

HEGEL'S METAPHYSICS AND THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE

Nwagbara, Rufus Godswill

Department of Philosophy, Babcock University, Ilisan
Remo, Ogun State godswillnwagbara@gmail.com,
nwagbarag@babcock.edu.ng

&

Orji, Chidi Paul, Ph.D.

Department of Philosophy, University of Agriculture
and Environmental Sciences, Umuagwo
hipaulco@gmail.com, paul.orji@uaes.edu.ng
ORCID iD: <https://orcid.org/0009-0000-2941-5398>

Abstract

The article deals with the dialectical process of G. W. F Hegel (1770/1831) in line with the development in technology leading to AI, which has as a base for his Absolute Idealism the dialectic method. However, the dialectics of Hegel do not operate mechanically, but rather act in a dynamic process, where things are not certain and are constantly changing as a result of contradictions. The historic change comes in the same sense, being the result of ideas. The dialectical movement is a constant becoming (the being is; is not; the be is the becoming), which means that thesis, antithesis, and synthesis, therefore, the synthesis becomes a new thesis, requiring a new antithesis and therefore another synthesis, a constant movement. This article it will examine the reasoning of the Dialectics in

Hegel's metaphysics. The Negation of the Thesis or Antithesis and finally the recasting of the thesis and antithesis, in the form of denial of denial in the form of a Summary of the thesis and antithesis. Such a dialectical system is the great revolution of Hegel, the role of AI in human existence, proposing a dialectic that changes reality itself, and also human nature, which is no longer standing as a result of AI. This paper discusses the history of Artificial Intelligence (AI). It traces the development of machines that imitate human intelligence. This paper discusses its formal establishment as a field from antiquity to the 1950s. Over the past decade, AI has set milestones by making significant advances. It has led to advances in areas such as symbolic logic, machine learning, and neural networks. AI evolved again in the 21st century with advances in computing and algorithms. Today, AI affects a variety of fields, including healthcare, finance, and robotics. This paper highlights AI's development, major achievements, and its profound impact on technology and society

Keywords: Dialectics, Hegel, Metaphysics, Artificial Intelligence

Introduction

Georg Wilhelm Friedrich Hegel (1770-1831) is one of the greatest thinkers in the history of Western philosophy. Hegel claimed that his system of philosophy represented a historical culmination of all previous philosophical thought. His overall

encyclopedia system is divided into the philosophy of Logic, the philosophy of Nature, and the philosophy of Spirit. Of most enduring interest are his views on history, society, and the state, which fall within the realm of Objective Spirit known as *Geist*. The dialectics can be described as the art of dialogue and discussion. All dialogs present a discussion because of the natural emergence of a confrontation of ideas, where a thesis is defended and contradicted thereafter. Being at the same time, a discussion where you can appreciate and defend the concepts involved. The dialectic arose from practical form in ancient Greece (*dialektike*), however, do not know precisely what was the creator of the term and technique (*tekne*) of rational discourse. In Hegel, the dialectics moves originally in three phases, the first phase of the thesis that generates an Antithesis that gives arise a Synthesis, which is higher and overcomes the two previous categories. This article will address the development of Artificial Intelligence in relation to constant change in relation to Hegel's Dialectics, which deals with his metaphysics. Hegelian dialectic is the historical reality of humanity from the oriental civilizations up to the modern concepts of the State; it will analyse the applicability of the division of Hegelian dialectic in correlation to the Thesis, Antithesis, and Synthesis. Being the Synthesis of a representation of the overrun of the contradiction.

Metaphysics and the Dialectic in Hegel

Metaphysics is one of the branches of philosophy that deals with the study of ultimate reality. It studies in-depth the basic assumption underlying the reality of all things. It enables us to have a better grasp of the notion we use in describing what is real and consequently improves our knowledge of the nature of reality.

Metaphysics can be subdivided into two. They are:

- a. Idealism: This is the doctrine that only “ideas” exist. Philosophers who believe in this doctrine are called the idealists. Idealism has a very long history in the life of philosophy. It dates back to the Platonic era, and Plato was an idealist. Plato believed that only ideas or forms constitute realities. Idealism is opposed to realism. The realists are the adherents of the notion that what exists are the material or physical objects. To the idealists, material objects are unperceivable. They are perceivable only when such objects are reduced to ideas. For them, material objects are bundles of ideas.
- b. Materialism: this is the doctrine that material things exist; it upholds that an object is real. Aristotle is a classic example of a materialist. Anybody who is a scientist is a materialist. The materialist believes in

experimental and empirical investigation
of nature.

