From Eden to Ethics: African Theological Perspectives on Genesis 1–3, Artificial Intelligence, and the SDGS

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Abstract

An era defined by rapid technological transformation, the ethical evaluation of artificial intelligence (AI) and biotechnology demands renewed theological reflection grounded in Scripture and contextual African theology. This study explores Genesis 1–3 as a theological framework for assessing ethical boundaries in artificial creation amidst advances in AI and biotechnology. It addresses a critical gap by integrating African theological perspectives into contemporary technology ethics, thereby enriching Sustainable Development discourse with faith-based moral insight. Through exegetical, theological, and ethical analyses informed by development studies, this research proposes a holistic framework for equitable and responsible technological innovation rooted in Scripture and contextual theology. As global technological progress transforms healthcare, agriculture, communication, and governance, many ethical debates remain detached from theological foundations such as imago Dei, divine sovereignty, and the Creator–creature relationship. These doctrines define the permissible limits of human creativity and serve as moral safeguards against technological hubris. Using a historical-critical and theological-ethical approach, Genesis 1–3 is interpreted as a paradigm that affirms human vocation and creativity (Gen 1:28; 2:15) while establishing divine boundaries that restrain moral excess. The Fall narrative (Gen 3) functions as a theological critique of humanity's pursuit of autonomy through forbidden knowledge and unrestrained innovation. Drawing from interdisciplinary perspectives in theology, ethics, and science, this study fosters dialogue between Scripture and contemporary debates on AI and biotechnology. It integrates Christian ethics, African moral philosophy, and the Sustainable Development Goals (SDGs 3, 9, and 10) as frameworks for evaluating just and sustainable innovation. The research proposes a faith-informed ethical model that reinterprets these SDGs through a biblical lens emphasizing justice, stewardship, and human dignity. By balancing human creativity with divine limits and integrating imago Dei, divine sovereignty, and relational accountability, this study envisions a future where technological advancement serves the common good, promotes human dignity, preserves cultural integrity, and fosters global equity in harmony with God's moral order for creation.

Keywords: Artificial Intelligence, Biotechnology, Imago Dei, SDGs, Faith-Based Ethics, Genesis 1–3

Introduction

Artificial intelligence (AI) and biotechnology are reshaping healthcare, agriculture, education, and governance across the globe. This study employs an interdisciplinary approach, blending biblical exegesis, theological ethics, and development studies to engage holistically with AI, biotechnology, and the SDGs in African contexts. In African healthcare, AI-driven diagnostics

raise concerns about equity and access, while biotechnology in agriculture presents both promise and ethical dilemmas tied to land use and seed sovereignty. Promoted within the framework of the United Nations Sustainable Development Goals (SDGs), notably SDG 3 (good health), SDG 9 (innovation), and SDG 10 (reduced inequalities); these technologies promise progress but also raise profound ethical concerns. In African contexts, where theology remains central to moral discourse, there is an urgent need for a faith-based evaluation of how such innovations align with human dignity and moral responsibility. Unlike secular frameworks, African theological ethics emphasizes communal relationality and divine sovereignty, providing a distinctive moral compass for technology.

This study proposes Genesis 1–3 as a theological framework for assessing the ethical boundaries of artificial creation. These chapters offer a theological anthropology centered on *imago Dei* (Gen. 1:26–28), portraying humans as image-bearers with delegated authority over creation. Rather than implying domination, the concept of dominion (*radah*) reflects God's just and compassionate rule, one to be mirrored through stewardship (Middleton, 2005: 30–36). Genesis 2:15 reinforces this calling: Adam is tasked "to work and take care of" the garden. The Hebrew terms *abad* (serve/cultivate) and *shamar* (protect/guard) suggest both creative responsibility and moral restraint (von Rad, 2002: 72–74). This dual emphasis reflects the balance between human creative responsibility and the necessary moral restraints that guide ethical technological innovation.

