The Use of Social Media for Knowledge Exchange in the Era of Misinformation by the Tanzania Higher Education Students

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Abstract

Rationale of Study – This paper investigates how Tanzanian Higher Education students utilise social media to share knowledge in the era of misinformation. The study specifically examined whether the chosen higher education institutions (HEI) provide training to help students become skilled information users capable of determining the reliability of the information.

Methodology – This study used mixed-methods research and adopted a convergent research design. Parallel mixed-methods sampling was used to select 239 postgraduate students from four selected higher education institutions in northern Tanzania out of 633 postgraduate students. An online survey was used to collect data from postgraduate students, while interviews were conducted with eight heads of academic departments of the selected HEIs.

Findings – The findings revealed that the HEIs selected for the study provide students with training on information use, copyright issues, avoiding plagiarism, and social media use and its associated risks. Findings further show that training was not regularly conducted. Findings further demonstrate that policies on social media use had been included in other institutional policies and procedures, such as ICT policies, student guidebooks, and internet use policies; however, only some of the selected HEIs had a stand-alone policy on social media usage.

Implications – It is recommended that HEIs in Tanzania formulate policies and guidelines to guide the proper usage of social media. Training should be offered to capacitate students on the proper uses of social media.

Originality – This is part of the broader PhD study submitted at the University of South Africa (UNISA).

Keywords

Fake information, higher education institutions, information sharing, knowledge sharing, misinformation, social media, Tanzania

1 Introduction

Social media are a big part of how people get and share information in the modern world. The phrase "social media" refers to a Web 2.0 application that enables people to create information using a constrained system and communicate with other users (Mugera, 2015). Social media rely on network and information communication tools and technologies to receive and spread information. Computers, smartphones, iPADs, iPhones, tablets, and other telecommunication technologies have enabled students to interact and communicate frequently through social media and web browsing (Eger et al., 2020). Gottfried and Shearer (2016) estimate that 62% of American adults aged 18 and above use social media to access news. Abdalla and Qashou (2020) affirm that various social media sites, such as WhatsApp, Twitter, Facebook, Wikis, Instagram, LinkedIn, Academia.edu, Google+, and others, are used to share information and knowledge. Fauzi et al. (2019) assert that the compatibility of using social media alongside modern technology as tools for using social media should be renewed and wholly adapted for better information and knowledge-sharing activities in HEIs. University students use social media for various goals, such as networking, enjoyment, and academic tasks. They also exchange political, scholarly, and personal information (Bashir et al., 2021). The number of HEIs that provide distance learning has expanded because of the democratisation of the educational system, and the increased usage of social media technologies has made this possible (Sofi-Karim et al., 2023). Students at HEIs now use social media to engage with one another, share knowledge, and undertake assignments together (Eid & Al-Jabri, 2016). These sites have made it easier for present students, faculty, university stakeholders, and potential students to share information and knowledge (Muriithi & Muriithi, 2013). However, such a platform offers information and knowledge from numerous online sources, some trustworthy while others fake (Musgrove et al., 2018).

The first printing press was created in 1439, and news started to spread rapidly. This marks the beginning of fake news and information. Nevertheless, the word "fake news" has no accepted definition (Soll, 2021). According to Shu et al. (2017), deliberately and demonstrably untrue news pieces that may mislead readers fall within the restricted definition of fake news. They continued by defining fake news as demonstrably false information produced with the evil agenda of misleading customers. Silverman (2016) affirms that after the 2016 US election, false information became a problem. During the final three months of the campaign, the most widely shared information came from phony websites and partisan blogs, garnering more than 8.7 million shares, comments, and

likes. According to Lazer et al. (2017), fake information spreads from creators to consumers using websites and social media platforms.

Similar circumstances were observed in India, where most social media users have encountered the same issue due to their inability to discriminate between reliable information and false information due to their ignorance of social media self-publishing (Bhaskaran et al., 2017). According to Chenzi (2021), social media has played a significant role in South Africa's political populism against immigration and has become a platform for conspiracy theorists to spread false information more frequently than in the past. As an illustration, the xenophobic violence in May 2008 in South Africa was by far the worst attack on foreigners. In the UK, accusations of students fabricating personal profiles for lecturers and making potentially dangerous remarks started to surface not long after the advent of Web 2.0 technologies, with online chatter evolving into nasty rumours and cyberbullying. They go hand in hand with other activities like posting unauthorised images, such as images of instructors while lecturing (Davies & Lee, 2008).