Hegel was the philosopher who invented a method of argumentation for the resolution of conflicting situations, the dialectics. Simplifying, the basis of Hegelian dialectic says that reason cannot understand anything unless it can be divided into two opposite forces. Good and Bad, Right and Wrong, Left and Right, which means always in two moments, hence Hegel proposes a third time, the Synthesis. To have made the commencement and later founded the synthesis as the third moment of the dialectics, Hegel is projected as the mentor of modern dialectics. The reality of contradiction continues setting up a truth that can destroy the substance of reality, yes. "The being" (Sein), something that has order (finite in itself) is to open the Pandora's box that establishes the prelude to the destruction; because at the moment there is the birth is also the moment of his death, because everything is moving to the chaos by the shock of reality contrary, synthesis and antithesis being because the antithesis the source of all movement and of the whole of life" in Hegel. It means that life is a synthesis of the moment in which they are born until the moment that they die, and the interval (the best) between the two is Life (Sucupira, 1983, p. 68). The dialectic in Hegel cannot be defined simply as a friction of denial and affirmation, because the reality phenomenon understood by the human senses cannot withstand the

shock of the continuous variation of perceptions. Between the positivity of the thesis and the negativity of the antithesis, there should be an alternative, conciliatory synthesis. In Hegel's view, it is the synthesis of all that is good in theory and what is good in antithesis. It should be pointed out that the dialectic is not only affirmation and its opposition, because reality can also conceive of the consensus. You can postulate that synthesis is the beginning of a new process, triadic Hegelian, i.e., it will become a new thesis that you will find an antithesis and subsequently a new synthesis.

The key to understand the dialectics is the dialectics, becoming, and not being grounded is the bypass juvenile hall by enrolling: "is the real issue is not exhausted by stating it as an aim, but by via it out, nor is the result the current whole, but rather the result together with the process through which it came about" (Hegel, 2002:26-27). The existence of a type of government or society, called Thesis, will lead to the appearance of the opposite of this kind of government or society, which Hegel called Antithesis. The thesis and antithesis, of course, start to battle against each other, because systems are precisely opposite and, therefore, have different visions of the world. If the thesis and antithesis 1980's for a long period of time, without which no hand annihilates the other, this battle will result in both sides changing to a hybrid system of government and society, which Hegel called Synthesis. Hegel seeks support in the

history of humanity, the moment's dialectic. According to Hegel (1770/1831), the trajectory of dialectics meets a history marked by three moments: thesis, antithesis, and synthesis. The first time dates back to ancient civilizations. I believe that the spirit (Geist) is intrinsic in nature; Hegel classifies it as objective. The second time, the influence of the Greek peoples, but it starts really with the spread of religion. Hegel defines it as subjective. The spirit is replaced by the desire for freedom from the awareness of their existence. The third time, called by Hegel's synthesis of absolute, begins with the French Revolution, at which time the spirit consciousness controls nature. There appears to be a modern State, from the desire for freedom. To understand this logic that permeates the thought and reality, Hegel seems to indicate that the movement is based on contradiction, possibly understanding the reality and the thought itself. For Hegel, the science of being should coincide with the science of thought. The sense of being (thesis), which should manifest through the non-being (antithesis), culminating in come-to-be, as the dialectical moment detailed below:

The dialectical, taken for themselves by understanding separately, is the scepticism, especially when it is shown in scientific concepts: the scepticism contains a simple denial as a result of the dialectic. The dialectic is usually considered as an art outside, which, on a whim, is confusing in certain concepts, and a simple appearance of contradictions

between them, that would not be a nullity these determinations and this appearance; and the opposite would be true. In his determinative peculiar, dialectics is before the nature and truth of determinations of understanding of things and finite in general. The reflection is before all the excess on the determinability isolated, and relates this latter aspect by which it is implemented in the relationship, although being maintained in its value alone. The dialectic, on the contrary, is overcome immanent in that unilateralism, the limitation of determinations of understanding, is exposed as it is, that is, as its denial. All the finite is this *suprasumir* himself. The dialectic is therefore the soul drive of scientific progress; and it is the only principle by which the contents of science connect, and the need intrinsic, as well as the dialectic in general, lies the true elevation, not outside, on the finite (Hegel 1995: 162-3).

