"WE ARE BECAUSE OF AI?": AN INTERPRETIVE STUDY OF ADOLESCENTS' IDENTITY FORMATION IN RELATION TO ARTIFICIAL INTELLIGENCE GUIDANCE AND UBUNTU

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Abstract

Artificial intelligence (AI) technologies are reshaping education globally, sparking intense debate within Zimbabwean higher learning institutions where the Ubuntu philosophy — rooted in ethics, community, and integrity — remains central. Zimbabwe's higher education system, guided by the five pillars of Education 5.0 (teaching, research, community engagement, innovation, and industrialisation), encourages technological progress. However, many universities strictly prohibit AI use in assignments and dissertations, often equating it to plagiarism and relying on tools such as Turnitin to detect AI-generated content. Meanwhile, adolescents increasingly embrace AI as a legitimate tool to simplify academic work and engage with the digital age. Some innovate by using AI humanisers to evade detection, thereby challenging traditional academic practices that

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privilege books and libraries over digital tools. This qualitative interpretive case study investigates how AI guidance influences adolescents' identity formation in relation to Ubuntu values, drawing on interviews with three lecturers and three student focus groups. Thematic analysis reveals tensions between institutional resistance to AI and students' drive for technological integration. Adolescents' identities emerge through efforts to balance communal ethics with digital autonomy, as they advocate for modernised educational approaches. The study contributes to the body of knowledge by proposing the Ubuntu-AI Harmonization Model (UAHM), a framework designed to guide the ethical integration of AI in education while upholding indigenous value systems. The findings offer practical insights for educators, policymakers, and AI developers on fostering culturally grounded, technology-enabled learning environments.

Key terms: *artificial intelligence, identity formation, Ubuntu, Education 5.0*

INTRODUCTION

THE RISE OF AI TECHNOLOGIES IN EDUCATION: A GLOBAL AND ZIMBABWEAN PERSPECTIVE

Artificial intelligence (AI) is reshaping education globally, offering new possibilities for personalized learning, automation of assessment, and access to information (Holmes, Bialik, & Fadel, 2021; Luckin, Holmes, Griffiths, & Forcier, 2019). In many parts of the world, AI tools such as adaptive learning systems, automated feedback generators, and virtual tutors are seen as pathways to improving educational outcomes (Holmes et al., 2021). In Zimbabwe, these global trends intersect with **Education 5.0**, a transformative framework built on five pillars: teaching, research, community engagement, innovation, and industrialization (Maringe & Makaye, 2021). Education 5.0 aims to position higher education as a key driver of national development, pushing institutions to embrace technological innovations that align with the nation's industrialization agenda (Maringe & Makaye, 2021).

Yet this technological push is not without tension. Despite the emphasis on innovation, many universities in Zimbabwe have adopted strict policies against the use of AI for assignments, dissertations, and other academic outputs. Institutions employ plagiarism detection tools like Turnitin to identify AI-generated content, treating it as academic dishonesty (Maphosa, Ndlovu, & Mhizha, 2020). For example, reports indicate that students have turned to AI "humanizer" tools to rephrase AI-generated material, attempting to evade detection while still benefiting from AI's capabilities (Mukomana & Mufunda, 2023). This scenario illustrates a paradox where technology, promoted as a vehicle of innovation, is simultaneously policed as a threat to academic integrity. These contradictions form a significant part of the context in which adolescent identity formation is occurring.

UBUNTU AS A GUIDING ETHICAL AND PHILOSOPHICAL FRAMEWORK

Ubuntu is a deeply rooted philosophical and ethical framework in Zimbabwe, emphasising community, shared humanity, and mutual responsibility (Letseka, 2019). Its central tenet, "I am because we are," positions identity as relational and embedded within communal well-being (Chikadzi & Nyoni, 2021). In the realm of education, Ubuntu underpins moral expectations around academic honesty, collaboration, and collective advancement (Letseka, 2019). However, AI's rise introduces individualistic tendencies that can appear at odds with Ubuntu's communal values. Chikadzi and Nyoni (2021) argue that Ubuntu calls for integrity in knowledge production, valuing authenticity and collective contribution over individual shortcuts. Their point highlights the potential for ethical dissonance as AI tools enable students to bypass traditional efforts, which could erode shared trust. This tension compels institutions to reaffirm Ubuntu values, but also forces students to reconcile these values with their desire to engage with contemporary technologies.

