

Capacity to Detect Fake News: Its Relationship to the Utilization of Online Platforms of BSED Social Studies Student

Ricardo O. Quiñones, Sergio D. Mahinay, JR., Francis Dave C. Amiler, Amy Jazz B. Flauta, and James A. Tubongbanua

College of Education, Notre Dame of Midsayap College, Midsayap, Cotabato, Philippines

DOI: <https://dx.doi.org/10.47772/IJRISS.2024.803161>

Received: 10 March 2024; Accepted: 15 March 2024; Published: 18 April 2024

ABSTRACT

The present study investigated the capacity to detect fake news of Social Studies students and if there is a significant relationship between the respondents' sex, year level, age as well as their utilization of online platforms. This study was conducted only at Notre Dame of Midsayap College, specifically among the BSED Social Studies students during the second semester of the Academic Year 2022-2023. The method used in this study was causal-comparative and correlational research designs with a stratified random sampling technique. The instrument used was a researcher-made questionnaire with 34 randomly selected respondents. Despite the results, the data gathered showed that the respondents have a high capacity to detect fake news because they always check the legitimacy of the article before believing the news, compare the news with those of the more trusted sources, look for evidence that will support the claim of the new, among others. The findings of this study showed that age has a weak direct or positive relationship to the capacity to detect fake news, and that relationship is not significant; that year level has a moderately direct solid or positive relationship to the capacity to detect fake news, and that relationship is highly significant. There is no significant difference in the capacity to detect fake news according to sex. Furthermore, the utilization of online platforms also has no significant relationship with the capacity to detect fake news from the respondents. Finally, there is a very weak inverse or negative relationship between the capacity to detect fake news and the utilization of online platforms.

Keywords: Fake news, Social Media, Misinformation, Social Media Practices

INTRODUCTION

Background of the Study

In this technology-driven society, obtaining and spreading of information becomes easy and fast paced. Social media is now the primary form of communication between internet users and has soared in popularity, which has directly impacted the spread of the phenomenon of fake news and misinformation. Through a way of sharing, liking, and spreading a piece of certain (political, historical data, and current issues) news without verifying its legitimate sources becomes a problem that affects every facet of our digital or even our personal life. This fake news can bring some sort of confusion, misunderstanding, and conflict between people of a certain society. By using different social media platforms, it is easy for people to revise, distort, and even change certain issues for political purposes and for personal gain. We cannot deny the fact that as time goes by, social media became an avenue for spreading false information which creates disturbances in the harmonious relationship between people and society.

Fake news is a broad topic that is constantly evolving from time to time. This issue affects our lives in a

sense that it results in changes with our views and opinions as social media users to the different events, scenarios, and events that we hear and see. The researchers have seen that this issue of misinformation and disinformation is very prevalent in our society. It came to the point that it harms another person's identity and worst, it brings chaos and misunderstanding to everyone. Many researches have already been conducted to solve this issue, both in the international and national levels. But, the question is, do these researches solve the issue of fake news? That is why it encourages the researchers to conduct this study because they want to raise awareness that fake news is not good, it can only disrupt social life. The researchers want to know the relationship between the utilization of online platforms and the capacity of detecting fake news among BSED-Social Studies students.

Research Questions

This study sought to answer the following:

1. What is the socio-demographic profile of the respondents in terms of; age, year level, and sex?
2. What do the respondents utilize the various online platforms?
3. What are the different capacities of the respondents in detecting fake news?
4. Is there a significant relationship between the respondent's age and their capacity to detect fake news?
5. Is there a significant relationship between the respondent's year level and their capacity to detect fake news?
6. Is there a significant difference between respondents' capacity to detect fake news when grouped according to sex?
7. What is the significant relationship between the online platforms utilized by the respondents and their capacity to detect fake news?

Scope and Delimitation

This study aimed to determine the relationship of the utilization of online platforms and the capacity to detect fake news of Notre Dame of Midsayap College students, specifically the Bachelor of Secondary Education major in Social Studies enrolled in the second semester of the A.Y. 2022-2023. This study will also explore the significance of demographic profile to detect fake news of the respondents.

This study will only focus with the utilization of different internet platforms wherein it was categorized into e-commerce platforms like Shopee and Lazada, search engines which include the Google, E-Journals like JSTOR, PubMed Central, and Science Direct, creative content which includes Tiktok, Instagram, and Facebook, app stores like the Edmodo, and communications services which includes the Messenger and Twitter. Each respondents is given the same questionnaire to answer. The result of this study will apply only to the respondents of the study and will not be used as a measure of the detection capability of the other students who do not belong to the population of the study. The main source of the data will be the questionnaire, which is prepared by the researchers.

