

Article

Artificial Intelligence and an Anthropological Ethics of Work: Implications on the Social Teaching of the Church

Justin Nnaemeka Onyeukaziri 

Fu Jen Academia Catholica/Center of Holistic Education, Fu Jen Catholic University, New Taipei City 242062, Taiwan; jonyeuka@gmail.com

Abstract: It is the contention of this paper that ethics of work ought to be anthropological, and artificial intelligence (AI) research and development, which is the focus of work today, should be anthropological, that is, human-centered. This paper discusses the philosophical and theological implications of the development of AI research on the intrinsic nature of work and the nature of the human person. AI research and the implications of its development and advancement, being a relatively new phenomenon, have not been comprehensively interrogated in the social and ethical teachings of the Catholic Church. This paper, therefore, proposes a path for this interrogation by expounding a discourse which is believed to be epistemically helpful in the developing discourse of AI in the ethical and social teachings of the Church. The advancement in the research on AI is not only redefining the meaning of work, but, even more so, it is questioning the metaphysical notion of the human person and the theological notion of work as an intrinsic part in the selfhood and dignity of the human person.

Keywords: artificial intelligence; anthropology; theology; meaning and ethics of work; philosophy; social teachings of the Catholic Church



Citation: Onyeukaziri, Justin Nnaemeka. 2024. Artificial Intelligence and an Anthropological Ethics of Work: Implications on the Social Teaching of the Church. *Religions* 15: 623. <https://doi.org/10.3390/rel15050623>

Academic Editors: SimonMary Asele A. Aihokhai and Fábio Py

Received: 2 February 2024

Revised: 14 March 2024

Accepted: 16 May 2024

Published: 20 May 2024



Copyright: © 2024 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

The human person exists in a society. Every society has a form of political economy or a combination of different political economies. Every political economy is sustained by a given science and technology. The science and technology practiced in a society greatly determine the kind of work and availability of work in that society. Today, the prevailing economy, globally, is a capitalist economy, and the leading science and technology is the research and development of artificial intelligence (AI). Capitalist economy, no doubt, has increased the wealth of nations and has also brought economic flourishing to many people. However, one could argue that it has caused the human person to seek work merely as a means of economic survival, thus stripping from work its value as a good that is intrinsically connected to the nature and dignity of the human person. This devaluation of work as merely having economic survival for its end, one could argue, is increasingly resulting in the distortion of both the meaning and the ethics of work. Modern science and technology have been fundamental tools in the advancement and sustainability of the capitalist economy, as is evident in the increase in digital technology companies and entrepreneurship. As argued by Robert Heilbroner (1997), technology is a strong socio-political force within capitalism and not merely a reason for material change. From a socio-historic analysis, he establishes a strong connection between technology and capitalism. This connection between technology and capitalism is also examined by Tony Smith (2010). The good and bad in the connection between technology and capitalism in respect to the human person and human society will doubtlessly continue to be strengthened with AI technologies. Although the utilitarian nature of modern science and technology has resulted in the creation of more economic opportunities, it could be argued that it has resulted in the continuous estrangement of the human person and the increasing fragmentation of human society. The consequences have

obviously been the mere monetization of work, the mere consumerization of the outputs of work, and the mere commercialization of human creativity and innovation. These consequences de-emphasize the intrinsic value of work, and when there is devaluation of work as a human act with an intrinsic meaning, both the morality of the worker and the ethics of work and the workspace are always put in precarious situations.

Hence, the compulsion for the automation of the economic environment, especially that of the workspace, has resulted in the advancement in the research and development of diverse automated systems, with AI systems at the center. Today, not only is the economic environment experiencing an advancement in digitalization and automation, but the workers in the workspace are also becoming increasingly automated. This vision of digitalization and automation no doubt increases productivity, and some people will argue that it has increased work efficiency. However, the question is: Has it increased the intrinsic value and dignity of work and the human person? This anthropological question of work, mostly, is not the main question that drives technological and economic innovation; hence, properly speaking, this is a question for the Church to always raise and to provide well-articulated reflections upon. The advancement in AI has huge implications on the philosophical and theological notion of the human person and human society in general. AI is not only redefining the meaning and ethics of work, but more so, it is questioning the metaphysical notion of the human person and the theological notion of work as an intrinsic part in the selfhood and dignity of the human person. This is the general aim of this paper: to expose the possible implications of the development of AI on the selfhood and dignity of the human person in respect to the social teachings of the Catholic Church. Thus, this paper makes a case for a systematization of the meaning of work in the Church's social teachings in view of the advancement and development of AI. This paper is aware of a number of studies being carried out on human-centered AI and AI ethics research (see [Bostrom and Yudkowsky 2014](#); [Onyeukaziri 2023a](#)), but these studies are not the focus of this article *per se*. The focus is delimited to the development of AI research and design in relation to the social teaching of the Catholic Church.