In each moment of dialectic, there are some modern sciences. In the first stage is mathematics, taking as an initial point the assumption of the universality of being or the becoming, the pure idea (thesis). Then, develop and create the more general notion of being, which comes to its opposite, the non-being, which is the idea sold, the private world of conscience that meets the synthesis of both, known as Spirit (Geist), the idea that takes account of itself through nature. In the second stage, the object of the philosophy of nature is representation outside of itself (antithesis). The idea got multiplied in several

ways that become antithetical, as observed in the sciences that take care of the mechanical (and space), physics (bodies), and organic (life). In the second stage, the object of the philosophy of nature is representation outside of itself (antithesis). The idea got multiplied in several ways that become antithetical, as observed in the sciences that take care of the mechanical (and space), physics (bodies), and organic (life).

On the third time dialectic, meet the pure idea (thesis) and the Nature (antithesis), that is, object and the subject, forming the philosophy of Absolute Spirit that is manifested nomadically as a philosophy of the spirit, and is divided in Spirit Subjective (individual emotion, desire, imagination) a form of the thesis and the antithesis, the so-called Spirit Objective, which manifests itself in collective will through the morality and takes place in culture, which becomes formalized in objects of the Law, Politics. It should be noted that the synthesis of Subjective Spirit and Objective Spirit culminates in Absolute Spirit

AI In Relation To Hegel's Dialectics

Many people believe in the possibility of artificial intelligence: they think it is possible to produce intelligence just by programming a computer in the right way. Artificial intelligence might only be possible in a sort of robot. 'Artificial intelligence' normally means electronic intelligence, not biological intelligence created artificially, as with Dr.

Frankenstein's monster. It is usually assumed that to know whether artificial intelligence is possible, the author needs only to think about the nature of mental phenomena in themselves. An artificially intelligent being would have to have some nature or other. In order to assess the possibility of artificial intelligence, they need to know something about the nature of thought and consciousness in themselves, but also something about the nature of thinking and conscious beings. Friends of artificial intelligence who believe that artificial thinkers would be material things will need a solution to this problem

The roots of AI can be traced back to the Second World War, when computers began undertaking complex tasks that were once the exclusive domain of human operators. This marked the inception of a tenuous link to human intelligence. However, the AI of that era was vastly different from the sophisticated systems we witness today. The idea of "artificial intelligence" dates back thousands of years to ancient philosophers pondering questions of life and death. In ancient times, inventors created things called "automatons" that were mechanical and moved independently of human intervention. The word "automaton" comes from the ancient Greek language and means "acting of its own accord." One of the earliest records of an automaton comes from 400 BC and refers to a mechanical pigeon built by a friend of the philosopher Plato. Years later, one of the most famous automatons was created by

Leonardo da Vinci around the year 1495. So while the idea of a machine being able to do things on its own is ancient, for this article, we're going to focus on the 20th century, when engineers and scientists began to move toward our modern AI.

The appearance of consciousness in the world is an amazing and puzzling fact in its own right. Indeed, consciousness is one of the most mystifying features of the cosmos. The unity of consciousness is something that cries out for analysis and explanation in its own right. Perhaps more than anyone else in the literature, Tim Bayne and David Chalmers have done the most careful thinking about the unity of consciousness, although Bayne is the chief current thinker on these matters. More than anyone else, William Hasker has championed this argument for substance dualism. This is just a brute assertion, and, indeed, an assertion that he needs to avoid substance dualism. The first reason that the unity of consciousness is a problem is the simple fact that it is an interesting set of philosophical problems in its own right. But there is a deeper and more pervasive problem lurking in the neighborhood.

The Collaboration Problem is the problem of accounting for how a bundle of ultimate physical constituents (UPCs) can coordinate their causal efforts, so as to manifest their collective consciousness-generating power. The Threshold Problem is the problem of describing the types and degrees of

complexity that a system has to exhibit in order for its constituent UPCs to jointly manifest their consciousness-generating power. After several decades of active, scientific research on the biological correlates of consciousness, a broad consensus exists only with respect to a few general claims. Hence, the ontological emergentist about phenomenal states must be an emergent dualist rather than an emergent materialist. Many empirical theories of consciousness, especially of the latecomer variety, start from the idea that consciousness plays the role of integrating otherwise functionally separated cognitive processing in the brain. Consciousness sure seems to come in a much more primitive form than the raw feel of perceptual sensation, emotion, bodily pain and pleasure, and so forth. Most philosophical discussions on human consciousness begin with two frequently made confessions, namely that consciousness is (a) deeply familiar and (b) deeply mysterious. David Chalmers describes it as follows: Conscious experience is at once the most familiar thing in the world and the most mysterious. There is nothing we know about more directly than consciousness, but it is far from clear how to reconcile it with everything else we know [...]. We know consciousness far more intimately than we know the rest of the world, but we understand the rest of the world far better than we understand consciousness.