Genesis 3 offers a theological critique of human transgression through the pursuit of forbidden knowledge. The desire to "be like God" (Gen. 3:5) symbolizes the rejection of divine boundaries. The resulting alienation and disorder serve as a warning against unbounded innovation (Brueggemann, 1982: 54–55). In light of AI and biotechnology, the fall narrative critiques technological hubris that seeks to transcend or redefine human nature.

African theology deepens this vision through its emphasis on relationality, community, and the sacredness of life. Ubuntu philosophy, "a person is a person through other persons" challenges the individualism and mechanistic anthropology often implicit in AI discourse (Orobator, 2018: 96–97). Ilo (2019: 35–137) affirms that African theological ethics demands innovation that honors both communal well-being and divine purpose.

This study addresses the absence of theological and African ethical perspectives in technology discourse and SDG implementation. Using a historical-critical and theological-ethical methodology, it interprets Genesis 1–3 in dialogue with African theology to construct a faith-informed ethical model for responsible innovation in Africa, one grounded in Scripture, human dignity, and sustainability. By integrating African theological insights into contemporary technological and development ethics, this study enriches Sustainable Development discourse with faith-informed moral guidance essential for responsible innovation in Africa.

Literature Review

This literature review explores how Genesis 1–3 offers a pivotal biblical-theological framework for discerning ethical boundaries amid the rapid advances of artificial intelligence and biotechnology. While philosophical and legal discourse has focused heavily on autonomy, control, and dignity, the Old Testament remains surprisingly underutilized. Through a thorough examination of global, African, and Kenyan scholarship, this review demonstrates how Genesis 1–3 can ground a coherent theological ethic, articulated through *imago Dei*, divine sovereignty, and the Creator–creature distinction, that both embraces and critiques technological innovation.

Emerging global Christian scholarship centers on the doctrine of *imago Dei* to assert the intrinsic worth and moral responsibility of humans confronting technology. Dyer (2020: 88) contends that this doctrine demands stewardship rather than domination over creation, grounding technological engagement within ethical and relational limits. Spiering (2022: 93) emphasizes that AI's simulated cognition threatens to collapse the Creator–creature divide; imago Dei must, therefore, preserve human uniqueness, defined by divine breath in Genesis 2:7, not mere function or capability. Bauckham (2010: 130) introduces the concept of creation as a "community," rooted in relational interdependence. Drawing from Genesis 2:15, he envisions a technological ethic centered on custodianship, not control. McFarland (2019: 75) deepens this insight through the lens of divine sovereignty, arguing that the Edenic prohibition against eating from the tree of knowledge underscores God's lordship over creation. Gene editing and synthetic biology must therefore be approached with reverence for divine boundaries, avoiding the hubris of human overreach.

In African theological ethics, these themes take on a communal and relational dimension. Mbiti (1990: 30) in Ubuntu theology; "I am because we are" echoes the Genesis narrative, framing personhood within mutual relationship. Technologies that isolate or commodify life are therefore theologically suspected. Posey (2001: 112) critiques biotechnological commodification, urging a bioethics rooted in Scripture's affirmation of life as "very good" (Gen. 1:31). African voices elevate justice as an ethical imperative: Mphahlele (2022: 50) argues that technology policy should reflect biblical mandates, such as Genesis 1:28 and 2:16–17, to foster sustainable innovation that prioritizes community well-being and resists external exploitation.

Recent scholarship in AI and biotechnology ethics raises concerns about systemic bias, surveillance, and human dignity in machine-mediated decision-making (Crawford, 2021; Benjamin, 2019). To further enrich this discourse, emerging African voices and interdisciplinary scholars in technology ethics contribute contextually grounded critiques, emphasizing the necessity of culturally relevant frameworks in AI and biotechnology ethics However, much of this discourse remains philosophically or legally framed, often detached from theological grounding. The integration of African theological perspectives into these ethical debates remains minimal, especially in relation to the SDGs. This lacuna limits both the depth and contextual relevance of ethical reflections on technology in Africa.

