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Research Article

Countering the threats of dis/misinformation: Fact-checking practices of students of two universities in West Africa

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ABSTRACT

Although access is uneven, studies have shown a high uptake of digital technologies and platforms across Africa, with many accessing social media, which is a fertile ground for the spread of fake news and disinformation, calling for the need to factcheck information before consumption or sharing. The study was grounded in explore, engage, and empower (EEE) model of media and information literacy (MIL), which states that MIL competencies empower media and information users to identify, access, and retrieve information and media content skillfully (explore), analyze, and evaluate media and information critically (engage) and create, share, or use information and media ethically, safely, and responsibly (empower). The purpose was to assess fact-checking practices of students in two universities in Ghana and Nigeria to ascertain the extent to which they factcheck information, their levels of knowledge of fact checkers and the fact checkers that they use. The simple random sampling was used to draw a total of 316 respondents. It was found that although many respondents confirmed the authenticity of news and information received before acting on them, they mostly did so through social media and their networks. Few respondents knew about fact-checking platforms and could state names of actual factcheckers. The study makes a case for MIL, which includes fact checking, to enable media users to analyze and evaluate news and information critically to ensure the consequent ethical safe and responsible sharing and usage of information and media content, as EEE model proposes.

Keywords: disinformation, misinformation, fact checking, West Africa, Africa, youths

INTRODUCTION

Although access is uneven, studies have shown a high uptake of digital technologies and platforms across Africa (via mobile phones), with many accessing social media, which is a fertile ground for the spread of fake news and disinformation (Essoungou, 2010). Hence, in this ecology of overabundance of information is also evidence for a rising occurrence of disinformation and misinformation among African media consumers. Disinformation is spread deliberately and purposefully, as opposed to misinformation, which is inaccurate information that is disseminated without any attempt to deceive (Rodríguez-Ferrándiz, 2023). The increase in the spread of fake news, misinformation and disinformation can be traced to media illiteracy (Adjin-Tettey, 2022; Guess et al., 2019), technological, social, and cultural trends (Banaji et al., 2019; Christakis & Fowler, 2009; Juhász & Szicherle, 2017). This is understandable because with the growth of netizenship and citizen journalism, information creation and sharing has become a free for all venture. This is against the backdrop of a major quantity of social media content consisting of crowd-sourced information that bypasses the

significant process of fact checking, editorial judgment, or gatekeeping (Figueira & Oliveira, 2017; Jang & Kim, 2018).

An Afrobarometer survey across four African countries found that about 75.00% of respondents were more likely to believe fake news and disinformation (Conroy-Krutz & Koné, 2020). Unfortunately, the COVID-19 pandemic saw an exacerbation of the spread of fake news, misinformation and disinformation as many shared unverified information among their networks sometimes with a desperate motive to share purported remedies or with the erroneous civic duty to raise awareness (Wasserman, 2020). Compounding the situation, many people act on information and news, which are untrue. However, disinformation of various forms must be of great concern because they pose a threat to public health, security, and democracy in Africa (Africa Center for Strategic Studies, 2021). Kahneman (2011) contends that humans tend to rely on information that is directly available to them, without considering what they might not know or what is not available to them. Consequently, it is information that humans are aware of that aids their decision making. Humans also have personal biases, which make them overlook relevant facts, even when they are presented with them (Leonard et al., 2018). So, factchecking information is an imperative to ensure that non-factual information do not become the basis on which information consumers/users make decisions or take actions.

Fact checking is "the practice of systematically publishing assessments of the validity of claims made by public officials and institutions with an explicit attempt to identify whether a claim is factual" (Walter et al., 2020, p. 351). One of the approaches to factchecking is using fact-checking websites or factcheckers to verify information. The first fact-checking organization in Africa, Africa Check, was established in 2012. Between 2016 and 2020, 14 more such organizations were established (Cunliffe-Jones et al., 2021). These organizations promote accuracy in public discussions and the media by responding to inquiries from media consumers and producing factsheets in widely spoken languages on claims by institutions, public figures, traditional and social media against the best available evidence (Africa Center for Strategic Studies, 2021, para. 2). Fact-checking organizations are typically "nonpartisan and non-profit consumer advocate[s]" (FactCheck.org, n. d.); they are also transparent and rely on independent research, making them credible and influential entities (Walter et al., 2020). Some fact-checking organizations in Nigeria and Ghana are Dubawa, FactCheckHub, Fact-Check Ghana, and Ghana Fact. In Ghana and Nigeria, there are similarities in the weaponization of social media platforms to spread misinformation, disinformation, fake news as well as hate speech (Gadjanova et al., 2022; Inobemhe et al., 2020), which could be propelled by disregard for fact checking. This trend is seemingly prevalent among youth netizens who are heavy users of the internet. There are, however, inadequate studies that compare Ghanaian and Nigerian Students' awareness of fact checkers and their fact-checking behaviors.

