**Business Education Journal 11 (2025)**

journal homepage: https://bej.cbe.ac.tz

# Need for Guidelines to Enhance Ethical Use of Artificial Intelligence in Higher Education in Tanzania

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**Abstract**

*Artificial intelligence is progressing at an astonishing pace, raising profound ethical concerns regarding its use, ownership, accountability, and long-term implications for quality education. This study explores the need for guidelines to inform and maintain ethical use of artificial intelligence in higher education in Tanzania. The study was guided by three objectives that aimed to: examine awareness of the use of artificial intelligence, identify ethical challenges arising from its use, and assess the need to establish guidelines for the ethical use of artificial intelligence in higher education in Tanzania. The study was conducted at fully fledged universities, where quality assurance practitioners were involved in completing a questionnaire, and the Deputy Vice-Chancellors (responsible for Academic Affairs) participated in interviews. Research findings show that the majority of respondents are aware of the use of artificial intelligence in universities. Ethical challenges identified are the existence of biases, lack of integrity, discrimination among users, lack of honesty, violation of confidentiality, reduced transparency, violation of privacy, reduced accountability, and violation of human dignity and rights. The study recommends universities to implement innovative mechanisms to ensure ethical use of artificial intelligence, including capacity-building through training. In this regard, Tanzania Commission for Universities needs to establish overarching guidelines for ethical use of artificial intelligence, and each university needs to establish institutional ethical guidelines for the same purpose.*

***Keywords:*** *Artificial Intelligence; Ethical Guidelines; Higher Education.*

## 1.0 Introduction

Emerging technologies have changed the way institutions provide services. Artificial intelligence (AI) changes human interactions and systems that reinforce contemporary societies in terms of decision-making, which leads to information sharing, improved economic structure, and collaborations (Almufareh et al., 2023). AI introduces substantial dangers, such as abridged human autonomy, algorithmic bias, data privacy fears, and challenges in accountability for algorithmic harm. It was also pointed out that emerging technologies, such as embodied AI and large language models, aggravate these risks, distressing human-machine connections and raising alarms about environmental sustainability and human rights (Astromskė et al., 2021). In a rejoinder to the far-reaching societal impacts of AI, policymakers are progressively adopting a human rights lens for AI ascendance. Brandsen et al. (2024) argued that regulatory scenery remains fragmented and characterized by each institution-led initiative as well as inconsistent enforcement. In order to address these boundaries, a unified and binding policy and guidelines are urgently needed at the national and international levels (UNGA, 2024).

In developing countries like Tanzania, AI is one of the evolving technologies linked with numerous trades, including business, defence, health and education. Liu (2023) noted that higher learning institutions (HLIs) are service-oriented and have been transformed by advanced technologies in the era of contemporary information technologies (ITs). The growing demands of e-learning require HLIs to adjust their service delivery mechanisms (Hussain, 2022). These new skills have changed students' and instructors' attitudes

**Cite paper:** Tweve, J. (2025). Need for Guidelines to Enhance Ethical Use of Artificial Intelligence in Higher Education in Tanzania. *Business Education Journal, vol*(11), Issue 2: 14 pages

during the processes of teaching and learning. Considering this state of affairs, the latest digital technology-driven service novelty promotes new teaching and research patterns (Walter & Lankes, 2023). Recently, the Ministry of Education, Science and Technology (MoEST) in Tanzania recognized the transformative potential of emerging technologies, hence developed the National Guidelines for AI in Education (MoEST 2025). In higher education, Quality assurance (QA) practitioners need to play a significant role in order to enhance ethical and social responsibility among stakeholders of higher education (Liu, 2023). Therefore, there is a need to develop policies and attendant guidelines for ethical use of AI in, for instance, research, teaching, and community engagement. Haverita et al. (2021) argued that quality control processes must evaluate the social impact of using AI to ensure inclusivity, equity, and other ethical practices. Quality assurance in HLIs is grounded in several key principles, including transparency, accountability and equity (Batoon, 2022). Similarly, TCU (2022) stressed the need to intellectualize quality assurance in higher education in order to enhance the effectiveness, relevance, and sustainability of educational practices. Javel et al. (2023) warned that HLIs face increasing demands for excellence, accountability, and alignment with global standards. The integration of AI into QA frameworks or guidelines ensures continuous improvement and fosters innovative practices in higher education.

According to Batoon (2022), there is a need to enhance stakeholders' general awareness about AI developments in higher education. For instance, they need to be aware of opportunities for using AI technologies and attendant challenges. Maghsudi et al. (2021) and Kriebitz et al. (2020) argued that HLIs need to scale-up trainings and research initiatives on accountable and ethical use of AI technologies in teaching, hence alleviate challenges, including different types of risks. To ensure effective implementation of such initiatives in higher education, there is a need to undertake adequate assessment on the quality of higher education, including the impact of students' and lecturers' use of AI technologies