While Mbiti (1990) and Orobator (2018) emphasize Ubuntu and relational anthropology, other African theologians such as Magesa (1997) and Dube (2012) offer critical feminist and postcolonial insights that remain underutilized in tech ethics. Dube's critique of patriarchal structures illuminates the gendered dimensions of biotechnological control, highlighting how AI-driven surveillance may exacerbate existing inequalities and deepen colonial legacies within technological systems. For instance, Dube's work on healing and power dynamics in biblical interpretation could enrich critiques of biotechnological control and data colonialism.

Theologically, the literature often prioritizes stewardship (Middleton, 2005; Bauckham, 2010), but alternative views, such as co-creation (Hefner, 1993) or process theology, suggest more participatory models of innovation. Process theology's emphasis on dynamic, relational creation invites a participatory ethic where humans co-create with God rather than dominate, offering a hopeful counterpoint to cautionary stewardship models. This perspective encourages discernment

and collaborative innovation aligned with divine creativity. These perspectives, while contested, challenge a purely cautionary ethic and call for discernment in how Genesis 1–3 is read in contemporary tech contexts.

Building on these perspectives, Kenyan scholars apply Genesis 1–3 to local contexts and development ethics. Akinyemi (2019: 142) advocates contextual theologies that integrate traditional values with biblical ethics to shape innovation in healthcare, agriculture, and education. Given the biblical injunction to "work and keep" (Gen. 2:15), stewardship thus becomes a vital theological and practical paradigm in both urban and rural Kenyan communities. Oduor (2020: 95) warns against technologically-driven ecological disruption, asserting that respectful innovation must align with the Creator's intentions. Kibet (2021: 58) extends this vision by aligning Genesis-based ethics with SDGs: health, innovation, and equality must be pursued through justice-lens technologies that uplift, not marginalize, vulnerable groups. The vision of shared abundance (Gen. 1:29–30) becomes an ethical horizon for equitable development.

From these intersecting currents, a synthesis emerges: Genesis 1–3 offers a coherent, theologically rooted ethical economy, anchored in *imago Dei*, divine sovereignty, relationality, stewardship, and justice, that guides responsible engagement with AI and biotechnology. This theological framework challenges techno-utopianism without rejecting progress. Instead, it demands discernment: humans are image-bearers, not gods; stewards, not owners; participants in creation, not its overlords.

By situating technological stewardship within a covenantal and creation-centered vision, this literature underscores the importance of integrating biblical ethics into science, policy, and development discourse. Genesis 1–3 does not offer robotic prescriptions or policy formulas, but it provides the moral compass necessary for navigating the moral ambiguities of technological advancement. As AI and biotechnological innovation accelerate, the theological grammar of Genesis steers Christian ethics toward justice, humility, and the flourishing of all creation in harmony with divine sovereignty.

Research Methodology

This study employs a biblically grounded and methodologically rigorous approach to investigate the ethical boundaries of artificial creation in the era of artificial intelligence (AI) and biotechnology. Genesis 1–3 functions as the theological and exegetical anchor, offering a robust interpretive lens for evaluating technological development through the themes of *imago Dei*, divine sovereignty, and priestly stewardship. The methodology integrates four core dimensions: historical-critical exegesis of Genesis 1–3, theological-ethical analysis, interdisciplinary engagement with science and technology ethics, and a focused desk review in theological anthropology, bioethics, and justice. This multidimensional approach enables a rich dialogue between biblical theology and the pressing ethical dilemmas posed by contemporary innovation.

To further contextualize this framework, the study integrates African theological ethics to contextualize the biblical framework within the lived realities and moral concerns of African communities. Drawing on principles such as Ubuntu and the theological emphasis on relationality, community, and the sacredness of life, the methodology acknowledges African critiques of individualism and technological exploitation (Orobator, 2018; Ilo, 2019). This engagement enriches the ethical analysis by foregrounding communal responsibility, social justice, and holistic well-being, thus bridging Scripture, African ethical perspectives, and contemporary technological discourse. Integrating these African theological insights ensures the ethical framework is both culturally relevant and practically oriented towards equitable innovation aligned with Sustainable Development Goals.

