

The Clash of Artificial and Natural Intelligences: Will It Impoverish Wisdom?

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INTRODUCTION

This essay covers some of the major issues that arise in contemporary human thoughts following the fast-expanding and problematic interface of natural and artificial intelligences that we have been witnessing during the last several decades. Not only is the interface rapidly expanding, but it is also getting more complex and epistemologically muddier. Moreover, it is sending more signals that it is now venturing into danger zones for human security. The very nature and characteristics of the interface could only mean that more major issues will emerge to haunt the contemporary human mind. We observe that the interface has become more controversial in recent years.

For the purpose of this essay, by natural intelligence (NI) is meant that part of the human person comprising all his cognitive organs, physical and non-physical, together with their respective functions and activities in information gathering and organisation for the purpose of knowledge-processing and acquisition and understanding the mysteries of human language. In Islamic civilisation, NI thus understood is signified by the term *'aql*, which is usually translated as intellect or reason.¹ Interestingly, the same term is used in Islamic philosophy and cosmology to refer to angelic intelligence apparently for the reason that human and angelic intelligences are regarded as of being of the same nature; namely, a form of incorporeal light that is described in theological language as “spiritual”. And by artificial intelligence (AI) is meant humanly created intelligence that seeks to simulate human intelligence in machines by programming them to think like humans and mimic their actions. In short, AI is the name of a programme to create human-like intelligence to the greatest degree of complexity and sophistication possible.

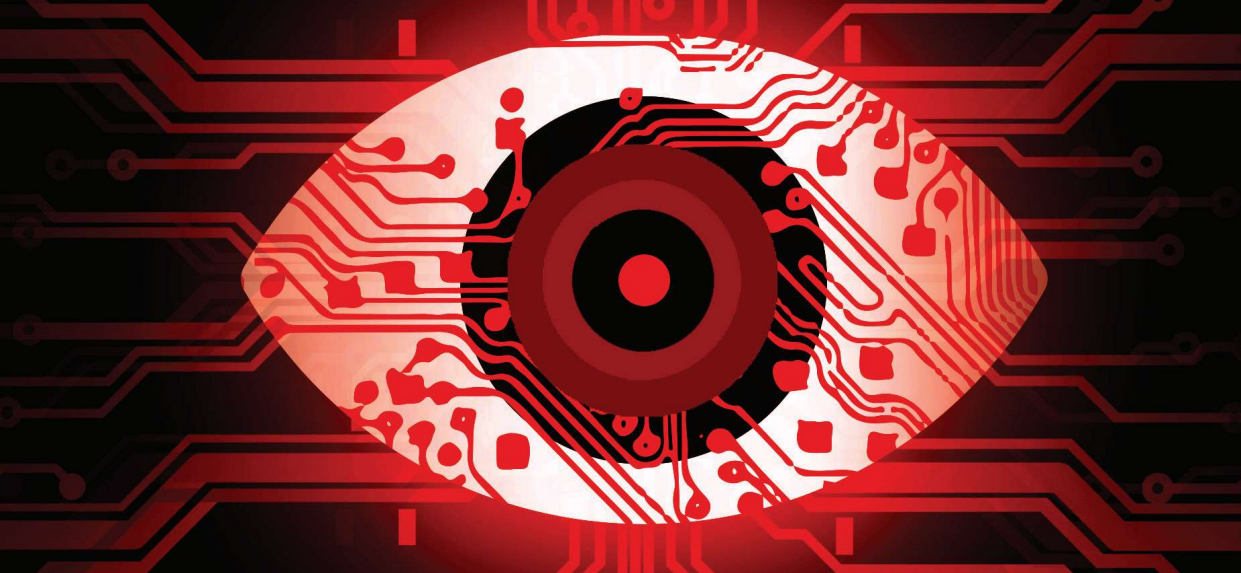
The interface of NI and AI we are now discussing was essentially generated by the encounter of two important developments in postmodern science

and technology. One key development was scientific advances in neuroscience and related disciplines in human biology, particularly in relations to cerebral intelligence, that were enhanced by new biomedical engineering and biotechnological tools. Cerebral intelligence studies have rapidly advanced as a result. The other key development, which is perhaps more important than the first in terms of impact on human beings and their society, is contemporary man's desire to create AI in the image of his own NI. His attempt to exteriorise this desire in societal space, which is essentially driven by materialism in various forms, has already produced visible fruits that invite mixed reactions from individuals and groups and even governments. The first early images of human intelligence on the material plane, albeit only partial and not total, have appeared in the forms of a number of AI technological objects. The present prediction is that it would be only a matter of time before bolder and more sophisticated images of human intelligence will appear in our contemporary material civilisation. What the consequences of such a development would be we can only speculate and conjecture at this point in time.

