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Impact of Social Media on Senior Secondary School Students' Involvement in Cybercrime in UDI Local Government Area of Enugu State, Nigeria

Judith Nneka Okafor, PhD Department of Educational Management and Policy, Nnamdi Azikiwe University, Awka, Nigeria Helen Chibuogwu Enwezor, PhD Department of Educational Foundations, Chukwuemeka Odumegwu Ojukwu University Igbariam Campus, Anambra State, Nigeria **Obinna Nonso Anachuna**, PhD Department of Educational Management and Policy, Nnamdi Azikiwe University, Awka, Nigeria Valentina Anurika Etele, PhD Department of Guidance and Counselling, Nnamdi Azikiwe University, Awka, Nigeria Nwamaka Florence Mokwe, PhD Department of Educational Management and Policy, Nnamdi Azikiwe University, Awka, Nigeria Pius Okechukwu Chukwu, PhD Department of Arts Education, University of Nigeria, Nsukka

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Abstract

This study investigated the impact of social media on senior secondary school students' involvement in cybercrime in Udi Local Government Area of Enugu State, Nigeria. Two research questions guided the study, and two null hypotheses were formulated for the study and tested at a 0.05 level of significance. The study employed a descriptive survey research design. The respondents used for the study consisted of 173 SS 2

students (73 males and 100 females) from the four schools sampled for the study using a simple random sampling technique (balloting). Data was collected using the Social Media and Cybercrime Questionnaire (SMCQ), which was validated by experts. An estimate of the stability of the instrument yielded a reliability coefficient of 0.85 using Cronbach's Alpha statistic. Mean and standard deviation were used as descriptive statistics to answer the research questions, while the independent samples t-test was adopted as an inferential statistic. The findings indicated that male students have a higher level of addiction to social media than their female counterparts, and male students are more involved in cybercrime as a result of social media influence than their female counterparts. The results also revealed that there is no significant difference in the mean responses of male and female students on the influence of social media on their involvement in cybercrime in secondary school. It was recommended that the school authorities should monitor both the male and female students on the usage of social media in schools, as its usage has a positive relationship with their involvement in cybercrime.

Keywords: Cybercrime, Cybersecurity, Gender, Impact, Secondary Schools, Social Media, Social Networking

Introduction

Criminal activities in society date back to time immemorial, and no known society, at whatever level of development, is free from them. Societies of primitive, ancient, and medieval times, as well as those of modern industrial, scientific and digital eras, have their fair share of experiences of criminal activities perpetrated by their citizens or strangers, with their attendant consequences on individuals, families, communities, corporate bodies, and governments. Agara et al. (2021) observed that the level of criminal activities that take place in society differs from place to place and is influenced or shaped by several factors, which include the extent of technological development, the degree of compliance and adherence to religious principles and doctrines, the level of poverty of individuals, the value systems of the place, the seriousness or otherwise of sanctions and sanctioning institutions/law enforcement agencies, etc.

In traditional societies, most crimes were planned and committed in crude and mechanical forms and involved the exertion of force by the criminals with the aid of certain physical or mechanical devices. In modern societies, crimes and the ways they are planned and executed have changed with the levels of technological advancement and sophistication, especially following the advent of Information and Communications Technology (ICT) in general and social media in particular (Angioha, Enukoha, Agba, & Ikhizamah, 2020; Ukwayi, Akintola, & Angioha, 2019; Ukwayi, Obafaye, & Akintola, 2019). The coming of these new technologies has given birth to a new wave of criminality referred to as cybercrime, that is, crimes committed with the aid of the Internet and its associated social media networks, such as Facebook, Twitter, Instagram, WhatsApp, Snapchat, etc.

