# Ethically-sound Artificial Intelligence for Potential Deployment in Social Work Education and Practice: A Global South Perspective

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**Abstract.** The adoption of AI technologies has been uneven between the Global South and North, with the former lagging far behind. Similarly, there has been a disproportional adoption of AI technologies among professions, with helping professions, specifically social work in the Global South also lagging far behind. However, AI technologies are susceptible to ethical risks like bias, and the violation of privacy and autonomy, among others. Thus, the Global North countries are making advances in AI ethics, while their Global South counterparts are falling behind. Without ethical guidelines for AI in the Global South countries, specifically in the profession of social work, the implementation of AI technologies may induce ethical and legal challenges. To this end, this study aims to propose the design of ethically-sound AI for deployment in social work education and practice. To do this, the study has adopted an integrative literature review methodology, which included only articles cognate and germane to AI ethics and AI in social work published in international and peer reviewed journals. The Directory of Open Access Journals, Google scholar and PubMed databases were searched using key search terms such as AI ethics, machine learning ethics, AI in social work/welfare and counselling chatbots. A total of 460 articles were found. However, only 40 (inclusive of articles identified through reference check) met the inclusion criteria and were reviewed. Consequently, the study proposed ethically-sound guidelines for AI in social work education and practice. Finally, the study recommends supporting the AI ecosystem in the Global South in order produce contextually-relevant technologies.

**Keywords:** Artificial Intelligence ethics, social work, machine learning algorithms

## 1    Introduction

Artificial Intelligence (AI) has emerged as one of the most prominent and ubiquitous technologies in industry 4.0 [48, 53], and to a large extent, in impending industries 5.0 and 6.0. As AI entrenches itself in industries like the financial services, retail, manufacturing, automotive, health and transportation sectors, its potential use in helping professions, particularly in social work remains under-researched [38], especially in the

Global South. The ability of AI technologies to perform cognitive tasks which conventionally required human intelligence has made it unavoidable in many disciplines, including social work [24]. While machine learning is a subset of AI, these concepts will be used interchangeably in this study. Social work is one of the most critical professions and scientific fields in society responsible for promoting social development and social cohesion, and fostering the empowerment and liberation of people through various models, theories and methods [21]. To this end, social work intervention involves taking complex decisions about cases. The deployment of AI technologies in social work practice is a huge prospect [53]. It appears that AI technologies, specifically machine learning algorithms (MLA) can play a significant role in social work education.

However, AI technologies can pose great ethical risks and legal challenges such as bias, and the violation of privacy and autonomy [47], especially in an ethically-immersed profession like social work [36, 50]. Correspondingly, AI technologies can pose serious ethical risks on human relationships [5]. Consequently, it can be argued that the ethical concerns associated with AI may adversely affect its adoption in social work. Similarly, there is lack of ethical guidelines pertaining to the deployment of AI in social work practice and education in the Global South, hence Molala and Makhubele have proposed a conceptual ethical guideline for the deployment of AI to address mental health challenges [36]. Conversely, research groups and institutions, think-tanks, and public and private companies in the Global North have been developing general ethical guidelines for utilising AI [23, 55]. Africa, unlike the European Union member countries and their Global North counterparts, does not have its own AI ethical guidelines that are contextually, economically, politically and culturally relevant to the continent [14, 15]. This will potentially reinforce the hegemony of Western ethics (Global North) in the Global South. The ground-breaking book edited by Eke et al. on Responsible AI in Africa is a step in the right direction as far as the development of AI ethics from an African perspective [15].

As far as professions are concerned, AI has been gaining traction in most professions, but this topic is inexplicably and frustratingly not receiving adequate attention in social work, particularly in the Global South [36]. This can reinforce the reliance by social work on Western epistemologies. As a justice-and-human-rights driven profession, social work should be playing a central role in data ethics in the development of ethically-sound AI ethics for potential deployment in social work and allied professions [19]. This integrative review study aims to contribute to data ethics by proposing guidelines for the development of AI ethics from a social work perspective in the Global South.