There is an increasing trend with regard to students' and instructors' use of Artificial Intelligence (AI) in higher education, particularly during processes of teaching, learning and research. As it was presented by Cohen and Slottje (2024), AI is becoming universal in all sectors. Artificial Intelligence is altering the ways educators work and students learn (Copeland, 2024). Similarly, Deloitte (2024) argues that AI tools and applications are increasingly being used in teaching and assessment. Still, the astonishing pace of using Artificial intelligence in higher education raises profound ethical concerns and challenges in many areas, including ownership, accountability, lack of integrity, biasness and long-term implications for quality education. Increasingly, stakeholders of higher education are engaging in scholarly debates on, inter alia, power dynamics of artificial intelligence and attendant ethical challenges. Indeed, Kassile and Tweve (2023) stressed the need for higher learning institutions to deploy quality assurance mechanisms in order to assess the usage of emerging technologies. Recently, the Ministry of Education, Science and Technology (MoEST) developed overarching National Guidelines for AI at different levels of education in Tanzania (MoEST 2025). However, little is known about the ethical challenges of Artificial Intelligence technologies in the context of teaching and learning for most higher education institutions (HEIs) in developing countries (Lin & Van Brummelen, 2021; Sanusi, 2021; Temitayo Sanusi, 2021), particularly in Tanzania. Therefore, these ethical challenges motivated this study to explore the need for guidelines to guide and maintain ethical use of artificial intelligence in higher education in Tanzania. The study was guided by three objectives that aimed to: examine awareness of the use of artificial intelligence, determine ethical challenges that arise due to the use of artificial intelligence, and determine the need to establish guidelines for ethical use of artificial intelligence at higher education in Tanzania.

## 2.0 Related Literature

Understanding the impact of AI on human rights and ethical concerns requires analyzing it not only through the lens of effective use of AI, but also touching upon the establishment of guidelines to assess the ethical use of AI (Fukuda-Parr & Gibbons, 2021). Impacts are multifaceted and can emerge through various channels, including the context of use of an AI system and its technological characteristics (International Organization for Standardization 2023). Institutions are required to have a mechanism in place to monitor the adoption and use of AI in their service provision or production. Kriebitz and Lütge (2020) admit that AI can influence virtually all human rights, ethics and, depending on its use case, intersect with other areas of international law and policies.

In order to enhance quality education and services, universities should promote AI ethics research by engaging stakeholders and research institutions, as well as transnational corporations. UNESCO (2021) points out that research should be the basis for the ethical use of AI systems by public and private entities. UNGA (2024) recommends that higher learning institutions should integrate research into the applicability of specific ethical frameworks in specific cultures and contexts, and the possibility to develop technologically feasible solutions in line with these frameworks. Supporting the idea of UNGA, universities as change agencies should work hard to adopt and use AI efficiently and effectively. The United Nations General Assembly (2024) underscores the need of university management to promote the acquisition of appropriate skills for AI education. Such skills include elementary literacy skills, coding and digital skills, media and information literacy, as well as critical and creative thinking, teamwork, communication, socio-emotional and AI ethics skills. On the other hand, UNESCO (2021) insists that universities should foster new research at the intersection between AI and intellectual property (IP), for example, to protect IP rights of works created by earnings of AI technologies. Faculties should also measure how AI technologies are affecting the rights or interests of intellectual property owners, whose works are used to research, train or implement AI applications.

On the other hand, Wall, et al. (2021) propose that in order to control the digital divide, universities should enhance the participation of girls and women, and any diversity of culture and disability. Some countries combine all marginalized and vulnerable not benefiting from the full potential of digital inclusion, in AI education programmes, at all levels. The need for monitoring and sharing best practices in this regard with other stakeholders in education should be considered. UNESCO (2022) insists that universities must put mechanisms in place to ensure that the latent potential for digital technologies and AI is maximized to contribute to balancing gender equality. UNGA (2024) argues that universities must guarantee that the human rights and freedoms of women, their safety and integrity are not dishonoured at any stage of the AI system implementation. Notwithstanding, ethical impact valuation should include a thwart-wise gender viewpoint.

UNESCO (2021) makes it clear that governments have a role to safeguard peace and encourage and support universities to conduct AI research. Fundamentally, AI ethics research is required to make the stakeholders aware and informed. Similarly, Yu and Carroll (2022) suggest that there is a need to appreciate the fact that research pays meaningfully to the development and improvement of AI technologies with a view to promoting national and international law guidelines. The Ministry of Education should also openly promote the best practices of, and collaboration with, researchers and companies that ethically develop AI. UNGA (2024) proposes that universities should ensure that AI investigators are skilled in research ethics and require them to include ethical deliberations in their designs, outcomes, particularly in the analyses of the datasets they use, how they are marked, the quality and scope of the consequences, and possible applications.

UNESCO (2022) proposes that universities should safeguard any forthcoming developments with respect to AI technologies and should be grounded on severe and independent scientific research. While UNGA suggests that there is a need to encourage interdisciplinary AI research by including not only science disciplines like technology, engineering and mathematics (STEM), but also other disciplines such as cultural studies, education, ethics, international relations, law, linguistics, philosophy, political science, sociology and psychology. On the other hand, the International Organization for Standardization (2023) insists that universities also should put in place devices to eloquently engage students and those with special needs in discussions, deliberations and decision-making with regard to the effects of AI systems on their lives and futures.