Assumptions of the Study

The following facts were presumed to be true:

1. The respondents were the Bachelor in Secondary Education major in Social Studies students who were enrolled during the first and second semester of the school year 2022-2023.
2. The respondents had been truthful and honest in their responses with the items in the questionnaire.
3. The respondents had personally answered the questionnaire themselves.
4. The responses of the respondents could be quantified and measurable

LITERATURE REVIEW

What is an Online Platform

An online learning platform is a digital space that allows course creators to market, sell, and deliver their eLearning courses. They're often referred to as "online course marketplaces." Like traditional schools, such platforms offer learners a safe environment in which to learn, access course materials, and, in many cases, interact with both teachers and students alike. (Mansaray, 2023). Online platforms are websites created to aid users in creating their Web content and cater to different kinds of information, such as texts, images, and videos. The European Commission (2018) defines online platforms as digital marketplaces that "enable individuals or small entities as buyers and sellers to "transact" (i.e., search and match) effectively and efficiently by employing various internet-connected digital communication devices." It is a digital service that facilitates interactions between two or more distinct but interdependent sets of users (whether firms or individuals) who interact through the service via the Internet.

What is Fake News

Lazer, et al (2018) describe "Fake news" as fabricated information that mimics news media content in form but not in organizational process or intent. Fake news outlets, in turn, lack the news media's editorial norms and processes for ensuring the accuracy and credibility of information. Fake news overlaps with other information disorders, such as misinformation (false or misleading information) and disinformation. Fake news refers to a specific piece of information; it does not refer to any particular type of news outlet, individual, or other actors.

Fake news, defined by HLEG (2018) as "all forms of false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for profit" has emerged as a problem that endangers public life. Baptista and Gradim (2020) consider fake news to be "a type of online disinformation, with totally or partially false content, created intentionally to deceive and/or manipulate a specific audience, through a format that imitates a news or report (acquiring credibility), through false information that may or may not be associated with real events, with an opportunistic structure (title, image, content) to attract the readers' attention and to persuade them to believe in falsehood, in order to obtain more clicks and shares, therefore, higher advertising revenue and/or ideological gain."

According to (Han., et. Al, 2021), Studies have defined it as "a news article or message published and propagated through media, carrying false information regardless of the means and motives behind it". Given this definition, fake news refers to false information that causes an individual to be deceived or doubt the truth and fake news can only be useful if it actually deceives or confuses consumers.

Prevalence of Fake News

Although fake news has existed long, its impact has now become more alarming due to its massive and quick spread through social media. This is possible because, according to Digital 2020, almost 4.5 billion people (60% of the world's population) are already online, and more than 3.8 billion are social media users. Fake news tends to spread faster and is unrecognized. Additionally, Kemp (2023), stated that the global advertising audience reach numbers, Facebook Messenger has at least 931.0 million users around the world in January 2023. If fake news once prominent in print has become more prevalent with the emergence of social media, particularly the Facebook News Feed. The proliferation of fake news has been associated with political extremism and post-truth politics. (Chauhan & Palivela, 2021). Some users are characterized by a lack of awareness of the dangers that careless use of social media can entail. From the very beginning, users

are exposed to false or misleading news (Shao, 2018). Social networking sites are very conducive to generating fake news. Facebook has estimated that up to 60 million bots have been created through their platform (Lazer, 2018). Lalu (2022) reported that there are certain platforms that are responsible for spreading fake news, the results of the survey state that 58 percent of respondents pointed to social media influencers as the top source. This was followed by journalists (40 percent), national-level politicians (37 percent), local politicians (30 percent), civic leaders (15 percent), business people (11 percent), and academics or teachers (four percent). “Social media influencers, bloggers, and/or vloggers are seen by most Filipino adults (58%) as peddlers of fake news about government and politics. For a small majority of adults (58%), social media influencers, bloggers, and/or vloggers are responsible for spreading fake political news in the country – an opinion shared by most Metro Manilans (69%), those in the rest of Luzon (67%), and those belonging to Class ABC and D (69% and 58%, respectively),” Pulse Asia said. According to Pulse Asia, the survey was conducted using face-to-face interviews of 1,200 respondents, with a margin of error of ± 2.8 percent at the 95 percent confidence level for nationwide figures. It added that subnational estimates have ± 5.7 percent error margins for Metro Manila, the rest of Luzon, Visayas, and Mindanao. The proliferation of misinformation and disinformation or false information, commonly referred to as fake news, has been a growing problem in the Philippines with the widespread use of social media – where content is not immediately verifiable. Research has revealed that through social media fake news can spread 10 times faster than legitimate news stories. The root of these reasons, however, is the absence or lack of critical thinking

Types of Fake News

Fake news does not always report non-existent news stories. It rarely happens that the whole news story is fabricated, although pure fabrication is still a possible source of false information.

Satire

According to Deguzman (2021), Satire is a literary genre that uses comedy to comment on characters or activities and their perceived vices, flaws, or faults. Humor is employed in satire to emphasize a viewpoint or point about a topic or event. Satirists frequently utilize wit to criticize or attack something they dislike. While satirical journalism is defined by its humorous tone, employing deadpan humor to generate what is referred to as “fake news,” its underlying goal is to make statements about real people, events, and trends, typically with the intent of misinforming the public.

Junk News

The idea behind “junk news” underscores the widespread distribution of news that contains propaganda, extreme ideological views, hyper-partisanship, or conspiratorial information. The term “junk” is employed to signify that this type of news is deemed as worthless as trash due to its content. Junk news often covers topics that fail to engage or interest the audience. It’s important to note that not all fake news qualifies as junk news, as some false information is regarded as significant by certain targeted audiences rather than being dismissed as insignificant or worthless. (Aganbe, Egbenya, and Esenwala 2021).