2. General Exposition on Artificial Intelligence (AI)

Since the time of ancient Greece, artifacts or machine metaphors have been employed to describe the human person or to explain the swiftness and precision of the human mind or brain. However, a substantial effort to make a systematic claim not only that machines or digital computers have minds but that the human mind, *per se*, is a discrete computer, was made by Alan M. Turing. In his famous paper ([Turing 2004](#)), he raises the question: "Can machines think?" Are there imaginable digital computers which will or could execute the same behaviors for which a human person would require intelligence in order to execute? This question and its different forms, raised by Turing, provoked different avenues of research among researchers in fields that include mathematics, computer science, logic and philosophy, neurophysiology, engineering, and psychology that culminated in a workshop in Dartmouth in 1956 where the nomenclature and the science of artificial intelligence (AI) was officially initiated. The key participants and contributors in the conference were Allen Newell and Herbert Simon of Carnegie Mellon University, John McCarthy of Stanford University, and Marvin Minsky of the Massachusetts Institute of Technology. Specifically, it has been stated that the term "artificial intelligence" was initiated by John McCarthy during the workshop ([Franklin 2014](#), p. 18). Since this workshop that initiated the independent or particular science of AI, many other conferences, journals, and reviews devoted to AI have been organized and published.

Due to the interdisciplinary nature of AI, it is not very simple to define nor to delimit the scope of AI. AI has its technological or engineering part and its scientific (and/or cognitive) part. AI can be generally defined as the science and technology that devote themselves to the design and production of artifacts that can imitate or replicate the cognitive powers of the human person, having intelligence as the paradigm of all cognitive states. The goal of researchers in AI has been defined based on either producing artifacts

that imitate the human mind (artificial narrow intelligence, ANI) or producing artifacts that can replicate the human mind (artificial general intelligence, AGI) or that can supersede the human mind (artificial super intelligence, ASI). This can also be seen in John Searle's (1990) famous distinctions of AI into two kinds, namely "weak AI" and "strong AI".

A reinterpretation of John Searle's (1990) distinction between "weak AI" and "strong AI", in the simplest way possible, can be stated as follows: when AI researchers produce a computer or any other artifact, as a tool that gives us insights and helps us to understand the way that the mind possibly works, it is "weak AI". On the other hand, when AI researchers squarely aim at producing a computer or any other artifact (for instance, a robot) that executes cognitive behaviors such as those that the average human mind can perform, it is "strong AI". So, "weak AI" is a tool for the mind, "strong AI" is a mind or intelligent system; "weak AI" imitates the mind, "strong AI" replicates the mind. Thus, "strong AI" is also called AGI, since it is aimed at producing human-level intelligence that does not focus on dealing with a specific cognitive problem. Opinions are divided on whether or not the development of "strong AI" is possible. Turing, who initiated the question, said it is possible. But philosophers like Hubert Dreyfus (1992) and John Searle (1990, 1997, 2002) categorically maintain that it is not possible, whereas philosophers like Hillary Putnam (2012) and Daniel Dennett (1990, 1991) maintain that it is possible.

This paper, though claiming that "strong AI" is not possible, maintains that the research in AI, both as "weak AI" and "strong AI", has implications for the notions of the human person and work as expounded by the social teachings of the Catholic Church. It argues that both "weak AI" and "strong AI" at least challenge, if they are not completely contrary to, the intrinsic relationship between work and the nature of the human person, as maintained in the social teachings of the Catholic Church. Onyeukaziri (2023b) argues that "the science and research in AI and neuroscience have the strongest implications on the Church's notion of the human person. This is because it is on them that most of the other human and social sciences are established or inspired since they raise fundamental questions concerning the notion of person". Hence, Onyeukaziri (2023b) argues for the need for a new Christian philosophical and theological anthropology (neuro-theological Christian anthropology) that seriously interrogates and employs concepts and categories of contemporary research in AI and neuroscience, such as that of the neuroscientist John C. Eccles (1980, 1985, 1989), who maintains neuroscientific arguments that support a dualist substance mind-body theory of the human person. He contends that the traditional Christian, especially Catholic, anthropology that is systematically framed in the Aristotelian-Thomistic metaphysics of person is no longer sustainable today, since contemporary science and philosophy are raising new fundamental questions that challenge traditional philosophical anthropology.

3. Social Teachings of the Church and Anthropological Ethics of Work

The Church, for the believers, is the community of the people of God established by Christ Jesus in this world, living under the inspiration, power, and fellowship of the Holy Spirit. Being in the world, the members of the Church, like every human being, are rational and social beings; thus, they interact and engage within the cultural, social, and economic realities of the societies and nations where they exist. Hence, it is not surprising, but pertinent, that the Catholic Church, not only on matters of faith and revelations, has also always assumed her role as teacher and mother in enacting doctrines and laws in guiding and nurturing the moral and social lives of her members. Hence, there are dogmatic teachings of the Church, but there are also moral teachings and social teachings of the Church. These teachings, whether dogmatic, moral, or social, are always necessarily inspired by the sacred scriptures and grounded in the sacred traditions of the Church under the faithful interpretation of the sacred magisterium of the Church.

