

PHILOSOPHY AND ARTIFICIAL INTELLIGENCE: A CRITICAL NECESSITY IN LATE MODERNITY

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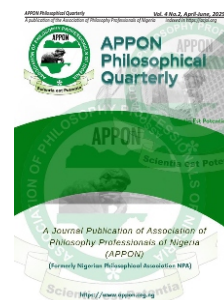
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ABSTRACT

Artificial intelligence has become a defining feature of late modernity, reshaping communication, education, healthcare, governance, employment, and economic life while changing how individuals and institutions produce knowledge, make decisions, and exercise authority. Yet discussion of AI often remains centred on technical innovation and commercial application, leaving insufficient attention to the philosophical questions generated by its growing influence on human life. This paper examines why philosophy is indispensable to the understanding and responsible governance of artificial intelligence. Drawing on Anthony Giddens, Ulrich Beck, Zygmunt Bauman, Martin Heidegger, Luciano Floridi, Shannon Vallor, and selected African philosophers, it analyses AI in relation to the ethical questions of responsibility, fairness, autonomy, and human dignity; the ontological questions of personhood, agency, identity, and human uniqueness; and the epistemological questions of knowledge, truth, justification, and trust. The paper further situates these questions within the conditions of late modernity, particularly reflexivity, manufactured risk, institutional dependence, and social fluidity. It argues that technical expertise and regulation, though necessary, cannot by themselves determine what AI ought to do, what forms of human life should be protected, or what values should guide technological development. Philosophy is therefore a critical necessity for ensuring that artificial intelligence serves human dignity, justice, responsible agency, and the common good.

Keywords: Artificial Intelligence; Late Modernity; Philosophy; Ethics; Human Agency; AI Governance

Introduction

Artificial intelligence has moved from the margins of specialised research into the ordinary structures of contemporary life. AI systems analyse information, generate text and images, support medical diagnosis, assist recruitment, recommend content,

translate languages, detect patterns, and contribute to decision-making in institutions. These developments demonstrate that AI is not merely a collection of computational tools. It has become a social force capable of influencing how people work, communicate, learn,

make choices, and understand the world.

The rise of AI is closely connected with the wider transformations of late modernity. Giddens describes modern social life in terms of reflexivity, whereby individuals and institutions continually revise practices in response to new knowledge and changing circumstances.¹ Beck shows that scientific and technological progress can also generate manufactured risks whose consequences are difficult to predict and control.² Bauman, through the idea of liquid modernity, draws attention to the instability and fluidity of contemporary identities, institutions, careers, and relationships.³ AI emerges from these conditions while simultaneously intensifying them.

The significance of AI, however, cannot be adequately assessed through speed, efficiency, accuracy, or computational capacity alone. When an algorithm contributes to decisions about employment, credit, education, healthcare, policing, or access to information, questions arise concerning fairness, responsibility, autonomy, dignity, and justice. When generative systems produce apparently authoritative answers, further questions arise concerning knowledge, truth, evidence, and trust. When machines perform activities previously associated with human intelligence, philosophy must ask what such developments imply for human agency, personhood, creativity, and identity.

The central problem addressed by this paper is therefore not whether artificial intelligence can perform increasingly sophisticated tasks, but how humanity should understand and govern technologies

whose influence extends into moral, social, and intellectual life. The aim of the paper is to demonstrate why philosophical inquiry is indispensable to the responsible development and use of artificial intelligence in late modernity. The paper argues that philosophy is a critical necessity for AI because the most consequential questions raised by intelligent technologies concern what ought to be done, what it means to be human, and what should count as knowledge and justified belief.

The discussion proceeds by first situating AI within the social conditions of late modernity. It then examines the ethical, ontological, and epistemological dimensions of AI, followed by African philosophical perspectives and major objections to the claim that philosophy is indispensable. The approach is conceptual and interpretive rather than empirical. It critically engages relevant philosophical and sociological literature and uses contemporary AI developments as illustrations of the issues under consideration.

Artificial intelligence did not emerge in isolation. Its rapid development reflects broader transformations in social organisation, knowledge production, communication, and institutional authority. Concepts such as reflexivity, abstract systems, manufactured risk, and liquid modernity help explain why AI has acquired such influence and why its consequences cannot be confined to computer science.