Factchecking is valuable to information and news consumers. Thus, as part of most media and information literacy (MIL) programs, information consumers are taught how to factcheck information, so they do not fall victim to disinformation and misinformation. Some studies have found that exposure to fact-checking reduces susceptivity to misinformation (Fridkin et al., 2015). However, even though fact-checking resources may be available to media and information consumers in Africa, there is minimal empirical evidence on how much information consumers in Africa know about factcheckers, how much they are used, which ones are used the most, and difficulties encountered while using them. Recent studies on factchecking in Africa include performance analysis and impact of fact-checking organizations (Cheruiyot & Ferrer-Conill, 2018; Cunliffe-Jones, 2020; Graves, 2018; Pavleska et al., 2018); exposure, manifestations of and responses to disinformation (Ahinkorah et al., 2020; Chenzi, 2020; Wasserman, 2020), indicating that less attention has been given to fact-checking practices of information and news consumers, especially in Ghana and Nigeria.

The rationale to focus on university students was that most of them belong to the age range rated as the highest users of the internet and its social media platforms (Pew Research Center, 2021), where misinformation, disinformation and fake news spread the most.

LITERATURE REVIEW

Fake, inflammatory, emotional and one-sided news spread quicker on social networking sites than many serious, real news articles (Dizikes, 2018). The ease with which netizens receive news and other contents in the social media space, partisanship and docility of public service media, distrust of private sector media and

teething challenges confronting community media have further aggravated public recourse to social media for news and other messages. This has many consequences, including infodemics. The notion of infodemics relates to an over-abundance of information, some accurate and some not, that makes it hard for people to find reliable guidance when they need it (World Health Organization, 2021). With the distasteful consequences of infodemics such as fake news, hate speech, xenophobia, terrorism, and racism, it is important that efforts be put in place to enhance the media literacy of social media users on the ethics of communication, especially on the use of fact-checkers.

Tangcharoensathien et al. (2020) explain that "no information vaccine currently exists to fight the viral force of uncertainty in a digital public sphere, where fake news is 70.00% more likely to be retweeted than real news" (p. 10). Netizens and other members of the public who indirectly receive content from social media must critically evaluate the messages they receive before acting on them or sharing with their social media contacts and groups (Janks, 2014, p. 355). The realization of the need for fact checking has resulted in internet platforms including Facebook, twitter and Instagram hinting the public on content that is unverified or outrightly putting down such content.

More still, the massive number of people who have access to the internet and share messages are mind boggling. Available statistics accessed from DataReportal (2021) show that by October 2021 there were 4.88 billion active internet users in the world, which can be translated to 62.00% of the global population. Furthermore, as of July 2019, there were 525 million users of the internet in Africa. Specifically, there were 154.30 million in Nigeria; 54.74 million in Egypt; 46.87 million in Kenya; 23.14 million in Tanzania; 21.15 million in Ethiopia and 14.77% in Ghana. Between the year 2000-2020, global usage of internet increased by one, 260.00% (Johnson, 2021). The implications of 4.66 billion active netizens are myriad. These include the need for laws to regulate social media, enhancement of media literacy of internet users, especially the use of fact-checking tools. Factchecking helps information consumers to make educated decisions regarding the reliability of information and reduces the spread of false information when it is incorporated into MIL programs (Adjin-Tettey, 2022). This study aimed at looking into the fact-checking practices of students in Ghana and Nigeria. It was considered important to establish what the facts are and to guide future practical steps regarding factchecking and MIL.

Theoretical Framework: Explore, Engage, & Empower Model

The theoretical framework adopted for this study is the explore, engage, and empower (EEE) model. EEE is a conceptual model of MIL, which is grounded in the principle that MIL competencies entail three major practical applications: explore, engage, and empower (Alagaran, 2015). This means that when one is media and information literate they need to be able to:

(1) "identify, access, and retrieve information and media content skillfully" (explore),

(2) "analyze and evaluate media and information critically" (engage), and

(3) "create or produce, share or communicate, and use information and media content ethically, safely, and responsibly for decision-making and taking action" (empower) (Alagaran, 2015, p. 33).

