

## **ARTIFICIAL INTELLIGENCE AND REALITY**

**Peter Iorhom Akunoko**

Department of Philosophy

Benue State University, Makurdi

pakunoko@bsum.edu.ng/akunoko.peter@gmail.com

### **Abstract**

Science and technology have revolutionized thinking in such a way that computers and robots appear to perform human actions or task with ease, precision and unbelievable speed even beyond humans. This questions the long held view that rationality is a unique and distinctive characteristic of man that is not shared by any other realities. This view seems to be changing with the advent of artificial intelligence. Here computers perform as if they have the capacity for reasoning, creativity, perception, emotion and even motives that characterize human action. Philosophers have classified such kind of computers into either strong artificial intelligence (artificial general intelligence) or weak artificial intelligence. This paper is aimed at examining different conceptions of artificial intelligence with particular reference to artificial general intelligence to ascertain whether it can fit into the character of reality as understood by metaphysicians. The research is a qualitative one using analytic method to critically examine datasourced from books, articles and other internet sources to arrive at the argument of the paper. The paper argues that, artificial intelligence of whatever kind is real but does not possess certain ontological characteristics of reality. It is a practical reality that lacks the ontological properties of the real and may not be able to attain such status in a near future. Artificial intelligence if is to be called intelligence at all it will be a manifestation of human intelligence through human creative endeavours.

**Keywords:** Reality, Artificial intelligence, ontology, physical Sciences, artificial General Intelligence.

### **Introduction**

The nature of reality has been seriously challenged by scientific discoveries and technological advancement that brought to birth artificial intelligence. Though the coinage, 'artificial intelligence' itself smarks on the unnaturality of the phenomena, its reality is definitely not in doubt. The question that remains is whether the phenomena of AI has the ontological properties or categories of reality. Does artificial intelligence fit into the definition of reality as having the state or quality of existence or substance? Though AI may fit into the definition of reality as the sum or aggregate of all that is real or existent within the universe, does it really has what it takes to exist when subjected to philosophical scrutiny? This paper examines different conceptions of

artificial intelligence with particular reference to artificial general intelligence to ascertain whether it can fit into the character of reality as understood by metaphysicians.

Humans have developed the tendency to anthropomorphize technology and give AI human qualities or even elevates it beyond human abilities. This tendency to give human characteristics to technology has further complicated the AI debate. When computers, robots and other AI technologies are anthropomorphize, it becomes pertinent to raise questions whether their seeming intelligence is really human intelligence. It is important to understand before we proceed that AI is the brain child of human intelligence, and creativity. One could define AI as programmed intelligence. It depends on data generated by humans with the symbols they create, language they develop and the technological expertise they acquire to assemble computers, robots and all other AI technologies to be receptive to such data and able to interpret it.

This paper argues in the general direction of establishing AI as a tool created by humans for speedy accomplishment of certain tasks. It lacks the ingredients of human intelligence and also shows that AI does not have the ontological properties and categories of reality.

## **2. Conceptualizing Artificial Intelligence (AI)**

The controversy surrounding the nature of artificial intelligence still lingers. Scholars have doubted whether it should be called artificial intelligence in the first place and suggested other names such as machine intelligence, computer intelligence etc. Whether scholars agree on its nature and nomenclature or not, the fact remains that the reality of computers, robots and other machines performing seeming intelligent behaviour is with us. Science and technology has made possible a field which tries to understand and also create intelligent entities. This field is commonly refers to as artificial intelligence. What then is Artificial Intelligence?

The definition of Artificial Intelligence most widely accepted is making computes smart. Another definition, also accepted, is making computer models of human intelligence. And the third one might be summarized as building machines that simulate human intelligent behaviour.<sup>1</sup> Artificial intelligence was a coinage of John McCarthy and his colleagues. they hold that; for the present purpose the artificial intelligence problem is taken to be that of making a machine behave in ways that would be called intelligent if a human were so behaving.<sup>2</sup> So historically, the first definition of Artificial intelligence according to Rapaport is “the study of how to make digital computers simulate all aspects of intelligence or behave in “intelligent” ways where 'intelligence' is

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<sup>1</sup>. Robert Trappl. *Impacts of Artificial Intelligence* (Armsterdam: Elsevier Science Publishers, 1985), 5.