The social and moral teachings of the Church, like every other social and moral discourse, are intrinsically connected. The intrinsic connection of the social and moral teachings of the Church is grounded in the fact that both concern the human person; that is

to say, both are discussed with a personalistic and anthropological intent. For the human person is, by nature, a social and moral being. The Council Fathers on the discourse on the socio-economic life of the people of God, state the following: “In the socio-economic realm, too, the dignity and total vocation of the human person must be honored and advanced along with the welfare of society as a whole. For [hu]man is the source, the center, and the purpose of all socio-economic life” (Abbot 1966, *Gaudium et Spes* n. 63). The conception of “the dignity and total vocation of the human person” is a distinctive character of the Church’s social and moral teachings which depends substantially on the Catholic Church’s specific notion of the human person as that being which is created in the image and likeness of God (*imago Dei*).

Also, from the above statement of the Council Fathers, it is important to note that the ultimate end of all socio-economic life (by implication, all factors of, and for, all socio-economic activities) ought and should be towards the human person as “the source, the center, and the purpose”. So, the important question to ask in respect to this paper is the following: is AI research and development aimed at the human person as its source, center, and purpose? This question is important in the exposition of the reimagining of the social teaching of the Church in respect to the development of AI research and the ethics of work. Simply put, it is the contention of this paper that an ethics of work ought to be anthropological, and AI research and development, which is the focus of work today, should be anthropological, that is, human centered. To this end, the social teaching of the Church today should pay conscientious attention to the development of AI research and provide an interrogating voice, inspired by the spirit of the Gospel, on how and why research and development of AI should aim at the human person as its source, center, and purpose.

Pope Francis (2023), in his message on the World Day of Peace of 1st January 2024, has taken an important step by highlighting critical relationships between AI development and global peace. In rightly describing AI as “a galaxy of different realities”, he makes a serious case for an anthropological discernment in the designing and creation of AI systems and also states certain cogent ethical issues that could arise when there is no conscientious commitment to anthropological discernment and efforts to maintaining global peace in AI development and usage. Following this message is another AI-related message for the 58th World Day of Social Communication (Pope Francis 2024), to be celebrated on 12 May. The topic is “Artificial Intelligence and the Wisdom of the Heart: Towards a Fully Human Communication”. In this second message, in respect to the rapid spread in AI development and design, the Pope maintains the following: “This leads inevitably to deeper questions about the nature of human beings, our distinctiveness and the future of the species *homo sapiens* in the age of artificial intelligence”.

In his two messages, it is obvious that the Pope strikes all the right chords in respect to critical ethical problematics and socio-anthropological implications concerning present and possible future AI research and development. The only major point that needs further advancement is that the Pope seems to be asking certain institutions different from (or outside) the Church to be committed to designing and developing AI systems that are anthropologically, socio-personally, and ethically based. He seems to be asking AI scientists, technologists, businesspersons, and political leaders to ensure an ethical and human-based AI. Most of these institutions are not primarily moved by moral and ethical considerations in their motivations and decisions in AI research and development. They are either motivated by epistemic curiosity, profit maximization and optimization, political domination, or political correctness. It is the Church that sees herself as a moral conscience and ethical discerner grounded in the conversion experience toward the Gospel of Christ that can take up leadership in the development of an anthropologically based ethical AI. Earlier in 2020, before these two messages, the Church had written a document calling for ethics in AI entitled “Rome Call for AI Ethics” (Pontifical Academy for Life 2020), where she spells out six principles for the ethical use of AI: transparency, inclusion, responsibility, impartiality, reliability, and security and privacy. Therefore, it seems proper for the Church not to see

herself, or act, as a passive agent in the actual research and development of AI systems. The Church could encourage her members to be actively involved in the entire web of AI research development through her many educational and research institutions, following and applying the principles for the ethical use of AI mentioned above.

Thus, more needs to be done in expounding a detailed and comprehensive social and ethical teaching in proposing a clear direction for a personalistic and anthropology-based AI research and design. For example, Catholic Christians should be strongly encouraged to participate actively in the study, research, and design of AI systems in such a way that AI systems with personalistic and anthropology-based intelligence could also be designed. Catholic philosophers and theologians could be encouraged to engage in committed research in the general field of the science and technology of the artificial, which comprises AI, artificial life (A-Life), robotics, and so on, in such a way that they can be active in providing an informed epistemic framework based on the logic of the Gospel of Christ. For example, research in the philosophy of AI, philosophy of artificial life, philosophy of neuroscience, and related areas of contemporary research should be a serious area of research in Catholic research institutions.