These three components, when combined, will presumably empower information consumers to be in charge of their information consumption by being able to access information, evaluate content and share or use information while being mindful that what they are sharing or consuming must be wholesome and not detrimental. All three components are critical in making information and media consumers literate, however, the component relevant to this study is engage, which seeks to empower the information and media consumer to be able to evaluate information critically, including using fact-checking resources to determine the authenticity of information before using or passing them on. Once this is accomplished, it impacts the next component–empower–which then makes the information consumer use or share the content ethically and responsibly.

By this model, content found to be fake are unlikely to be disseminated by literate and ethical media or information users who are, by inference, engaged and empowered. Hence, in this study, those with knowledge about fact checking resources or platforms and who regularly use fact checking resources and act on information based on this knowledge are considered engaged and empowered media and information users. Consequently, to address the gap identified in the literature and to determine how engaged and

empowered students in two universities in Ghana and Nigeria were in their knowledge and use of factcheckers and their fact-checking habits, the study was guided by the following questions:

1. How much do university students know about fact checkers?
2. What types of fact checkers do university students use?
3. How do university students in the two countries factcheck information?
4. To what extent do university students factcheck information before resending, reposting, or acting on them?

METHODS

This was a descriptive study with the goal of examining fact-checking habits among university students in Ghana and Nigeria, two environments that have not been well studied. It was quantitative and involved quantifying and analyzing variables in numerical form, by employing specific statistical techniques to answer questions like how much, who, where, what, when and how many (Apuke, 2017, p. 1). Quantitative methods can be classified into survey research (descriptive), correlational research, experimental research and causal-comparative research (Apuke, 2017). In this study, the survey approach was employed to elicit responses from undergraduate students of two public universities in Ghana and Nigeria to establish the extent to which they factcheck information before resending or reposting them; what types of fact checkers they use; and how much they know about fact checkers.

The survey method was selected because it allowed the researchers to gather data directly from university undergraduates who were the focus of this study. A questionnaire was self-constructed and involved first conceptualizing and operationalizing the study variables, followed by the specification of the survey method; then developing measurement scales and preparing draft instrument (Crawford, 1997). Both nominal and ordinal scales of measurements were used. The questionnaire also included three open-ended questions, which sought to know the fact-checking organization respondents were aware of, which ones they used regularly and why they used them. To ensure reliability and validity of data, the instrument was given to critical colleagues at the universities who offered feedback to strengthen the instrument.

Data was collected with online questionnaires. This was settled on due to physical contact restrictions during the COVID-19 pandemic, which made teaching and learning to be moved online. The advantage of online questionnaire is that it is easy to be administered and accessed through easily available digital devices (Fraenkel et al., 2012). Data was collected in the month of September 2021 when students in both countries were just about ending the academic term/semester. With the aid of google forms, questionnaire was designed, and a link to the survey was sent to the class representatives of students in the department of communication studies in two public universities–University of Ibadan (Nigeria) and University of Professional Studies, Accra (Ghana)–to be shared to students. The questionnaires were allocated to all students of the target departments. Most participants were contacted via WhatsApp groups and email. The questionnaire was open for four weeks.

The simple random sampling technique was used to draw respondents for this study. However, only students who were active on social media platforms were considered for the study. A screener question was asked, after which those who met qualification criteria proceeded to fill the rest of the survey. Ghana and Nigeria were selected for this study because these researchers are from the two countries and worked in selected universities, which offered proximity for data collection. Sample frame was drawn from communication students in the two universities. At the close of survey, a total of 316 responses were retrieved and analyzed. This represented about 50.00% of the total population of communication students of the two schools. Below is a breakdown of participants by country.

Details of Respondents

Respondents of the study were closely evenly distributed across both Ghana and Nigeria. There was a difference of only two respondents between the two countries, in favor of Ghana. Therefore, for the most part, results are presented without differentiating the responses from the two countries, except for few cases (**Table 1**).