Adolescence and Identity Formation in the Context of AI

Adolescence is a critical phase of identity development, characterized by exploration and the integration of various social, cultural, and personal influences (Kroger, Martinussen, & Marcia, 2019). Higher education provides a key arena for this identity work, as young adults negotiate academic expectations, peer relationships, and increasingly, digital technologies. Ndofirepi, Chikomborero, and Mushaikwa (2020) note that students in Zimbabwean universities are forming academic identities within environments that simultaneously encourage technological innovation and impose restrictive policies on its use. This duality often places adolescents in a complex position: they are drawn to AI's promise of efficiency and modernity but are constrained by institutional norms rooted in Ubuntu ethics. The result is a contested space where adolescents must determine how to align their emerging identities with conflicting technological and moral imperatives. Such identity negotiations are not just academic but deeply tied to how these young people see themselves as future professionals and ethical members of society.

The Need to Explore AI's Influence on Identity in Ubuntu Contexts

The contradictions between AI guidance, Education 5.0's innovation agenda, and Ubuntu's moral framework demand scholarly investigation. Although Education 5.0 promotes technological advancement, its implementation is often undermined by institutional fears of academic dishonesty, creating mixed messages for students (Maringe & Makaye, 2021). Letseka (2019) emphasises that education systems rooted in Ubuntu must balance cultural integrity with openness to new knowledge systems, a task that becomes more challenging as AI disrupts traditional educational models. This observation underscores the need to understand how adolescents navigate these competing demands in forming their identities.

Existing studies have focused on either AI's role in educational processes or Ubuntu's moral imperatives but have rarely explored how these intersect in shaping adolescent identity. This study addresses that gap, providing insights that can inform educational policy and practice in Zimbabwe and other contexts where indigenous philosophies and modern technologies coexist.

RESEARCH AIM AND QUESTIONS

The study aims to explore how AI guidance influences adolescents' identity formation in relation to Ubuntu values within a higher education context that resists AI use in academic work. The study is guided by the following research questions:

2. How does AI guidance influence adolescents' identity formation in relation to Ubuntu values in Zimbabwean higher education?
3. How do adolescents navigate institutional prohibitions against AI use in academic work?
4. What tensions emerge between technological autonomy and communal ethical expectations in the formation of adolescent identity?

THEORETICAL FRAMEWORK

THEORIES OF ADOLESCENT IDENTITY FORMATION

Adolescent identity formation is a core developmental task that has been explored through various theoretical lenses. Erikson's psychosocial theory identifies adolescence as a critical stage of identity versus role confusion, where young people explore and integrate values, beliefs, and roles into a coherent sense of self (Kroger, Martinussen, & Marcia, 2019). Erikson's framework emphasises the tension between individual aspirations and societal expectations, making it particularly relevant in contexts where adolescents must navigate both traditional values and modern innovations. Kroger et al.

(2019) show that identity exploration during this stage is dynamic and shaped by cultural, educational, and technological contexts. This suggests that identity development is not static but responsive to the environment, including emerging forces such as artificial intelligence (AI).

Postmodern perspectives on identity emphasise that identity in contemporary societies is fluid, fragmented, and shaped by global and digital influences (Negru-Subtirica & Pop, 2019). According to Negru-Subtirica and Pop (2019), adolescents today engage in identity work across multiple, sometimes contradictory, spaces—including the physical, virtual, and algorithmic. These views are pertinent in examining how AI guidance and digital tools influence identity formation in contexts like Zimbabwe, where indigenous philosophies and global technologies converge. Such perspectives highlight that adolescent identity is no longer formed solely through face-to-face communal interactions but is increasingly shaped by engagement with technologies that mediate knowledge, relationships, and self-presentation.

UBUNTU PHILOSOPHY: COLLECTIVE IDENTITY, COMMUNITY, AND INTERDEPENDENCE

Ubuntu, an indigenous African philosophy, offers a communal lens on identity that contrasts with the individualist paradigms prevalent in Western theories. Ubuntu asserts that "I am because we are," emphasising that personhood and identity are constituted through relationships with others and obligations to the community (Letseka, 2019). This philosophy highlights interdependence, mutual respect, and ethical responsibility as cornerstones of personal development. Letseka (2019) argues that in educational contexts, Ubuntu fosters shared accountability, integrity, and the collective pursuit of knowledge. Chikadzi and Nyoni (2021) further contend that Ubuntu views education as a moral enterprise aimed at nurturing socially

responsible and community-oriented individuals. Their analysis underscores that identity formation under Ubuntu is inseparable from the values and well-being of the broader community. This collective orientation often conflicts with individualistic technologies and practices that prioritize personal achievement over communal harmony.