## 2. Methodology

The study utilised an integrative literature review to propose the design of ethically-sound for deployment in social work education and practice. An integrative review is a summary of previous empirical and theoretical literature in order to gain in-depth un-

derstanding of a particular research problem [59]. Similarly, Snyder avers that an integrative review can enable researchers to critically review and analyse literature pertaining to a specific phenomenon in order to develop and propose new knowledge and perspectives as the phenomenon under investigation develops [49]. Therefore, an integrative review is not only a summation of previous literature, but an interaction with it for the purpose of adding new perspectives and ideas.

The researchers have opted for an integrative review to enable them to review previous literature on AI ethics in order to propose guidelines for designing ethically-sound AI for deployment in social work education and practice. Additionally, the researchers sought to ensure methodological rigour of findings of the study to ensure trustworthiness and credibility. The five steps to aid the methodological rigour initially proposed by Cooper [13] but refined by Whittemore and Knafl [59] have been adopted. These steps are problem identification, literature search, data evaluation, data analysis and presentation.

A clear research problem is vital for an integrative review as it enables the researchers to differentiate between pertinent and extraneous information and to ensure that the review focuses on a specific problem [59]. The problem in this study relates to lack of research on ethically-sound AI technologies for deployment in social work education and practice in the Global South. Thereafter, a literature search was conducted. A clearly explained and defined literature search strategy is critical for enhancing the rigour of a review [59], and can facilitate the verification and replication of findings. Electronic literature searches were undertaken on the Directory of Open Access Journal (DOAJ), Google Scholar and PubMed databases for literature on AI/machine learning algorithms ethics, AI and chatbots in social work and/or counselling. The key search terms used included AI ethics, machine learning ethics, AI in social work/welfare/child welfare and counselling chatbots. In line with advice from Whittemore and Knafl as cited in Molala and Makhubele [36], the researchers undertook comprehensive searches in order to guard against bias and a narrow review.

Figure 1 outlines the number of articles elicited by the above search strategy and the process for selecting articles in the study. Moreover, Melillo suggests that inclusion and exclusion criteria in an integrative review assist reviewers to focus on relevant literature [33]. Therefore, the articles were  included due to the fact they were written in English, and published in international and peer-reviewed journal-indexed in reputable databases (including selected conference proceedings). In addition, the literature was included due to the fact that it covered AI ethics, chatbot ethics and ethical and AI in social work education and practice, and that it can contribute to the development of AI ethics for use in social work in the Global South. The articles were excluded on basis that they were not written in English, and were published in non-peer-reviewed journals. Additionally, the articles did not cover AI ethics, chatbot ethics and AI in social work education and practice, and cannot contribute to the development of AI ethics for use in social work in the Global South.

**Figure 1:** flowchart for the selection of articles in study adapted from Mwatsiya [37]
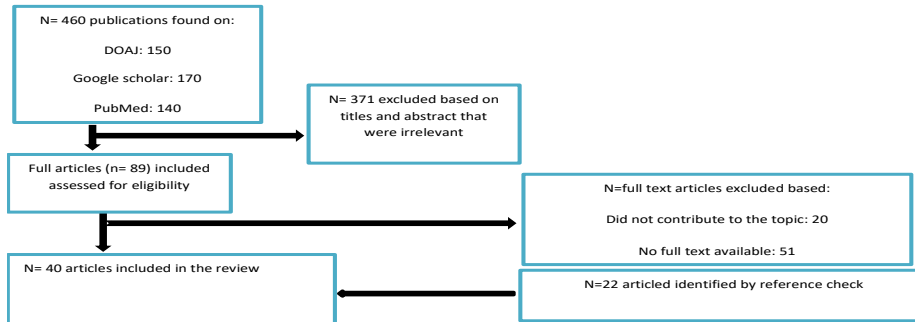


Data evaluation is essential in literature reviews. There are no universal standards for evaluating and interpreting the quality of data in integrative reviews. The quality of the evaluation depends on the sampling frame [59]. In this study, the evaluation of data for empirical and theoretical papers was based on methodological and theoretical rigour. Articles included in the study utilised various research approaches and designs. This ensured the methodological triangulation the study which is a requirement for trustworthiness. Moreover, this study adopted thematic data analysis, which is a data analysis strategy that can be utilised to identify, analyse and report themes that are significant in the data collected in relation to the research question [7,30].