<sup>2</sup>. McCarthy, I., I. Minsky, N. Rochester and C. Shannon. A proposal for the Dartmouth summer Research Project on artificial Intelligence, 1955. <http://www.formal.standard.edu/jmc/history/dartmouth.html>.

understood in terms of human behaviour.”<sup>3</sup> According to Margaret A. Boden, “artificial intelligence (AI) seeks to make computers do the sorts of things that minds can do.”<sup>4</sup> These computers seem to have the capacity to mimic or simulate mind activities such that they can attain the goals typical of rational humans. It is the view of Margaret Boden that these AI's applications are found everywhere on our planet and outside our planet. Robots for instance are sometimes sent to the moon, and mars and satellites commonly orbit in space, but are all based on AI technologies. Artificial intelligence for Margaret Boden has two main aims which are, technological and scientific. Using computers to get useful things done sometimes by employing methods very unlike those use by humans is a technological aim of AI. The other is scientific which uses AI concepts and models to help answer questions about human beings and other living things. AI practitioners are divided according to these aims. Though AI applications are designed to perform countless specific tasks in different fields of life they have not been able to attain their set goal. Margaret Boden notes that, “AI pioneers weren't aiming only for specialist systems. They were also hoping for systems with general intelligence. Each human-like capacity they modeled – vision, reasoning, language learning, and so on- would cover its entire range of challenges.”<sup>6</sup> To attain artificial general intelligence, Boden argued that efforts of AI users is less impressive in such regard.

This was also the line of thought of John R. Searle in his work, *Is the Brain's Mind a Computer Program?*. Searle asked, could a machine think just by virtue of implementing a computer program? Is the program by itself constitutive of thinking? Searle noted that, “a fair number of researchers in artificial intelligence (AI) believe the answer to the second question is yes; that is, they believe that by designing the right programs with the right inputs and outputs, they are literally creating minds.”<sup>7</sup> Such researchers further argued that by using the Turing Test one can ascertain the fact that computers have minds. The Turing Test is the child of the brain of Alan. M. Turing one of the funding fathers of artificial intelligence.

According to the Turing test, if a computer can perform in such a way that an expert cannot distinguish its performance from that of a human who has a certain cognitive ability... then the computer also has that ability.<sup>8</sup> This idea became a source of inspiration for AI researchers to aim at designing programs that will simulate, imitate or mimic human cognition to the extent of passing the Turing Test. The aim of AI practitioners here was not just merely to create models of

<sup>3.</sup> William J. Rapaport. Will AI succeed? The “yes” position. The state University of New York, Buffalo, NY 14260-2500. <http://www.cse.buffalo.edu/2Rapaport/february12,2024>.

<sup>4.</sup> Margaret, A. Boden, *AI its nature and Future* (UK: Oxford University Press, 2016). 1

<sup>5.</sup> Margaret, A. Boden, *AI its nature and Future* (UK: Oxford University Press, 2016). 2

<sup>6.</sup> Margaret, A. Boden, *AI its nature and Future* (UK: Oxford University Press, 2016). 22

<sup>7.</sup> John R. Searle. *Is the Brain's Mind a computer program?* *Scientific America*. Vol. 262. No.1 (January 1990), p.25. <http://www.jstor.org/stable/24996641>. Accessed: 08-08-2017.

<sup>8.</sup> Scarle, 25

human mind but to make computers that will literally have minds in the same sense that the human mind is a mind.

It is important to note that not all AI scholars and practitioners agree with such an extreme position. This kind of artificial general intelligence of Margaret Boden, John R. Searle calls it “Strong AI” and distinguished it from “weak AI”.<sup>9</sup> Strong AI claims that thinking is merely the manipulation of formal symbols, and that is exactly what computer does. This view is often summarized by saying, 'the mind is to the brain as the program is to the hardware'.<sup>10</sup> This strong AI or artificial general intelligence is seen as an attempt by science and technology to anthropomorphize computers and undermine the prime of place of humans in the world. It confronts with the entire understanding of what reality is. Can a robot or computer with all its computational abilities be said to be or exist in the same way man does with mental characteristics? The computer can manipulate symbols without attaching meaning to them. The manipulation of symbols is not enough to guarantee cognition, perception, understanding, creation of language, thinking and other similar characteristics of the mind. Though computers are symbol-manipulating devices, their manipulatory act is not enough criteria for cognition and mentality in general.