Table 1. Representation of respondents across two countries

Country	Frequency (f)	Percentage (%)
Ghana	159	50.30
Nigeria	157	49.70
Total	316	100

Table 2. Age range of respondents per country

	18-23	23-28	28-33	33+	Total
Ghana	109	42	7	1	159
Nigeria	97	43	5	12	157
Total (n)	206	85	12	13	316
Percentage (%)	65.20	26.90	3.80	4.90	100

Note. Mean=2.47

Table 3. Mean scores for Likert item responses across countries

Item	Mean scores
How much do you trust information you receive?	3.27
How often do you forward or repost information sent to you?	2.64
How often do you forward or repost information sent to you without confirming how true/factful it is?	1.99
To what extent do you make use of fact checkers?	3.06
To what extent do you factcheck information before passing them on?	3.84
To what extent do you think social media are responsible for misinformation or infodemic?	4.10

Majority of students who responded to the survey were drawn from age range 18-23. This might be reflective of the fact that undergraduate students from both Universities are within this age range. In this particular age group, there were 109 from Ghana and 97 from Nigeria. The age group with less representation was the 28-33 age range, with seven and five from Ghana and Nigeria, respectively. There were, however, 13 respondents (one from Ghana and 12 from Nigeria) who were either 33 years or above (**Table 2**).

No respondent was enticed to take part in the study. During data analysis and presentation, the identities of respondents were/are kept anonymous in compliance with ethical requirements of research involving human participants. Raw data was also secured from third-party access.

RESULTS

At the close of survey, responses were downloaded in the form of an excel document. Data was later coded into the Statistical Package for Social Sciences software, version 26, for analysis. Descriptive statistical analysis was used to compute the percentages, frequencies, means and standard deviation (of the five-point Likert item responses provided) and later presented. Descriptive data interpret the current state of individuals, events, or settings (Mertler, 2014).

The purpose of this study was to determine how much respondents knew about fact checkers; what types of fact checkers they used; and the extent to which they factchecked information before resending or reposting them. To establish these, mean were generated from relevant data generated through a set of Likert item questions. The minimum scale was one, strongly indicating disagreement or dissociation from the variable being measured or the lowest scale value and the maximum scale was five, indicating strong agreement or affiliation with the variable being measured or the highest scale value. The findings are in **Table 3**.

Except for responses related to how often respondents forwarded or reposted information sent to them without confirming how factful they were and how often they forwarded or reposted information sent to them, the mean values for all other responses were tilted towards the maximum point of five. Out of these, the vast majority were of the conviction that social media are responsible for the spread of misinformation. The mean value for responses provided a 4.10 score, which is close to the maximum point. The number of respondents who often forwarded or reposted information sent to them were nearly split in half (2.64). However, there was relatively minimal association with forwarding or reposting information without confirming how true/factful they are (1.99), which is useful in stemming the spread of misinformation (**Table 4**).

Table 4. How respondents typically factcheck information

	Frequency (f)	Percentage (%)
Google	2	.60
I combine multiple fact checking platforms	1	.30
I compare information from both fact checking networks and other news organizations	1	.30
I factcheck information through my networks (i.e., friends, colleagues, & relatives)	149	47.20
I make my own judgements based on my personal convictions	28	8.90
I typically do not factcheck at all	11	3.50
I use factchecking platforms	65	20.60
I verify from other news organizations	59	18.70
Total	316	100

Table 5. Respondents' awareness of fact checking platforms

	No	Yes	Total
Ghana	92 (57.90%)	67 (42.10%)	159
Nigeria	86 (54.80%)	71 (45.20%)	157
Total	178	138	316

Note. Standard deviation=4.97; Mean=1.44; Minimum=1; Maximum=2; & p-value=0.580

Figure 1. How many fact-checking organizations respondents are aware of (Source: Survey data)

About four-in-ten of respondents from both Ghana and Nigeria (47.20%) confirm the authenticity of information received or encountered from friends, colleagues, and relatives, while about half of that number (two-in-ten [20.60%]) use fact-checking platforms. Those who selected this category of responses were in the majority. Verification of news from other news organizations followed (18.70%), while less short of one-in-ten make their own judgments about news authenticity based on personal convictions. There were also those who did not factcheck information at all (3.50%), while a respondent and another respondent said they factcheck information by combining multiple fact-checking platforms and comparing information from both fact checking networks and other news organizations, respectively. Further, we wanted to ascertain whether respondents were generally aware that there were fact-checking platforms they could resort to if they are unsure about accuracy of news and information. Responses given are illustrated in **Table 5**.

While more than half of respondents in each country (57.90% and 54.80%) were not aware of the existence of fact-checking tools and platforms, the rest said they were. This means that slightly more than five-in-ten of respondents were not exactly aware of fact-checking platforms and tools. Country comparison showed similar trend. Findings could be a clear indication of inadequate information on the availability of fact-checking tools in both countries. **Figure 1** is a tag cloud representation of responses from both countries for the number of fact-checking organizations respondents were aware of.