The rapid growth of the Internet in the 21st century across the globe has brought tremendous changes in virtually every institution within different societies. These changes can, however, be described in both positive and negative dimensions. Although the positive dimensions of the Internet revolution are fascinating, the negative dimensions are, however, overwhelming and often produce maladies that threaten the social order of society (Ibikunle & Eweniyi, 2013; Odumesi, 2014; Okeshola & Adeta, 2013). One of the negative outcomes of the Internet revolution across nations, especially in developing nations like Nigeria, is the growing prevalence of cybercrimes. In the view of Odumesi (2014), the rise in technology and online communications has not only produced a dramatic increase in the incidence of cybercrimes but has also resulted in the emergence of what appears to be a new variety of criminal activities.

Cybercrime is not a old sort of crime to the world. Cybercrime, according to Das and Nayak (2013), is a crime committed mostly by individuals or organised groups in which computers or computer networks are a tool, a target, or a place of criminal activity and include everything from electronic cracking to denial of service attacks. Tonkolu (2019) defined cybercrime as a horrible crime committed against a group of individuals or an individual by the help of new technology, such as chat rooms, e-mail, and the Internet, with the intention of producing emotional, physical and mental harm. Muraina and Muraina (2015) refer to cybercrimes as offences that are committed against individuals or groups of individuals with a criminal motive to intentionally harm the reputation of the victim or cause physical or mental harm to the victim directly or indirectly, using modern telecommunication networks, such as the Internet (chat rooms, emails, etc.) and mobile phones. Cybercrime is an uncontrollable evil having its base in the misuse of growing dependence on computers in modern life. Usage of computers and other allied technology in daily life is growing rapidly and has become an urge that facilitates user convenience. It is a medium that is infinite and immeasurable. Whatever the good Internet does to us, it has its dark sides too (Chaubey, 2012).

The implementation of numerous online applications and the abundance of threats to the use of social media nowadays have put users at higher risk of online-related threats. Different kinds of cybercrimes occur, such as identity theft, cyber-extortion, online scams, cyber-bullying, copyright infringement, and online fraud (Oluga, Agana & Inyiama, 2014).

Some of the newly emerged cybercrimes are cyber-stalking, cyber-terrorism, e-mail spoofing, e-mail bombing, cyber pornography, cyber-defamation, etc. A number of crimes happen, like cyberbullying, online fraud, addiction towards gaming and gambling, and pornography, which are among the risks that online users may be exposed to in their daily lives (Khalid, Daud, Rahman, & Nasir, 2018). Some conventional crimes may also come under the category of cybercrimes if they are committed through the medium of a computer or the Internet. The major contributor to cybercrime is the Internet. In the adoption and usage of the Internet, cybercriminals often use images, programs, or digital communication in order to run malicious attacks (Chauhan, 2012).

Protecting the integrity, confidentiality, availability and access control of the data in the social network systems is very significant and challenging. It is noted that the majority of the people who are connected to social networks are students. Curiosity and revenge are noted to be the main reasons for students to get involved in cybercrimes. Most of the time, students are not aware of the implications of cybercrime. Many reports from colleges and universities show that cyber-attack rates have increased significantly over the recent years, with many hacking attempts into the information systems (Senthilkumar & Easwaramoorthy, 2017).

Cybercrimes can be categorised into two, namely the crimes where a computer network attacks other computer networks, for instance, a program code or a virus used to disable a system, and the second category, namely crimes where a computer network attacks a target population, for example, identity theft, fraud, and intrusions (Svensson, 2011). In the digital era, most organisations overdepend on the usage of the Internet; hence, this promotes cyberattacks. Most academic institutions have adopted the use of e-learning. The Internet creates unlimited opportunities for commercial, social and other human activities. But with cybercrime, the Internet introduces its own critical risks. The usage of the Internet and other digital technologies has enhanced the risk of attack from cybercriminals across the globe. Cybercrime varies from computer fraud, theft and forgery to infringements of privacy, the propagation of harmful content, the falsification of prostitution, and organised crime. Financial cybercrimes include the sale of illegal articles, pornography, online gambling, intellectual property crime, e-mail spoofing, forgery, cyber defamation, and cyber stalking (Asma, cited in Masese, Masoud, Charo & Mvurya, 2021).