**Findings.** The findings of this study are presented and discussed under the following themes: The potential use of social work education and practice and guidelines for designing AI ethics for use in social work. This section commences by presenting the potential deployment of AI in social work education and practice. Thereafter, the study proposes guidelines for designing AI ethics for use in social work.

Although Generative AI technologies such as ChatGPT and Bard are in their infancy stage, especially in social work, they show promise for creating an alternative to traditional assessments in law and medicine [18, 45]. Correspondingly, AI technologies, specifically ChatGPT was tested in an examination, and fared well. AI technologies like ChatGPT and Bard can facilitate the process of automating tests and exams, moving away from the narrow multiple choice which falls short on scenario questions that assess decision-making on social work candidates and students. Social workers are always faced with scenarios that require decision- making on complex matters. Therefore, social work training should ensure that social workers are capable of responding to similar complex situations. This means online tests and/or examinations can properly accommodate scenario questions, and be compatible to multiple response formats like voice, sign language and text in order to accommodate candidates with special needs. Moreover, these technologies can support the concept of blended learning in social work education as advocated for by Zimba et al. [62], among others.

AI in education enable students to access education, specifically social work education without being concerned about the ratio of educators and higher education infrastructure  in the Global South. This can also revolutionise assessment to be in tune with the digital revolution, which can, among others, enhance online and open distance education. Since the Global South countries are beleaguered by lack of institutions of learning to cater for the burgeoning population of young people, the utilisation of AI technologies for examining or assessing, among other functions, can enable young people to acquire social work education irrespective of their geographic location, social status and gender. Broadly, AI in education can also enable the Global South countries to skill their populations, mainly young people in order to leverage the demographic dividend that remains unutilised.

AI can play a role in social work practicum. Social work training involves a practicum component aimed at equipping student social workers with communication, engagement, and interviewing and counselling skills to prepare them to engage with clients in practice. Simulations, otherwise popularly known as role plays provide student social workers with exposure to practice situations by utilising mock clients [4]. Simulations are regarded as an effective and innovative pedagogical tool to bridge the disjuncture between theory and practice [27]. However, due to high costs, time constraints and low ratio of field instructor-students, the effective implementation of simulation is constrained. Therefore, the development of AI stimulation platform empowered by Natural Language Processing (NLP) promises to bridge the cost and staffing challenges facing traditional simulation in social work education [4,58]. An example of AI simulation in social work is the Chris Jones Project, an AI platform that offers students an opportunity to engage in role plays with virtual clients. This can also enable remote access. However, it should be blended with human-to-human simulations.

Social work practicum in the Global South differs from that in the Global North due to socioeconomic, cultural and religious factors, among others. Therefore, the AI technologies utilised for social work practicum need to be relevant and contextual to local realities in the Global South. Historically, social work approaches were imported from the Global North into the South. Thus, AI technologies utilised in social work, specifically for social work practicum need to be in sync with local dynamics in order to be congruent with the socioeconomic, religious, cultural and environment issues in the Global South. While AI technologies are rooted in Western culture due to the fact that most of these technologies emerge from the Global South, the profession of social work in the Global South has a unique opportunity to contribute to the gallant efforts to decolonise social work education by advocating for, and adopting AI technologies that are congruent with conditions in the Global South.

The potential role of AI in childcare. AI technologies such as machine learning algorithms can assist social workers to make decisions in their intervention. For example, machine learning algorithms can be deployed in childcare services to assess children and families for the purpose of recommending the placement of the former in foster families [41]. Similarly, the algorithms can analyse various datasets such as police records (sexual offences registers), health and welfare records in order to determine

whether families are suitable for the placement of the children. For this reason, the deployment of machine learning algorithms can assist social workers to make informed decisions about childcare services, specifically for foster and adoption purposes [10,43]. There is a shortage of social workers in child welfare, and the few social workers that are there are overworked. Thus, AI can augment the scarcity of social workers. To this end, the proposition is that social workers can play a supervisory and oversight role over the decisions and recommendations made by AI technologies. They have a discretion to either affirm or reject such decisions and recommendations. For AI to be effective in childcare services, there is a need for these technologies to be bias-free, transparent, fair and just.