In the process of encouraging best guidelines and practices connected to ethics of AI use, suitable tools and indicators should be established for measuring its effectiveness and efficiency (Karpa et al., 2022). On the other hand, King (2024) observes that the assessment of the effects of AI systems and related AI ethical practices should be done continuously in an organized way, considering any possible risks. Kriebitz and Lütge (2020) add that the valuation should be grounded on the policy or guidelines that will be used, including formal self-evaluation, as well as external evaluation. The Tanzania Commission for Universities (TCU) should safeguard the proper use of AI and appropriate monitoring of possible misuse or adverse impacts. UNGA (2024) further clarifies that the government may consider conceivable mechanisms for assessment, such as forming an ethics commission or an AI ethics observatory team to guide all AI actors, to evaluate their adherence to policy and guidelines towards ethical use of AI technologies. In developing countries, and Tanzania in particular, there is still

a shortage of research and publications related to the effective use of AI in education and other important sectors.

### *2.1 Theoretical Support*

This study aimed at exploring the need of putting in place guidelines that would enhance the ethical use of Artificial Intelligence in higher learning institutions. The findings of the present study show that there is a high level of awareness on AI use. This is in line with the Technological Acceptance Model (TAM), which emphasizes the perceived usefulness of university quality assurance practitioners whose awareness of AI can lead to a better understanding of how AI can enhance teaching quality, improve student engagement, and reduce costs and impact. As a result, quality assurance officers are more likely to perceive AI as a useful tool in teaching. Generally, TAM offers several advantages in understanding user acceptance of new technologies, such as AI for Tanzania context. It's a relatively simple and concise model that helps predict user behaviour by focusing on perceived usefulness and ease of use. This allows higher learning institutions to improve the adoption and use rates. TAM also provides a foundation for understanding the causal relationships between ethical aspects such as data privacy, accountability, confidentiality, and honesty. Another contribution of the theory is to balance the beliefs, attitudes, and intentions related to technology use among academic staff and students in higher education in Tanzania. Similarly, as it was put forward by Roger (1995), Innovation Diffusion Theory (IDT) is applicable in this study because it is widely used to explain the spread of ideas within social systems, particularly in higher learning institutions. IDT claims that five basic elements define the acceptability of emerging technology, particularly AI: relative advantage, compatibility, complexity, trialability and observability. All these can be applied in our universities.

Since the current study focuses on the need to establish guidelines towards ethical use of AI in Tanzania, a developing country, it finds relevance in other studies conducted in other developing countries. While many scholars have applied various theories, such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and Diffusion of Innovations (DOI), these studies are predominantly based in developed countries like the USA, UK, and Germany. The model used in the current study is straightforward and suitable for quality assurance officers in developing countries like Tanzania, providing a solid rationale for establishing guidelines towards ethical use of AI in the future. DOI offers several advantages for understanding how new ideas, products, or practices spread through a population. It helps explain why some innovations are adopted rapidly while others face resistance, and it provides a framework for developing effective strategies to promote adoption. Key advantages include its ability to predict adoption rates, identify key adopter categories, and guide the development of targeted communication strategies. The theory is very relevant to higher learning institutions in Tanzania because the institutions differ in levels of AI adoption and use due to several challenges associated with technological skills, facilities acquisition and other ethical aspects. The model used in this study is straightforward and suitable for quality assurance officers in developing countries like Tanzania, providing a solid rationale for establishing guidelines towards ethical use of AI in the future. Therefore, this model needs to incorporate modern technologies to enhance academic service delivery and client satisfaction. The findings of the study will facilitate the understanding of the need for ethical use of AI among policy makers and stakeholders of HLIs; as a result, compliance with ethical use of AI will be monitored.

## 3.0 Material and Methods

The present study is based on the survey research method, commonly used to study large groups' preferences, practices, concerns, settings, attitudes, and behaviour. Researchers Anshari, Almunawar, Masri, & Hrdy (2021), employed this research design to assess the attitude of professionals towards Information Communication Technologies (ICTs) in universities (Ramzan et al., 2021; Ramzan & Singh, 2010). The study population included quality assurance officers/directors from full-fledged universities. As per the Tanzania Commission for Universities website, in May 2025, there are thirty registered full-fledged universities and three which are under provisional registration. All officers/directors from full-fledged universities participated in the questionnaire. Constituent colleges were not included because they use the same policies and guidelines from the universities to which they belong.

Convenience sampling was used to engage/involve quality assurance officers/directors because of their

availability in the QA forum and being officers at their universities. Purposive sampling was used for the Deputy Vice Chancellors (DVCs) from five full-fledged universities in Dar es Salaam, to represent other DVCs in other regions, because the geographical allocation made it easier to meet them. The questionnaire was developed and pre-tested by involving a quality assurance panel team from DarTU before the tool was subjected to Google Forms, an online tool for data collection. The questionnaire included questions that were aimed at determining awareness of the use of AI, the benefits and challenges of AI use, and the need for guidelines towards the enhancement of the ethical use of AI at universities. The link to the questionnaire was shared using multiple methods, including social media platforms such as WhatsApp and personal email.