Cybercrime is also carried out among organisations on an interpersonal level. Illner, cited in Agara et al. (2021), has observed that cybercrime on interpersonal organisations can be stalled into three classifications: the customary broad-sweep scams, an attempt luring web users to click on "ads" or sites that could trap malware on their computers;

an attempt to sneak into an exposed account registered online (personal or corporate account) for sensitive information; and utilising web-based media as a stage to associate, trade thoughts and exchange stolen information. However, generally, crimes committed in the cyber world include reconnaissance, phishing, catfishing, fake profiles, social engineering, hacking, identity theft, scamming, cyberstalking, child pornography, cyberbullying, etc. (Hernandez, 2018; Perlmutter, 2019). These crimes take place every day and make social media a world with both good and bad sides. Perlmutter (2019) maintained that social media has become deeprooted in many people's lives and is often referenced in news reports. For instance, a research report by Smith and Anderson (2018) on social media use shows that 74% of Facebook users in the US say they visit the site daily, with 51% visiting several times a day. This frequency in its use makes social media a very convenient environment for the criminally minded users and a potentially dangerous environment for other users with no criminal intent. Corroborating this stance also, researchers from CISCO have maintained that Facebook has become a host to a good number of busy marketplaces and interactions used by cybercriminals to buy and sell stolen commodities.

Social media networking is a platform that enables users to participate and share multimedia content, for example, text, audio, video, images, graphs and animations, through the medium of a website or an application. These contents are cloud-based big data contents and can be viewed in the form of volume, variety, velocity, veracity, volatility, quality, discovery and dogmatism (Thabet & Soomro, 2015). Kapor et al. (2017) defined social media as an internet-dependent application formed to promote social intercommunication and for diffusing, using and developing information through society. Social media use not only provides cyberthieves with a fertile ground for their nefarious activities but also makes other users become exposed or vulnerable to cybercrime. This happens especially when they place vital personal or corporate information on social media sites, interact with some other social media users who may be known or unknown to them, and click on certain links that are placed on social media sites by some other users who operate under various guises. In GoMedia, it is noted that social media networks like Facebook may seem harmless, but by making data about oneself public, people end up putting themselves and those around them in danger.

The aggressive adoption of social media among the younger generation, according to Vorderer (2016), could be attributed to their up-todate knowledge of and comfort with the latest technology and the convenient accessibility of the social networking tools. For instance, they can access social media from their cell phones at any time and from any place. This encourages them to use social media not only for receiving and retrieving information but also for being online and connecting with others, and from being consumers and participants to "prosumers", which means that they consume and produce media on the social media platform (Obar & Wildman, 2015). The advantage of social media is to allow a group of people or persons to exchange information with each other through the use of the social network. Addiction to social media by students could exert a negative influence on their academic performance.

Statement of the Problem

The contribution of the Internet to the academic development of Nigerian students has been marred by the conscious evolution of new waves of crime. The Internet has also become an environment where the most productive and safest offence thrives. Cybercrime has come as a surprise and a strange appearance that, for now, lives with us in Nigeria. With each passing day, more and more alarming cases of cybercrime are observed and perpetrated by youths in Nigeria, with each new case more shocking than the one before. It has become a stubborn mouth sore which causes a lot of pain and shame because criminally minded students in secondary schools in Udi LGA of Enugu State are stealing and committing all sorts of academic and economic atrocities through the aid of social media contacts and transactions.