Propaganda News

Propaganda news refers to a type of paid news report that contains disguised propaganda messages presented as genuine news. Typically, this kind of news report presents real facts but often in a polished or embellished manner. The audience may find it challenging to discern whether the information is a standard news report because it lacks disclosure of the information’s source, funding provider, and underlying motivation behind its dissemination. (Aganbe, Egbenya, and Esenwala 2021).

Clickbait

Clickbait encompasses misleading or sensational content crafted specifically to generate high numbers of clicks on a website. This type of content typically involves deceptive, sensational, or exaggerated headlines aimed at grabbing the attention of readers. Clickbait relies on attracting users through headlines that may be misleading, shocking, or even impossible to resist. These posts are strategically designed to captivate as large an audience as possible by employing keywords or emotional triggers to prompt clicks. (Kalyeks, 2018).

Effects of Fake News

The term “fake news” once referred to misinformation designed to look like legitimate news, but the term has been rendered meaningless and counterproductive through overuse and political weaponization. The same motivation also promotes involvement in gossip (Talwar et al. 2019). However, Duffy et al. (2019) showed that sharing fake news can have negative effects on interpersonal relationships. Sharing false information can jeopardize the user’s entire social reputation. Associated with these sociological and psychological aspects, the literature has shown that fear of missing out (FoMO) is related to the use of social media and can be a factor that contributes to the user’s need to share information (Alt 2015; Talwar et al. 2019). FoMO is related to a feeling of anxiety or a psychological reaction that motivates users to try to reinforce their popularity in a certain group, to obtain approval and feel included. FoMO can make people more vulnerable to gossip consumption (Talwar et al. 2019). Social media can contribute to the proliferation of fake news, either through recommendation algorithms or through the characteristics of the media (Bernal 2018 & Zimmer et al. 2019)

All its characteristics (for example, clickbait, exaggerations, controversies, scandalous and dramatic images) draw users’ attention to their reading and sharing, with two objectives: to generate advertising revenue and/or obtain ideological gain (Lazer et al. 2018). Sharing fake news can serve as a fraudulent strategy to make money from programmatic advertising on the web, based on online views and clicks. The intention to make easy money by spreading fake news has been one of the main motivations for the creators of fake news. Fake news about COVID-19 can expose individuals and communities to further health risks from not following the health protocols and not getting vaccinated. Likewise, it can instigate public panic, fear, and anxiety, creating a host of mental health issues. In the United States (US), anti-ethnic sentiments against Asians linking them to COVID-19 have stimulated racial tensions and fueled xenophobic violence and discrimination (BBC 2021). In the early days of the pandemic, when little was known about COVID-19 and a lot of false information was circulating about prevention and treatment measures, there had been news of people drinking bleach or rubbing alcohol (Reimann, 2020). A BBC article in August 2020 reported that based on a study published in the American Journal of Tropical Medicine and Hygiene, around 5,800 people in the US had been hospitalized due to false information on social media, with many dying from consuming methanol or alcohol-based cleaning products (Coleman, 2020). News about the supposed health benefits of certain plants, such as ginger, in preventing COVID-19 infections also triggered an artificial spike in their prices, causing a global shortage (Nichols 2021). However, this sudden increase in world market demand has been beneficial for ginger farmers, as shown in a study in Northeast Thailand, although this good fortune has been constrained by transportation restrictions that affected input supply chains during the lockdowns (Wannaprasert and Choenkwan 2021). The opposite, however, happened in India. Its meat traders, particularly poultry producers and sellers, were seriously affected by false claims circulated in April 2020 that eating vegetarian food and eliminating meat from the diet can prevent COVID-19 infections. According to Indian authorities, this misinformation contributed to losses of up to INR 130 billion or USD 1.8 billion to India’s poultry industry (Menon 2020).

Fake news can have a wide range of effects, from being just bothersome to influencing and misleading

entire populations or even governments (Chauhan & Palivela, 2021). With the positive impact of social media and technology on society, each one has its limitations or extremities. A few of the limitations and advantages of using social media and an analysis of various techniques that could help in detecting fake news is mentioned here (Bondielli & Marcelloni, 2019). The Philippines has 92.5 million social media users, many of whom use it for daily activities and others for more nefarious purposes. According to Dossett (2022), 98% of college students use social media daily, and 27.2% of college students spend more than six hours on social media a week. Disinformation and historical distortion have become endemic in the online world, making it difficult for most users to distinguish between what is real and what is fake.