THE AI AGENDA: THE IDEOLOGICAL DIMENSION

The AI agenda, which is presently pursued with vigour especially in the more scientifically and technologically advanced countries in both East and West, is an outcome of the two key developments I have just mentioned. In a sense, although related, the two developments may be viewed as different from each other in terms of orientation and goal. The main interest in the first line of development is theoretical, meaning the pursuit of scientific research of the human brain with the expressed purpose of deepening man's understanding of his own intelligence. The assumption here is that the brain is the true seat of hu-

¹ In Islamic thought, there are non-human forms of natural intelligence. These are animal intelligences and invisible spirits known as *jinn* found in the terrestrial world, and angelic intelligences in the extra-terrestrial world. There is abundant literature on the relationship between animal and human intelligence in both modern science and traditional Islamic thought which, however, study the subject from different philosophical points of view. The relationship between human and angelic intelligences was also extensively discussed in Islamic philosophy and science, but such a discussion is not within the purview of modern science, since supernatural beings such as angels have long been taken out of the Western cosmos. For a detailed discussion of Islamic theory of intelligences, see Osman Bakar, *Classification of Knowledge in Islam* (Cambridge: The Islamic Texts Society, 1998), particularly Chapter 2.



man intelligence and knowledge and the source of his cognitive powers.² The orientation and goal of brain research is towards the progressive enhancement and empowerment of human natural intelligence. Interest in AI, however, is not excluded from this research enterprise, but it is subordinated to the theoretical goal of revealing the mysteries of human intelligence, which is viewed as the essential attribute of human nature or the core of humanness.

The orientation and goal in the other line of development is quite different. It is practical or more precisely technological. It is to create AI in the image of NI in the analogous way that the Abrahamic religious traditions speak of “man as being created in the image of God”. In the latter case, the image is understood to be total. As such, the image of NI has to be total in nature as well. Theoretically, this would mean the creation of AI that would be a replica of NI and that would be as good as it. But the most ambitious of the contemporary technological minds are not content with this envisaged achievement. They harbour the dream of creating AI that would be superior to NI. The idea of the possibility of a future AI being superior to NI is being entertained by them and other prime shapers of the second line of development, because they strongly believe that human evolution will make it happen. In fact, as we shall later see, there are organised voices within the ranks of these prime shapers of AI who are optimistic about the coming of such a technological future.

However, notwithstanding the difference in orientation, goal, and concentration between the two lines of scientific-technological developments, there are common philosophical ideas and issues about intel-

ligence that bind them together, thus meriting their epistemological merger into one greater cultural movement. The common philosophical ideas underlying the concepts of both NI and AI that have been defined are found rooted in the theories of human nature. Both religion and science have a deep interest in human nature, but they differ in their perspectives of understanding this very important subject. Not only are they different in their formulation of fundamental questions about human nature—such as its origin, purpose, development, implications for human behaviour, and significance for the Earth’s planetary ecology—but also in the answers they provide to these questions. These differences explain the multiple and contending theories of human nature that have been borne out of the wombs of religion and science.

But differences aside between the religious and the scientific perspectives in respect of meaning and significance which they confer on human nature, there is convergence in their appreciation of the distinctiveness and centrality of intelligence in human nature. More fundamental still is convergence in their characterisation of self-consciousness and self-discovery as important psychological features that are integral to human nature. Such a view that posits intelligence, self-consciousness, and self-discovery as core features of human nature is especially characteristic of the religion of Islam. Moreover, Islam’s theological perspective on human nature has been consistent in maintaining the idea of the complementary role of science as a source of knowledge to help empower that very perspective. Epistemologically, human nature is perhaps the most fertile ground for a

² A contending assumption in both science and religion is the idea of the heart as the true seat of intelligence and knowledge. In other words, cardiac intelligence is a more fundamental psychological concept and reality than cerebral intelligence.

productive encounter between religion and science in the history of Islamic thought. In particular, human intelligence has served as an illustrative case of this broad encounter, especially during the most creative phase of Islamic civilisation when the subject was extensively discussed and explored, albeit largely theoretical in nature. Now, in the light of the extraordinary interest in intelligence studies, both natural and artificial, and theoretical and applied, it might be a welcome idea for Muslims in particular to revisit past discourses in their civilisation to gain new insights on the subject.