This is a word/tag cloud representation of combined responses provided for how many fact-checking organizations respondents were aware of. Obviously, the size of "none" is indicative of the fact that the majority of respondents did not know of any fact-checking organizations, and a validation of the earlier analysis. The actual statistics are, as follows: none (51.00%); two (15.20%); one (14.90%); three (9.80%); and more than three (7.60%). Four and news agencies cumulatively amounted to 0.60% of responses. An open-ended question was asked for respondents to write down the names of fact-checking organizations they were aware of. Responses provided were coded and are explained in **Table 6**.

The responses provided for the exact fact-checking organizations and platforms used by respondents yet again confirms that most respondents (40.07%) did not exactly know any fact-checking organizations. Interestingly many respondents mistook internet search engines for fact-checking platforms. This reflected in 33.93% listing search engines as fact-checking organization. Local and foreign media are not fact-checking

Table 6. Fact checking organizations used by respondents on a regular basis

Responses	Frequency (f)	Percentage (%)
Identified fact checkers	19	6.85
Local media	27	9.74
International media	10	3.61
None (I do not know any)	111	40.07
Internet search engines/online sources	94	33.93
Social media platforms	10	3.61
Others	6	2.16
Total	277	100

Table 7. Reasons respondents use fact checkers

Responses	Frequency (f)	Percentage (%)
To get information	27	10.18
Authentication/reliability	130	49.05
Convenience/ease	10	3.77
Accessibility	10	3.77
Gives tips on misinformation	5	1.88
Others (I do not know, family, & friends)	83	31.32
Total	265	100

Table 8. Extent to which respondents believe social media is responsible for disinformation or infodemic

	No extent	Very little extent	Little extent	Great extent	Very great extent	Total
Ghana	2.50%	3.80%	8.80%	49.70%	35.20%	100%
Nigeria	0.60%	1.30%	19.10%	45.90%	33.10%	100%

Note. Standard deviation=.846; Mean=4.10; Minimum=1; Maximum=5; p-value=0.039

organizations but are useful in confirming authenticity of news. A total of 13.35% of respondents indicated that they used local and international media to factcheck news and information. Some of the international media mentioned are BBC, CNN, and CCETV. Social media are an unreliable means of factchecking information, however, close to three-in-ten of respondents (3.61%) turned to social media to factcheck news and information. This may speak to the inability of respondents to discriminate them from social media.

Only 6.61% of respondents were able to mention exact factchecking platforms available, which they used on regular basis. The Fact-checking platforms mentioned by this group of respondents are Africa Check, Dubawa, International Fact Checking, Reuters-Fact-Checker, Fact-checking.org, and Meta-Fact. We further asked respondents why they used the factchecking platforms they indicated. Below are the responses generated from coding open-ended responses.

Though most respondents could not differentiate among fact-checkers, online news channels, search engines and social media platforms, many respondents indicated their reasons for using fact checkers or factchecking organizations to include for authentication of news and information received (49.05%) and get information (10.18%) (**Table 7**). Other simply indicated that they did not know (31.32%). The appreciable number who did not know the reasons why they use fact-checkers is reflective of the number of respondents who do not know about the existence of fact-checkers as reported earlier (**Figure 1**), even though it is slightly inconsistent. Therefore, we could conclude that the respondents would likely use such platforms to verify news and other contents if they know about factcheckers or how to factcheck information and news.

With social media being a dominant medium for spreading misinformation and fake news, we asked respondents how much they assumed social media was responsible for disinformation, misinformation, and fake news. Results are discussed in **Table 8**.

The findings show that majority of respondents thought social media was responsible for the spread of disinformation or infodemic. The mean value for responses provided a 4.10 score, which is close to the maximum point. Perception patterns were similar across the two countries. With significant number of respondents relying on social media to factcheck news and information, social media may cause confusion in the fact-checking process and eventually undermine an informed citizenry as Jang and Kim (2018) contended.

Again, we asked respondents to indicate which social media platforms they thought fake news, disinformation and misinformation spread the most. **Table 9** provides details of responses.