A historical-critical exegesis of Genesis 1–3 reveals key theological constructs essential for developing a biblically informed anthropology and moral vision. Genesis 1 presents a liturgically ordered cosmos brought into being by divine fiat, “And God said” which affirms not only God’s sovereign authority but also the rational intentionality of creation (Sarna, 1989: 6). The Hebrew terms *tselem* (image) and *demut* (likeness) in Genesis 1:26–27 ground human dignity in relational identity, not cognitive function, framing humanity as morally accountable stewards of creation (Middleton, 2005: 26–30). Genesis 2 expands this vision, depicting Eden as a sanctuary and commissioning humanity to “till and keep” (*abad* and *shamar*) the garden (Gen. 2:15), suggesting priestly responsibility under divine rule (Walton, 2001: 85). Genesis 3 narrates the archetypal

transgression of divine limits, where the desire "to be like God" (Gen. 3:5) results in alienation, suffering, and the rupture of creation's harmony, a paradigm for evaluating the moral risks of technological overreach (Brueggemann, 1982: 41–44). This exegetical foundation affirms a theological anthropology that is relational, bounded, and covenantal, providing the moral architecture for a biblical response to AI and biotechnology.

Building upon this foundation, the theological-ethical analysis interprets the motifs in Genesis as normative for contemporary ethical discernment. The *imago Dei* affirms the sacred worth of human beings, challenging AI and biotechnological paradigms that reduce humans to programmable entities. Middleton (2005: 25–30) contends that preserving moral agency and relational identity is essential for a faithful anthropology. Divine sovereignty, particularly as expressed in Genesis 2:16–17 and 3:1–7, establishes limits on human autonomy and innovation. Bonhoeffer (1997: 112) warns that true human freedom lies not in dominion over nature or self-deification but in obedient alignment with God's will. Brueggemann (1982: 41–44) similarly frames the Fall as a caution against technological hubris. Furthermore, Genesis 1:28 and 2:15 enjoin humanity to practice dominion as stewardship. Hiebert (1996: 33–36) notes that biblical dominion entails service, care, and accountability, not exploitation. Lastly, the theme of justice arises from Genesis 3:14–19, where the consequences of sin introduce disorder and inequality. Wright (2004: 218–221) argues that biblical ethics demands a preferential concern for the marginalized in any technological economy.

Recognizing the complexities of technological development, the study engages in interdisciplinary dialogue with science, technology ethics, and Christian theology. In the field of AI ethics, Dyer (2020: 88) calls for technologies that uphold moral agency and prevent human obsolescence. Spiering (2022: 93) critiques the illusion of machine consciousness, warning against eroding the distinctiveness of human beings. In the domain of biotechnology, McFarland (2019: 75) and Posey (2001: 112) emphasize theological boundaries to gene editing and synthetic biology, warning against playing God and echoing Genesis 3's narrative of forbidden knowledge. The study also engages with the Sustainable Development Goals (SDGs), arguing for a biblical ethics that aligns with SDG targets while reinterpreting them through a theological lens. Bauckham (2010: 130) critiques anthropocentric visions of development, advocating for a creation-centered ethic. Brown

(2021: 317) and Oduor (2020: 95) affirm justice-oriented Christian engagement with innovation rooted in biblical vision.

A targeted desk review reinforces these insights through concentrated engagement with theological anthropology, bioethics, and justice. Theological anthropology affirms the uniqueness of the human person as relational and moral. Kilner (2015: 97–99) argues for a definition of dignity that transcends functionality, while Coeckelbergh (2020: 143–147) explores how AI complicates definitions of personhood. In Christian bioethics, Meilaender (2013: 45) asserts that genetic manipulation undermines human creatureliness, while Hauerwas (2006: 78–80) warns against technocratic ethics that sideline vulnerable communities. He advocates for a community-centered, embodied moral practice. Discussions on justice highlight systemic inequalities in digital systems. Noble (2018: 22–26) and Gnanakan (2004: 110–115) critique technological structures, that reproduce racial, gendered, and economic injustice. Genesis 2:15's stewardship ethic affirms the equitable use of technological resources and supports Wright's (2004: 270–273) call for distributive justice grounded in covenantal relationships.