Christian personalistic and anthropological philosophy and theology is revelational based on the notion of the *imago Dei* (Onyeukaziri 2022). Hence, it is important to philosophically unpack the theological claim that the human person is created in the image of God (*imago Dei*), especially as it relates to work. The theological (or revelational) claim that the human person is created in the image and likeness of God is explicitly referenced in the first book of the Bible, the book of Genesis.

In Genesis 1: 26, the Scripture says, “and God says let us make the human person in our image and likeness”. However, of the different theological interpretations of the revealed text that the human person is created in the image of God, one metaphysical inference that will be true is that if to be God is to be divine, it follows that the human person necessarily shares in the divine nature of God. The image and likeness of God must be necessarily divine, and therefore, human persons having been created in the image of God, it is implied that there is necessarily divine property in the nature of the human person. Based on the metaphysical deduction that there is necessarily divine property in the nature of the human person, Christian philosophical anthropology essentially asserts the dignity of the human person.

The dignity of the metaphysical being that is distinguished as human lies in its being a person (*persona*). Hence, the human person, from creation, is placed in a unique position in the universe and before God the Creator. Therefore, the dignity of the human person should not be seen only in its relation to nature and the works of its hands but, more importantly, in its relation with God the Creator. Since culture, society, religion, ethics, positive laws, economics, commerce, science, and technology are all products of the human person, the human person should not be seen or employed towards them, but, rather, they should be in the service of human dignity and flourishing. To this end, Karol Wojtyła (1993) contends that the human person is not merely *homo sapiens* and *homo faber*, but more so, that the human person is that which is in the *imago Dei*. It is thus, in the notion of the human person as being in the *imago Dei*, that the dignity of the human person truly is.

Every individual human being, as *persona*, enjoys this dignity in his or her selfhood. The selfhood of a person is that which fundamentally distinguishes a human person from another human person (Wojtyła 1979). It is substantially defined by a person’s subjectivity, but it is not completely reduced to a person’s subjectivity because of the image and likeness of God in every individual person. This line of thought is sustained in John F. Crosby’s (1996) exposition on the distinction between subjectivity and substantiality as it relates to the selfhood of a person.

Furthermore, the Scripture, in Genesis chapters one and two, informs us that God, after the act of creation, placed the human persons Adam and Eve in a paradise. Most comprehensively, a paradise signifies a place without privation or defects needed for human survival and flourishing. However, in Genesis 1:28, God ordered the human persons in

the paradise to work: “Be fruitful and increase in number; fill the earth and subdue it”. In other words, God ordered humans to manage and care for the paradise. Though Adam and Eve lacked nothing necessary for survival in the paradise, they, however, had to work. This shows that the end of work is not merely to survive or to make ends meet, as it is generally conceived today. This demonstrates that there is a substantial relation between work and human nature. There is a relation between rationality and work. Work is a rational activity; it is an act of human free will and consciousness. Hence, work is not an *actus hominis* (act of man) but an *actus hominus* (human act). Animals, such as bees and birds, can produce things, such as a nest, but in its proper sense, they cannot be said to have worked. This is because work is an act of rationality. Work is necessarily related to society; work is possible because there is a society of human persons. Work is also related to speech or language in general; work is possible because humans have the capacity for language. Work is conceived in the mind, communicated in language, and executed by an act of the will through the instrumentality of the body.

This implies that there are moral implications in work because work is not only related to the human person as a social being but, more so, because work is related to human nature in its image and likeness to God. This demonstrates that work is related to human dignity, and, therefore, there is dignity in work. The workspace is an ethical space because work brings human persons into an interaction that necessarily implies moral oughtness and ethical judgments. Through working, a person dignifies him or herself; through working, a person reveals oneself ethically or morally as a good person or a bad person. It is in the space of work, the paradise, that Adam and Eve disobeyed God by their power of free will. The dignity of work was corrupted when humans, Adam and Eve, disobeyed the order of God (Genesis 3). The disobedience of humans becomes the beginning of work as drudgery, something painful and suffering to bear in order to survive (Genesis 3:17-19). When work is disconnected from the divine plan and order, it becomes a curse, a painful toil; it provides no real satisfaction and no true fulfillment, for it produces “thorns and thistles”.

The “Compendium of the Social Doctrine of the Church” (Pontifical Council for Justice & Peace 2004), in reflecting on *Human work*, also begins from the scriptural account of the book of Genesis. It asserts that God the Almighty Creator created the human person in His image and likeness (n. 255) and that work is a part of the original state of the human person (n. 256); it recognizes that work has an exalted position in human nature (n. 257); it reminds us that in relation to work, there is need for the Sabbath rest (n. 258); it challenges us that God incarnate—Jesus Christ also worked, and took work seriously, not because he had a lack but because it is necessary to work (n. 259–263); it maintains that to work is divine duty for the glory of God and for the good of humankind (n. 264–266); it, more so, states clearly the prophetic duty of Christians to defend the dignity of work and the dignity and right of every person who has the capacity to work to have work to do (n. 267–300); it clearly maintains that the rights of workers must be always defended and protected (n. 301–304); and it expounds on the care of persons in their working communities and the importance of workers’ associations (n. 305–309).