Table 9. Social media platforms respondents think is mostly used to disseminate disinformation & misinformation

	Frequency (f)	Percentage (%)
All the above	3	.90
Facebook	126	39.90
Instagram	23	7.30
Opera news	2	.60
Snapchat	1	.30
TikTok	8	2.50
Twitter	54	17.10
WhatsApp	95	30.10
YouTube	2	.60
Others	2	.60
Total	316	100

Table 10. How often respondents resend or repost information received without confirming how true/factful they are

	Never	Seldom	Sometimes	Often	Almost always	Total
Ghana	35.30%	28.90%	26.40%	5.00%	4.40%	100%
Nigeria	49.00%	29.30%	14.60%	3.80%	3.20%	100%

Note. Standard deviation=1.072; Mean=1.99; Minimum=1; Maximum=5; p-value=0.050

Findings from **Table 9** reflect respondents' majority view that Facebook, WhatsApp, Instagram and Twitter are the main platforms for the spread of misinformation and disinformation, with Facebook leading (about 40.00%). Statista (2020a) reports that in the third quarter of 2020, WhatsApp took the largest share of 83.90% of social media users in Ghana, followed by Facebook (70.80%) and YouTube (69.70%), while WhatsApp led in Nigeria by 93.00%, followed by Facebook (86.20%) and YouTube (81.60%) (Statista, 2020b). It can be deduced that responses are an actual reflection of the popular social media platforms used in both countries and a likely indication of the social media platform misinformation and fake news spread in both countries.

The mean value generated for a question asking respondents how often they forwarded and/or reposted information and news received was 2.26, meaning slightly more than half of respondents often forwarded or reposted information sent to them. Specifically, 41.50%, 7.60%, and 5.10% sometimes, almost always, and often, respectively, did that, while 10.40% and 35.40% of respondents seldom or never did that. Consequently, we asked respondents how they often resend or repost news and information without confirming their authenticity, which is discussed subsequently.

Even though a considerable number of respondents (35.30% and 49.00%) indicated that they never shared information or news before verifying their accurateness and validity, **Table 10** shows that quite a significant number also did not go through any fact checking processes. It thus can be concluded from percentile differentials of data generated from data analysis that a significant number of respondents repost unverified news and information in one way or the other. There were slight differences in responses across countries as the choice of "sometimes" showed significant similarities in responses across countries. If respondents do not verify information before sharing, it is likely they will spread fake news and misinformation. However, if those whom they share information and news with verify before consumption or acting on them, they are likely not to be influenced by fake news and misinformation. Thus, we turned the lenses on respondents themselves and enquired from them how often they themselves verified authenticity of information and news shared with them before acting on them. Responses are discussed next.

The findings indicate that majority of respondents factchecked information sent to them before acting on them. Fewer respondents from both countries never verified information before acting on them (**Table 11**). However, there were significant differences regarding the choice of "sometimes" and "almost always", While more respondents from Ghana indicated "sometimes" fact checking, quite a significant number in Nigeria "almost always" did that. Statistics point to the fact that more respondents are cautious to fact check information before personally acting on them than when they are about passing on information to others. However, considering the means generated from data analysis, the majority indicated they factchecked news and information received before passing them on. However, respondents' dependence on non-fact checking sources, such as online search engines; news media and family and friends, to fact check information shows

Table 11. How often respondents confirm information sent to them before acting on them

	Never	Seldom	Sometimes	Often	Almost always	Total
Ghana	6.90%	9.40%	34.50%	25.80%	23.40%	100%
Nigeria	1.90%	6.40%	19.90%	31.40%	40.40%	100%

Note. Standard deviation=1.118; Mean=3.75; Minimum=1; Maximum=5; p-value=0.001

that most respondents do not use appropriate tools to confirm messages before reposting. This must be altered through MIL, as the consequences of using unreliable fact-checking sources could be like not factchecking information and news at all.

DISCUSSION OF RESULTS

In this section, we discuss results from data analysis, bearing in mind the research questions as well as the conceptual framework grounding the study.

Fact-checking Habits of Respondents

The study found that many respondents confirmed the authenticity of news and information received before acting on them or sharing them. However, more respondents were not as mindful about the accurateness of information passed on to others as they were about what they themselves acted on or consumed. This must be altered through appropriate MIL. EEE model stresses the ethical, safe, and responsible use of information (Alagaran, 2015), which can be considered the ultimate outcome of the other two components–explore and engage. Khan and Idris (2019), however, discovered that a number of factors, including income and level of education, Internet skills of information seeking and verification, attitude towards information verification, and belief in the reliability of information, are predictive of the perceived self-efficacy to detect misinformation, particularly on social media, emphasizing the need for MIL. With the right sensitization that news and information consumers have different predispositions, cognitive styles, and dissimilar news and information literacy levels (Bryanov & Vziatysheva, 2021) as well as the skill to analyze and evaluate media and information critically (Alagaran, 2015), individuals , and even news organizations and journalists, will be minded that information and news passed on to others could be interpreted and acted on in different ways and therefore they must be cautious about what they share with others.