Face-to-face interviews were used to collect data from five Deputy Vice Chancellors (DVCs) from five full-fledged universities to represent other universities: Kampala International University, Aga Khan University, Ardhi University, University of Dar es Salaam and Dar es Salaam Tumaini University. The selection was considered to have a mixture of public and private universities. The interview was done from the 21st to the 25th of April 2025. It was planned to meet each DVC on a separate day, to be able to accommodate the appointment given. The interview had only three questions: the first aimed at determining awareness of AI use at universities, the second to determine the awareness of ethical challenges associated with AI use and the last question aimed to assess the need for guidelines to promote the ethical use of AI in universities. A research clearance letter was provided by the office of postgraduate studies after meeting research ethics requirements. Respondents were asked for consent before they were involved in the data collection process.

## 4.0 Findings and Discussion

This section presents findings related to the three objectives which guided this study: to examine awareness of the use of AI at universities among students and instructors; to determine ethical challenges that arise due to the use of AI at universities; and to explore the need to establish guidelines towards ethical use of AI at universities. Two types of respondents were involved to collect primary data; quality assurance officers were involved through questionnaires, and deputy vice chancellors (academics) participated in the interview, which had three questions as explained above in the methodology section.

### *4.1 Demographic Information of Respondents*

The first part of the findings aimed to find out the demographic information of the quality assurance officers. Three main aspects were considered: sex, designation/title and experience as quality assurance officers at their universities. Table 1 is a summary of the findings.

**Table 1.** Demographic Information of QA Officers N=30

| Demographics | Characteristics | Frequency | Percent |
|---|---|---|---|
| Sex | Male | 20 | 66.6 |
| | Female | 10 | 33.3 |
| Designation/title | Assistant Lecturer | 3 | 10.0 |
| | Lecturer | 10 | 33.3 |
| | Senior lecturer | 12 | 40.0 |
| | Associate Professor | 3 | 10.0 |
| | Professor | 2 | 6.6 |
| Experience | 0 -3 years | 20 | 66.6 |
| | 4 – 7 | 6 | 20.0 |
| | 8 – 11 | 4 | 13.3 |
| | 12 and above | 0 | 0.0 |

**Source.** Field Data (2025)

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From Table 1, the majority (66.6%) of quality assurance officers were male, and the majority of the respondents were in the position/title of senior lecturer, as a TCU condition that deans and directors should be in the rank of senior lecturer or above. The majority (67%) of them had little experience in this position because of the rotation of the appointment tenure arrangement. This calls upon universities and the Tanzania Commission for Universities to offer more capacity training on the area of quality assurance and quality improvement because the majority are new to this position. Through the interview, Deputy Vice Chancellors (Academics) were involved; there was no question regarding their demographic characteristics, as explained under methodology.

### *4.2 Awareness on Artificial Intelligence Use at Universities*

The first objective of the study aimed to determine the awareness of the use of Artificial Intelligence in higher learning institutions in Tanzania. From the respondents, as quality assurance officers, 94.4% pointed out that they were aware. Similarly, all DVCs from universities surveyed thought that students and instructors use AI in teaching and learning from different perspectives. The second question of this objective aimed to identify AI tools used frequently by universities in Tanzania. Only quality assurance officers were asked this question. Figure 1 provides a summary of their responses.