Genesis 1–3 thus provides a faith-informed lens for reinterpreting the SDGs through moral and theological categories. In SDG 3 (Health and Well-being), the sanctity of life and moral agency must guide biotechnological applications. Kilner (2015: 97–99) insists that technologies respect the relational essence of humanity. For SDG 9 (Industry, Innovation, and Infrastructure), technological creativity should mirror divine creativity, remaining within moral limits established in Genesis 2:16–17. Coeckelbergh (2020: 143–147) emphasizes ethical design that prioritizes human dignity over market or military utility. Regarding SDG 10 (Reduced Inequality), Wright (2004: 270–273) maintains that justice demands an equitable distribution of technological benefits. Genesis opposes systems of exploitation, calling instead for inclusive development rooted in stewardship, justice, and covenant.

In conclusion, this methodological approach establishes Genesis 1–3 as a powerful resource for evaluating the ethical implications of AI and biotechnology. By integrating historical-critical exegesis, theological reflection, and interdisciplinary discourse, the study affirms a biblically grounded, ethically coherent framework rooted in *imago Dei*, moral limits, and justice. This

framework equips theologians, ethicists, and policymakers to assess artificial creation in alignment with God's vision for creation, community, and human flourishing.

Findings

This study examined Genesis 1–3 as a theological framework for discerning ethical boundaries in artificial intelligence (AI) and biotechnology. Through historical-critical exegesis, theological-ethical reflection, and interdisciplinary dialogue, six key findings emerged, each contributing to a biblically grounded and contextually responsive moral vision. Together, they affirm that Genesis 1–3 articulates a coherent ethical paradigm rooted in the doctrines of *imago Dei*, divine sovereignty, and priestly stewardship. These theological themes offer a faith-informed response to the moral dilemmas raised by artificial creation and global innovation.

A foundational finding is the centrality of *imago Dei* (Gen. 1:26–27) in evaluating technological advancement. This doctrine affirms the inherent dignity, moral agency, and relational vocation of every human being, challenging reductionist approaches that define personhood in terms of cognitive capacity or genetic makeup (Middleton, 2005: 26–30). Kilner (2015: 97–99) stresses that identity grounded in divine likeness cannot be artificially replicated without distorting its meaning. Thus, attempts to create conscious machines or genetically "perfect" humans risk violating the uniqueness of image-bearing humanity. Rather than pursuing control over human nature, innovation must reflect the divine character and respect the relational identity of persons.

Equally important is the theme of divine sovereignty as a theological limit on human autonomy. Genesis 2:16–17 and 3:1–7 narrate the moral consequences of overstepping divine boundaries in the pursuit of forbidden knowledge. This narrative critique is especially relevant in light of transhumanist ambitions and AI systems that aim to transcend finitude. Bonhoeffer (1997: 112) interprets the desire to "be like God" (Gen. 3:5) as a form of self-deification, a dangerous theological overreach. Brueggemann (1982: 41–44) adds that such autonomy results not in empowerment but in alienation and collapse. These biblical warnings urge ethical humility and underscore the need for technological accountability under divine lordship.

Another key insight comes from Genesis 2:15, where humanity's vocation is defined as priestly stewardship, to "work and keep" the garden. This calls for a model of innovation that prioritizes

care, not control. Modern technological frameworks often promote exploitation in the name of progress, yet biblical stewardship emphasizes sustainability, restraint, and accountability to God and the created order (Hiebert, 1996: 33–36; Bauckham, 2010: 130). In African contexts, this ethic is especially urgent, calling for resistance to technological neocolonialism and a revaluation of indigenous ecological wisdom (Mbiti, 1990; Bediako, 2004).