Reflexivity and the Expansion of Abstract Systems

Giddens identifies reflexivity as a defining

¹ Anthony Giddens, *The Consequences of Modernity*. (Stanford, CA: Stanford University Press, 1990), Anthony Giddens, *Modernity and Self-Identity: Self and Society in the Late Modern Age*. (Stanford, CA: Stanford University Press, 1991).

² Ulrich Beck, *Risk Society: Towards a New Modernity*. Translated by Mark Ritter. (London: Sage Publications, 1992)

³ Zygmunt Bauman, *Liquid Modernity*. (Cambridge: Polity Press, 2000).

characteristic of modernity.⁴ Modern societies continually examine and revise their practices in the light of new information. Knowledge therefore does not simply describe social reality; it participates in changing that reality. AI intensifies this process because systems can collect, analyse, and classify enormous quantities of information and use the resulting patterns to influence subsequent decisions. Recommendation systems affect what people read and watch, predictive systems inform institutional choices, and automated tools increasingly mediate interactions between individuals and organisations.⁵

AI also extends dependence on what Giddens calls abstract systems. Modern life already depends upon expert systems in banking, aviation, medicine, telecommunications, and other areas. Most users trust these systems without possessing detailed knowledge of their internal operations. AI deepens this dependence because its outputs may be produced through complex models that are difficult for ordinary users to understand. The philosophical question is therefore not simply whether a system performs effectively, but under what conditions trust in its outputs is justified. Transparency, accountability, fairness, and explainability are consequently not merely technical concerns. They involve ethical and epistemological judgments.

Artificial Intelligence and Manufactured Risk

Beck's risk society provides another important perspective. Modern societies

increasingly encounter risks generated by their own scientific and technological achievements.⁶ Such risks are manufactured through human decisions and institutional practices, yet their consequences may extend beyond the intentions of those who created them. AI illustrates this condition through algorithmic discrimination, large-scale surveillance, misinformation, and failures in automated decision-making. Bias in data or system design can reproduce existing inequalities, while AI-generated misinformation can travel rapidly through interconnected digital networks.

The important point is that technical improvement cannot by itself settle the question of acceptable risk. Engineers may improve accuracy or reduce system errors, but such improvements do not determine whose interests should be protected, which risks are morally tolerable, or who should bear responsibility when harm occurs. These questions require reflection on justice, responsibility, and the distribution of benefits and burdens.

Liquid Modernity and Human Identity

Bauman's notion of liquid modernity highlights the instability of contemporary social life. Institutions, occupations, relationships, and identities are increasingly subject to rapid change.⁷ AI contributes to this fluidity by transforming work, communication, education, and creative production. Automation can alter occupational structures, while generative AI changes how texts, images, music, and other forms of content are produced.

The transformation is also personal.

⁴ Anthony Giddens, 1990. *The Consequences of Modernity*. (Stanford, CA: Stanford University Press); Anthony Giddens, *Modernity and Self-Identity: Self and Society in the Late Modern Age*. (Stanford, CA: Stanford University Press, 1991)

⁵ Anthony Giddens, *The Consequences of Modernity*.

⁶ Ulrich Beck, *Risk Society: Towards a New Modernity*. Translated by Mark Ritter. (London: Sage Publications, 1992).

⁷ Zygmunt Bauman, *Liquid Modernity*. (Cambridge: Polity Press 2000).

People increasingly encounter themselves and others through digital environments shaped by algorithms. Recommendation systems influence preferences, platforms mediate public participation, and intelligent assistants can become involved in everyday decisions. These developments raise questions about authenticity, autonomy, responsibility, and identity. The social context of AI therefore strengthens rather than diminishes the need for philosophy. If late modernity is characterised by rapid change, uncertainty, and dependence upon technological systems, philosophy provides a means of examining the values and assumptions embedded in that change.

AI as a defining institution of late modernity

Giddens, Beck, and Bauman together provide a useful framework for understanding AI as a major institutional expression of late modernity. AI strengthens reflexive decision-making, extends dependence on abstract systems, produces new forms of manufactured risk, and accelerates social fluidity. It consequently affects knowledge, work, responsibility, identity, and social relationships.

This perspective shifts the question from what AI can accomplish to what kind of social order its development is helping to create. Technical performance remains important, but it is insufficient as a measure of social value. Once AI influences decisions that affect people's lives, the central questions become normative and philosophical: What should AI be permitted to do? What forms of human judgment should remain protected? How should benefits and risks be distributed? What kind of relationship should exist between technological capability and human

flourishing? These questions provide the basis for the philosophical analysis that follows.