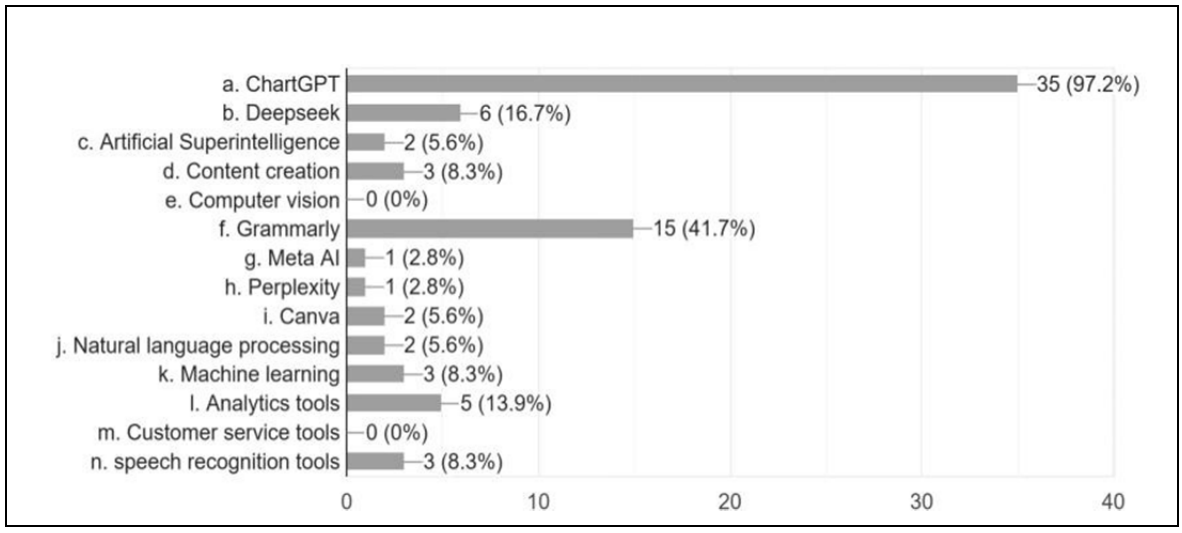


**Figure 1.** AI Tools Used Frequently by Universities

From Figure 1, it is obvious that ChatGPT is a commonly used tool among stakeholders at universities, in essay writing and research. If universities fail to detect the shortfalls of this facility, then they could be awarding high scores to the wrong candidates/students. Unfortunately, universities are not frequent users of customer service tool which are very popular in marketing and branding. Another tool which was supposed to be used frequently is the computer vision. In Tanzania, there is a problem of student attendance in lecture sessions; this tool could help to control this problem. From these findings, universities in Tanzania need to be equipped with enough knowledge on AI tools in order to benefit from this technology. UNESCO (2022) insists that universities must put mechanisms in place to ensure that the potential for digital technologies and artificial intelligence to contribute to achieving goals is fully maximized. Other tools mentioned were Artificial Superintelligence, Content creation, Computer vision, Grammarly, Meta AI, Perplexity, Canva, Natural language processing, Machine learning, Analytics tools, Customer service tools, speech recognition tools and Robotic Process Automation.

### *4.3 Availability of Specific Guidelines towards AI Use*

The second objective aimed to explore the availability of guidelines used to assess the ethical use of AI at

universities. This objective had four questions; the first question aimed at determining whether quality assurance officers were aware of the availability of specific guidelines used to assess ethical use of AI. The second question aimed to determine policies that have sections that explain the effective use of AI at universities. The third question aimed to identify possible advantages that the university community would get by using AI ethically. The fourth question aimed to determine the ethical benefits of using AI at our universities. The following subsequent sections present the findings of each question involved in this objective.

### *4.3.1 Specific guidelines used to guide ethical use of AI*

The first question aimed at determining whether respondents were aware of the availability of specific guidelines used to assess ethical use of AI. Figure 1 below presents a summary of the awareness.

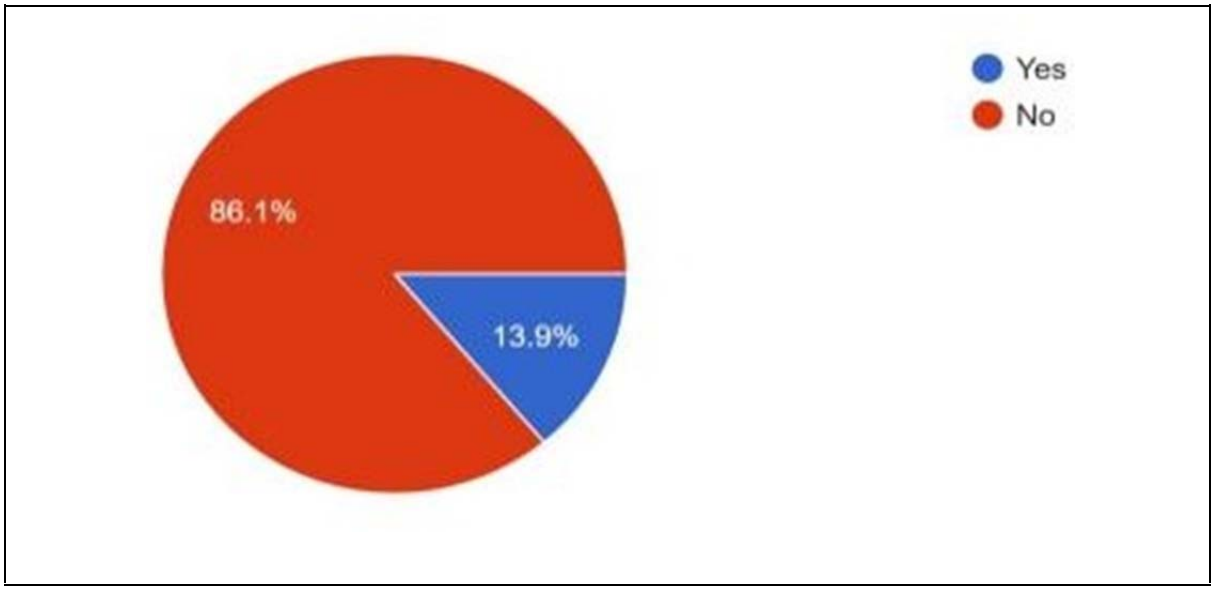


**Figure 1.** Availability of Specific Guidelines on AI Use

The majority (86.1%) pointed out that there were no specific guidelines used to monitor or assess ethical use of AI at full-fledged universities in Tanzania. This was supported by all DVCs during the interviews. One of the DVC-Academic had to say "…it is very challenging managing and controlling proper use of AI among students, particularly in research and essay writing". Generally, they recommended that there was a need to establish an AI guideline to enhance the effective use of AI and other emerging technologies.