This notion of person and work exposed above is central in the Catholic Church’s view of a true and just political economy. The grounds for the Catholic Church’s critique of communism, socialism, and capitalism and their different shades is how faithfully they uphold and sustain this notion of person and work. The ultimate end of political economy must be for the common good and for the happiness of the people, not only as a collective whole, but, more so, for the happiness of every individual person. Hence, any economic system that does not serve the common good and uphold the dignity of the human person is considered inimical and should be resisted with a prophetic courage. Any economic system that objectivizes the human person and exploits the human person as a mere means to any end is severely condemned. Thus, the “Compendium of the Social Doctrine of the Church” on *Economic Life*, emphasizes the intimate relationship between morality and economy: that the economic life must be in the service of all persons (n. 330–335). It also

maintains that any economic system that alienates the human person is not in the service of the human person (n. 346–350).

4. The Implications of the Research in AI on the Selfhood and Dignity of the Human Person

The science and technology practiced in a society greatly determines the kind and availability of work in that society. This shows that there is an intrinsic relationship connecting political economy, science–technology, work, and the human person. There is a mutual influence between political economy, science and technology, work, and the human person. A novel scientific and technological invention can lead to a new political economic system and change the kind of work and availability of work in a society, which, in turn, will have a great impact in the existence of the persons in the society.

This paper claims that both senses of AI—“weak AI” and “strong AI”—are problematic and, thus, have challenging implications on the selfhood and dignity of the human person. While the implications of “weak AI” on the selfhood and dignity of the human person are indirect, the implication of “strong AI” on the selfhood and dignity of the human person could be said to be direct. On the other hand, while “weak AI” in relation to the human person has more economic and sociological implications, “strong AI” has more philosophical and theological implications. This is because while “weak AI” posits challenges to, or is conceived to compete with, the human persons in the available jobs to work, “strong AI” posits challenge to the definition of the human person *per se*.

Regarding the implication of “weak AI”, the questions in many minds are the following: what will happen as more “weak AIs” are developed to take over the work humans do? What will be the nature of the ethics of work in a human–AI systems workspace? This is considering the fact that AI systems are not only developed to do the work that humans can do, but they are developed to do human work in a more efficacious manner—with better precision and speed and with little or no risks involved. In the words of two computer scientists, [Newell and Simon \(1990\)](#), “we build computers and programs for many reasons. We build them to serve society and as tools for carrying out the economic tasks of society”. This being the case, what happens when certain humans build computers and design AI programs based on dark aspects of human concupiscence and moral degradation, such as racism, economic and financial inequality, socio-political subjugation, or military totalitarianism? In response to these possible problems, there is a current advocate for a human-centered AI (HCAI). According to Ben [Shneiderman \(2020\)](#), “Human-Centered AI (HCAI) is a promising direction for designing AI systems that support human self-efficacy, promote creativity, clarify responsibility, and facilitate social participation. These human aspirations also encourage consideration of privacy, security, environmental protection, social justice, and human rights”. Countries are coming up with policies that not only encourage HCAI but, more so, make such technological approaches to AI a matter of law for the common good. A good example is the Ninth Report of Session 2022–23 on “The governance of artificial intelligence: Interim report” ([House of Commons—Science, Innovation and Technology Committee 2023](#)) by the House of Commons of the United Kingdom. In this document, twelve challenges of AI governance are highlighted as requirements to be met by policymakers and AI designers. Notwithstanding, this paper doubts that AI research and design will indeed be human-centered, merely due to political policies, since the political policies will be operated within social and economic systems that are sustained by the present technology.

In many countries today, unemployment and underemployment rates are high. With the use of “weak AIs”, the fear is that more people will definitely be out of jobs and have no work to do. Notwithstanding, the argument is that AI will also give rise to new and different kinds of work opportunities. AI researchers have always maintained that AI will not completely displace human persons from work but, rather, that AI will help human persons to work more efficiently. Conceding that “weak AIs” will still need human agents, the fact remains that using AI will reduce the number of persons needed to be

employed to work. Therefore, there will be a serious problem when the development and employment of AI increases the already high rate of unemployment and underemployment in many societies. The development and employment of AI will certainly seriously change the ecosystem of the workforce and workspace in all societies. Since there is an intrinsic relation between work and the nature and dignity of the human person, the increase in lack of work for persons will definitely result in ontological and existential problems in the selfhood and livelihood of many persons. With AI technology, the economy of nations may grow, but there would not be an integral development for the majority of the people. AI technology will become and is already the tool of capitalism: it increases the wealth of the very few that have access and control over the science and technology of AI. This increase in the wealth of the few is at the cost of the majority who are poor.