Detecting Fake News

With the widespread dissemination of information via digital media platforms, it is of utmost importance for individuals and societies to be able to judge the credibility of it. Fake news is not a recent concept, but it is a commonly occurring phenomenon in current times. In the study of Quilinguing (2019), she implied that 63 percent of social media users in the country belong to the 20- 21 age group, with females comprising a little over half of that number. About 13 percent belong to the 35-44 age group, while about 11 percent are teenagers in the 13-17 age group. Users over 45 years old comprise only about 12.3 percent. Also, Almenar et. al (2020), revealed that men and women's perception of difficulty in identifying fake news is somehow similar, but women are more concerned than men about fake news and its pernicious effects to the society. The consequence of fake news can range from being merely annoying to influencing and misleading societies or even nations. According to Orhan (2023), it is revealed that college students' critical thinking dispositions and new media literacies significantly predicted their abilities to detect fake news on social media. Students with high new media literacy possess the ability to access, decode, understand, and analyze the messages which different kinds of media content . However, there is also a claim according to Almenar et al. (2021), there are no behavioral differences between men and women were detected.

Differences by gender are not statistically significant when it comes to identifying fake news based on individual's concern about it. Women are more worried than men, but both exhibit the same difficulty in detecting fake news. The ability to recognize fake news is important, but it is not easy. One must pay attention to many factors that may indicate that one is dealing with fake news. First, the user should look at the headline. If it is shocking and unlikely, there is a high chance that it is clickbait. The next step is to check the source, date, and author of this information. This makes it possible to verify whether the news comes from a trusted source or is of unknown origin.

It is also advisable to check the history of the author's account, e.g., when the site was created, how often the author publishes information, and what information has been published previously. One of the prominent term that arises during this age of fake news is the idea of "fact-checking". Porter and Wood, (2021) stipulated that fact-checking is one effective such tool, capable of reducing false beliefs. Fact-checking can help mitigate the threat that misinformation poses to factual accuracy.

According to Senator Hontiveros, we should legislate skills-based training and media literacy programs to help the public detect fake news and re-build the habit of truth seeking. This should be backed by a strong partnership between national and local government, schools, NGOs (non-government organizations) and other training institutes," Hontiveros said. "We should also consider adopting the European Union's practice of requiring social media companies to submit reports on how disinformation spreads on their platforms and its impact on our country. It's about time the government pressures social media networks to be accountable," the Minority senator said. (Cabanban, 2022).

Ahead of the elections, IRI has provided technical assistance to pro-democracy CSOs in the Philippines to aid and amplify their efforts in countering digital manipulation and misinformation. This includes workshops on how to identify and combat digital information manipulation, digital security trainings, and

subawards to CSO partners to conduct activities that counter this threat to democracy. (Broughton, 2022). In the Philippines, the Department of Education establish a plan that will make media literacy part of the basic education curriculum. Four bills have been filed in the Congress related to this, including House Bill 3986 (Life Skills Act), HB 4648 (Social Media Awareness in Schools and Universities Act), HB 5924 (Social Media Awareness Education), and HB 9482 (Media and Information Literacy Act). While there is a subject called Media and Information Literacy in the Senior High School program, it is a general course and not focused on developing media literacy skills. (Siar, 2022)

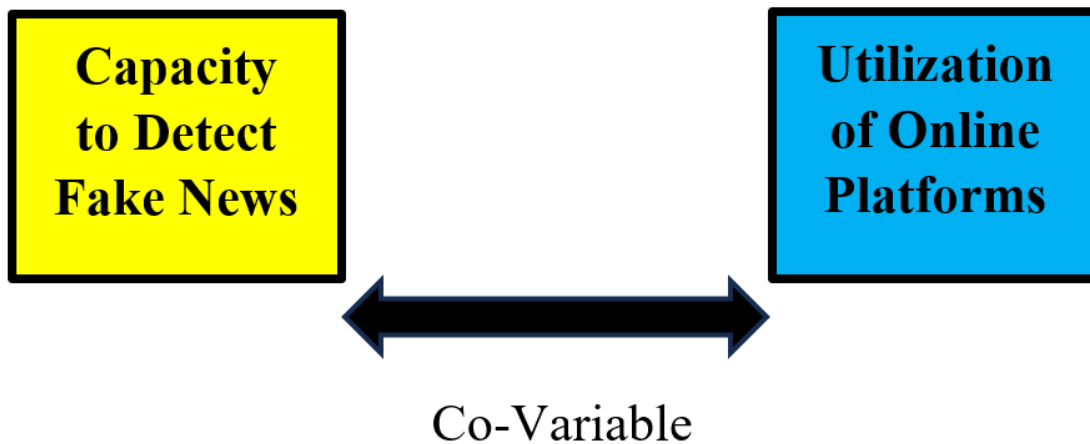
Theoretical Framework

This study was driven by Signal Detection Theory by Gustav Fechner. Signal Detection Theory. The value of social detection theory for understanding the determinants of fake-news beliefs is illustrated with re analyses of existing data sets, providing more nuanced insights into how partisan bias, cognitive reflection, and prior exposure influence the identification of fake news. One of the major advantages of utilizing “Signal Detection Theory” is that it provides a tool to disentangle discrimination sensitivity and response biases.

Conceptual Framework

This study postulates that the capacity to detect fake news is correlated to the utilization of online platforms of BSED-Social Studies students. This relationship is featured in Figure 1.