The theme of justice further reinforces the ethical demands of Genesis 1–3. The relational and ecological rupture described in Genesis 3:14–19 parallels the societal harms perpetuated by biased algorithms, exploitative data practices, and inequitable access to medical technologies. A biblically rooted ethic must prioritize the vulnerable, ensuring that the benefits of innovation are equitably shared (Wright, 2004: 218–221, 270–273). African theologians such as Mphahlele (2022: 50) and Oduor (2020: 95) emphasize the need for equitable technological engagement that protects against exploitation while empowering marginalized communities. These insights align closely with the aims of SDGs 3, 9, and 10, affirming the moral imperative of inclusive and justice-oriented development.

Genesis 1–3 also emerges as a compelling dialogical partner for interdisciplinary ethics. Its theological grammar, *imago Dei*, divine command, and relational stewardship, offers a robust framework for engaging contemporary debates on AI, biotechnology, and human agency. Genesis 1's portrayal of creation through divine speech and relational order challenges deterministic and mechanistic worldviews. As Dyer (2020: 88) and Spiering (2022: 93) argue, biblical categories enrich philosophical and scientific discourse on the nature of life, responsibility, and freedom. Moreover, dialogue with bioethical literature (Meilaender, 2013; Posey, 2001: 112) and critiques of technological injustice (Noble, 2018; Gnanakan, 2004) confirm the enduring relevance of Genesis in shaping global moral conversations.

Finally, this study demonstrates that Genesis 1–3 can help theologically reinterpret key Sustainable Development Goals. SDG 3 (Health) is enriched by the sanctity of life grounded in *imago Dei*, which challenges commodified or utilitarian approaches to the human body (Kilner, 2015: 97–99). SDG 9 (Innovation) is illuminated by divine sovereignty, affirming human creativity within divinely ordained limits (Coeckelbergh, 2020: 143–147). SDG 10 (Reduced Inequality) is rooted in biblical justice, demanding that technologies serve the common good and resist systemic

exclusion (Wright, 2004). Far from resisting development, Genesis offers a moral vision that affirms sustainable, equitable, and covenantally accountable innovation.

Summary of Key Theological Results

Theological Theme	**Genesis Reference**	**Ethical Insight for AI and Biotechnology**
Imago Dei	Gen. 1:26–27	Affirms dignity; sets ethical limits to human replication and manipulation
Divine Sovereignty	Gen. 2:16–17; 3:5	Warns against autonomous overreach and transhumanist ideals
Priestly Stewardship	Gen. 2:15	Models innovation as care, sustainability, and service
Justice and Equity	Gen. 3:14–19	Calls for distributive justice and inclusive technological ethics
Dialogical Interdisciplinarity	Gen. 1–3	Enables conversation between theology, ethics, and technology studies
Faith and SDG Alignment	Gen. 1:28; 2:15	Reinterprets SDGs through a biblical lens of stewardship, justice, and flourishing

Table 1.1 Summary of Key Theological Results

These findings affirm that Genesis 1–3 offers a biblically grounded, theologically coherent, and ethically robust framework for addressing moral challenges posed by artificial creation. The Old Testament's themes of creation, vocation, and limitation remain vital for Christian ethical engagement with emerging technologies. Integrated with the Sustainable Development Goals, this framework promotes a faith-informed ethic that values creativity, limits autonomy, and prioritizes justice, offering a compelling model for churches, theologians, ethicists, and policymakers navigating science and technology.

Discussion

Building on the six theological findings identified in the previous section, this discussion explores their broader implications for theological anthropology, technological ethics, African contextual theology, and global development frameworks. This study set out to investigate Genesis 1–3 as a theological resource for discerning the ethical boundaries of artificial creation, particularly in relation to artificial intelligence (AI) and biotechnology. Drawing from those key findings, it proposes a biblically grounded, theologically informed, and contextually responsive framework for ethical engagement. These findings affirm human dignity, critique technological autonomy, and respond to contemporary innovation in light of the Sustainable Development Goals (SDGs), African contextual theology, and global justice concerns.