Although there are many positive sides to social media, there are also its negative sides, especially as it concerns students' involvement in cybercrimes. The worrisome situation among secondary school students in Udi Local Government Area is that the use of social media has caused more harm than good in the students' involvement in cybercrimes. In most cases, various forms of crimes are being witnessed, ranging from exam malpractices, pornography, cyber-bullying, rape, robbery and stealing, sexual molestation, onslaught, and cultism, among others. Many students get addicted to the use of social media sites as they continue to engage in one activity or another on the social media sites very often. With this ugly scenario, the students have suffered a lot of setbacks in their academic pursuit. It is in this regard that this study will investigate the impact of social media on involvement in cybercrime among senior secondary school students. Gender was also investigated as an intervening variable that could influence the students' involvement in cybercrime.

Objectives of the Study

The general purpose of this study is to determine the impact of social media and gender on senior secondary school students' involvement in cybercrime in Udi LGA of Enugu State. Specifically, the study intends to determine the:

- 1. Level of addictiveness to social media by students in senior secondary schools.
- 2. Influence of social media on students' involvement in cybercrime in senior secondary schools.

Research Questions

The following research questions guided the study:

- 1. What are the mean responses of male and female students on their level of addiction to social media?
- 2. What are the mean responses of male and female students on the influence of social media on their involvement in cybercrime?

Hypotheses

The following null hypotheses were formulated to guide the study and were tested at 0.05 level of significance:

- **HO**₁: There is no significant difference in the mean responses of male and female students on their level of addiction to social media.
- **HO₂:** There is no significant difference in the mean responses of male and female students on the influence of social media on their involvement in cybercrime.

Literature Review

Modern technology in communication no doubt has turned the entire world into a "global village". But as it is, technology, like two sides of a coin, brings with it both negative and positive sides. It helps people to be better informed and enlightened and to keep abreast of world developments. Technology exposes mankind to a better way of doing things. Social networking sites include Twitter (now X), Yahoo Messenger, Facebook Messenger, Blackberry Messenger (BBM), WhatsApp Messenger, 2go Messenger, Skype, Google Talk, Google Messenger, iPhones and Androids. These networking sites are used by most people to interact with old and new friends, physical or internet friends (Asemah & Edegoh, 2012). The world has been changed rapidly by the evolution of technology; this has resulted in the use of technology as the best medium to explore the wide area of knowledge. The millions of social networking sites have transformed the thought of a global village into a reality, whereby billions of people communicate through social networking sites. Numerous benefits have been obtained through distant communication through the use of social networking sites.

Social media is affecting the cultural, economic and social lives of people, and it has become an essential part of everyone's life. Social media networking is a platform that enables users to participate and share multimedia content, for example, text, audio, video, images, graphs and animations, through the medium of a website or an application. These contents are cloud-based big data contents and can be viewed in the form of volume, variety, velocity, veracity, volatility, quality, discovery and dogmatism (Thabet & Soomro, 2015).

The term cybercrime was coined by Peter Cassidy. Secretary General of the Anti-Phishing Working Group, to distinguish computer programmes (and coordinated, interlocking sets of programmes) that are designed specifically to animate financial crime from other kinds of malevolent packages (Shehu, 2014). Cybercrime involves the use of computers and the internet to defraud unsuspecting victims, ranging from identity theft and credit card theft (in which victims' credit cards or bank account numbers are stolen by computer scanners and used to pay for goods and services) to money laundering by terrorists and organised crime syndicates. Kamini (2011) defines cybercrime as crimes committed on the internet or unlawful acts using the computer as either a tool (e.g., fraud, forgery, identity theft, phishing scams, spam, junk e-mails, pornography, online gambling, intellectual property crime, cyber defamation, cyberstalking, etc.) or a targeted victim (e.g., unauthorised access to computer networks, electronic information theft, denial of service attacks, malware, malicious codes, e-mail bombing, data diddling, salami attacks, logic bombs, web jacking, internet time theft, Trojan attacks, etc.). This implies that all cybercrimes involve both the computer and the individuals as victims; it depends on which of the two is the main target.