### *4.3.2 Guidelines with a section to guide AI use*

The second question under this objective aimed to determine policies that have sections that explain the effective use of AI at universities. The question had a list of possible policies or guidelines that were commonly found in each university, such as Quality Assurance Policy, Quality Assurance Manual, Scheme of Service, Code of Conduct for Staff, Examination Rules and Regulations, Financial Regulations, University Prospectus, ICT Policy, Library Policy and Anti-plagiarism Policy. Figure 2 has a summary of the responses from the quality assurance officers from full-fledged universities.

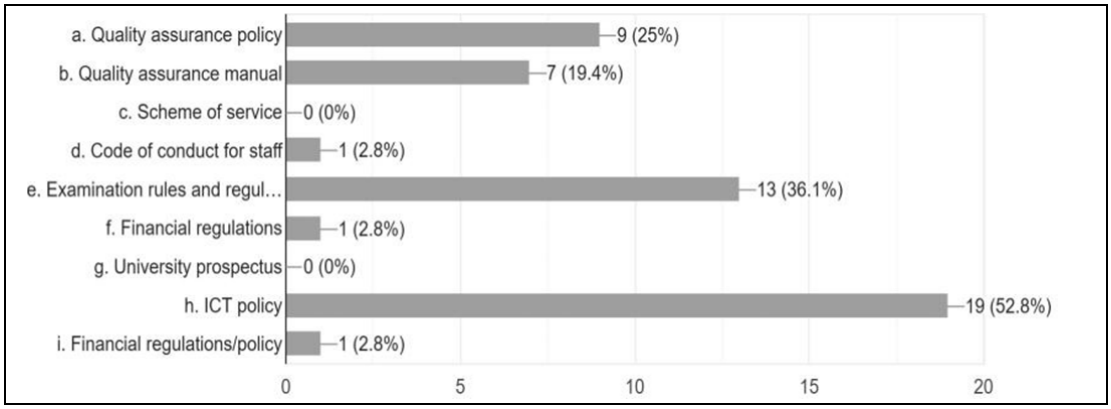


**Figure 2**. Guidelines with a Section to Guide AI Use

From Figure 2, many policies and guidelines do not have sections that are used to determine or assess ethical use of AI at our universities. The ICT Policy (52.8%) and Examination Regulation (36.1%) were mentioned as having sections that assess effective use of AI. However, regarding the Quality Assurance Policy, few (25%) respondents acknowledged that there was a section or policy statement that guides ethical use of AI at our universities. Since only 25% of QA officers pointed out that their policies had a section to guide effective use of AI, there is a need to have a special mission through the Tanzania Universities Quality Assurance Forum (TUQAF) to develop specific guidelines which will be customized by all universities.

### *4.3.3 General benefits of using AI at universities*

The third question under objective two aimed to identify possible advantages that the university community would get by using AI ethically. The questionnaire had a list of possible benefits or advantages, such as enhanced informed decisions, enhanced customer experience, increased productivity, reduced human errors, increased business efficiency, advanced data analysis, enhanced automation, enhanced complex problem solutions, reduced repetitive tasks and enhanced teaching and learning. Figure 3 has a summary of the responses from QA officers.

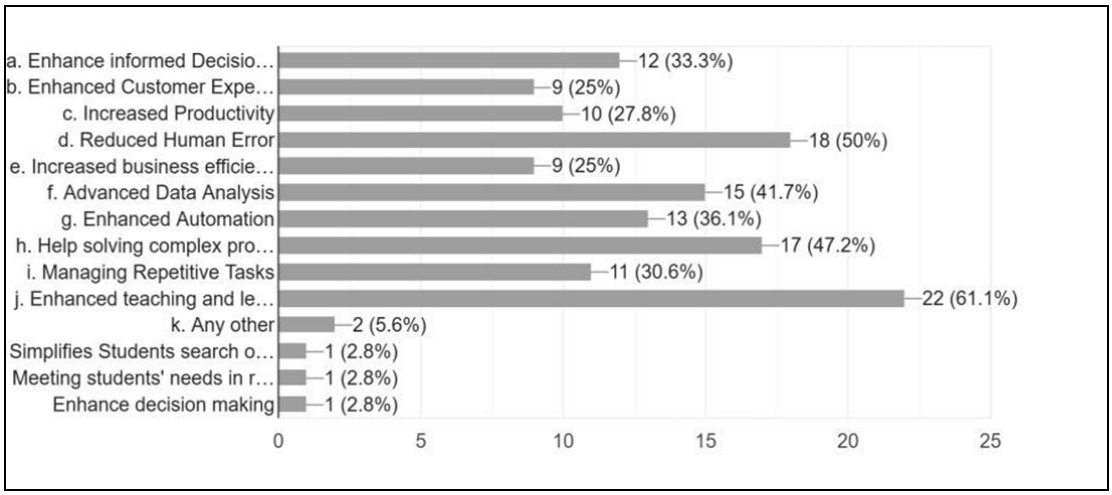


**Figure 3.** General Benefits of Using AI at Universities

Findings in Figure 3 indicate that there are several benefits of using AI in our universities. The majority (61.1%) of respondents pointed out that the use of AI reduces human error; half of the respondents (50%) said AI enhances teaching and learning; and less than half (47.2%) believed

that AI helps in solving complex problems. On the other hand, it was noted that the majority of quality assurance officers did not seem to be aware that the main benefit of AI is to enhance decision-making in organizations and only a few respondents (2.8%) knew about AI use. Similarly, the same number (2.8%) of respondents pointed out that AI use helps to meet students' needs. These findings are supported by Almufareh et al. (2023), who believe that Artificial intelligence (AI) is essentially altering human interactions, key processes and systems that reinforce modern society, from decision-making mechanisms to information dissemination and collaboration.