Childcare issues in the Global South are different from those in other parts of the world due demographic, economic social and cultural factors. For example, cultural factors in the Global South can contribute to child neglect and abuse. However, using AI tools with Western orientation in childcare services can provide irrelevant and incongruent intervention which is likely to worsen the plight of children in the Global South. AI technologies used in childcare services in the Global South need to be trained with local data which is representative of local conditions. The importation of AI tools from Western contexts in social work can cause severe ethical, legal and human rights issues in an ethically-immersed profession. Thus, the utilisation of AI in social work in childcare services needs in the Global South should be just and respect human diversity.

The role of AI in mental healthcare. AI technologies, specifically MLA have the capabilities to predict suicide ideation among people at risk of committing suicide [25,26]. These algorithms analyse information from various sources such as social media platforms and health records [35,60]. For example, there are experiments of using MLA to predict major depressive disorder (MDD) and generalised anxiety disorder (GAD) through analysing social media content and electronic health records is showing great prospects for implementation in helping professions [39], specifically social work. Similarly, MLA can expedite intervention by analysing complex data, and offer prompt intervention strategies [3, 16,32]. The use of AI technologies, specifically machine learning algorithms can augment the acute shortage of mental health practitioners, or social workers in this instance, mainly in the Global South where mental health conditions are ravaging communities due to lack of dedicated services. Therefore, the deployment of AI technologies has the potential to fortify social work intervention when implemented in collaboration with social workers.

Socioeconomic, cultural, religious and demographic factors can contribute to the cause, exacerbation and/or treatment of mental illnesses. While the use of AI in mental care in the Global South can enable mental health care users to have unfettered access to critical services, it is essential to utilise tools that can treat mental illnesses in sync with local factors such as the economy, culture, religion and health. AI tools used in the Global South need to be congruent with factors akin to communities in which they are deployed to ensure that the treatment or intervention recommended is not farfetched

and incompatible. Social workers deal with clients as unique individuals whose challenges are peculiar. This principle has seen practitioners adopting bespoke and customised strategies. The AI tools used by social workers to treat mental health illnesses in the Global South should treat clients who are sensitive to peculiarities such values, norms and cultures, among others.

The ability for AI to offer virtual counselling.AI technologies like chatbots, which are bots imbued with NLP capabilities through which they understand, and ultimately communicate with users, are revolutionising virtual counselling [1,2]. Therapy/counselling chatbots are being commissioned to offer cognitive behavioural therapy and emotional support to users. Examples of Chatbots include Scu-b, Weobot, Emooha and Eliza, among many others. Therapy chatbots can offer low-cost counselling services conveniently for users in addition to human-based intervention [8]. These chatbots can be user-friendly to users who do not prefer engaging with human-therapists like social workers. However, the use of counselling chatbots has been explored significantly, and to a certain extent, in psychology, implying that these chatbots can be deployed in social work. The social worker-client ratio in the Global South is depressingly low, thereby depriving people in need of critical social work services. AI can assist to expand critical mental health services in low-resourced areas. This can advance the mental wellbeing of people in the Global South. The deployment of therapy chatbots in addition to human-intervention can make social work services like counselling more accessible.

Counselling offered by social workers is underpinned by empathy, a non-judgmental attitude, communication and respect, among other virtues. These virtues create a conducive environment for counselling. AI technologies deployed in the Global South to offer counselling need to be immersed in local languages, cultures and issues in order to mimic the principles of counselling. For example, cultural humility and competence enable practitioners to work with people from different cultures successfully. Consequently, AI technologies need to be trained to possess virtues like cultural humility and competence in the context of the Global South cultures. By being congruent with local cultures, practices and conditions, counselling chatbots can provide services to respond to psychosocial needs of social work clients.