Ubuntu's emphasis on ethical conduct and social cohesion informs educational policies and practices in Zimbabwe. It promotes academic honesty and frowns upon practices such as plagiarism or the dishonest use of technology, which can be seen as breaches of communal trust (Tshuma & Maphosa, 2022). This philosophical backdrop frames institutional resistance to AI-assisted writing, as such practices are perceived as undermining the shared values that sustain academic communities.

AI Guidance in Educational Settings: Personalization, Autonomy, and Algorithmic Influence

AI technologies in education are designed to personalize learning, support autonomy, and enhance engagement through algorithmic decision-making (Holmes, Bialik, & Fadel, 2021). AI guidance offers learners immediate feedback, tailored resources, and support for self-paced study (Luckin, Holmes, Griffiths, & Forcier, 2019). Holmes et al. (2021) argue that AI's capacity to individualize learning aligns with contemporary educational goals that value student agency and differentiation. This individualization, however, positions students as consumers of algorithmic expertise, shaping their learning pathways and, by extension, their identities.

AI's influence extends beyond the technical domain, subtly encouraging students to see themselves as autonomous agents responsible for managing their own educational trajectories. Luckin et al. (2019) note that while AI can enhance learning efficiency, it also

shifts the locus of control from communal learning environments to personalized digital interfaces. This dynamic raises questions about how adolescents internalize such forms of guidance and how their identities are shaped by constant interaction with AI-driven systems.

THE INTERSECTION: TENSIONS AND POSSIBLE SYNERGIES BETWEEN AI INDIVIDUALISM AND UBUNTU COMMUNALISM

The intersection of AI-driven individualization and Ubuntu communalism presents both tensions and opportunities. On the one hand, AI technologies encourage autonomy, self-direction, and personal achievement—qualities that may conflict with Ubuntu's emphasis on shared responsibility and communal ethics (Tshuma & Maphosa, 2022). When students use AI tools to produce assignments, for example, institutions often view this as undermining Ubuntu principles, as it bypasses the collective effort expected in authentic academic work (Maphosa, Ndlovu, & Mhizha, 2020).

On the other hand, AI could be harnessed to support Ubuntu values by facilitating collaborative learning environments, fostering inclusive participation, and enabling knowledge-sharing across communities (Holmes et al., 2021). The key challenge lies in how educational systems frame AI use: as a tool for individual success or to strengthen collective learning and ethical responsibility. Understanding how adolescents negotiate these paradigms is essential for designing educational policies that integrate technological innovation without eroding indigenous ethical frameworks.

METHODOLOGY

This study adopted a qualitative, interpretive case study design to explore adolescents' identity formation in relation to AI guidance and Ubuntu within a higher education context in Zimbabwe. The research was conducted at a selected institution of higher learning, described generally to protect its identity and maintain ethical standards.

Participants comprised three lecturers, individually interviewed, and three focus groups consisting of four students each, selected purposively to capture diverse perspectives on AI use and identity formation. Data were collected using semi-structured interview protocols and focus group discussion guides, enabling in-depth exploration of participants' experiences and perceptions. Thematic analysis, following Braun and Clarke's (2006) approach, was employed to identify, analyse, and report patterns within the data, ensuring rich interpretation aligned with the study's interpretive paradigm. To enhance trustworthiness, the study incorporated strategies addressing credibility through member checking, transferability via detailed contextual descriptions, dependability by maintaining an audit trail, and confirmability through reflexive journaling. Ethical considerations were paramount; informed consent was obtained from all participants, anonymity was guaranteed, and institutional identity was carefully protected throughout the research process to uphold confidentiality and respect for the participants and their academic environment.

FINDINGS

This study uncovered four interrelated themes that illustrate how AI guidance intersects with adolescent identity formation within an Ubuntu-informed educational context. These themes capture the complex ways students and lecturers experience and negotiate AI's role amid competing cultural and institutional expectations.