The classical Islamic discourse on human intelligence may serve as an objective and independent critic of the contemporary AI Agenda, its ensuing controversial debates, and the various projections into the technocratic future of AI. Roberto Paura³ has described some of these future projections as over-optimistic, wish-fulfilment fantasy, and utopian. He is referring in particular to the technocratic utopia of transhumanism, a contemporary cultural and philosophical movement whose ideology is centred on the idea of the feasibility of a technological enhancement of the human body, and thus the emergence of a new type of humanity.⁴ Transhumanism was born in the United States during the 1980s “as a product of the technological revolution represented by the mass distribution of information technology and cybernetics, as well as by the first scientific studies on nanotechnologies”.⁵ Transhumanists believe in the future appearance of a post-human species “whose members can theoretically live forever thanks to breakthrough findings in medicine, biotechnology, nanotechnology, computer science and artificial intelligence”.⁶ The ultimate goal of transhumanism is nothing less than a total fusion between humans and artificial intelligences. It is “to get rid of hardware by transferring the whole content of our brains inside of supercomputers, so to preserve the software, i.e., our consciousness, untouched”.⁷ Arguing from the Islamic perspective, Mahmoud Dhaouadi, a professor of Sociology at the University of Tunisia, upon reviewing the ongoing controversy over AI and NI,⁸ concludes that the two can never be equal, let alone AI

surpassing NI in quality and performance. The main message from the Qur’an, says Dhaouadi, is that “AI can never be equal to NI, for God has not imparted to it His divine breath.”⁹

From the theological point of view, AI will always be inferior to human NI, simply because it is man’s creature. It is against logic and natural law for a creature to be equal to its creator. But man’s desire to create things in his image will always be part of his consciousness, because God has implanted that desire in his nature to permanently remind him of the truth that he has been created in His image. Man’s desire to know everything about his intelligence and to create its replica in physical form is none other than the expression of his self-discovery as an intelligent being who is an image of divine intelligence and as *homo faber* (man the maker) who is an image of God the Maker. In the light of this theological perspective, it may be argued that man’s pursuit of AI has a metaphysical justification and should, therefore, be fully supported. But a counterargument from theology is that perfect human imitation of divine intelligence is to be pursued on the spiritual plane. On the physical plane man’s creation of AI cannot have limitless possibilities, constrained as it were by the laws of biophysics.

THE AI AGENDA: ITS SOCIAL DIMENSIONS, REAL AND IMAGINED

There is no doubt that the desire of contemporary man to create AI to various degrees of sophistication is an important issue for our time. Turning this desire into physical and social reality can have many implications, both positive and negative, for present and future humanity. There are many questions that can be asked about this human desire such as: What is its nature? Why has it surfaced at a particular moment in human history, namely in post-modern times? What is it that motivates and sustains it? And what explains its technological progress?

The scope of this essay does not allow us to address these questions. However, we have at least touched on the appearance of transhumanism and its histor-

3 Alberto Paura is a physicist at the Department of Physics, University of Perugia, Italy and a researcher at the Italian Institute for the Future, Napoli.

4 For an informative article on transhumanism, see Roberto Paura, “Singularity believers and the new utopia of transhumanism”, *Im@go: A Journal of the Social Imaginary*, Number 7 – Year V, June 2016, pp. 23-55.

5 Roberto Paura, “Singularity believers and the new utopia of transhumanism”, p. 23.

6 Roberto Paura, “Singularity believers and the new utopia of transhumanism”, p. 25.

7 Roberto Paura, “Singularity believers and the new utopia of transhumanism”, p. 25.

8 Mahmoud Dhaouadi, “An exploration of the nature of human artificial intelligence and the Qur’anic perspective”, Abdelwahab M. Elmessiri, ed., *Epistemological Bias in the Physical and Social Sciences* (The International Institute of Islamic Thought, 2006), pp.158-173.

9 Mahmoud Dhaouadi, “An exploration of the nature of human artificial intelligence”, p. 173.

THE CLASH BETWEEN AI AND NI

ical and technological background, which gives us some insights into the current thinking on the future social space that is expected to be dictated by the progress of AI.

The ongoing interface between AI and NI has thus far aroused mixed responses and assumed a new significance for the world community on which it seems worth reflecting, not least out of our concern for the future of NI itself that has been traditionally accepted as an essential defining element of humanness and humanity. The general concern in the minds of many people, especially those following the discourse, is about the serious implications of the interface for the global socio-economic order. The gulf in economic wealth between rich and poor nations keeps progressively widening, which could only threaten the well-being of the global community. It is to be noted that the current agenda of AI, which is dominated by rich countries that are also the most advanced in science and technology, is motivated by several considerations, including scientific-technological, economic, and political-military. Consequently, this agenda has generated activities of multiple kinds in different sectors of societal life.