On the implications of “strong AI”, as explained above, the goal of “strong AI” research is to artificially replicate the human mind or cognitive capacities, that is, to design and create artificial “autonomous” cognitive systems (see [Onyeukaziri 2023a](#)). Put bluntly, the ultimate goal of “strong AI” research is to develop AI systems that constitute, if you like, “artificial or non-biological persons”. So, “strong AI” is not merely competing with the human person in regard to work, but even more so, it competes with the human person in regard to what it really means to be the ontological substance called the “human person”. Put differently, “strong AI” challenges the *quiddity*, the ontological status, of the human person. “Strong AI” makes claim to any and every right and privilege proper to the human person. “Strong AI” questions and challenges the notion of human rights and appeals for “cognitive rights”. For, although “strong AIs” are not human persons, they claim to be “artificial persons”. So, they, “strong AIs”, will demand “cognitive or persons’ rights” not “human” rights.

Thus, “strong AI”, in claiming to have cognitive states and capacities such as human persons do, claims to have personhood. And, if the possession of cognitive states means the presence of consciousness, “strong AI” will claim to have selfhood. If “strong AI” possesses selfhood, it means that “strong AI” possesses intentionality and the ability to have *qualia* experiences. Furthermore, with the development in the research in artificial life (A-Life), especially “soft artificial life”, into what is called “hard artificial life” or “hard A-Life”, “strong AI” could perhaps make claim to having life ([Langton 1996](#); [Bedau 2014](#)). All these logical premises and inferences cumulate into a serious philosophical questioning of the notion of the human person as being created in the *imago Dei*. The implication of all these possible propositions on “strong AI” is that human persons will have to live alongside “artificial or non-biological persons”.

If this is the case, either the term “society” will be semantically empty or will have to be changed in such a way that it will reference both human persons and artificial persons. This will mean that artificial persons, as “rational beings”, will necessarily be social non-animal beings (social artifacts). For, though they lack the animal nature or animal instantiation, due to their cognitive states and capacities, if embodied, they will be able to socially interact. The fear, more so, is not just that there will exist artificial persons in the “society” of human and artificial persons but that artificial persons could become super-intelligent, with intelligence that exceeds perhaps all human intelligence combined. When this happens, if ever it can happen, no one can imagine what the post-human society would look like, not only in respect to the meaning of work but also in respect to human ontological specificity. Perhaps, as some people fear, there would exist a political economy whereby human persons would be servants of the artificial persons.

Based on these implications in the development of AI research, the Church, as a teacher and conscience of humanity, no doubt has a big role to play. There is an important dimension in the human–AI conversation and research which this paper believes the Church has to be a part of, which is emphasizing the revelational grounded notion of the human person as that being created in the *imago Dei*—in the image of God. Based on the notion of *imago Dei*, the Church has developed the philosophical–theological notion of person and work that emphasizes an intrinsic relationship between personhood and human

labor or work. But, since AI technology is a recent phenomenon, comprehensive teaching has not been expounded in the social teaching of the Church. Hence, this paper suggests an encyclical devoted to AI research and development. The Church, in her social teachings, has to emphasize that mere productivity, that is, efficacious expansion and multiplication of goods and services, should not be the end of AI research and development. It should also be emphasized that neither should the end of AI research be economic, political, technological, or military domination. This means that AI research and development and economic activities, in general, should be carried out within the limit of morality and/or ethics that are personalistic and anthropological (cf. [Abbot 1966](#), *Gaudium et Spes* n. 64). As expounded above, personalistic and anthropological ethics presuppose the human person as a creature with a unique dignity in itself, as that created in the image of God.

This anthropological approach maintains that AI research should also be neither exclusive nor selective to a few nations and/or privileged individuals. Rather, it should be aimed at the holistic good of human society and the human race in general. The personalistic and anthropological approach posits everyone as equally important in the making of all forms of technological invention and economic permutations and decisions. Hence, AI research should be justice- and equity-based and never tolerate any form of discrimination, individualism, and nationalism. No doubt, this personalistic and anthropologically centered approach is a naturalistic ethical approach. It is a well-constructed naturalistic ethics that can most coherently proffer comprehensive AI research and work ethics. For example, let it be imagined that a Catholic AI researcher and designer engages in designing AI systems with a personalistic and anthropological-centered ethics that is consistent with the notion of the human person as the image of God. Let it be imagined that an algorithm is designed with the biblical commands of “love” and “compassion” for the other as the heuristic search strategies of the AI system. This will demand a lot of work in the logical representations of Christian values based on the Gospel of Christ, whereby the knowledge engineering at play is scriptural-based knowledge. In sum, let it be imagined that our Christian AI designer and his Christian friends automate “the Beatitudes” of the “Sermon on the Mount” according to Matthew 5:1–12 in the New Testament, and they employ this automation as the systemic ground for AI systems employed in the training of personnel in some workplaces. This approach will indeed discourage epistemic totalitarianism and scientific unitarianism in AI usage and provide a more personalistic workplace.