Groundwork For AI (1900-1950)

In the early 1900s, many media were created that centered on the idea of artificial humans. So much so that scientists of all kinds began asking the question: Is it possible to create an artificial brain? Some creators even created versions of what we now call "robots," although most of them were relatively simple. These were powered by steam for the most part, and some could make facial expressions and walk.

Dates of Note

1929

Japanese professor Makoto Nishimura created the first Japanese robot, named Gakutensoku.

Birth of AI

Dates to Note

1921

Czech playwright Karel Čapek released a science fiction play, "Ross's Universal Robots" that introduced the idea of "artificial people" he called robots. This was the first known use of the word. 1949: Computer scientist Edmund Callis Berkeley published the book "Giant Brains, or Machines That Think," which compared new models of computers to the human brain. This was the time when interest in AI really came to a head. Alan Turing published his work "Computing Machinery and Intelligence," which eventually became the Turing Test, which experts use to measure computer intelligence. The term "artificial

intelligence" was coined and came into popular use. 1950: Alan Turing published "Computer Machinery and Intelligence," which proposed a test of machine intelligence called the Imitation Game. 1952: A computer scientist named Arthur Samuel developed a program to play checkers, the first program to learn the game independently. 1955: John McCarthy holds a workshop at Dartmouth on "artificial intelligence," the first use of the term, and how it came into popular use.

AI Maturation

The period when the term "artificial intelligence" was coined, and the 1980s, was a time of both rapid growth and struggle for AI research. The 1950s to the late 1960s were a period of composition. From programming languages that are still used today to books and movies that explore the idea of robots, AI quickly became a mainstream idea.

Conclusion

AI has been able to give answers to most human questions, covering every sphere of life. A pivotal milestone in the evolution of artificial intelligence is arguably marked by the development of Generative Pre-Trained Transformers. The history of artificial intelligence (AI) reflects humanity's quest to replicate and enhance cognitive abilities. From ancient myths of mechanical beings to the formal inception of AI in the mid-20th century, advances in computing and algorithms have fueled its evolution. Landmark

achievements include Alan Turing's foundational theories, the development of expert systems, and the rise of machine learning and neural networks. Today, AI drives innovation across industries, solving complex problems and transforming daily life. While its progress raises ethical and societal concerns, the history of AI underscores our relentless pursuit of understanding and augmenting human intelligence. It also performs various natural language processing tasks, answers questions, composes essays, creates poetry, and engages in conversation, among other applications.

References

- Kanu, A. I., Addidi, T. & Kanu, C. C., "Artificial intelligence and cybercrime in Nigeria: Towards an Ethical framework". *Dialogue and Universalism*. 32(1) 143-158, 2024.
- Kanu, I. A. (2020). "Igwebuiké philosophy of science and technology". *Nnadiebube Journal of Education*. Vol. 5. No. 4, pp. 64-74.
- Kanu, I. A. and Ndubisi, J. O. E. (2022). "Artificial intelligence and socio-economic development in Africa". *OCHENDO: An African Journal of Innovative Studies*. Vol. 3. No. 1. pp. 2-21.
- Onyiah, S. C.; Ndubisi, J. O. E; Kanu, A. I. (2024). "Navigating the Ethical Implications of

- Artificial Intelligence through Carol Gilighan's Ethics of Care." *Aquino Journal of Philosophy*. Vol. 4. No. 2. pp. 1-12.
- Kanu, A. I. & Okpokwasili, O. A. (2025). "Artificial Intelligence and Digital Colonialism in Africa." *International Journal of Intercultural Values and Indigenous Ecoethics*. Volume 5. Number 2. 14-24.
- Hegel, G. F. (2002). *Phenomenology of Spirit*. São Paulo: Voices.
- Hegel, G. W. (1999). *The thinkers - Aesthetics: The idea and the ideal - Aesthetics: The Beautiful, artistic, or Ideal*. São Paulo, Brazil: New Cultural.
- Hegel, G. W. 1969. *Text's dialectic*. (D. Menezes, Trad.) Rio de Janeiro: Editora Zahar.
- Sucupira, E. (1983). *Introduction to dialectical thinking*. São Paulo: Alpha-Omega