Philosophy as a Critical Necessity: Ethics, Ontology, and Epistemology

The development of AI has made philosophy practically relevant to technological governance. AI systems increasingly participate in activities involving education, healthcare, employment, finance, security, governance, and communication. Technical expertise is indispensable for building reliable systems, but it cannot by itself determine the meaning of justice, dignity, responsibility, truth, or the common good. These are philosophical questions.

Ethics: Responsibility, Justice, and Human Dignity

Ethics asks how human beings ought to act and what values should guide conduct. This question becomes unavoidable in AI because systems are designed, trained, deployed, and evaluated through human choices. Decisions about data collection, objectives, performance measures, and deployment contexts embody assumptions about what matters and whose interests count. The claim that an AI system is mathematical does not make the social decisions surrounding it morally neutral.

Algorithmic bias provides a clear example. Systems trained on historical data can reproduce patterns of inequality, particularly when those data reflect discriminatory social practices.⁸ The problem is not solved simply by making a system computationally accurate. Accuracy itself must be considered in relation to the social purpose for which the system is used.

⁸ Emily M. Bender, Timnit Gebru, Angelina McMillan-Major, and Shmargaret Shmitchell. "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big?" In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, 610–623. Julia Angwin, Jeff Larson, Surya Mattu, and Lauren Kirchner. 2016. "Machine Bias." *ProPublica*, May 23, 2016.

Ethical analysis therefore asks whether outcomes are fair, whether affected persons are treated with dignity, and whether institutions can justify decisions that rely on automated systems.

Responsibility is another central problem. Matthias describes a responsibility gap that can arise when learning systems act in ways that are not fully anticipated by their designers.⁹ AI systems may generate unexpected outcomes, but the machine itself does not thereby become a moral agent. Responsibility must be traced through the network of designers, developers, organisations, deployers, regulators, and users. The important philosophical task is to determine how responsibility should be distributed and what forms of accountability should accompany technological power.

Human autonomy and dignity also require attention. Excessive reliance on algorithmic recommendations may encourage people to accept machine-generated conclusions without adequate reflection. Vallor argues for the cultivation of virtues appropriate to technologically mediated life, including practical wisdom and responsible judgment.¹⁰ AI should therefore assist human agency rather than gradually displace the capacities through which persons exercise judgment and responsibility. The ethical question is not whether automation is efficient, but whether the form of automation strengthens or weakens human freedom and flourishing.

Ontology: Personhood, Agency and Human Identity

Ontology concerns questions about being and existence. AI renews longstanding

questions about what it means to think, understand, act, and be human. Contemporary systems can generate language, recognise patterns, produce images, compose music, and perform complex analytical tasks. Their impressive performance can encourage people to attribute understanding, consciousness, or personhood to machines.

Searle's critique of strong artificial intelligence remains relevant to this issue. The ability to manipulate symbols or generate appropriate responses does not, by itself, establish genuine understanding. Contemporary conversational systems may produce human-like language without possessing subjective experience, moral awareness, or existential consciousness.¹¹ The distinction matters because anthropomorphic descriptions can encourage unrealistic expectations about what AI systems are and what they can responsibly be expected to do.

Heidegger's philosophy of technology adds another dimension. Technology should not be viewed merely as a neutral collection of instruments. It can shape the manner in which human beings disclose and interpret the world.¹² AI consequently raises an ontological question about the kind of human existence that develops when increasingly significant aspects of experience are mediated by computational systems. The concern is not simply whether machines become more intelligent, but how technological mediation changes human self-understanding.

AI also complicates questions of identity and authenticity. Human communication, memory, education, employment, and social

⁹ Andreas Matthias, "The Responsibility Gap: Ascribing Responsibility for the Actions of Learning Automata." *Ethics and Information Technology* 6 (3) (2004): 175–183.

¹⁰ Andreas Matthias "The Responsibility Gap: Ascribing Responsibility for the Actions of Learning Automata." *Ethics and Information Technology* 6 (3): 2004: 175–183.

¹¹ John R. Searle, "Minds, Brains, and Programs." *Behavioural and Brain Sciences* 3 (3), 1980: 417–457.

¹² Martin Heidegger, *The Question Concerning Technology and Other Essays*. Translated by William Lovitt. New York: Harper & Row, 1977)

interaction increasingly occur through digital environments. Synthetic voices, generated images, digital avatars, and automated text challenge traditional distinctions between human expression and machine-produced content. Philosophical reflection is needed to examine what remains distinctive about human agency when technological systems can imitate forms of human creativity and communication.

