic law can be determined through two dimensions. The first is of existence, and the purposes of Sharia represented in preserving the five faculties enhance everything that would preserve and maintain them by legitimate means, and that is the blessing of this technological revolution which contributed to improving the quality of life and preserving lives, minds and money through its applications in various areas of life, especially health, and the Corona crisis is evidence of this, as well as education and how humanity has benefited from big data and its methods in achieving a knowledge economy.

The second relate to the aspect of nothingness, whereby the AI uses and applications in the light of the legitimate purposes must abide by the prohibitions and warnings that blaspheme in the faith and lead to polytheism and the threat of religion. Add to that those that lead to the destruction of the soul or its morals or damage to it or the loss of the mind or its corruption and perversion. Intellectual property and preserving offspring and honor by avoiding all means prohibited by Sharia [6, pp. 315-330]. Also, building ethics and principles that guide the use of artificial intelligence in the light of the Islamic system is based on the purposes of Islamic Sharia. It preserves the interests of the individual and the group in belief, Sharia and behavior.

4. Intentional Basis of AI Uses

The value basis for the AI uses

It is the basis that is based on the foundation of faith and legal purposes and is related to their connection with reference values, which represent a common human and civilized and are considered a standard for the ethics of the

uses of artificial intelligence. Values are also considered one of the most prominent elements of influence in future change, in addition to beliefs, the image of the future and decision-making [8, p. 290].

Values are associated with science on three levels: The first: is the values that precede working with science. They are those in which science and the man of science arise in the bosom of a particular historical stage. It is also represented in the culture of the age and its position on science issues, the second: the inner values in science, the third: the values that science leads to and adds to the values of the human world [9, p. 226].

There is no doubt that the value basis from the perspective of Islamic education for the ethics of using artificial intelligence is based on the foundation of the organic relationship between science and ethics in the principles and ethical scientific practices.

Under the Islamic vision, science has no value without morals, just as they have no value without the Islamic religion, which sees life and its comprehensive approach. Science without morals may reach catastrophic results for human life and civilization. The evidence is clear from destruction, wars, killing and violation of privacy.

Also, values without knowledge lead to ignorance and ignorance is the basis of all evils. The contemporary scientific renaissance did not succeed when it tried to separate science from ethics or liberate science from the authority of ethics on the pretext of objectivity. Today it is collapsing towards the return of ethics, making science ethical to protect human beings. In the Islamic vision, the call is to place both science and ethics under the umbrella of religion. Islamic education, constitutes a fundamental difference between the philosophies' starting points for the ethics of artificial intelligence, which lies in the illusion of separating them from ethical principles on the pretext that they are applied and relative, and the Islamic education's starting point for ethics, which is organically linked with the principles and is inseparable from them based on Islamic principles.

Among the most prominent values and principles that underpin the ethics of artificial intelligence, its systems and applications are the following:

The most prominent values and principles that underpin the ethics of artificial intelligence, its systems and applications are outlined below:

- Piety

Piety is a central value in Islam, and its purpose is to fear God. Its meaning revolves around avoiding all sinful actions or omissions. In terms of being a basis for the uses of artificial intelligence, it constitutes a deterrent to all parties associated with this field from violating the

sanctities and harming any human being, being or nature that achieves the interests of individuals and groups, and it is also a reason for acquiring knowledge, God Almighty says: (And fear God and God will teach you) [14, Qura'an, Surah Al-Baqarah, Ayah 282].

- Human Dignity and Privacy

The human being is a value in himself. His dignity is a primary normative value for everything related to him. [14] confirms the authenticity of human dignity and establishes the human sense of it, and defends it. Therefore, in the context of the uses of artificial intelligence, Islam emphasizes respecting human dignity and preserving privacy, and not allowing its violation; This requires that AI systems and applications be safe and reliable.

- Honesty and transparency

In conforming with reality and belief, honesty indicates the moral value associated with piety, truth, and belief. It is considered a reference value for many other values in Islamic education, such as transparency, loyalty and responsibility, which is evident in the following [5].

- The believer's commitment to what God covenants with him in his faith.

- Telling the person about the facts for which he is responsible as they are.

- The commitment of a person in his behavior to what he has committed of honesty in his attitudes and dealings

Honesty in its connotation is a comprehensive meaning, so transparency comes at the forefront of the ethics required by the use of artificial intelligence, where the data should be interpretable as it is. The user can also track and explain it to prevent fraud and conceal the facts, achieve a high level of integrity, and disclose risks and challenges in all honesty and impartiality.

Justice and Fairness

Justice is an Islamic principle and a reference to human value. Its origin is the saying of God Almighty. "God commands justice and goodness" [14, An-Nahl, from verse 90]. Justice and fairness are among the things that divine laws and wise minds have colluded with. It is stable and is considered an inherent human right [7]. Accordingly, the uses of what science and technology have produced are based, especially in artificial intelligence, which requires fairness and equality, as recognized by the charters adopted by some parties and centers interested in the ethics of science and AI systems.

Responsibility and Accountability:

Responsibility is a value that confirms a situation in which a person is entitled to culpability and accountability for his actions and is bound by various consequences. A person being responsible means that he is held accountable for his actions with his freedom and made his conscience

and consciousness responsible for his behavior. In Islam, responsibility begins with the direct commitment between the servant and his Creator, the Mighty and Sublime.