Guidelines for designing AI ethics for use in social work. Civic education on AI and its ethical implications.AI policy documents and ethical guidelines pay little attention to civic education as an ethical principle. The researchers have observed that discussions on AI ethics have assumed an elitist approach (in academia, private and public sectors policy-making) due to lack of civic education on AI technologies and their ethical implications in society, especially among marginalised groups. Therefore, there is a need for civic education that targets marginalised groups and communities in order to equip them with knowledge with which they can participate in the design and regulation of these technologies [61]. The levels of digital literacy in the Global South are unacceptably low. This is set to make the participation of such communities in the AI ecosystem obsolete and rudimentary. Interestingly, these low levels of digital literacy are not only among vulnerable groups. Scholars such as Molala and Makhubele, Molala

and Mbaya and Goldingay and Boddy have lamented the fact that social workers possess poor digital skills [19,35, 36]. For social workers and their clients to play meaningful roles in the AI ecosystem, particularly on the ethical side, they need to be well-versed in AI technologies.

Education has been a medium through which Western epistemologies are systematically imposed on the inhabitants of the Global South. It is therefore imperative that civic education on AI ethics assumes an emancipatory approach by, among others, infusing local values, norms, languages, cultures and practices since these are intrinsically linked to ethics in the Global South. For example, using Ubuntu as a pedagogy for civic education can engender participation and constellation ideas that espouse the realities of people in the Global South, fostering participation in the AI ecosystem. This can also ensure that local people find resonance in the use AI technologies since they accurately reflect them. The localisation of AI ethics in the Global South can assist to curb systematic AI ethical concerns, and contribute to congruent AI ethics. Civic education based local values can ensure that other role players such as designers, developers and vendors are held accountable by ordinary people since they would be digitally literate.

As far as guidelines are concerned, the design and development of AI technologies remains an exclusive terrain of big technology companies. While AI technologies are developed for public consumption, the design and development are elitist processes; hence some AI technologies have been found to be biased against some groups of people. It can be argued that the development of AI ethics is an exclusionary process in which the voices of end-users and consumers, mostly vulnerable people are not reflected. Therefore, a participatory design in the development of AI ethics is highly recommended [6, 22, 51-52]. The development of ethics from a participatory angle can empower AI technologies to be socially responsible technologies that respect people in their diversity [17]. This would make them (AI technologies) transparent since all parties are involved, making the process public. Social workers, their professional bodies, and their clients need to play a role in the development of ethical guidelines for AI utilised in social work practice and education. Social work clients, particularly the marginalised are excluded from decision-making positions. Involving them in the development of ethics of AI technologies that impact them can ensure that these technologies are representative and respect human diversity.

The participatory approach in the design of AI in the Global North is fairly matured. However, it is in its infancy stage in the Global South. There is a dire need to demystify and recreate this approach to respond to conditions (poverty, settlements, language, and culture) prevalent in the Global South. The participatory design process in the Global North utilises processes and platforms that are suitable for their context. A similar approach needs to be followed in the Global South, specifically in social work. For example, the participatory approach needs to accommodate people from different areas i.e. tribal, rural and urban areas, and cultural, socioeconomic and religious backgrounds. The development of the participatory design of contextually-relevant AI ethics in the Global South can enrich these systems to be comprehensive. The design acknowledges

the peculiarities of people, rather than treat them using universalistic-westernised standards. This can also be aided by civic education, which would enable ordinary people to contribute to ethics of technologies whose impacts are pervasive and ubiquitous. Moreover, local, traditional and civic structures need to be incorporated in the participatory process aimed developing AI ethics for social work in the Global South. This can ensure that AI technologies used in social work in the Global South are ethically relevant and congruent to local conditions.