Epistemology: Knowledge, Truth, and Trust

Epistemology examines knowledge, justification, truth, and the conditions under which beliefs should be accepted. Its relevance to AI is especially evident in the age of generative systems. AI can process large quantities of information and produce fluent answers, but information production is not identical to knowledge. Knowledge requires reasons, evidence, reliability, interpretation, and critical assessment.

Generative AI makes this distinction particularly important because a system can produce a convincing response that is inaccurate or unsupported. Fluent language can create an appearance of authority that exceeds the reliability of the underlying output. Users must therefore distinguish between plausibility and truth and subject significant claims to independent verification. UNESCO similarly emphasises the importance of human-centred and responsible approaches to generative AI in education and research.¹³

The epistemological problem extends beyond individual interactions with AI. Recommendation systems can influence what information people encounter by prioritising particular forms of engagement. Personalised information environments may reinforce existing assumptions and

reduce exposure to alternative perspectives. The result can be epistemic fragmentation and declining trust. Philosophy contributes to this problem by insisting upon critical reasoning, intellectual humility, examination of evidence, and openness to reasoned disagreement.

Educational institutions make the issue particularly visible. Students can use AI to generate essays, summarise texts, solve problems, and obtain immediate responses. Such tools can support learning, but they can also encourage intellectual passivity when students substitute generated answers for inquiry. Genuine education involves understanding, interpretation, reflection, and the development of judgment. AI can therefore serve education best when it supports rather than replaces these capacities.

The Integration of Ethics, Ontology and Epistemology

The three philosophical domains are interconnected. Ethics asks what AI ought to do and how responsibility should be assigned. Ontology asks what AI is, what human beings are, and whether computational performance should be equated with personhood or consciousness. Epistemology asks whether AI-generated outputs can be trusted and under what conditions they constitute reliable knowledge. None of these questions can be settled through computational performance alone.

Contemporary principles of responsible AI, including transparency, fairness, human oversight, accountability, and respect for rights, reflect philosophical commitments concerning justice, autonomy, responsibility, and human dignity. Floridi and Cowls similarly identify a set of ethical principles for AI in society. Philosophy

UNESCO: *Guidance for Generative AI in Education and Research*. (Paris, 2023)

therefore does not stand outside technological development. It provides part of the conceptual foundation upon which responsible development and governance must rest.¹⁴

African Philosophical Perspectives on AI

Although much contemporary AI ethics has developed within Western philosophical traditions, African philosophy offers important resources for widening the debate. Its relevance lies particularly in its treatment of personhood, community, responsibility, complementarity, and collective well-being.

Ubuntu provides a significant example. Ubuntu understands personhood relationally and emphasises the mutual recognition through which human beings flourish.¹⁵ Applied to AI, this perspective shifts attention from technological efficiency and individual advantage toward the effects of technological systems on relationships, communities, dignity, and social justice. An AI system should not be judged solely by whether it increases productivity; its contribution to the well-being of the communities it serves must also be considered.

African communitarian thought likewise challenges strongly individualistic approaches to technological governance. Menkiti emphasises the social character of personhood, while Wiredu explores the relationship between universal questions and particular cultural contexts.¹⁶ These

perspectives suggest that decisions about data governance, algorithmic accountability, and digital inclusion should not be left exclusively to technology companies or technical specialists. Public participation and attention to the interests of affected communities are essential.

Asouzu's philosophy of complementary reflection offers another useful perspective.¹⁷ Ezumezu logic resists rigid oppositions and emphasises the complementarity of realities. In relation to AI, this can support a view of technology and humanity that avoids the simplistic alternatives of either technological domination or technological rejection. AI can complement human capacities without being treated as a substitute for moral judgment, empathy, embodied experience, and existential reflection.

African philosophy also raises the question of epistemic inclusion. AI systems depend upon data, languages, categories, and cultural representations. When some languages, histories, and knowledge traditions are systematically underrepresented, technological systems may reproduce existing inequalities. A genuinely human-centred approach to AI should therefore include diverse cultural and epistemic perspectives. African philosophy contributes to this goal by showing that technological questions are inseparable from questions about whose knowledge counts and whose interests shape technological futures.