#### *4.3.4 Benefits of using Artificial Intelligence Ethically*

The fourth question under this objective aimed to determine ethical benefits of using AI at our universities. The respondents were required to select among the following benefits as applied in their universities: promote fairness, ensure trust and credibility, enhance ethical use, ensure integrity of information, improve confidentiality and privacy, control misinformation, protect safety and security, enhance transparency, improve accountability, promote human rights, observe human dignity and ensure diversity. Figure 4 below has a summary of the responses.

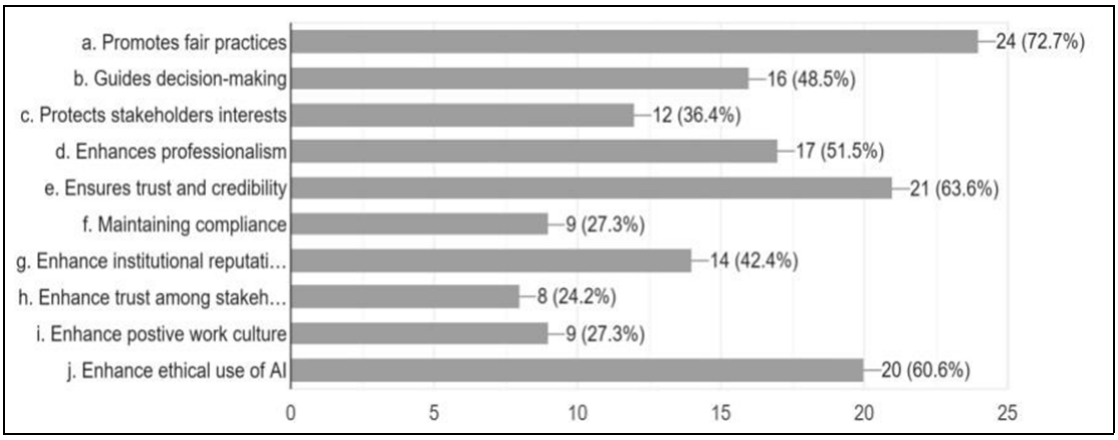


**Figure 4.** Ethical Benefits of Using AI at Universities

The findings in Figure 4 clearly show that the majority (72.7%) of the respondents were of the opinion that ethical use of AI promotes fairness in practices at universities. The idea is supported by Routledge et al. (2024) with the arrival of digital technologies and the extensive use of data and the internet. They stress that AI has become progressively relevant in areas critical to human rights, fairness and human dignity. Other benefits that were pointed out by the majority of respondents are to enhance trust and credibility (63.6%) and to enhance ethical use (60.6%). All these cannot be achieved if universities are not willing to invest enough in understanding the importance of AI at universities. The United Nations General Assembly (2024) underscores the need for university management to promote the acquisition of precondition skills for AI education. They identify such skills as basic literacy, numeracy, digital skills, media and information literacy, as well as critical and creative thinking and AI ethics skills. All these efforts are required by universities in order that the stakeholders, particularly students, benefit from the use of AI without ethical impact.

#### *4.3.5 The Need for Guidelines towards Ethical Use of AI at Universities*

The third objective of this study was to determine the need for guidelines to monitor ethical use of AI at universities. This objective had three questions; the first question aimed to identify any ethical challenges associated with the use of Artificial Intelligence at higher learning institutions.

The second question was planned to determine if there was a need to have guidelines towards ethical use of AI at universities. The third question aimed to determine the ethical aspects that the guideline should consider for inclusion.

#### *4.3.6 Ethical challenges associated with the use of AI*

Quality assurance officers were asked to identify any ethical challenges associated with the use of Artificial Intelligence at higher learning institutions. Table 2 has a summary of their responses.

**Table 2.** Ethical Challenges of Using AI at Universities (N=30)

| Ethical challenges | Frequency | Percent |
|---|---|---|
| Lack of integrity | 28 | 93.3 |
| Reduce honesty among stakeholders | 25 | 83.3 |
| Reduce trust among users | 23 | 76.6 |
| Reduce accountability among users | 21 | 70.0 |
| Violate confidentiality | 21 | 70.0 |
| Lack of transparency | 21 | 70.0 |
| Reduce ethical decision | 21 | 70.0 |
| Increase biasness among stakeholders | 19 | 63.3 |
| Violation of human dignity | 17 | 56.6 |
| Violation of human rights | 15 | 50.0 |
| Enhance discrimination | 13 | 43.3 |
| Violation of privacy | 13 | 43.3 |
| Reduce reputation of the university | 13 | 43.3 |
| Propagation of biases | 10 | 33.3 |
| Discrimination among users | 10 | 33.3 |