Another guiding principle relates to regulatory framework, thus there have been attempts to regulate AI technologies to ensure that they are ethically and legally sound [56]. Regulations of AI aim to protect consumers and users by ensuring that the AI technologies being deployed follow guidelines and policies [44]. The European Union is one of the first economic blocks globally to promulgate a legislative framework for the regulation of AI technologies in order to ensure that these technologies are safe, fair and just, legal and ethical [31,36]. Consequently, other Global North countries have been pioneers (Pesapane et al., 2018). However, there is a dearth of regulatory approaches in AI ethics in the Global South [34, 40]. Similarly, there are no regulatory frameworks for using AI in social work, yet the latter is a regulated profession, especially in South Africa. For AI technologies to be fully accepted, and pass the ethical test in social work, there is an urgent need for a regulatory framework, especially in the Global South. It is also essential to ensure that the regulatory frameworks developed in the Global South are conversant with local conditions and realistically respond to such issues. This point is made in light of the fact that regulatory frameworks in the Global South are imported from the north. Such moves have induced implementation deficiencies and the lack of feasibility of respective frameworks.

Developers have warned that the extensive regulation of AI technologies can stifle innovation, and infringe on scientific creativity. This notion has imperialistic undertone that is aimed at pacifying efforts to ensure that AI technologies utilised in the Global South, specifically in social work are scrutinised and critiqued. There is a need for agile regulatory frameworks for AI technologies, especially those that are deployed in social work. To ensure that safe, ethical, just and fair AI technologies are deployed in social work, social work associations and professional councils need to develop regulatory frameworks and committees [36]. This can facilitate beneficence and non-malfeasance as far as the use of AI in social work is concerned. The regulation of AI technologies in the Global South should not only be limited to laws, but also allow for a socially-driven (by ordinary people) regulation characterised by flexibility and agility. For example, the non-government sector should be enabled to play a role in the regulation in the Global South because they have proven to be a source of support for many people, especially the vulnerable when government falls short to deliver services. Unlike in the Global North where regulation is effectively placed in public institutions, the Global South countries can also include civic organisations to augment for inadequacies in public institutions, especially in the regulatory sector.

Additionally, AI technologies, especially machine learning algorithms are trained with vast amounts of data and information [46]. Generally, AI utilises personal information such as employment, social welfare, and criminal, health, education and financial records [28]. Such information can be used in social work to train machine learning algorithms for different practice environments i.e. child welfare and mental health. AI technologies are susceptible to data breaches, which can have socio-legal implications for users and developers. Thus, data security and privacy of information has become essential in the AI ecosystem. Social work ethics imposes responsibilities on social workers to handle such information confidentially, and circumspectly. As far as AI technologies are concerned, data security is a great ethical hurdle. Hence, the Global North countries have promulgated data protection laws for AI technologies such as the General Data Protection Regulation and Cybersecurity Act [28, 40].

The social work community needs to play an advocacy role and pressure legislators to promulgate legislations on data and privacy of AI. Alternatively, existing legislations like the Protection of Personal Information Act in the South African context can be strengthened or amended to include data protection and privacy as far as AI technologies are concerned. Moreover, developing local AI technologies, and establishing local data centres can enable the Global South to adopt encryption standards which, among others, protect personal information. Currently, the most prominent and ubiquitous AI technologies that are utilised globally are owned by oligarchs who control information management policies and processes. Thus repositioning the Global South companies can put power on local authorities, stakeholders and people to manage their data responsibly. This can pave a way for social workers to use AI technologies which are in consonance with social work ethics pertaining to confidentiality and privacy.

Furthermore, a sound regulatory framework can address the contentious issue of who accounts for AI technologies, especially in instances in which these technologies cause harm to users [23]. There are various role-players in this respect like the designer/developer (as individuals and corporations), the seller/vendor, the commissioning party (i.e. social workers and their agencies), and users (clients) [54]. For instance, who is responsible for biased decisions of AI which recommend the removal of a child from a family because of the socioeconomic status of the family rather than abuse or mistreatment? It is significant that there is accountability for AI technologies in order to ensure that the deployment of these technologies in social work is not prone to legal and ethical challenges that may induce professional challenges for social workers. In the South African context, social workers account to the South African Council for Social Services Professions for their professional conduct. Thus, the council needs to set accountability standards for using AI in social work.