Figure 1. Schematic Diagram of the Conceptual Framework



As shown in the figure, there were two main variables considered: the capacity to detect fake news as the first variables and the utilization of online platforms. These variables are also called co-variables in correlational researches (Tutor, 2022). The first square contains different capacities of BSED-Social Studies students to detect fake news. While on the other hand, the second square contains the social media practices. The double-headed arrow that connects the two boxes illustrates the relationships between the two variables: the capacity to detect fake news and the social media practices.

Hypothesis

This proposition is drawn to testing:

H_{01} . There is no significant relationship between the capacity to detect fake news and the demographic profile of the respondents.

H_{02} . There is no significant relationship between respondents course and the capacity to detect fake news.

Ho₃. There is no significant relationship between the capacity to detect fake news and the utilization of online platforms of the respondents.

METHODS

Research Design

According to (Suosa, 2007), descriptive correlation involves the systematic investigation of the nature of relationships, or associations between and among variables, rather than direct cause-effect relationships. These designs are used to examine changes in one or more variables, which are related to changes in another variable. It is descriptive-correlational in nature because it aims to know the relationship between the detection capacity of Social Studies students and their social media practices.

Locale and Respondents of the Study

Notre Dame of Midsayap College is one of the tertiary institutions in the municipality of Midsayap which offers CHED-accredited courses. Notre Dame of Midsayap has a multi-fold population of Social Studies students who enrolled for tertiary education in the school year 2022-2023, thus Notre Dame of Midsayap College is the perfect location for the study because the researchers believe that they will be able to get a plentitude of significant results that are needed for the said study.

The study made for all population (1st year to 4th) of Social Studies students who are currently enrolled at Notre Dame of Midsayap College for the Second Semester of the Academic Year 2022-2023 as the respondents of this study. The fifteen samples which were taken during the pilot testing were combined in the final study. It is because it was simply not possible to exclude these pilot study participants for to do so would result in too small a sample in the main study (Abidin, N.S.Z. (2022). Moreover, data from the pilot testing could be combined with data from the main study since the sampling frame was the same and the reliability coefficient of the survey questionnaire was very high.

Sampling Technique

This study employs a stratified random sampling technique. According to (Simkus, 2023) Stratified sampling is a method of random sampling where researchers first divide a population into smaller subgroups, or strata, based on shared characteristics of the members and then randomly select among these groups to form the final sample. These shared characteristics can include gender, age, sex, race, or education level. The respondents of this quantitative study were grouped into smaller groups, and they were selected randomly to be the respondents to the study. This technique enables the researchers to obtain a sample population that represents the entire population and makes sure that each subgroup (1st year – 4th year) of interest is represented.

Instrumentation

The researchers used researcher-made questionnaire. There are three parts of the questionnaire. The first part aims to determine the demographic profile. The part 2- comprises the different online platforms being utilized by the students. Part 3-capacity level of the respondents in detecting fake news.

For Part 1, the respondents supplied the information about their age, year level, and sex. For part 2, they put check marks to indicate how often they utilized the various online platforms. Part 3, they also put check mark on the values they uphold upon utilizing online platforms. 1 (Never), 2 (Seldom), 3 (Sometimes), 4(Oftentimes), 5 (Always).

Data Gathering Procedure

This study made use of survey to collect data needed. With the guidance of their adviser and with the consent of their instructor, the researchers sent a letter to the Dean of the College of Education of the Notre Dame of Midsayap for permission to conduct the study. After securing approval, the researchers immediately secured the names of the respondents from their respective classes. After that, the survey was conducted. When the request was approved, the researchers personally conducted the survey questionnaire to the respondents of this study. Prior to the answering of questionnaire, instruction was given to ensure honest, clear, and complete answers. Each item in the questionnaire was explained clearly to the respondents. To ensure that the questionnaire serve its purpose, the researchers personally retrieved its immediately after answering.

Statistical Tools and Treatment of Data

The data collected in this study were treated as numerical data. They were presented, analyzed, and interpreted by applying the following statistical tools: frequency and percentage distribution for problem number one; mean and standard deviation for problem numbers 2 and 3; and Pearson product-moment (Pearson-r) correlation for problem number 4 and 5.

RESULTS AND DISCUSSION

Table 1: Profile of the respondents

Characteristics	<i>f</i>	%
Age		
18-19	5	14.7
20-21	14	41.2
22-23	13	38.2
24 above	2	5.9
Total	34	100.0
Year		
1 st Year	6	17.6
2 nd Year	6	17.6
3 rd Year	7	20.6
4 th Year	15	44.1
Total	34	100.0
Sex		
Male	11	32.4
Female	23	67.6
Total	34	100.0

Age of Respondents

Table 1 shows that the greatest number ($f=14$ or 41.2%) of the respondents is 20 to 21 years old, and a small number ($f=2$ or 5.9%) of them is 24 years old and above.

Year of the Respondents

Table 1 shows most (f=15 or 44.1%) of the respondents are 4th year college, while a small number (f=6 or 17.6%) of them belong to the 1st year and 2nd year college.

Sex of Respondents

Table 1 shows most (f=23 or 67.6%) of the respondents are females while a small number (f=11 or 32.4%) of them are male.