¹⁴ Luciano Floridi and Josh Cows, "A Unified Framework of Five Principles for AI in Society." *Harvard Data Science Review*, 2019, 1 (1).

¹⁵ Thaddeus Metz, "Ubuntu as a Moral Theory and Human Rights in South Africa." *African Human Rights Law Journal*, 11 (2), 2011: 532–559.

¹⁶ Ifeanyi A. Menkiti "Person and Community in African Traditional Thought." In *African Philosophy: An Introduction*, edited by Richard A. Wright (Lanham, MD: University Press of America, 1984): 171–181; Kwasi Wiredu, *Cultural Universals and Particulars: An African Perspective*. (Bloomington: Indiana University Press, 1996).

¹⁷ Innocent I. Asouzu, *Ibuanyidanda: New Complementary Ontology, Beyond World-Immanentism, Ethnocentric Reduction and Impositions*. (Zurich: Lit Verlag, 2007).

Objections and Responses

One objection is that philosophy is unnecessary because AI problems can be solved through technical innovation and regulation. This objection has some force: reliable engineering and effective regulation are indispensable. Yet neither can determine normative questions by themselves. A regulation may require fairness, but philosophy is needed to examine what fairness means in a particular context. Technical systems may be made more accurate, but accuracy does not determine whether the objective being optimised is morally justified.

A second objection is that AI systems are value-neutral and that ethical problems arise only from human use. This position overlooks the many choices involved in selecting data, defining objectives, designing interfaces, determining deployment contexts, and distributing system benefits and risks. AI systems are not created outside social institutions. Their design and use reflect human priorities and institutional structures.¹⁸

A third objection is that sufficiently advanced AI may eventually replace philosophical reasoning. AI can process extensive information and generate sophisticated arguments, but producing arguments is not the same as possessing moral agency or existential understanding. The ability to simulate reasoning does not settle questions concerning meaning, purpose, value, or responsibility. Searle's (1980) distinction between computational processes and genuine understanding remains relevant to this debate.¹⁹ These objections ultimately strengthen rather than undermine the case for philosophy. Technical expertise tells us how systems can be built and improved. Regulation establishes enforceable boundaries.

Philosophy interrogates the purposes, assumptions, values, and concepts that give technological development its social meaning. Responsible AI requires all three dimensions.

Conclusion

Artificial intelligence has become a defining technology of late modernity, reshaping how people communicate, learn, work, access information, and make decisions. Its significance, however, cannot be reduced to computational capability. AI raises questions concerning responsibility, justice, dignity, autonomy, personhood, identity, knowledge, truth, and trust. These questions are philosophical because they concern not only what machines can do but what human beings ought to do with the capabilities they create.

The analysis of late modernity through Giddens, Beck, and Bauman shows why the philosophical challenge is becoming more urgent. AI intensifies reflexivity, extends dependence on abstract systems, creates new forms of manufactured risk, and contributes to social and occupational fluidity. Within this environment, technical performance alone cannot provide an adequate basis for deciding what forms of technological development are desirable.

Ethics clarifies responsibility, fairness, autonomy, and human dignity. Ontology examines the distinctions between computational performance and human existence, including questions of personhood, agency, consciousness, and identity. Epistemology examines the reliability of AI-generated information and the conditions under which technological outputs should be trusted. Together, these perspectives show that philosophy is not an optional addition to AI governance. It is part of the intellectual foundation required to

¹⁸ Luciano Floridi and Josh Cowls, "A Unified Framework of Five Principles for AI in Society."

¹⁹ John R. Searle, "Minds, Brains, and Programs." *Behavioural and Brain Sciences* 3 (3) 1980: 417–457.

guide technological power responsibly.

African philosophy further broadens this foundation. Ubuntu foregrounds relational personhood and communal well-being; African communitarian thought emphasises shared responsibility and participation; and Asouzu's complementary philosophy offers a way of thinking about the relationship between human intelligence and technological systems without reducing one to the other. These perspectives are particularly important for developing AI that is inclusive, culturally responsive, and attentive to communities that have often been marginalised in technological decision-making.

The future of AI will therefore depend not only on computational innovation but also on the quality of human judgment directing it. Philosophy remains indispensable because it asks the questions that technical systems cannot answer on their own: What should AI do? What values should guide it? What aspects of human agency and dignity must remain protected? And what kind of society should technological development help create? In late modernity, philosophy is therefore not displaced by artificial intelligence. Its importance is intensified by it.

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