### **3. An Understanding of Reality**

The primary focus of metaphysics is the understanding of reality itself. This purpose is not peculiar to metaphysics alone; science also has as its focus the understanding of reality but in a different regard. Science is primarily concerned with an understanding of physical reality. Based on this understanding, artificial intelligence can be regarded as a reality from the perspective of scientific judgment. However, the understanding of reality that is of interest here is reality as such; the fundamental reality which cannot be unraveled by practical and physical sciences. Metaphysics is the study of reality that has immaterial substance as its subject matter.

Aristotle to whom we attribute the emergence of the term metaphysics could not give us only a single account of the subject matter of metaphysics. In some context, metaphysics is for him the 'knowledge of first causes'.<sup>11</sup> What this indicates is that metaphysics considers reality that is distinct from any other discipline. Aristotle links his idea of first causes to God or the unmoved mover, the absolute reality. This is a theoretical discipline that is different from any other science. Metaphysics does not just assume the existence of things but tries to prove the reality of immaterial substance. Aristotle also tells us that metaphysics is the science that studies being qua

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<sup>9</sup>. Scarle, 26

<sup>10</sup>. Scarle, 26

<sup>11</sup>. Micheal, J. Loux and Thomas, M. Crisp. *Metaphysics: A contemporary introduction*. Fourth Edition (New York and London: Routledge Tailor & Francis Group, 2017), 2

being.<sup>12</sup> This definition makes metaphysics a universal science that studies the totality of reality. In this case the science of artificial intelligence can also be the subject matter of metaphysics. This does not reduce metaphysics to particular sciences because the way metaphysics examines these particularities is from the perspective of their being beings or things that exist; that is, what makes them what they are.

Worthy of note is that, in the medieval Aristotelian tradition, we continue to meet with this dual characterization of metaphysics; and like Aristotle, the medieval believed that, “the two conceptions of metaphysics are realized in a single discipline, one that aims both to delineate the categorical structure of reality and to establish the nature of the existence of Divine substance.”<sup>13</sup> The idea of substance is very important in the understanding of reality. The category of substance defines reality. It is the root or foundation of all other ontological categories. Ross-D. Inman, noted that, “you might roughly think of ontological categories as reality's objective classifications or groupings; the deepest joints that curve up reality.”<sup>14</sup> The major concern of Aristotle was to articulate the structure of reality as a whole. This is reality at its fundamental level, the reality that encompasses what is fundamental or true of all things that exist. The ontological categories are ultimate in the sense that they provide the most fundamental, rock-bottom answer to the classification question “what, at bottom, is it?”<sup>15</sup> This shows that whatever entity that exist belongs to a fundamental category. Reality is understood in this mode of classification as the question about the nature and essence of a thing. It means what ultimately define the thing in question and specifies what that thing is.

Reading from Aristotle's categories, one could understand that reality implies existence and for a thing to really exist it must possess the category of substance. For Aristotle, that which is called a substance most strictly, primarily and most of all – is that which is neither said of a subject nor in a subject e.g the individual man or the individual horse.<sup>16</sup> Aristotle graded substance into primary and secondary substances. However, he attached more importance to primary substance. He classified both species and genus as secondary substances. All the other things are either said of the primary substances as subjects or in them as subjects. For instance, animal is predicated of man and therefore also of the individual man. This means that primary substance must exist for a thing to be really real. If primary substance does not exist it would be impossible to ascertain the reality of a thing of things or to say it or they exist. It is unfortunate that AI researchers have failed to look in the direction of uncovering the primary substance of AI but rather make efforts to elevate its reality to that of humans.