Respondents used varied methods to factcheck news and information, with the dominant one being factchecking with networks such as friends, colleagues, and family. It is good and creditable that many respondents attempt to factcheck information for their authenticity, however, the use of fact-checking platforms is more reliable than using networks as a means of factchecking information. Even though more than half of respondents claimed they were aware of the existence of fact-checking tools and platforms, responses to a question that asked them to indicate the exact factcheckers they knew did not commensurate with their awareness and how they factcheck information. So, although respondents possess the initial skill to identify, access, and retrieve information and media content, which is one of the prerequisites in EEE model, their ability to analyze and evaluate media and information critically is conducted in a non-technical manner, requiring more education in the use of fact-checking techniques, including the use of factcheckers.

Again, if respondents are mainly using their networks to factcheck information, the implication is that they will likely promote the spread of misinformation, disinformation, fake news, infodemics, and even hate speech. This is because, per majority responses, self-judgment, family, colleagues, and friends that respondents mainly depend on to factcheck news and information received may presumably not be in the position to verify such information independently and are thus unreliable. The exception will be the instances when those who are depended on to verify news and information also validate news and information authenticity from more reliable sources like factcheckers. Factchecking are initiatives that have been positioned as central to data verification (Ruiz & Sánchez, 2019), whereby "all the necessary processes to determine whether a news item (or piece of information) corresponds to reality, has been manipulated or is outright false" (Caja, 2020, p. 6). Therefore, relying on other news consumers whose judgements may not be objective enough is not adequate to decide about the accurateness of information or news received.

Another finding that is noteworthy is respondents' references to social media and Google as fact-checking platforms. Google is not a fact-checking platform, even though one can use it to call up news stories to make

judgement about information or news received. Moreover, social media are an unreliable means of factchecking information as evidence abound about social media aiding the spread of fake news and misinformation. For instance, Allcott and Gentzkow (2017) and Shane (2017) have found a correlation between the spread of misinformation, fake news as well as hate speech and social media. They also found the increasing use of social media by both literates, half-literates, and illiterates, indicating an increasing use of social media by persons of varied demographics, including those who may not necessarily have the requisite expertise to determine what is fake and what is not while online. E-literacy netizenship and citizen journalism, have further liberalized, commodified, and increased information or news production, availability and sharing, especially on social media. It might be difficult to validate social media sources and material, though. It gets worse in contentious situations, when social media is used for propaganda and the transmission of false information (Brandtzaeg et al., 2016). An illustration of this is the 2011 Arab Spring during which various actors spread misleading information on Twitter and YouTube (Swedish Radio, 2013).

Also, a vast amount of content disseminated on social media are crowd-sourced information and do not adhere to some of the ethical standards of journalism such as fact checking, editorial judgment, or gatekeeping (Figueira & Oliveira, 2017; Jang & Kim, 2018). Nearly 50.00% (49.00%) of social media users who were alerted to breaking news via social media afterwards discovered that it was untrue (Morejon, 2012). Factchecking is hence an imperative to protect oneself from information pollution. Nevertheless, even though per responses provided, the majority view was that Facebook, WhatsApp, Instagram, and Twitter are the main conduits for the spread of misinformation, disinformation, and fake news, with Facebook leading, some respondents thought they are viable platforms for checking the authenticity of information and news. It is thus surprising that respondents would think of social media as a viable platform to verify the authenticity of information and news. One implication of this is that respondents would likely accept news and information from such platforms and share them as credible information. The attendant consequence of such would be the persistent spread of misinformation, rumors, hate speech, infodemics and other unethical communication content.

Generally, findings are a clear indication that there is inadequate information on the availability of fact-checking tools as well as the inability of respondents to discriminate them from social media platforms and search engines. Few respondents could state names of actual factcheckers, and few indicated using factcheckers. We could conclude that respondents would be willing to use such platforms to verify news and other information before sharing them on social media, with their networks or even personally acting on them, if they know about factcheckers and they are made accessible to them. Hence, this points toward the need for more access and visibility of factcheckers for habitual internet users and the public at large.

A significant number of respondents also verify news and information from other news organizations. Verification of news from other news organizations is a good way of determining the authenticity of news. It is one of the strategies taught during MIL training sessions and it is good that a section of respondents applies this. However, verification of news and information from news organizations requires that preference be given to only verified online media platforms of media organizations. This is because fake news and misinformation are sometimes hosted on parody or fake news websites whose design and appearance are like the original websites, making it difficult for users to recognize them as fake (Abbasi et al., 2010). Again, this makes MIL an imperative. MIL will provide the necessary information about how to spot fake websites among others (Newman et al., 2020) and thereby make the news and media content consumer to have the awareness to judge and decide what information to act on or pass on to others and what not to.