THEME 1: AI AS AN ENABLER OF INDIVIDUAL AGENCY AND SELF-EXPRESSION

Participants frequently described AI as a powerful tool that enhances individual agency, offering new avenues for creativity and self-expression. Students emphasised how AI technologies—such as writing assistants, research summarizers, and language models—empowered them to overcome academic challenges and articulate ideas more confidently.

One student explained:

> "AI helps me think differently. When I get stuck, it suggests ways to express my thoughts that I wouldn't have found alone. It makes me feel like I can create something unique, even if it's guided by technology." (Student FG2, Participant 3)

This sentiment reflects a broader recognition of AI as an enabler of intellectual autonomy. The tools do not replace student thinking but rather scaffold it, supporting learners to engage actively with content and to develop a personalized academic voice.

Another participant noted:

> "Sometimes, I struggle with how to say things clearly. AI gives me options, and I choose what feels most 'me'. It's like having a tutor who understands my style." (Student FG1, Participant 1)

Such responses align with postmodern identity perspectives, which acknowledge the role of technology in shaping fluid and multifaceted self-expressions (Negru-Subtirica & Pop, 2019). The students' appropriation of AI tools illustrates how digital guidance can foster a sense of empowerment and innovation in their identity formation. However, the focus on individual agency also hinted at the emergence of self-centric academic practices, setting the stage for potential tensions with communal values.

THEME 2: TENSIONS BETWEEN AI-INFLUENCED INDIVIDUAL IDENTITY AND UBUNTU'S COLLECTIVE ETHOS

Despite the enthusiasm for AI's benefits, both students and lecturers identified tensions between AI-driven individualism and Ubuntu's emphasis on communal responsibility and integrity. Students acknowledged that institutional policies framed AI use in academic writing as a breach of trust, potentially undermining collective academic ethics.

A student shared:

> "The university says using AI is cheating, but we see it as a tool. The challenge is, Ubuntu teaches us to be honest and work with others. Using AI sometimes feels like breaking that promise." (Student FG3, Participant 4)

This tension reflects the collision of two competing epistemologies: one privileging autonomous individual success enabled by technology, and the other advocating for relational accountability and shared moral standards. Lecturers echoed these concerns, emphasising that AI use without ethical guidance risks eroding the values that sustain academic communities.

One lecturer stated:

> "Ubuntu reminds us that knowledge is a communal resource, and integrity is fundamental. When students rely on AI to generate work, they risk disconnecting from that communal commitment." (Lecturer 2)

The concern was not with AI per se but with how its unregulated use could weaken the trust and solidarity underpinning Ubuntu. These findings highlight the difficulty of reconciling modern digital practices with indigenous ethical frameworks, underscoring the need for dialogue and policy innovation.

THEME 3: STUDENTS' NEGOTIATION OF DUAL IDENTITY FRAMEWORKS (DIGITAL AND COMMUNAL)

Faced with these tensions, students demonstrated a complex negotiation of dual identity frameworks. They sought to reconcile their embrace of digital tools with the communal expectations rooted in Ubuntu, crafting hybrid identities that draw from both.

A student reflected:

> "I want to use AI to be better, but I also respect our culture. So, I try to use AI to help with ideas but write my own words and give credit. It's not easy, but it feels right." (Student FG1, Participant 2)

This negotiation reflects an emerging awareness among adolescents of the ethical stakes involved and the need to balance innovation with responsibility. Many students reported strategies such as using AI to draft ideas while ensuring originality in their final submissions, reflecting an attempt to uphold Ubuntu values within a digitalized academic environment.

Another student described this balance:

> "Sometimes, I'll use AI for research summaries, but I discuss the ideas with classmates too. That way, I keep the communal spirit alive even as I use technology." (Student FG2, Participant 4)

These accounts suggest that adolescents are actively constructing hybrid identities that integrate digital agency with communal ethics. This aligns with Kroger et al.'s (2019) conception of identity as fluid and responsive to context and illustrates the adaptive capacity of youth in navigating competing cultural paradigms.

THEME 4: LECTURERS' PERSPECTIVES ON HARMONIZING AI AND UBUNTU IN PEDAGOGY

Lecturers offered valuable insights into how educational practices might harmonize AI use with Ubuntu principles. They acknowledged the inevitability of AI integration but stressed the need for ethical frameworks that align technology with communal values.