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<sup>12.</sup> Loux & Crisp, 3

<sup>13.</sup> Loux & Crisp, 4

<sup>14.</sup> Ross, D. Inman. *What is Reality? An Introduction to Metaphysics* (Downers Grove: Intervarsity Press, 2024), 5

<sup>15.</sup> Rose D. Inman, 11

<sup>16.</sup> Aristotle. *Categories*. Translated by J. I. Ackrill. 2a13 – 2a18

In line with the argument that reality must have primary substance, W. V. O Quine argues that for a thing to exist it must have an identity. There is no entity without identity. Quine defended this claim with the following questions.

Take, for instance the possible fat man in that door-way; and again the possible bald man in that doorway. Are they the same possible man, or two possible men? How do we decide? How many possible men are in that doorway? Are there more possible thin ones than fat ones? How many of them are alike? or would their being alike make them one? Are no two possible things alike?... Or finally, is the concept of identity simply inapplicable to unactualized possible?<sup>17</sup>

What Quine indicates here is that identity defines a thing. For a thing to be it must have some defining characteristics which makes it different.

Analysing Quine's position Alyssa Ney in his book *Metaphysics an Introduction* notes that, what Quine's slogan "no entity without identity" means is that if something exists, that is, if there is such a thing, then there must be objective facts about what it is not identical to.<sup>18</sup> Identity is one of the distinctive character of reality that makes an entity what it is.

#### 4. Human Intelligence and Artificial Intelligence

One of the earliest discussions about artificial intelligence in philosophic history is traceable to Rene Descartes where he discusses in his book *Discourse on Method* the conditions required for an animal or a robot to be an intelligent being. With the advancement in science and technology in the 17<sup>th</sup> century Europe Descartes imagined what will happen if someone could create sophisticated human shape machines which resemble our bodies and can move just like us. He thought that those machines could not possess human intelligence. He provided reasons for denying that such machines could not possess intelligence. The first reason according to Morioka is that those machines cannot use complicated signs in the same way that human beings do every day. Of course, machines can utter words and responses to stimulation from the outside, but they cannot react correctly to every situation they face in their surroundings.<sup>19</sup> Machines response is based on stored data and has no capability of arranging words in different ways to reply to the meaning of everything that is said or thrown at it. The inability to arrange words to respond to new situations it encounter makes even unintelligent humans better than machines in this regard. The argument here is that for human – like robots to acquire intelligence they have to gain a universal

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<sup>17</sup> W. V. O. Quine. On what there is. Review of *Metaphysics* 2(5) 1948, 21-36. Reprinted in *From Logical point of View* (Cambridge: MA Harvard University Press, 1980), 4

<sup>18</sup> Masahiro Morioka. (Ed Artificial Intelligence, Robots and Philosophy. *Journal of Philosophy of Life* (January 2023).1

<sup>19</sup> Morioka, 1

capability to accurately react to any unknown situations that may happen in an environment.<sup>20</sup> Unfortunately, machines do not have this universal capability that even unintelligent human beings have.

Machines that perform seeming intelligent actions do not act on their knowledge, but just act on the dispositions of organs. Descartes notes that:

For whereas reason is a universal instrument that can be used in all kinds of situations, these organs need a specific disposition for every particular action. It follows that it is morally impossible for a machine to have enough different dispositions to make it act in every human situation in the same way as our reason makes us act.<sup>21</sup>

Descartes argument here is devoid of ambiguities. He made it explicit that human intelligence has a universal capability that can be applied to all surrounding situations. This is radically different from what seems to be machine intelligence which is merely a combination of abilities that are applicable only to certain situations which reflect the mind of the maker of such machines. This lack of capacity to respond to any situation a computer or robot encounters is what is famously referred to in artificial intelligence debate as the frame problem.

When John McCarthy gave the name artificial intelligence to machine behaviours that were similar to human actions, he envisages a part of computer science that will be able to design intelligent computer systems that will exhibit the characteristics that we associate with intelligence in human actions, such as understanding language, learning, thinking, reasoning, volition, free will and so on. Now, the debate is whether such computers or robots have been developed despite a huge leap in scientific advancement. The question remains whether computers can really think the way humans do or can we regard what a stored digital computer program does as thinking.