**Source.** Field data (2025)

From Table 2, several ethical challenges arise due to AI use at higher learning institutions, as pointed out by QA practitioners. The first three challenges are lack of integrity (93.3%), reduced honesty (83.3%) and reduced trust (76.6%). It is obvious that when AI has been used without considering ethics or professionalism, it may lead to unfavourable impacts. Several studies (UNGA, 2024; Kriebitz & Lütge, 2020; Iserson, 2024) have shown that there is a need for each nation or institution to put in place mechanisms that should guide the proper use of AI. Iserson (2024), for example, insists that there is a need to seek informed consent among patients when AI is used in service provision. Providing educational services by using AI without customers' awareness might cause ethical challenges of violating human rights. The International Organization for Standardization (2023) insists that universities should put in place mechanisms to meaningfully involve students and those with special needs in discussions and decision-making with regard to the influence of AI systems on their lives and futures. Indeed, higher learning institutions should be aware of several ethical challenges that may arise after the use of AI and take initiatives to control them. Dar es Salaam Tumaini University (DarTU), as one of the HLIs in Tanzania, has taken initiatives to develop AI guidelines and put a specific statement in the Quality Assurance Policy that reminds academic staff and students to use AI ethically.

#### *4.3.7 Ethical guidelines for using AI at universities*

The second question under objective two asked quality assurance practitioners, as custodians of quality education at HLIs, if there was a need to have guidelines towards the ethical use of AI at universities. Almost all the 29 (96.6%) of the respondents agreed that it was very important to establish the guidelines since the adoption and use of AI was rising very fast. During the interview, all DVCs strongly recommended the need to establish the policy or the guidelines because AI adoption and use among university stakeholders is at an advanced stage. The idea of having the guideline was supported by Bakiri et al (2023) that to address AI challenges and limitations, a unified and binding policy or guideline is urgently needed in each institution in

academic sector.

### *4.3.8 Ethical Aspects to Consider in the Guidelines of AI*

The third question targeted at quality assurance practitioners was based on determining the ethical aspects that the guideline or policy should consider. As pointed out in the methodology part, QA officers/practitioners were from full-fledged universities. Table 3 has a summary of their responses.

**Table 3.** Ethical Aspects to Consider in the Guideline of AI Use

| Ethical aspects | Frequency | Percent |
|---|---|---|
| Integrity | 29 | 96.6 |
| Competence | 28 | 93.3 |
| Accountability | 28 | 93.3 |
| Confidentiality | 25 | 76.6 |
| Transparency and openness | 21 | 70.0 |
| Honesty | 21 | 70.0 |
| Trust | 21 | 70.0 |
| Privacy | 19 | 63.3 |
| Safety and security | 17 | 56.6 |
| Accuracy and reliability | 15 | 50.0 |
| Human rights | 13 | 43.3 |
| Human dignity | 12 | 40.0 |
| Freedom rights | 10 | 33.3 |

**Source.** Field data (2025)

From Table 3, it is obvious that taking the ethics of AI as a focal point will help to ensure that academic business remains in good standing from an operational, regulatory and reputation standpoint. The establishment of the guideline with ethical aspects to consider will enhance quality education in universities. The findings show that ethical aspects of integrity, competence, accountability and confidentiality are very sensitive and should be considered appropriately in the guidelines. Taking the case of competence not only to instructors but also to students is very important to universities in conducting special training on AI use. Other aspects mentioned in Table 3 are also important to consider to reduce ethical challenges, as addressed in Table 2 above. The findings are supported by UNESCO (2021), which advises that universities should develop ethical guidelines in agreement with their programmes and standards. AI ethics curricula should be developed for all levels to promote cross-collaboration between AI technical skills education and humanistic, ethical and social aspects of AI education. According to Peters (2022), the improvement of ICT facilities, online courses, and digital capitals of AI ethics teaching should be developed to meet all stakeholders' needs, particularly students and instructors.

## 5.0 Conclusion

The findings of the current study show that there were no specific guidelines used to monitor or assess the ethical use of AI at full-fledged universities in Tanzania. However, there are several benefits of using AI ethically, some of which are promoting fairness, ensuring trust and credibility, enhancing ethical use, ensuring integrity of information, improving confidentiality and privacy, controlling misinformation, protecting safety and security, enhancing transparency, improving accountability, promoting human rights, observing human dignity and ensuring diversity. On the other hand, the study identified ethical challenges that arise due to AI use at higher learning intuitions some of which are lack of integrity, reduced honesty and reduced trust.

## 5.1 Recommendations

The study recommends the following ethical aspects: integrity, competence, accountability and

confidentiality should be considered appropriately in the guidelines. The findings also inform the readers that it is very important conduct capacity building on AI use and to establish the guidelines since the adoption and use of AI is rising very fast. Therefore, there is a need to establish the policy or the guidelines to monitor the ethical use of AI at higher learning institutions. Based on the findings, it is clear that TCU is recommended to have a guideline to monitor the general quality assurance of AI use at universities. The MoET has provided a general guideline in the education sector; however, the level and need of using AI at Higher learning institutions is different from primary and secondary education. Therefore it is recommended that each higher learning institution to have a guideline to monitor ethical use of Artificial Intelligence.

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