First, reaffirming the *imago Dei* (Genesis 1:26–27) provides a foundational theological anthropology. It rejects definitions of personhood grounded solely in cognition or biology (Kilner, 2015: 97–99), instead affirming a relational identity rooted in divine likeness (Middleton, 2005: 25–30). Within the context of AI and gene editing, *imago Dei* becomes an ethical boundary: technology should reflect divine character, not seek to replace it (Waters, 2006: 59–63). Transhumanist ideals echo the Genesis 3:5 temptation to "be like God" (Bonhoeffer, 1997: 112), which results not in liberation but in alienation and moral collapse (Brueggemann, 1982: 41–44).

Second, Genesis 2 presents a dual vision of divine sovereignty and ethical stewardship. Genesis 2:16–17 establishes divine moral boundaries around the pursuit of knowledge and innovation, while 2:15 calls for priestly stewardship of creation. Innovation must thus serve life, not dominate it. In African contexts, this stewardship ethic must challenge neo-colonial impositions and elevate indigenous knowledge, ecological balance, and community justice (Mbiti, 1990; Bediako, 2004).

Third, the justice implications of Genesis 3 are critical for technological ethics. Genesis 3:14–19 illustrates the social and ecological fallout of disobedience, mirroring the disruptive potential of biased algorithms and extractive data practices today. A faith-informed ethic must prioritize the marginalized, ensuring equitable access to technological benefits, particularly in the Global South (Wright, 2004; Mphahlele, 2022) aligning with SDGs 3, 9, and 10.

Fourth, Genesis 1–3 serves as an ethical resource and interdisciplinary partner, offering a theological grammar, *imago Dei*, divine command, and relational accountability, that corrects deterministic or utilitarian visions of technological progress (Dyer, 2020; Spiering, 2022).

Fifth, a theological reinterpretation of the SDGs links SDG 3 to the sanctity of life, SDG 9 to ethical creativity, and SDG 10 to justice and stewardship, rooting development in a moral and spiritual vision.

Finally, while this study is theological in method, future research should incorporate empirical data, policy analysis, and ecclesial praxis to enhance its practical relevance.

Conclusion

This study concludes that Genesis 1–3, when interpreted through historical-critical, theological, and contextual lenses, provides a robust and enduring ethical framework for responding to the unprecedented challenges and opportunities posed by artificial intelligence (AI) and biotechnology. By retrieving the Old Testament's theology of creation, fall, and vocation, this study has demonstrated that Scripture offers not only moral boundaries but also a positive vision of human creativity under divine sovereignty. The doctrines of *imago Dei*, divine sovereignty, and priestly stewardship affirm the sanctity of life, human dignity, and relational accountability before God, while also warning against technological hubris and idolatry. Humanity's vocation is not to transcend its creatureliness through innovation but to exercise creativity responsibly, as stewards of a divinely ordered creation.

The exegesis of Genesis 1–3 affirms that human beings, created in the image of God (Gen 1:26–27), bear a relational and moral identity grounded in covenantal responsibility. This identity forms the theological foundation for evaluating the moral legitimacy of AI and biotechnology. Innovation, while a reflection of humanity's creative mandate, must remain subordinated to divine purpose and moral order. Genesis 2:15 reminds us that true progress involves both *abad* (to serve) and *shamar* (to guard): innovation must be both productive and protective, enhancing life without violating its sacred boundaries. Genesis 3, with its narrative of disobedience and alienation, warns that the quest for absolute autonomy, the desire "to be like God" leads not to human fulfillment but to fragmentation, exploitation, and ecological disruption. These insights remind modern

humanity that moral discernment must accompany technological progress, ensuring that creativity does not devolve into idolatry or domination.