2 Literature Review

Information has proliferated due to the widespread use of social media because each user of these platforms can now create their own information (Torres et al., 2018). Social media platforms like Facebook, Twitter, WhatsApp, Instagram, and others have made it easier for false information to spread across these platforms (Ali & Gatiti, 2020). According to Veeriah (2021), the advent of social media, smartphones, and other gadgets has made it feasible for users of these sites to fabricate false information and rumours. Masele and Daud (2022) contend that the rapid dissemination of conspiracy theories, misleading information, and fabricated news in social media environments has suppressed the popularity of actual news by creating the impression that disinformation is factual information. To combat the spread of false information, Tanzania's higher education and students should consider using specific content on journals, universities, and other verifiable institutions' platforms. Leeder (2019) avers that the propagation of false information is made feasible because it is now difficult for students to verify the veracity of information posted on these websites. Therefore, many institutions have taken the initiative to create various apps for verifying and proving the accuracy and validity of the information given through social media to prevent users from using and sharing false information (Pangrazio, 2018).

During the COVID-19 pandemic, university libraries provided information literacy training and tools for identifying fake content and acted as information intermediaries to fight against false information (Singh, 2022). Universities use social media for advertising and connecting with prospective students regarding their products and services, including links on university websites to verify legitimacy and prevent fake profiles (Voss & Kumar, 2013). Social media was significant during the COVID-19 outbreak because it made it possible to learn from far and stop the spread of the pandemic. Nevertheless, there were also challenges with their use, like the spread of false information and the explosion of information, which made it hard for students to tell which information was reliable and which was not (Papademetriou et al., 2022). COVID-19 myths and false information increased because of trust in news from social media, interpersonal communication, and clerics. Despite stricter media laws, myths, misconceptions, and rumours concerning the causes of SARS-CoV-2 and the risks of vaccines spread widely on social media platforms in several African countries, such as Cameroon, Ghana, South Africa, Zimbabwe, Cameroon, Sierra Leone, and Tanzania (Kabakama et al., 2022). However, media literacy has helped break the loop by promoting critical verification practices before posting on social media (Melki et al., 2021). Although fake news is being spread through social media at an alarming rate, according to Barakat et al. (2021), users of these platforms will be able to recognise fake information because they are gaining these skills. According to a study done in Russia by Shutaleva et al. (2021), lecturers do not rely on social media as a reliable source of information because of its propensity to transmit false information. Another study conducted in Indonesia by Syam and Nurrahmi (2020) found that although university students could use social media to gather information, they lacked the abilities necessary to recognise fake information disseminated through these media. According to a study conducted in Lebanon by El-Rayess et al. (2018), to combat the dissemination of false information, they advised providing students with training on the evaluation of contents disseminated via social media and instruction on plagiarism and referencing. Besides other measures to stop the spread of false information, such as legislation and technological controls, Lim et al. (2021) believed that people needed training to distinguish between fake and reliable information.

3 Theoretical Framework

The theory of reasoned action, developed by Fishbein and Ajzen (TRA, 1975), is based on learning theory and holds that the purpose towards a specific object of concern influences the driving force behind a behaviour. Psychologists frequently employ this idea, which is well-liked for understanding

human behaviour (Otieno et al., 2016). According to TRA theory, two key influences on intention are a person's perceptions of the consequences of their behaviour and the social context in which they live (Fishbein & Ajzen, 1975). While engaging in a particular behaviour, an individual develops beliefs about what contributes to success or failure. These assumptions affect how easy or difficult a particular action appears (Goh & Sandhu, 2014). Postgraduate students' abilities to use social media and analyse and distinguish between accurate and false information can be evaluated using the TRA theory's constructs. The perceived behavioural control also considers external or environmental factors (for example, time resources and social support). The existence of policies and guidelines on the appropriate use of social media as a tool for combating false information in HEIs in Tanzania, media literacy training on how to identify false information shared through social media, and ICT control, including the creation of an app specifically designed for spotting false news, are some examples of external or environmental influences.

4 Methodology

The study adopted mixed methods approach for a convergent mixed-methods research design. Ngulube (2019) and Creswell and Plano Clark (2018) submit that mixed-methods research allows researchers to examine problems from multiple perspectives, enhancing the research findings' rigor. A convergent research design enabled quantitative and qualitative data collection simultaneously during the same research phase and was analysed using different techniques. The study population comprised 633 postgraduate students from four higher education institutions in the Kilimanjaro and Arusha regions: Moshi Co-operative University, Mwenge Catholic University, the Institute of Accountancy in Arusha, and the Nelson Mandela African Institution of Science and Technology. These institutions of higher learning were purposefully selected out of 10 institutions located in the northern zone of Tanzania as they were considered information-rich cases for the study. Patton (2002), Palinkas et al. (2015), and (Creswell & Plano Clark, 2018) contend that cases that are rich in information constitute those from which a researcher(s) may discover plenty of information about phenomena of fundamental significance to the purpose of the investigation in order to shed light on the questions posed by this study. A table for determining sample size was used to select 239 postgraduate students to participate in the study, as suggested by Krejcie and Morgan (1970). Parallel mixed methods sampling was used in the study to collect quantitative data from 171 postgraduate students out of the 239. Eight interviews were conducted out of 12 with the heads of academic departments responsible for managing and coordinating postgraduate studies from each selected