More so, this approach emphasizes the intrinsic relationship between the human person and its labor. For, “this labor comes immediately from the person. In a sense, the person stamps the things of nature with his seal and subdues them to his will” ([Abbot 1966](#), *Gaudium et Spes*, n. 67). AI systems, thus, should not estrange and alienate the human person from its own labor by depriving a great number of humans their privilege of exerting their rational and creative powers on the things of nature by the act of work or labor. Also, they should not deprive the human person of the opportunity to develop, through activities of working, the abilities and personalities unique to the selfhood of each individual person (cf. [Abbot 1966](#), *Gaudium et Spes*, n. 67).

5. Conclusions

The main objective of this paper is not to maintain a skeptical attitude toward AI research. Rather, it is to demonstrate AI research’s implications as a formidable tool of capitalistic economy today as it relates to the intrinsic relation between the human person and human work. As mentioned in this paper, there is an intrinsic relationship linking political economy, science–technology, work, and the human person. Science and technology have increased opportunities for work, but with the advancement in the research on AI, there is a fear that this will result in a decrease in work. The development of AI technology has been fascinating, and its impact on the global economy is empirically evident. The approach of human-centered AI is being encouraged as a way of dealing with the fear of abuses that could result due to the design of AI systems. However, most views on human-centered AI research and design are based on socio-ethical problems that

could arise from the use of AI systems. This paper argues that there is a more fundamental problem beyond socio-ethical problems: the intrinsic relation between human personhood and human labor or works based on the dignity of every human person as a creature in the image of God. This claim is sustained by the exposition of the creation account in Genesis chapters 1 to 3. The Church's belief that the human person is created in the image and likeness of God has always been the theological ground in her conviction in the dignity of the human person, which ought to be protected in all human endeavors and engagements. This theological conviction remains the anthropological ground on which all the social teachings of the Catholic Church are expounded. As exposed above, since AI is a relatively new phenomenon, it is just recently that there are official statements or messages from the Vatican on AI research and development. In these statements, the Church seems to be providing guidelines to AI researchers and development on the need to be humane in AI design. However, this paper argues for a special encyclical on AI by the Church in which Catholics will be encouraged and challenged to be active agents in AI research and design based on Christian anthropology, ethics, and the Gospel of Christ. The reason for this is that science and, especially, technology are, in some cases, motivated and driven by the beliefs and convictions of scientists and technologists.

These implications call for serious reflection, and that is what this paper has attempted to do with respect to the Catholic Church and her social teachings. This paper claims that both "weak AIs" and "strong AIs" have implications for the notions of person and work as expounded in the social teachings of the Catholic Church. Since the social teachings of the Catholic Church emphasize that the human person is created in the image and likeness of God, there is an intrinsic dignity ontologically grounded in the selfhood of a person. More so, this paper sustains that work is a fundamental human activity arising from a human's nature as a rational being. Work, therefore, has its proper end not merely in the survival of a person but, more so, in the sustenance of the dignity of the human person. Finally, this paper suggests a serious and detailed interrogation of the research in AI as it relates to the meaning of work and the dignity of the human person in the social teachings of the Church. It emphasizes the need for Christian scholars across all fields to engage in serious study and research of AI, paying attention to the promotion of a personalistic and anthropological/ethical-based AI design and development.

Funding: This research received no external funding.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Conflicts of Interest: The author declares no conflicts of interest.

References

- Abbot, Walter M. 1966. Pastoral Constitution on the Church in the Modern World [*Gaudium et Spes*]. In *The Documents of Vatican II*. Translated and Edited by Joseph Gallagher. New York: Guild Press.
- Bedau, Mark A. 2014. Artificial Life. In *The Cambridge Handbook of Artificial Intelligence*. Edited by Frankish Keith and Ramsey M. William. Cambridge: Cambridge University Press, pp. 296–315.
- Bostrom, Nick, and Eliezer Yudkowsky. 2014. The ethics of artificial intelligence. In *The Cambridge Handbook of Artificial Intelligence*. Edited by Frankish Keith and Ramsey M. William. Cambridge: Cambridge University Press, pp. 316–34.
- Crosby, John F. 1996. *The Selfhood of the Human Person*. Washington: The Catholic University of America Press.
- Dennett, Daniel C. 1990. Cognitive Wheels: The Frame Problem of AI. In *The Philosophy of Artificial Intelligence*. Edited by Margaret A. Boden. Oxford: Oxford University Press, pp. 147–70.
- Dennett, Daniel C. 1991. *Consciousness Explained*. New York, Boston and London: Back Bay Books Little, Brown and Company.
- Dreyfus, Hubert L. 1992. *What Computers Still Can't Do: A Critique of Artificial Reason*. Cambridge, MA and London: MIT Press.
- Eccles, C. John. 1980. *The Human Psyche*. Berlin and Heidelberg: Springer.
- Eccles, C. John. 1985. The Human Brain and the Human Person. In *Mind and Brain: The Many-Faceted Problems*. Edited by John C. Eccles. St. Paul: Paragon House Publishers, pp. 85–101.
- Eccles, C. John. 1989. *Evolution of the Brain: Creation of the Self*. London: Routledge.
- Franklin, Stan. 2014. History, Motivations, and Core Themes. In *The Cambridge Handbook of Artificial Intelligence*. Edited by Frankish Keith and Ramsey M. William. Cambridge: Cambridge University Press, pp. 15–33.