African contextual theology enriches this biblical vision by situating ethics within the lived experiences, communal values, and moral imagination of African societies. African theological paradigms such as *Ubuntu* "I am because we are" complement Genesis 1–3 by emphasizing relational ontology, interdependence, and collective responsibility. This study therefore situates AI and biotechnology ethics within an African worldview that resists the isolation and utilitarianism characteristic of Western techno-capitalism. The communal ethic of Ubuntu demands that innovation contribute to the flourishing of all, especially the marginalized, thereby re-centering human dignity, equity, and justice in technological development. African theologians such as Mbiti (1990), Bediako (2004), and Ilo (2019) remind the global community that technology divorced from spirituality and relational morality breeds alienation rather than development. Thus, integrating African theological ethics with biblical revelation offers a profound corrective to the dehumanizing tendencies of technocratic rationality.

Furthermore, this study has shown that the Sustainable Development Goals (SDGs) must be interpreted not merely as socio-economic targets but as moral imperatives grounded in theological anthropology and covenantal justice. SDG 3 (Good Health and Well-Being) aligns with the biblical affirmation of life as sacred and inviolable; thus, healthcare innovation, biotechnology, and medical AI must serve healing, not commodification. SDG 9 (Industry, Innovation, and Infrastructure) resonates with the call for creative stewardship, innovation that mirrors divine creativity while respecting ethical limits and creation's integrity. SDG 10 (Reduced Inequalities) is illuminated through the prophetic tradition and the justice-orientation of Genesis 3:14–19, where the disruption of harmony calls humanity to redress inequality and restore community. Re-reading the SDGs through theological and African ethical lenses transforms them from policy goals into spiritual and moral commitments: acts of obedience to the Creator's design for equitable flourishing.

Theologically, this research contributes to the growing field of theological anthropology in the digital and biotechnological age. It asserts that *imago Dei* cannot be reduced to cognition, intelligence, or algorithmic capacity; it is a relational and moral vocation that grounds human

worth beyond productivity or performance. AI systems and genetic technologies, while capable of remarkable feats, lack the moral conscience and covenantal accountability intrinsic to divine image-bearing. Thus, theological anthropology provides an indispensable corrective to reductionist and mechanistic definitions of humanity prevalent in contemporary discourse.

Ethically, the study invites theologians, policymakers, and technologists to engage in sustained dialogue grounded in Scripture and contextual theology. Churches and Christian institutions must play a proactive role in shaping ethical guidelines for emerging technologies. The pulpit, the seminary, and the policy table must all become sites of theological reflection on innovation. African ecclesial communities, drawing from both Scripture and indigenous wisdom, can pioneer faith-informed frameworks that ensure technology serves life, not power; community, not profit. Practical steps include forming interdisciplinary research centers in theology and technology, integrating AI ethics into ministerial training, and fostering partnerships between faith communities and scientific institutions.

From a missional perspective, this study underscores that engaging AI and biotechnology is part of the church's prophetic vocation in the twenty-first century. As humanity increasingly assumes creative powers once deemed divine, the church must bear witness to the Creator's sovereignty and humanity's moral dependence. A theology of creation care and technological ethics thus becomes an act of discipleship, an embodiment of loving God through the responsible use of creation's gifts and loving neighbor through the equitable sharing of technological benefits. In this sense, Genesis 1–3 is not merely a story of origins but a continuing moral charter for the technological age.

In conclusion, From Eden to Ethics affirms that the earliest chapters of Genesis continue to speak with prophetic urgency to a world reshaped by algorithms, laboratories, and artificial creation. By holding together *imago Dei*, divine sovereignty, and priestly stewardship, and by grounding them in African communal ethics, this study presents a vision of technology as vocation rather than transgression. It calls humanity to rediscover humility before the Creator, responsibility toward creation, and solidarity with one another. Future research should deepen this theological engagement through empirical studies of African faith communities' responses to AI and biotechnology, cross-cultural comparisons of theological ethics, and further exploration of how

Old Testament theology informs global sustainability discourses. Ultimately, a theology that begins in Eden must lead to ethics that sustain creation, where innovation is not a tower of Babel but an altar of worship, and where technological progress becomes a means of participating in God's ongoing work of justice, reconciliation, and renewal for all creation.

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