HEI. Furthermore, a documentary review was conducted to gather qualitative data for the study to corroborate the quantitative findings further by consulting and reading institutional guidelines such as ICT policies, the student handbook, and internet use policies to confirm if guidance on the proper use of social media has been stipulated. Quantitative data was analysed descriptively using SPSS version 24, and findings were presented as tables, frequencies, and percentages. Qualitative data were transcribed, codes were generated, and the data were subjected to thematic analysis using Atlasi.Ti 7 based on the emerged themes. To explain the similarities and differences in the findings, the threads from both sides were blended.

5 Results

Researchers used an online survey for quantitative respondents; out of 239 distributed questionnaires, 171 were returned, with a response rate of 71.5%. According to the study, there were more male than female postgraduate students. Table 1 shows the gender distribution of postgraduate respondents in Tanzania for this study; 116 (67.8%) were male, while 55 (32.2%) were female.

Table 1: Gender of respondents

Gender of respondents	Frequency (n=171)	Percentage
Male	116	67.8
Female	55	32.2
Total	171	100

5.1 Age of respondents

Figure 1 shows that 83 (48.5%) of postgraduate students were between the ages of 28 and 37, followed by 43 (25.1%) of respondents who were between the ages of 18 and 27, 33 (19.3%) who were between the ages of 38 and 47, 10 (5.8%) who were between the ages of 48 and 57, and 2 (1.2%) of respondents who were over the age of 58. Findings show that most respondents were young and had a sufficient understanding of how to use social media, making them qualified to provide the data this study intended to collect.
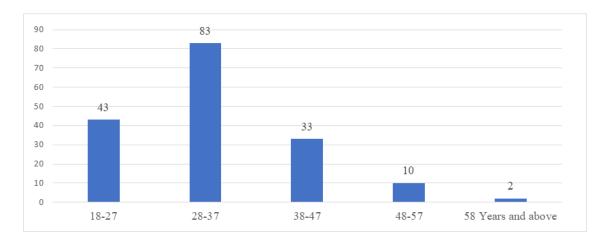
Figure 1: Age of postgraduate students' respondents

5.2 Training on social media use

The study's first objective was to find out if the chosen HEIs offer postgraduate students training on how to use social media for information and knowledge sharing. Quantitative findings show that 97 (56.7%) of the postgraduate students agreed that they had received training, while 74 (43.3%) disagreed and said they had never received guidance on using social media. Table 2 displays their responses. The research's conclusions showed that while training was provided at the HEIs chosen for the study, not all postgraduate students attended them. However, several postgraduate students were unaware of any training programmes set up to help them learn how to use social media.

Qualitative findings show that training was offered on using social media for accessing information. The responses of some of the selected interview participants were as follows:

Participant HoD-1 asserts that:

> "In most situations, only a small number of students attend the training that librarians offer; this is because it is difficult for students to travel to and from off-campus locations to participate."

Participant HoD-2 affirms that:

> "The university has put in place a training programme to help students learn how to use information effectively. These courses cover a variety of topics in addition to social media use, such as copyright concerns, referencing, and how to avoid plagiarism".

Participant HoD-5 narrated that:

"The institution, through its academic staff, aims to foster a culture of using technology to facilitate the sharing of knowledge; as a result, regular training is provided to students in order to give them the skills necessary to find, retrieve, evaluate, and use information from social media sites ethically."

Participant HoD-8 proclaimed that:

"Students are trained to use social media in an ethical manner, and this is done through routine training sessions to ensure they are not breaking the institutional and national rules relating to social media misuse."

5.3 Satisfaction level of skills in the use of social media

This sub-question measured how satisfied postgraduate students were with their skills in using social media for information and knowledge sharing. Findings presented in Table 2 show that 96 (56.1%) of the postgraduate students reported being satisfied, followed by 36 (21.1%) neutral respondents, 23 (13.5%) extremely satisfied respondents, 13 (7.6%) unsatisfied respondents, and 3 (1.8%) very dissatisfied respondents. The study concludes that most graduate students were satisfied with their skills in using social media outlets for information and knowledge sharing.