Alan Turing in his Turing Test accepted that computes will be considered intelligent if they are able to deceive their human interlocutors into believing that they are communicating with another human being for a certain number of minutes. The Turing test received so many attacks prominent among which was presented by Hubert Dreyfus. In his book *What computers cant' do*, Dreyfus wrote; “that as a matter of simple fact, not even the most highly touted AI programs should be called “intelligent.”<sup>22</sup> Dreyfus further notes that AI work rests on the false assumption

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<sup>20.</sup> Morioka, 1

<sup>21.</sup> Rene Descartes. Discourse on Method and Related writings. Translated by Desmond M. Clarke (Penguin Books: 1999), 41

<sup>22.</sup> Hubert Dreyfus. What Computers Can't do: A Critique of Artificial Reason (New York: Harper and Row, 1979), 91

that the human mind works by operating on bits of information, and performs its operations according to formal rules.<sup>23</sup> For Dreyfus this is a mistaken assumption because the mind do not operate in such a mechanical manner. Computers according to Dreyfus lack such human qualities as tolerance of ambiguity and the ability to distinguish between the essential and the unessential.<sup>24</sup> The most fundamental argument put forward by Dreyfus is that; “man is not a fact or a set of facts, but a being who creates both himself and the world of facts in the process of living in the world.”<sup>25</sup> This arguments render the Turing Test short of satisfying conditions for human intelligence.

Margaret A. Boden is of the view that significant progress has been made in scientific efforts to make computers and robots simulate human – like capacity they modeled such as vision, reasoning, language, learning and so on, but such effort has not succeeded. She noted that, “general intelligence is still a major challenge, still highly elusive. AGI (Artificial General Intelligence) is the field's Holy Grail.”<sup>26</sup> This shows that efforts at achieving AGI have not succeeded. However, this is not a denial that it will ever succeed. There are certain human qualities and mental processes that AI has not been able to model. For instance, language, creativity, volition, thought, and emotion. It is Boden's view that “if AI can't model these, hopes of AGI are illusory.”<sup>27</sup> AI has made significant process but efforts at modeling these quintessentially human areas have not succeeded.

In his bid to ascertain the possibility of AGI, Margaret A. Boden enquired, “suppose that future AGI systems (on-screen or Robots) equaled human performance. Would they have real intelligence, real understanding, real creativity? Would they have selves, moral standing, free choice? Would they be conscious? And without consciousness, could they have any of those other properties”?<sup>28</sup> Attempts to ascribe intelligence to computers and robots using the Turing Test failed. One could argue that even if a program's response cannot be distinguished from a human's, it is not enough to prove its intelligence. Boden noted that the Turing Test concerns only observable behaviour, so could be passed by a zombie; something behaving exactly like us, but lacking consciousness.<sup>29</sup> This objection implies that intelligence requires consciousness. One also wonders how an inanimate immaterial thing could have consciousness. A truly intelligent AGI would possess functional consciousness. For example, it would focus on (pay attention to, be aware of) different things at different times. A human-level system would be able also to

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<sup>23.</sup> Dreyfus, 156

<sup>24.</sup> Dreyfus, 107, 112

<sup>25.</sup> Dreyfus, 190-191

<sup>26.</sup> Margaret A. Boden. *AI its Nature and Future*, 22

<sup>27.</sup> Margaret A. Boden. *AI its Nature and Future*, 57

<sup>28.</sup> Margaret A. Boden. *AI its Nature and Future* 119

<sup>29.</sup> Boden, 120

deliberate and self-reflect. It could generate creative ideas and even deliberately evaluate them. Without those capacities, it couldn't generate seemingly intelligent performance.<sup>30</sup> All these human properties are still illusive to AGI.

## **5. Concluding Remarks**

This discussion would not have been necessary if scientists and philosophers have not exaggerated the capacity of what they call 'artificial intelligence.' If AI users and scholars had limited themselves to the computational capacity of computers, robots and other AI programs, the question of whether artificial intelligence can properly be referred to as reality acquiring the ontological properties of the real wouldn't have been necessary. Unfortunately, McCarthy and his colleagues in envisaging a possibility of artificial intelligence had in mind a computer science that will be able to develop computers that will be intelligent, exhibit certain characteristics that are peculiar to only humans such as reasoning, understanding, learning, thinking, volition and so on. This was where computer science which should be physical science entered into the field of ontology.