One lecturer articulated:

> "We cannot ignore AI—it is part of students' reality. Our role is to guide its use responsibly, embedding Ubuntu ethics so that technology serves the community, not just individual gain." (Lecturer 1)

Lecturers suggested pedagogical innovations such as incorporating discussions on AI ethics, collaborative assignments emphasising shared knowledge construction, and designing assessments that value process over product. They viewed these approaches as ways to cultivate students' digital competencies without compromising Ubuntu-based integrity.

Another lecturer emphasised:

> "Ubuntu offers a moral compass for technology use. If we can teach students to see AI as a tool for collective upliftment rather than shortcuts, we can prepare them to be ethical innovators." (Lecturer 3)

These perspectives reflect an emerging paradigm where AI and Ubuntu are not inherently opposed but can be integrated to enrich learning and identity formation. The lecturers' reflections underscore the importance of institutional leadership in shaping this balance through policy, curriculum, and mentoring.

SUMMARY OF FINDINGS

Overall, the findings reveal a nuanced landscape where adolescents experience AI as both a liberating force for individual expression and a source of ethical tension within Ubuntu-rooted education. Students negotiate dual identities, combining digital autonomy with communal values, while lecturers advocate for pedagogical strategies that harmonize these sometimes-conflicting forces. This complex interplay points to the potential for AI to be leveraged in ways that respect indigenous philosophies while advancing educational innovation.

DISCUSSION

This study explored adolescents' identity formation amid the rising influence of AI guidance within an educational context deeply rooted in Ubuntu philosophy. The findings reveal a complex and dynamic negotiation between digital individualism and communal ethics,

illustrating the multifaceted ways technology shape's identity in indigenous settings. This discussion interprets these findings through the theoretical lenses of adolescent identity formation, Ubuntu philosophy, and AI's role in education, drawing out implications for student well-being and pedagogical practice.

AI Guidance: Enabler and Disruptor of Identity Formation Aligned with Ubuntu

The first major insight concerns AI's dual role as both an enabler and disruptor of identity development. The findings show that AI tools foster adolescents' agency, creativity, and personalized self-expression, consistent with postmodern identity theories that view identity as fluid and technology-mediated (Negru-Subtirica & Pop, 2019). Students used AI to scaffold their academic work, developing a sense of competence and autonomy, which are critical for positive identity formation during adolescence (Kroger, Martinussen, & Marcia, 2019). These experiences highlight AI's potential to empower learners, allowing them to navigate educational demands with novel strategies and a growing digital fluency.

However, this individual empowerment simultaneously challenges Ubuntu's foundational principle of relational identity and collective responsibility (Letseka, 2019). The university's anti-AI policies, grounded in concerns about academic integrity and communal trust, expose tensions between technology-driven individualism and indigenous ethical frameworks. Students' recognition that AI use may contravene Ubuntu values indicates their awareness of the moral complexity involved. This tension mirrors Tshuma and Maphosa's (2022) findings that AI can undermine communal norms by privileging personal gain over shared accountability. Thus, AI-guided identity formation is not a straightforward process but one marked by ethical ambiguity and negotiation.

Dynamic Interplay of Technology, Identity, and Indigenous Philosophy

The study's findings demonstrate that adolescent identity formation in this context occurs at the intersection of technological innovation and indigenous philosophy, producing hybrid identity constructs. Students actively negotiated between the digital logic of AI—favouring autonomy, efficiency, and innovation—and Ubuntu's emphasis on community, integrity, and moral accountability. This negotiation resonates with Kroger *et al.*'s (2019) view of adolescent identity as a fluid process responsive to contextual demands.

This interplay suggests that indigenous philosophies like Ubuntu are not static but adapt as new technologies transform social realities (Letseka, 2019). Rather than rejecting AI outright, adolescents seek ways to integrate it ethically, developing hybrid identities that respect communal values while embracing digital tools. This echoes Negru-Subtirica and Pop's (2019) argument that contemporary identity development involves navigating multiple and sometimes contradictory cultural scripts. The students' reported strategies—such as using AI for ideation but composing original work—illustrate this adaptive capacity and the creative reimagining of identity in the digital age.

Similarly, lecturers' perspectives on harmonizing AI and Ubuntu through pedagogy reflect an emerging educational paradigm. They advocate embedding ethical discourse into AI use and fostering collective knowledge construction that aligns with Ubuntu's moral ethos. This aligns with Holmes, Bialik, and Fadel's (2021) call for education systems to leverage AI responsibly, promoting both personalization and social responsibility. The lecturers' views underscore the role of educators as mediators, guiding adolescents to harness AI as a communal tool rather than an individual shortcut.