There is, first of all, the purely scientific-technological motive directed at the pursuit of AI that would serve as tools of scientific research on NI itself and on extra-terrestrial intelligences. There is also the economic motive, which is mainly interested in the large-scale production of robotic and other forms of AI for commercialisation purposes to serve sectarian economic interests. How we wish that the economic motive is closely tied up to a social motive in the name of the pursuit of AI for the sake of a common social good! But such a joint motive is apparently missing from the agenda of AI. That would leave the impression that the economic interest in AI is mainly dictated by profit-making at the expense of social security, as humans in the job market have to give way to robots. And then there is the political-military motive that is aimed at the creation of the most sophisticated AI-supported weaponry of the day in the name of national security and military superiority such as that which is pursued by the United States.

These various motives have resulted in rapid growths of demands for AI. The expanding scientific and technological applications of AI are increasingly shaping the public view of what is and what is not important for humans to know about NI. In short, contemporary man's appreciation of his own NI is beginning to be clouded if not also devalued by his increasing admiration for AI.

In theory, it is rather strange that we could be entertaining the idea of a clash between AI and NI considering the fact that the source of the former is none other than the latter. But the point is that the clash has become a reality, as may be inferred from various contending positions in contemporary discourse on the interface between the two forms of intelligences. There are several explanations for this clash. For the sake of brevity, I am offering here only one explanation, which I think, however, is the most important. It pertains to the clash of understandings about the respective natures and powers of NI and AI. There would be no clash possible if we always bear in mind that AI owed NI its origin and existence and whatever powers it has received from its human creator. But a clash would occur if we overestimate the worth of AI and at the same time underestimate the worth of NI. I argue that such a condition has already been fulfilled, and hence the clash!

To avoid clashes, it is important for us to be intellectually honest about the fundamental differences between AI and NI that many insist are irreconcilable, and also to refrain from making excessive claims on the potential powers of AI. Intellectual honesty demands from us sound knowledge of the true nature, characteristics, and powers, and developmental possibilities of NI. There is such a thing as the collective treasury of human knowledge about NI drawn from both religious traditions and modern science. Islam would insist on adding Qur'anic ideas on NI to the treasury. It is in the light of the total treasury of knowledge about NI that the contemporary world should pursue the AI Agenda so that destructive conflicts between the two forms of intelligences could be avoided.

It is also important to take note that the contents and dimensions of NI are perceived or understood differently by different groups of scientists, philosophers, and theologians, even if they live and think within the same civilisation. Quite often, we don't mean the same thing when we used the word NI. Thus, when we say that there is a clash between AI and NI, to which conception of NI are we referring? From the Islamic perspective, it may be argued that the human NI that is currently serving as the model for AI is not what is portrayed in its fullness in Islamic and many other religious traditions as well as by many modern psychologists and cognitive scientists, but rather what is believed and understood by proponents of AI who have reduced NI to cerebral

intelligence. The objective model of NI to be emulated in Islam is the prophetic intelligence, which is generally regarded as the most perfect intelligence that is possible for man. This prophetic intelligence that embraces cerebral, intuitive, and cardiac intelligences in their most excellent form may be presented as the best argument against the claim that it is possible to create an intelligent bio-machine that would be superior to human intelligence. After all, the Prophet Muhammad (may peace be upon him) is believed in Islam not only as the best human but also as the best of all creatures!

CONCLUSION: ANY FUTURE FOR WISDOM?

Until modern times, wisdom or Qur'anic *hikmah* has been universally extolled as the most excellent form of human knowledge and intelligence. The issue of the future of wisdom in the economy of human intelligence is seen as inextricably tied up to the future of civilisation itself and which, therefore, must be

of due concern to our present and future humanity. In the light of the AI agenda, the future of wisdom is at stake for two main reasons. First, there is growing acceptance of cerebral intelligence as man's highest achievement. This belief would lead to the impoverishment of wisdom, since cerebral intelligence is not its source. Rather, wisdom is identified with intelligence of the heart and of the intellect and with intuition. In short, wisdom will flourish only if higher forms of intelligence are given ample spaces to grow and develop. Second, the popularisation of AI that is pursued at the expense of NI, especially as understood in religion, will further erode man's appreciation of the higher forms of NI that by nature cannot be reduced to logical thinking, be it human or bio-machine.

Consequently, it is imperative to pursue an AI agenda that would not be in destructive conflict with NI. Not only that, contemporary man needs to be reminded of the intelligence that defines his humanness and the role of the prophetic intelligence as the model to be emulated.

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