Utilization of Online Platforms

The information about the different online platforms utilized by the respondents are shown in Table 2

Table 2: Online platforms utilized by the Respondents

Item	Mean	Sd	Description
1. Facebook	4.68	.727	Always
2. Messenger	4.85	.359	Always
3. Instagram	3.21	1.274	Sometimes
4. Youtube	4.15	.744	Oftentimes
5. Twitter	2.62	1.303	Sometimes
6. TikTok	3.94	1.434	Oftentimes
7. Google	4.76	.431	Always
8. Google Scholar	3.32	1.199	Sometimes
9. Scribd	2.97	1.446	Sometimes
10. JSTOR	1.91	1.083	Seldom
11. Quora	2.97	1.008	Sometimes
12. Academia.edu	3.15	1.048	Sometimes
13. Science Direct	2.53	1.308	Seldom
14. Edmodo	2.24	1.062	Seldom
15. PubMed Central	1.88	1.122	Seldom
16. Library of Congress	2.00	.985	Seldom
17. ResearchGate	2.79	1.274	Sometimes
18. Public Library of Science	1.94	1.127	Seldom
19. Shopee	3.06	1.278	Sometimes
20. Lazada	2.76	1.304	Sometimes
Overall Mean	3.08	1.08	Sometimes

Table 2 shows that the respondents Sometimes (OM=3.0775) utilized online platforms. Moreover, it was signified that the highest rating belonged to items number 2, 7, 1, 4, and 6, which are “Messenger”, “Google”, “Facebook”, “YouTube”, “TikTok”. These findings will be strengthened by the report of Mateo (2022), wherein he states that the recent survey conducted by Statista also found that 98% of individual population used Messenger to communicate with their family members or close friends. Based on the global advertising audience reach numbers, Facebook Messenger had at least 931.0 million users around the world in January 2023 (Kemp, 2023). At the same time, the items that signified the lowest rating were items

number 14, 16, 18, 10, and 15, which are the “Edmodo”, “Library of Congress” , “Public Library of Science”, “JSTOR” , “PubMed Central”. As Heyoung Yang and Hyuck Jai Lee (2018) cited, PubMed is a main source of biomedical data comprising search tool function and biomedical literature. However, there are issue of predatory journals often set up for the sole purpose of making money. They will publish anything. Some papers published in these predatory journals are listed on PubMed (Jarry, 2021).

Capacity to Detect Fake News

The items about the different capacities of the respondents of detecting fake news can be shown in Table 3

Table 3: Capacities to Detect Fake News

Items	Mean	Sd	Description
1. I evaluate if the report is a junk news.	4.18	.80	Oftentimes
2. I do not believe news that came from unknown sources.	4.24	1.02	Always
3. I orient myself with the tips to spot for fake news.	4.15	.86	Oftentimes
4. I check if the news is indicated by blue checkmark or blue tick mark.	3.97	.90	Oftentimes
5. I have to distinguish if the news is a mere satire.	3.97	.94	Oftentimes
6. I assess the motive behind posting the news.	4.00	.89	Oftentimes
7. I disregard the news which. is over-exaggerated.	3.82	1.06	Oftentimes
8. I check the legitimacy of the websites that posted the news.	4.53	.71	Always
8. I check the legitimacy of the websites that posted the news.	4.53	.71	Always
9. I check the credentials of the reporter who posted the news.	4.21	.88	Always
10. I check the credentials of the author / writer of the news.	4.12	.88	Oftentimes
11. I have to complete reading the article in the news before believing it.	4.26	.83	Always
12. I compare the news with those of the more trusted sources.	4.38	.65	Always
13. I disregard the news which is over-sensationalized.	3.91	.79	Oftentimes
14. I regulate my utilization of social media sites, applications, and platforms.	4.15	.70	Oftentimes
15. I ask the persons who is the subject of the report to verify its truthfulness.	3.41	1.10	Oftentimes
16. I limit my visitation of social media sites only to official ones.	3.79	.81	Oftentimes
17. I assess the neutrality or biases of the content of the news.	3.88	.73	Oftentimes
18. I take notice of the physical appearance, e.g., color, fonts, of the news.	3.74	.93	Oftentimes
19. I spot the inconsistencies in the contents of the news.	3.71	.72	Oftentimes
20. I compare the news with the same or similar news posted in other sources.	4.06	.92	Oftentimes
21. I evaluate if the heading of the news coincides with its contents.	3.88	.84	Oftentimes
22. I check the website links, e.g., URL, if they are still active.	3.82	1.00	Oftentimes
23. I immediately check the date when the news was posted.	4.26	.79	Always
24. I examine the language being used in presenting the news.	4.09	.93	Oftentimes
25. I determine the reputation of the publisher that posted the news.	4.00	.92	Oftentimes

26. I trace where the present news originally came from.	3.88	.91	Oftentimes
27. I verify the truthfulness of the news with the persons in authority.	4.21	.91	Always
28. I take precautions to news that are merely forwarded to me by others.	4.18	.76	Oftentimes
29. I refrain from sharing information that are just shared to me by others.	3.94	.81	Oftentimes
30. I look for evidence, e.g., pictures, videos, that will support the claim of the news.	4.35	.77	Always
Overall Mean	4.0	0.86	Oftentimes