Accountability comes as a basic concept in the relationship between people and the preservation of the rights of others in the field of AI and its systems. It also resulted from the responsibility and authority that allowed the authorities to be responsible for data, management, and applications. It enabled them to have the authority or work to make decisions affecting the lives of others. This occurs within the framework of Islamic moral responsibility to ensure integrity. Individuals and society's equity, security, and safety from intelligence systems, their applications and results before and after their development, dissemination and use.

Civilizational Basis for the AI ethics

This basis is based on the civilized dimension of ethics that constitutes an organization and a definition of the relationship with the other on the one hand and the world of things that surround man in the universe on the other hand - a realistic view of the nature of the era and the surrounding circumstances and constructive interaction with it. Thus, the Islamic civilization, which is considered moral in its purposes and etiquette, which preserves human dignity and advances humanity, has emerged [10, p. 110].

The civilizational basis concerning the uses of artificial intelligence is determined by two controls that govern the relationship between man and the universe [11, pp.167-168]:

- A call to benefit from the universe's data according to need and as the case may be.
- forbidding exaggeration in dealing with the gifts of the universe that are not good.

In this sense, it integrates with the Islamic faith, intentional and value foundations that control the materialistic civilizational path, including the development in the field of artificial intelligence, and transcends those foundations that deviate religion from science and morals, and confirms [12, pp. 27-54]. Some indicators of integration with the previous foundations for This has a basis for dealing with the other, according to the Islamic vision, as follows:

- acquaintance and cooperation in righteousness and piety.
- human dignity.
- Freedom of choice
- Fairness of the other and objectivity in judging him.

In its civilized interaction, Islam is a regulator of the movement of the universe and its architecture. If civilization is the fruit of the interaction between man and the world of things, then the facts of revelation came to draw and refine that relationship and determine how to deal in its framework. The relationship outside this framework is

authorized by material and civilizational corruption and environmental crises arising from human tyranny over the world of things, so what if AI over humans?

Hence, the civilized basis for the ethics of artificial intelligence is based on the relationship of benevolence that achieves perfection on the one hand and prevents compromise on the other. The Prophet, may God's prayers and peace be upon him, says: "God has decreed kindness for everything" [13, Hadith No. 1955].

In light of this, the Islamic conception of AI is based in its ethical framework on the belief, Sharia and morals as a starting point for science and its civilizational outputs through belief in God and observance of the legitimate purposes of the religion of Islam and considering the higher human and civilizational values to preserve human dignity. The Islamic view of the reality of the Creator, Glory is to Him, and the Islamic conception of man, the universe and life, unlike other theories that derive their laws from the human condition and are often biased towards its positive beliefs. Also, building ethics and principles guiding the use of artificial intelligence in light of the Islamic system is based on Islamic Sharia's purposes, preserving the interests of the individual and the group in terms of belief, Sharia and behavior and enhancing the relevant values. It enhances the values related to controlling its uses, including fear of God, human dignity, privacy, honesty and transparency, justice and fairness, and responsibility and accountability.

5. Conclusion

Given the research objective and question in the introductory part, this section brings the study to conclusion. Despite the subsequent international efforts to lay the foundations and ethical frameworks for artificial intelligence in the Arab and Islamic worlds, it is still below the standard. There are concerns about using AI as an alternative to human intelligence and behavior. It heightens concerns and fears as it is growingly treating Man as a machine. The contemporary philosophical vision deals with ethics related to science and artificial intelligence based on the philosophy of virtue ethics, utility ethics, or the ethics of duty. These theories are based on statements that attempt to neutralize religion as a component in directing ethics and science. The Islamic conception of AI is based on the ethical framework of AI on Islamic norms and ethics as a starting point for science and its civilizational outputs. As this study pinpointed, the ethics of AI in the Islamic vision express the principles and premises that govern the course of human behavior and define frameworks and ethical references for science and civilization, religiously, ethically, and civilly. Ethics in the field of artificial intelligence is based on belief in God, observing the legitimate purposes of the religion of Islam, and considering the supreme human and

civilizational values to preserve human dignity. The Islamic moral theory is distinguished by its reliance on two postulates: man's moral character and the religious character of morality.

The foundation of faith is the origin of morality. It is a scientific basis based on the Islamic conception of the Creator's reality, Glory be to Him, and the Islamic conception of man, the universe and life, unlike other theories that derive their laws from the human condition and are often biased towards his beliefs. Building ethics and principles that guide the use of AI preserves the interests of the individual and the group in belief, Sharia and behavior. The value basis from the perspective of Islamic education for the ethics of using artificial intelligence is based on the basis of the organic relationship between science and ethics in the principles and ethical scientific practices, and it enhances the values related to controlling its uses, including: piety of God, human dignity and privacy preservation, honesty and transparency, justice and fairness, and responsibility and accountability. The civilizational basis with regard to the uses of artificial intelligence is determined through, benefiting from the data of the universe, and the prohibition of exaggeration in dealing with the unhelpful bids of the universe..

The present study recommends establishing specialized centers and bodies locally in the Kingdom of Saudi Arabia regionally that adopt a review of the principles and ethics of artificial intelligence and their reproduction in light of our Arab culture and its Islamic origins. The study as it stand has shortcoming and to complement these shortcomings, the researcher suggests conducting more studies, including a proposed conception of an ethical charter in light of the Islamic foundations for the ethics of artificial intelligence.

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