Table 2: Satisfaction level of skills in the use of social media

Level of satisfaction	Frequency (*n*=171)	Percentage
Satisfied	96	56.1
Neutral	36	21.1
Very Satisfied	23	13.5
Dissatisfied	13	7.6
Very dissatisfied	3	1.8
Total	171	100

5.4 Methods used to acquire skills in the use of social media

The second sub-question focused on how graduate students acquired the skills and knowledge to use social media for information and knowledge sharing. Quantitative findings in Table 3 show that 60 (35.1%) respondents had obtained training through independent study, 55 (32.2%) had done so by participating in information literacy classes organised by university staff, 32 (18.7%) had done so by enrolling in short courses lasting less than nine months, and 12 (7.0%) had done so by enrolling in long courses lasting more than nine months.

Table 3: Methods used to acquire skills in the use of social media

Responses	*n*-171	Percentage
Self-study	60	35.1
Through information literacy training offered by the	55	32.2
Through attending short courses lasting less than nine	32	18.7
Through attending courses lasting over nine months	12	7.0

Qualitative findings show that 4 (50%) heads of academic departments believed that students acquired knowledge using social media through self-study. The findings further show that this was done using their smartphones, laptops, and iPADS; they could visit various sites and access their needed information.

5.5 Presence of guidelines on the use of social media

Postgraduate students were asked whether their institutions had guidelines for social media use. Quantitative results show that most postgraduate students knew that their university had rules about how they could use social media to share information and knowledge. Reference is made to Table 4, which shows that 99 (57.9%) of postgraduate students agreed that their universities had policies to regulate the use of social media (SNSs) for exchanging knowledge and information. In comparison, 52 (30.4%) said "no," and 20 (11.7%) said, "they do not know".

Table 4: Existence of guidelines on the use of social media

Response	Frequency (*n*=171)	Percentage
Yes	99	57.9
I do not know	52	30.4
No	20	11.7
Total	171	100

Regarding the existence of guidelines on the use of social media, the following qualitative selected responses were received:

Participant HoD-1 stated that:

> "We have no specific guidelines on the use of social media at our institution; however, the use of social media has been included in other institutional guidelines."

Participant HoD-2 holds a view that:

> "Our institution's internet use policy has a section on using social media; social media is only a small part of it. Therefore, we included it in the policy governing how to use the internet."

Participant HoD-3 elaborated that:

> "In our university, there are no specific rules regarding the usage of social media; instead, students follow the prescribed national level policies."

Participant HoD-4 had this to say:

> "We included a section on using social media in our student handbook, but we do not have any specific rules."

Participant HoD-5 said that:

> "The proper use of social media is one of the areas we expect to be covered in the ICT policy revision that a team is now doing."

Participant HoD-6 articulated that:

> "Institutional guidelines on social media usage are in place because we recognise that while these platforms are helpful for students, they also have some consequences when they are not utilised appropriately."

6 Discussion of Findings

6.1 Training on social media usage

The selected higher education institutions were found to provide their students with information literacy training to equip them with the skills to search, retrieve, evaluate, and ethically use the obtained information. This was done through coordinated training on diverse topics, including the extensive use of social media and the evaluation of information obtained from social media outlets. Furthermore, among the topics taught by the faculties of the selected HEIs and librarians, emphasis was placed on identifying predatory publishers, referencing styles and proper referencing, searching techniques, avoiding plagiarism, copyright issues, and scientific writing. However, these training programmes were only sometimes offered at some institutions of higher education, denying students the chance to enhance their understanding of social media usage in this era of misinformation. The findings indicated that only a few students attended these trainings, which was found to demoralise