Table 3 shows that the respondents Oftentimes (OM=4.04) carry such practices of detecting fake news whenever they are utilizing or visiting social media platforms. Moreover, it was signified that the highest ratings belong to statements number which number 8, 12, 30, 11, and 23, which are “I check the legitimacy of the websites that posted the news” (M=4.53), “I compare the news with those of the more trusted sources” (M= 4.38), “I look for evidence, e.g., pictures, videos, that will support the claim of the news.” (M= 4.35); “I have to complete reading the article in the news before believing it.” (M= 4.26); and “I immediately check the date when the news was posted.” (M= 4.26). While the items that signified the lowest rating were statements number 7, 16, 18, 19, and 15, which are “I disregard the news which is over-exaggerated.” (M=3.82); I limit my visitation of social media sites only to official ones.” (M=3.79), “I take notice of the physical appearance, e.g., color, fonts of the news.” (M=3.74), I sport the inconsistency in the contents of the news” (M=3.71), and, “I ask the person who is the subject of the report to verify its truthfulness.” (M=3.41). Table 3 shows that the respondents often carry such practices of detecting fake news upon utilizing or using a particular online platform. This data was anchored to the overall mean.

This kind of behavior of checking first the website of certain news can be correlated to the study of Porter and Wood (2021), wherein they stipulated that fact-checking is one effective tool capable of reducing false beliefs. Fact checking is insufficient to address the scope of the misinformation problem, but it may undo the effects. Misinformation on factual beliefs causes durable reductions in false beliefs, mitigating one of the central harms of misinformation.

Relationship Between the Respondent’s Age and their Capacity to Detect Fake News

Table 4: Relationship between the Capacity of the Respondents to Detect Fake News When Grouped According to Age

Variables	r-value	Indication	p-value (equal variance assumed)	Indication	Decision
Age	0.189	Very weak positive relationship	0.231	Relationship is not significant	Sustain Ho1
Capacity to Detect Fake News					

Entries in Table 4 show the relationship between the capacity to detect fake news and the age of the respondents; the r-value is 0.189, and the p-value is 0.238. The r- value and p-value indicate a very weak positive relationship between the capacity to detect fake news and the age of the respondents. This further means that the relationship between the capacity to detect fake news and age occurs merely by chance among the respondents and is false among the population of interest – the BSED Social Studies students.

The null hypothesis, therefore, is sustained. This result can be strengthened by the study of Soetekouw and Angelopoulos (2022), wherein they explained that age has negatively affected one’s ability to detect fake news, suggesting that the older one gets, the less likely they are to believe fake news.

The information that indicates the Relationship between the Capacity of the Respondents to Detect Fake News When Grouped According to Year can be shown in Table No. 5

Table 5: Relationship Between the Respondents Year and their Capacity to Detect Fake News

Variables	r-value	Indication	p-value (equal variance assumed)	Indication	Decision
Year	0.548	Very strong positive relationship	0.001	Relationship is significant	Sustain Ho1
Capacity to Detect Fake News					

Entries in Table 5 show the relationship between the capacity to detect fake news and the year of the respondents; the r-value is 0.548**, and the p-value is 0.001. The r- value, and p-value indicate a very strong positive relationship between the capacity to detect fake news and the respondents’ year. This further means that the year of the respondents significantly affects their capacity to detect fake news. The null hypothesis, therefore, is sustained. It was found out in the study of Orhan (2023), where he revealed that college students’ critical thinking dispositions and new media literacies they significantly predicted their abilities to detect fake news on social media.

The information that indicates the Difference between the Capacity to Detect Fake News When Respondents Are Grouped According to Sex can be shown in Table No. 6

Table 6: Difference between the Capacity to Detect Fake News When Respondents Are Grouped According to Sex

Group	Group Mean	Mean Difference	p-value (equal variance assumed)	Indication	Decision
Male	4.26	0.506	0.093 (2-tailed)	Difference not significant	Sustain Ho1
Female	3.92				

Significance level (alpha) ≤ 0.05

Entries in Table 6 show that, concerning the variable criterion capacity to detect fake news, the group mean for males is 4.26. In contrast, the group means for females is 3.92, with a mean difference of 0.506. These figures indicate that males are more capable of detecting fake news than females. However, the computed p-value for the difference in group means is 0.093, more significant than the significance level (alpha) of 0.05. This value indicates that the difference in group means is not significant. This further means that the difference in the capacity to detect fake news between males and females occurs merely by chance among the respondents and is not true among the population of interest the BSED Social Studies students. The null hypothesis, therefore, is sustained. This result is correlated to the report of Almenar et al. (2021), wherein according to them there are no behavioral differences between men and women detected. Differences by gender are not statistically significant when identifying fake news based on an individual’s concern about it.