Having entered the realm of metaphysics that is alien to the physical sciences it becomes necessary to provide a gradation of artificial intelligence into strong AI and weak AI (John Searle) and artificial General intelligence (Margaret Boden's AGI). Artificial general intelligence or strong AI attempts to make computers simulate human intelligence. It aims at acquiring properties peculiar to only humans. Has AGI succeeded? The answer is definitely not yet.

AGI has not been able to acquire the ontological properties that human beings have. It is a reality that can be seen and felt but lacks certain categories that make a thing what it is. It lacks the category of substance that defines being. For a thing to properly exist, or be regarded as a reality it must possess what is fundamental or true of all things that exist. These are ontological categories that are ultimate and fundamental to being. It must possess the primary category of substance that underlies every reality. It is obvious that we may attribute secondary categories to AI but what is primary and makes it what it is is still elusive.

The fundamental mistake of AI users and scholars is the attempt to simulate, imitate human intelligence. Human beings are dynamic in character in such a way that computational abilities of computes cannot adequately simulate. Rationality for instance, is peculiar to human beings and AI itself is the product of this rationality and creative endeavour of humans. The creative capacity to handle several tasks at once with coordination and handle emerging challenges is only common with humans. AI has not been able to attain this level of creativity.

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<sup>30</sup>. Boden, 123

Language is another human quality that AI has not been able to develop. AI acts on data imputed in human language. Language is a potent tool for human cognition, thought and understanding. Thinking in general is couched on human language AI lacks thinking and understanding mainly because it has not been able to develop its own language but depend on human language for computation.

Attempts to elevate artificial intelligence to the level of human intelligence is an attempt at usurpation of the power of the ultimate reality (God). It is an exaggeration of human intelligence above what humans and science can do. For AGI to succeed, computers, robots and other AI programs will have to become humans. This has not been possible.

### **Bibliography**

- Robert Trappl. Impacts of Artificial Intelligence. Amsterdam: Elsevier Science Publishers, 1985.
- McCarthy, I., I. Minsky, N. Rochester and C. Shannon. A proposal for the Dartmouth summer Research Project on artificial Intelligence, 1955. <http://www.formal.standard.edu/jmc/history/dartmouth.html>.
- William J. Rapaport. Will AI succeed? The “yes” position. The state University of New York, Buffalo, NY 14260-2500. <http://www.cse.buffalo.edu/2Rapaport/february12,2024>.
- Margaret, A. Boden, AI its nature and Future UK: Oxford University Press, 2016.
- John R. Scarle. Is the Brain's Mind a computer program? Scientific America. Vol. 262. No.1 January 199Z. <http://www.jstor.org/stable/24996641>. Accessed: 08-08-2017.
- Micheal, J. Loux and Thomas, M. Crisp. Metaphysics: A contemporary introduction. Fourth Edition .New York and London: Routledge Tailor & Francis Group, 2017.
- Ross, D. Inman. What is Reality? An Introduction to Metaphysics. Downers Grove: Intervarsity Press, 2024.
- Aristotle. Categories. Translated by J. I. Ackrill. 2a13 – 2a18
- W. V. O. Quine. On what there is. Review of Metaphysics 2(5) 1948, 21-36. Reprinted in From Logical point of View .Cambridge: MA Harvard University Press, 1980.
- Alyssa Ney. Metaphysics an Introduction London and New York: Routledge Taylor & Francis Group, 2014.
- Masahiro Morioka. (Ed) Artificial Intelligence, Robots and Philosophy. *Journal of Philosophy of Life* .January 2023.
- Rene Descartes. Discourse on Method and Related writings. Translated by Desmond M. Clarke. Penguin Books: 1999.
- Hubert Dreyfus. What Computers Can't do: A Critique of Artificial Reason New York: Harper and Row, 1979.