The weakest mode of factchecking is personal conviction. According to Bryanov and Vziatysheva (2021), characteristics of information consumers, like belief consistency and presentation cues, and individual factors like predispositions can deceptively increase people's vulnerability to misinformation and fake news. So, just trusting personal conviction is a poor way of assessing the authenticity of news and information and will likely lead to misinformation. A more technical approach is therefore required and can be achieved through MIL. Factchecking, as part of MIL strategies, brings together all three components of EEE model, in that the media and information consumer moves from being able to accessing content (explore) to technically evaluating the content (engage) before acting based on the content (empower).

The study shows that news organizations must ensure their platforms do not become the conduits of misinformation, as the dominant modes of factchecking by news consumers may necessarily not be full proof. Unfortunately, there have been several instances, where news organizations themselves have taken false or misleading information from social media sites and reported them as newsworthy (Schifferes & Newman, 2013). As journalism practice heavily relies on social media sources and content as the primary news source (Wardle, 2014), several verification strategies and competencies are used by journalists to verify social media content and sources. However, in an ever-increasingly fast-paced field, journalists will require efficient and user-friendly technological tools to support their verification processes and in structuring and organizing an overwhelming amount of social media content (Brandtzaeg et al., 2016).

CONCLUSIONS & RECOMMENDATIONS

This study sought to find out the fact-checking practices of students in two universities in Ghana and Nigeria to ascertain the extent to which they factcheck information before resending or reposting them, their levels of knowledge of fact checkers, and types of factcheckers they use. It was found that few respondents knew about fact-checking platforms and could state names of actual factcheckers they use, suggesting that there is inadequate information on the availability of fact-checking tools and platforms. Additionally, although many respondents confirmed the authenticity of news and information received before acting on or sharing them, they most often did so through social media and their networks.

Findings provide useful insights about the general appreciation of factchecking and its practice among groups with similar demographics in both countries. The study also makes a case for education on how to analyze and evaluate media and information critically to ensure proper engagement and the consequent ethical safe and responsible production, sharing and usage of information and media content as EEE model proposes.

The study exposes the need for constant media, information and digital literacy programs, which could include afterschool and short educational programs on MIL and digital literacy to make information and news consumers aware of how to ethically use the media. It is thus recommended that MIL be incorporated into educational curriculum. This will enhance information and media consumers' ability to factcheck messages before reposting them. We also recommend that internet service providers increase education on the flagging of fake news or content that have not been fact-checked. This will help curtail the spread of misinformation, hate speech and infodemics.

Findings from this study provide empirical data on fact-checking practices of students in both countries, which can inform policy and educational directions regarding making accurate information available to citizens across the two countries. Fact checking is embedded in the ability of media and information consumers to move beyond exploring (including being able to retrieve) content/information to critically analyzing and evaluating media content or information received before sharing or even making decisions based on information received. The result is that the media content/information consumer is empowered to make quality decisions about their news and information consumption. Fact checking, thus, lends credence to EEE conceptual framework/model, which says that MIL must entail the three major practical applications–explore, engage, and empower.

The study provides the framework for further research to be conducted on the subject to provide depth in understanding fact-checking behaviors. On the basis of this, some ideas are made in the following section that may be considered in later empirical research. A major limitation of this study is having students self-report their fact-checking habits. This could account for some measure of subjectivity. We therefore suggest that further studies use online observation or online data collection tools to monitor knowledge and use of fact checkers among university students in Ghana and Nigeria. Similar studies can be conducted in other parts of the continent as well as other continents and regions.

As important as factcheckers are in the information verification process, more studies are required to explore the various aspects of what they do and how information users and consumers use their services. For future research, we recommend a study that investigates factors that influence factchecking (such as the types of news and information that prompt factchecking as well as the influence of demography [i.e., gender,

socio-economic status, age, and religion on factchecking]), while testing for the statistical relationships. There could also be a study that juxtaposes fact-checking practices of two generations of news consumers.

We also recommend a content analysis of factcheckers or fact-checking platforms in Africa to understand their characteristics and working methodologies. Such a study will shed light on the rigorousness of their verification processes. Researchers could also consider looking into how transparent and honest factcheckers are with their funding streams, since this has implications on their working methodologies and processes.

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