The information that indicates the Relationship Between the utilization of online platforms and the Capacity to Detect Fake New can be shown in Table 7

Table 7: Relationship Between the Utilization of Online Platforms and the Capacity to Detect Fake News

Variables	Overall Mean	r-value	Indication	p-value	Indication	Decision
Capacity to Detect Fake News	3.08	-.023	Weak negative correlation	.897	Relationship is not significant	Sustain Ho2
Utilization of Online Platforms	4.03					

*r-value	Indication
0	No relationship
>±0.0 to <±0.20	Very weak direct / inverse relationship
±0.20 to <±0.40	Weak direct / inverse relationship
±0.40 to <±0.60	Moderately strong direct / inverse relationship
±0.60 to <±0.80	Strong direct / inverse relationship
±0.80 to <±1.00	Very strong direct / inverse relationship
±1.00	Complete direct / inverse relationship

Significance level (alpha) ≤ 0.01 (2-tailed)

Entries in Table 7 show that the correlation coefficient (r-value) for the variable “capacity to detect fake news” in relation to the variable “utilization of online platforms” is -.023. This value indicates that there is a weak negative correlation between the said variables. This implies that those with a higher capacity to detect fake news are also those with relatively lower utilization of social media, while those with a lower capacity to detect fake news are also those with relatively higher utilization of social media, and vice versa. However, the computed p-value for the said Relationship is .897. This value indicates that the nature (direction) and magnitude (strength) of correlation between the said variables occur merely by chance among the respondents and are not true to the population of interest – the BSED Social Studies students. The null hypothesis, therefore, is sustained. That is to say – there is no significant relationship between the capacity to detect fake news and the utilization of online platforms.

Relationships Between Utilization of Online Platforms and Capacity to Detect Fake News

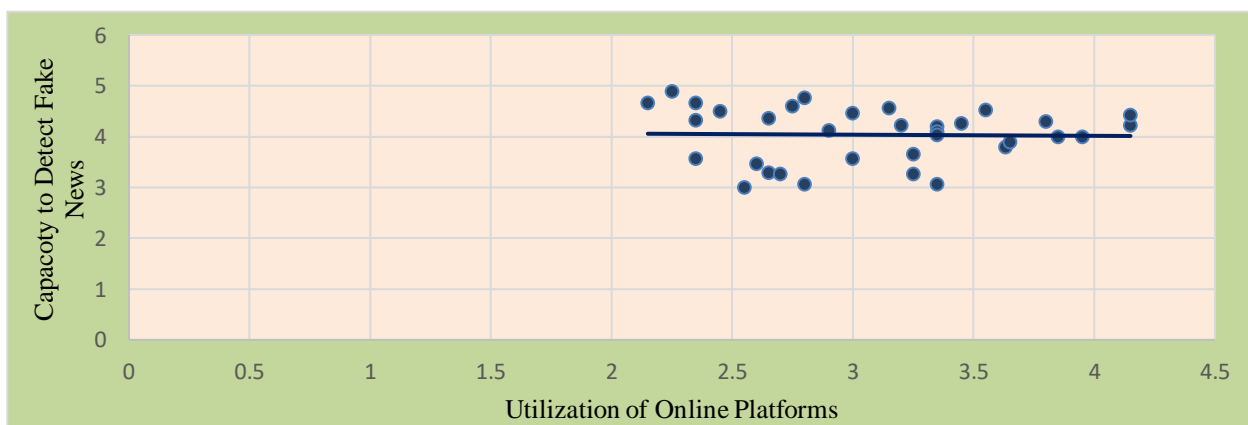


Figure 2: Scatter Plot and Correlation Curve for Capacity to Detect Fake News and Utilization of Online Platforms

Figure 2 shows that the correlation curve for the variable “capacity to detect fake news” concerning “the utilization of online platforms” slightly slopes downwards from left to right, indicating the weak negative correlation between the variables. This illustrates that as the value in the x-axis (capacity to detect fake news) increases, the value in the y-axis (utilization of online platforms) very slightly decreases, and as the value in the x-axis decreases, the value in the y-axis very slightly increases, and vice-versa.

CONCLUSION

This study has been able to discuss the problems related to this study. The age has no significant relationship to respondents' capacity to detect fake news, the course and year have a significant relationship to the capacity to detect fake news, their sex which also has no significance to their capacity to detect fake news has served as the determinants of this study which was found out to have played a significant role to their capacity to detect fake news. It was presented in the study the utilization of online platforms of the respondents upon their utilization and visitation to the different social media sites and platforms found in digital space. Also, this study has been able to identify the different capacities being upheld by the respondents in detecting fake news. It was found that upon utilizing these platforms, the respondents always observed and practiced the value of checking first the legitimacy of specific websites that posted news. This study concludes that the utilization of online platforms does not have a significant relationship to the capacity to detect fake news of the respondents.

RECOMMENDATION

For Possible Course of Action

1. The researchers of this study advise students to be cautious and evaluate the credibility of the news sources they find online. Develop a healthy skepticism and recognize their own biases.
2. When in doubt, the researchers advise the educators to get in touch with young learners so they can help them better understand the topic and could recommend reliable news sources. When faced with the reporting of conflicting information, encourage students or young learners to take their time to develop their understanding.

For Future Research Direction

3. Future researchers may develop another intervention method to detect fake news.
4. To future researchers who may want to use this research as their baseline for their study, it is suggested to use a larger population, wider locale, and types of respondents.
5. A qualitative research design may be conducted to explore their experiences with fake news.

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