staff members of the particular HEIs to continue offering such training. In order to equip students with the information required to utilise social media platforms appropriately, Holotescu and Grosseck (2013) proposed that the usage of social media on HEIs be accompanied by training. Jones et al. (2011) made similar points that HEIs should do their part to teach students and staff how to use social media properly so they do not post false or misleading information that could lead to defamation or harassment. Sampat and Raj (2022) suggested media literacy training and an awareness campaign to address the transmission of false information. Most respondents have learned how to use social media through self-study and attending the training sessions organised by the HEIs. This was made possible because most students can use smartphones and other personal devices such as laptops and iPADs to search for information from websites using personal or institutional accounts. Similarly, a study by James (2022) found that most university students in Kenya accessed their social media accounts via iPads, tablets, cell phones, and computers. Students from the selected HEIs were found to be reluctant to attend the staff training sessions in the vain hope that they could find everything online. Bashir et al. (2021) found that university students in Pakistan learned to use social media independently or to ask their friends for help if they got stuck without formal training. Most students at the selected HEIs were satisfied with their social media skills because they could search for and obtain information about their needs. However, the majority could not when asked how well they could evaluate and distinguish false information from accurate information published on social media. Similar findings were observed in a study conducted by Leeder (2019), which found that although respondents acknowledged they possessed the skills necessary to use social media to search for and analyse information, they needed to assess their level of expertise. Lim et al. (2021) submit that not all information published on social media is accurate; some people edit, change, or even make up information to mislead others. Some students admit to spreading false information in groups unintentionally, while others do so intentionally. According to the study, students were unaware of the self-publishing nature of social media, leading them to like and comment on false content.

6.2 Existence of policies and guidelines on social media usage

The key findings from an assessment of the existing institutional policies, including ICT policies, internet use policies, and a student handbook, showed that the rules for proper use of social media had been spelled out there. Kaur and Gupta (2022) list strategies for thwarting false information and fake news on social media, such as offender policies, flags, source ratings, persuasive expertise, and government control over the internet. Most of the policies analysed stipulated that students and staff

should receive training to adapt to technological advances. However, the study's findings have established that none of the HEIs visited for the study had a stand-alone policy on the use of social media. The uses of such platforms had been included in other institutional guidelines, and the study demonstrated that most students had not read them. This was confirmed because of their inability to state any clause relating to the use of social media in the policies they consulted. Similar findings were observed in a study conducted in Kenya by Muinde (2021). Most students believed that the University of Nairobi's social media policy did not exist, even though it was discovered to have one. Social media usage has been incorporated into the university's communication policy.

Because social media platforms are prone to spreading misleading information, there is a risk that students will use them to spread information and knowledge if there are no explicit social media usage guidelines in place. The study's findings from a documentary review revealed that the HEIs selected for the study lacked autonomous guidelines on using social media to share information and knowledge. The use of social media has been embedded into other institutional policies. According to Pondiwa and Phiri (2019), social media usage should be governed by policies. Some students used these websites to disseminate false information due to a lack of media literacy and were unaware of the legal repercussions. According to a study by Kipapy (2019), the absence of an adequate internet policy made it challenging for academics, staff, and management to address issues with ethical standards that led to immoral behaviour among university students. Several students were apprehensive about using social media for learning because they did not trust the information and knowledge on those platforms, even though such media sources support learning at HEIs. According to the results of the interviews, the lack of stand-alone policies on social media use has led to negative attitudes among some staff members who believe that social media is not an official platform for learning and that students use it for non-academic purposes, which harms their academic performance and learning. As a result, some lecturers are unwilling to use social media to engage students in classroom-related issues. The study's findings are consistent with the TRA theory developed by Fishbein and Ajzen in 1975, which supports its construct of perceived behavioural controls that consider elements like time, resources, and social support. In the context of this study, tools like policies may significantly impact how responsibly students use social media since they may stop them from using and disseminating false information.

7 Conclusions

This study concluded that the selected HEIs play a crucial role in preventing the spread of false information by offering training to university students and staff. Not all students participate in the planned training, which impacts their capacity to use social media to identify fake information and the sources of the information provided. Because of the information explosion and students' inability to assess the reliability of the information's sources and its accuracy due to a lack of skills, false information has been disseminated widely. The dissemination of false information among students via such websites has ramifications for the absence of stand-alone policies on social media usage at the chosen HEIs. Students who do not consult and read the HEI policy documents are likelier to be unaware of the social media usage guidelines. It is also a result of their behaviour in refusing to participate in training sessions led by staff of the chosen HEIs.

8 Recommendations

1. The HEIs chosen for the study and other Tanzania HEIs should regularly hold training sessions on social media usage and the evaluation of information received through such platforms. This will allow students to spot misinformation, find trustworthy information sources, and have the morals to use their knowledge ethically, countering the propensity for disseminating fabricated information via social media.

2. Each institution should create a stand-alone social media usage guideline because HEIs must address several issues related to students' use of social media. This will help ensure that students abide by the rules and do not disseminate false information on social media platforms. The formulation of policies will safeguard the reputations of the HEIs visited for the study, the students, and the staff, as well as foster confidence among the students, who have been reluctant to use social media for knowledge sharing due to concerns about their privacy and security.

3. Furthermore, because HEIs are seen as the centres of knowledge and information distribution, the policy will foster a positive reputation and a sense of trust in the community.

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