IMPLICATIONS FOR STUDENT WELL-BEING

The identity tensions identified have significant implications for student well-being. Adolescents navigating conflicting demands between AI-enabled autonomy and Ubuntu's communal ethics may experience cognitive and emotional strain. The pressure to succeed academically while adhering to ethical standards can generate feelings of guilt, anxiety, or confusion, as students seek to maintain integrity within restrictive institutional frameworks.

Moreover, the hidden use of AI humanizers to evade plagiarism detection points to a coping mechanism that may undermine authentic learning and self-esteem. When students feel compelled to mask their engagement with technology, their sense of authenticity and agency may be compromised, potentially affecting their psychological well-being (Mukomana & Mufunda, 2023). Conversely, when AI is integrated with Ubuntu values, it may foster well-being by affirming identity within a supportive community and enabling ethical academic success.

IMPLICATIONS FOR EDUCATIONAL PRACTICE

The study highlights the urgent need for educational policies and practices that balance technological innovation with indigenous ethical frameworks. Strict prohibitions against AI use risk alienating students and fostering clandestine behaviours that erode trust. Instead, institutions should adopt inclusive approaches that recognize AI's inevitability and potential benefits while embedding Ubuntu-inspired ethical guidelines.

Curriculum designs incorporating discussions about AI ethics, communal responsibility, and digital literacy can help students navigate these complexities. Pedagogies promoting collaborative learning, critical reflection on technology use, and shared knowledge construction align with Ubuntu's principles and mitigate the risks of

individualistic misuse (Chikadzi & Nyoni, 2021). Such approaches support identity development that is both digitally fluent and communally grounded.

Educators must also receive training to understand AI's capabilities and ethical considerations, enabling them to mentor students effectively. Institutional leadership should engage stakeholders in dialogue about evolving educational values in the digital era, fostering policies that respect indigenous philosophies while embracing innovation.

CONCLUSION

This study contributes to understanding adolescent identity formation at the nexus of AI guidance and Ubuntu philosophy in Zimbabwean higher education. AI serves as both an empowering and challenging force, prompting adolescents to negotiate hybrid identities that reconcile digital autonomy with communal ethics. Educational institutions have a critical role in shaping this negotiation through ethical pedagogy and inclusive policy. Balancing technology with indigenous values not only supports academic integrity but also promotes holistic student well-being and culturally relevant education in an increasingly digital world.

CONTRIBUTION OF THE STUDY

PROPOSED FRAMEWORK: THE UBUNTU-AI HARMONIZATION MODEL (UAHM)

OVERVIEW

The Ubuntu-AI Harmonization Model (UAHM) provides an integrative approach to guiding the ethical and effective use of AI in educational settings deeply influenced by Ubuntu philosophy. It aims

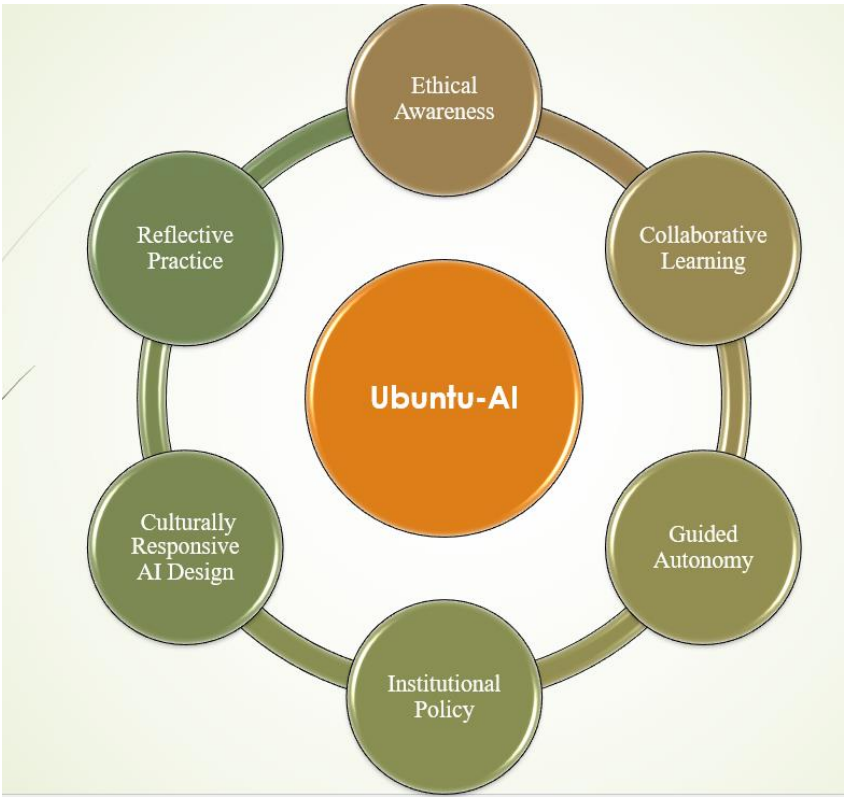
to balance AI-enabled individual agency with communal responsibility, fostering holistic adolescent identity formation.