The accountability standards for AI technologies utilised in social work in the Global South need to ensure that they are conversant with unique factors like education, culture, religion, inequality, gender, norms and practices, as well as the users of the technologies. For example, accountability needs standards to be simplified to allow ordinary and vulnerable people to seek redress for unethical and illegal practices. This is

essential since most social work clients are vulnerable people who may not have the resource to challenge Tech companies. The use of local and indigenous languages akin to the Global South is key to ensure that social work clients consent to the use of AI technologies having understood the accountability standards, ethical and legal implications such as technologies. Moreover, utilising technologies that are locally-orientated can enhance accountability since there would be no need to mount legal battles in different jurisdictions as it the case currently due to the multinationalism of Tech companies.

There is a need for AI to respect self-determination since these technologies are capable of making decisions that can enhance the decision-making process. Specifically, machine learning algorithms can make predications and recommendations for intervention in mental health, child care services and other fields in social work. However, Walz and Firth-butterfield warn that the use of AI in decision-making, prediction and recommendations can induce reliance and overdependence [57]. They further state that this can undermine human autonomy and decision-making among service users. In social work, client self-determination is essential as it is premised on the fact that clients are experts as far as their lives are concerned. To this end, Molala and Makhubele suggest that ethical guidelines for utilising AI in social work should place emphasis on client self-determination while embracing the decision-making prowess of AI. This implies that a balancing act is required [36]. This will ensure that clients do not only depend on AI technologies, but also develop decision-making capabilities that can promote self-sufficiency and problem-solving.

It can also be argued that for AI technologies to be developed in ways in which they can enhance decision-making capabilities of social work clients in the Global South, these technologies need to be trained to understand users holistically which, among others, includes the health, financial and education statuses as well their culture, religion and social backgrounds. For example, decision-making in different communities is influenced by factors such as culture and religion. For this reason, for AI technologies deployed in social work in the Global South to aid practitioners, they need to acknowledge and respect the influences of different factors. By so doing, these AI technologies can play a significant role in enhancing decision-making capabilities of social work clients, rather than usurp them.

Environmental Sustainability is a key issue globally, thus the design of computers and other digital tools through which AI technologies are developed/designed requires minerals such as cobalt and copper [10]. The increased digitalisation and proliferation of AI technologies is likely to place severe strain on the environment. Similarly, the design of AI technologies requires substantive energy [12] in an era where there are disparities of energy supply, which disproportionally affect the Global South countries. Already, South Africa has been experiencing a severe energy crisis culminating in intermittent power-cuts. While AI technologies promise economic efficiency and other social benefits, there needs to be a delicate balance to ensure that the development of

AI technologies is sustainable and environment friendly [23]. Social workers have the responsibility to advocate for the use of environmentally-friendly AI technologies.

The Global South countries are faced with climate change issues like floods and droughts. For this reason, the production of components critical for AI technologies needs to be done in ways that enhance the environment. Developers of AI technologies utilised in the field of social work in the Global South need to be cognisant of local environmental dynamics in order to comply with specific and local issues. While environmental issues (climate change) have hogged the global headlines, their impact is felt and experienced differently. Local people and resources should be leveraged in the development of ethically-sound AI technologies for social work. The climate change agenda of the Global South cannot be that of the Global South due to peculiarities, thus AI technologies in this region have to be aligned to the environmental agenda of the South.

*Conclusion and recommendations.* The study recommends that funding be made available by the government, private and civic sectors to support local AI ecosystem in the Global South. This can ensure that AI technologies are congruent and conversant with local conditions. As far as social work is concerned, this move can ensure that technologies in social work are used in environments for which they have been specifically developed in order to assist people within such environments with their social challenges. Finally, this will also facilitate the training of AI technologies for specific contexts. In addition, there is a need for more interdisciplinary research into the potential use of AI in social work education and practice involving other role players like developers, ethicists, lawyers, interest groups, activists and other relevant parties. This will ensure that AI technologies deployed in the Global South, particularly in social work are comprehensively trained operate in ways in which they enhance human rights, and respect people's cultures, religions, norms, practice and views.

In conclusion, this study found that AI can be deployed in social work education for examination/assessment and stimulation. Additionally, the findings of the study portend that AI can be used in social work practice through machine learning algorithms and virtual counselling for mental health, childcare services and general counselling.

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