- Heilbroner, Robert. 1997. Technology and Capitalism. *Social Research* 64: 1321–25.
- House of Commons—Science, Innovation and Technology Committee. 2023. *The Governance of Artificial Intelligence: Interim Report*. London: House of Commons. Available online: <https://publications.parliament.uk/pa/cm5803/cmselect/cmsctech/1769/report.html> (accessed on 8 March 2024).
- Langton, Christopher G. 1996. Artificial Life. In *The Philosophy of Artificial Life*. Edited by Margaret A. Boden. Oxford: Oxford University Press, pp. 39–94.
- Newell, Allen, and Herbert Simon. 1990. Computer Science as Empirical Enquiry: Symbols and Search. In *The Philosophy of Artificial Intelligence*. Edited by Margaret A. Boden. Oxford: Oxford University Press, pp. 105–32.
- Onyeukaziri, Justin Nnaemeka. 2022. The Platonic Influence on Early Christian Anthropology: Its Implication on the Theology of the Resurrection of the Dead. *Philosophia: International Journal of Philosophy* 23: 48–63. [CrossRef]
- Onyeukaziri, Justin Nnaemeka. 2023a. Action and Agency in Artificial Intelligence: A Philosophical Critique. *Philosophia: International Journal of Philosophy* 24: 73–90. [CrossRef]
- Onyeukaziri, Justin Nnaemeka. 2023b. Artificial Intelligence and Neuroscience Research: Theologico-Philosophical Implications for the Christian Notion of the Human Person. *Maritain Studies/Etudes Maritainiennes* 39: 85–103. [CrossRef]
- Pontifical Academy for Life. 2020. Rome Call for AI Ethics. Available online: <http://www.vatican.va> (accessed on 10 March 2024).
- Pontifical Council for Justice & Peace. 2004. *Compendium of the Social Doctrine of the Church*. London and New York: Burns & Oates.
- Pope Francis. 2023. Artificial Intelligence and Peace. Message of His Holiness Pope Francis. Paper presented at 57th World Day of Peace, Vatican, December 8. Available online: <https://www.vatican.va/content/francesco/en/messages/peace/documents/20231208-messaggio-57giornatamondiale-pace2024.html> (accessed on 10 March 2024).
- Pope Francis. 2024. Artificial Intelligence and the Wisdom of the Heart: Towards a Fully Human Communication. Message of His Holiness Pope Francis. Paper presented at 58th World Day of Social Communications, Rome, Italy, January 24. Available online: <https://www.vatican.va/content/francesco/en/messages/communications/documents/20240124-messaggio-comunicazioni-sociali.html> (accessed on 10 March 2024).
- Putnam, Hilary. 2012. *Philosophy in an Age of Science: Physics, Mathematics and Skepticism*. Edited by Mario De Caro and David Macarthur. Cambridge, MA and London: Harvard University Press.
- Searle, John R. 1990. Minds, Brains, and Programs. In *The Philosophy of Artificial Intelligence*. Edited by Margaret A. Boden. Oxford: Oxford University Press, pp. 67–88.
- Searle, John R. 1997. *The Mystery of Consciousness*. New York: New York Review Book.
- Searle, John R. 2002. *Consciousness and Language*. Cambridge: Cambridge University Press.
- Shneiderman, Ben. 2020. Human-centered artificial intelligence: Three fresh ideas. *AIS Transactions on Human-Computer Interaction* 12: 109–24. [CrossRef]
- Smith, Tony. 2010. Technological Change in Capitalism: Some Marxian Themes. *Cambridge Journal of Economics* 34: 203–12. [CrossRef]
- Turing, Alan M. 2004. Computing Machinery and Intelligence. In *The Essential Turing*. Edited by Jack B. Copeland. Oxford: Oxford University Press, Oxford: Clarendon Press, pp. 441–67.
- Wojtyła, Karol. 1979. *The Acting Person*. Translated by Andrzej Potocki. Dordrecht: D. Reidel Publishing Company.
- Wojtyła, Karol. 1993. The Dignity of the Human Person. In *Person and Community: Selected Essays*. Translated by Theresa Sandok. New York: Peter Lang, pp. 177–80.

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.