CORE COMPONENTS

Component	Description	Key Actions/Features
1. Ethical Awareness	Embedding Ubuntu principles (mutual respect, integrity, communalism) into AI use practices.	- Integrate Ubuntu ethics into digital literacy curricula. - Facilitate workshops on AI ethics and academic honesty.
2. Collaborative Learning	Designing AI-supported activities that encourage community engagement and shared knowledge creation.	- Use AI tools to support group projects. - Encourage peer review and collective reflection.
3. Guided Autonomy	Promoting responsible AI use that enhances individual creativity while respecting communal norms.	- Train students on ethical AI application. - Monitor AI use with clear guidelines balancing innovation and integrity.
4. Institutional Policy	Developing policies that regulate AI integration, protect academic integrity, and uphold Ubuntu values.	- Shift from prohibition to regulated, transparent AI use. - Involve stakeholders in policy formation (students, staff).
5. Culturally Responsive AI Design	Encouraging AI developers to create tools aligned with indigenous values and communal learning needs.	- Collaborate with local educators and philosophers. - Develop AI that supports ethical authorship and community building.
6. Reflective Practice	Continuous evaluation and adaptation of AI use through feedback loops involving students and educators.	- Conduct regular assessments of AI's impact on learning and identity. - Incorporate reflective sessions on technology's role in education.

MODEL VISUALIZATION

Is a circular interconnected model, where each component feeds into and supports the others, symbolizing Ubuntu's interconnectedness.



- **Ethical Awareness** forms the foundation, underpinning all AI use.
- **Collaborative Learning** builds on this foundation to ensure AI fosters community engagement.
- **Guided Autonomy** balances individual empowerment with communal norms.
- **Institutional Policy** provides formal structure and governance.
- **Culturally Responsive AI Design** ensures tools are contextually relevant and supportive.

- **Reflective Practice** ensures ongoing improvement and responsiveness to evolving challenges.

SIGNIFICANCE

This framework aligns AI integration with Ubuntu's communal values, promoting a balanced identity development process for adolescents. It addresses ethical concerns while embracing technological innovation, guiding educators and policymakers to create environments where AI acts as a tool for both individual growth and collective well-being.

RECOMMENDATIONS

FOR EDUCATORS:

Educators should foster critical digital literacy by integrating discussions on AI ethics, academic integrity, and Ubuntu principles into curricula. They can design collaborative learning activities that emphasise collective knowledge construction, thereby aligning technology use with communal values. Additionally, lecturers must receive training on AI tools and ethical considerations to mentor students effectively in navigating these challenges.

FOR POLICYMAKERS:

Higher education policymakers need to develop balanced frameworks that acknowledge AI's inevitability and potential while safeguarding academic integrity and cultural values. Policies should move beyond outright prohibitions to embrace regulated, ethical AI integration. Institutions should promote transparency and dialogue among students, educators, and administrators to build shared understandings and trust around AI use.

FOR AI DEVELOPERS:

Developers should consider culturally responsive AI designs that incorporate ethical guidelines reflecting indigenous worldviews like Ubuntu. Tools that facilitate collaborative learning, ethical authorship, and community engagement would better support educational contexts valuing relational identity and collective responsibility.

CALL FOR FURTHER RESEARCH

Future research should expand on this study by exploring AI's influence on identity formation across diverse culturally grounded educational settings, especially within African indigenous knowledge systems. Longitudinal studies could examine how hybrid identities evolve as AI technologies advance and institutional policies adapt. Investigations into pedagogical models that successfully integrate AI with Ubuntu ethics would provide valuable insights for education in the digital age.

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