According to Maitanmi, Ogunlere, Ayinde & Adekunle (2013), cybercrime is a type of crime committed by criminals who make use of a computer as a tool and the internet as a connection in order to reach a variety of objectives such as illegal downloading of music files and films, piracy, spam mailing and the likes. Similarly, Okeshola (2013) opined that the term cybercrime can be used to describe any criminal activity that involves the use of a computer or the internet network, including such crimes as fraud, theft, blackmail, forgery, and embezzlement. These two definitions are very narrow in the sense that they do not give a holistic view of what cybercrime is all about. In the same vein, cybercrime as criminal ventures, involving information technology infrastructure, includes unauthorised access to computer data from or within a computer (Adeleke, 2017). With the above descriptions of cybercrime, in this study, cybercrime could be defined as crimes committed with the aid of ICT-enabled tools and channels.

Social media has a profound impact on people's lives, whether for good or bad. One cannot imagine life without social media; therefore, it is not a surprise that criminal activity involving social media has also become a norm (Thukral & Kainya, 2022). As a result of the rise of social media, crime has been able to thrive online. One of the most powerful and successful tools, social media, has suddenly become a haven for criminals. In the last decade, as the number of internet users has grown, so has the number of cybercrimes (Soomro & Hussain, 2019). One may also construct a bogus social media persona to spread false information about someone or to obtain someone's credit card information, which is readily available on e-commerce sites. Gender-based violence and assaults on minors are two further types of violence. Since the perpetrator's identity is obscured, women and small children are the primary victims of internet child pornography (Gupta, 2020).

Some scholars carried out research on social media addiction among students. Osharive (2015) examined the influence of social media on the academic performance of students at the University of Lagos. The author showed that a great number of students at the University of Lagos are addicted to social media. Similarly, Wordu, Dan-Jumbo and Dick-Mina (2021) investigated the effects of social media addiction on the academic performance of students in public senior secondary schools in Rivers State, Nigeria. It was revealed that students who spent more time on social media were more likely to have higher Internet addiction.

Some research was also done by scholars on social media and cybercrime. Umeozulu (2012) carried out a study to examine the perception of cybercrime among Nigerian youths using Caritas University, Amorji-Nike, Enugu, as a case study. The author revealed that the Internet is used as a channel for the perpetration of criminal spamming activities, which was the finding drawn. In the same vein, Asogwa (2019) examined public perception of the influence of digital media on cybersecurity. It was found that digital media are significantly and negatively affecting cybersecurity breaches and promoting cybercrimes. Finally, Agara et al. (2021) conducted a study to examine the phenomenon of social media use and students' exposure to cybercrimes in Nigeria and revealed that Facebook, Instagram and Twitter (now X) use significantly expose students to cybercrimes. These studies were carried out in various locations.

Methods

The study employed a descriptive research survey design. The population of this study consists of 1,156 senior secondary two (SS 2) students in the 25 public secondary schools in Udi Local Government Area of Enugu State (Enugu State PPSMB Statistics, 2023). A multistage sampling procedure was used to first of all select four secondary schools from the 25 secondary schools, using a simple random sampling technique (balloting). There are three hundred and five (305) SS 2 students from the four schools sampled. The researcher further used the Taro Yamane formula to determine a sample size of one hundred and seventy-three (173) SS 2

students (73 male and 100 female) to be used for the study. To distribute the sample size among the four sampled schools, the researcher used the proportionate simple random sampling technique. Data was collected using the social media and cybercrime questionnaire (SMCQ) designed by the researchers and validated by experts. The internal consistency reliability estimate yielded an overall reliability estimate of 0.85 using the Cronbach Alpha statistic.

Results

Research Question 1: What are the mean responses of male and female students on their level of addiction to social media?

 Table 1: Mean and standard deviation of the respondents on their level of addiction to social media

	media					
S/N	Item Statement	Gender	Ν	Х	SD	Decision
1.	I am addicted to social media, and it is a	Male	73	2.78	.99	HE
	problem that affects me in mathematics.	Female	100	2.73	1.01	HE
2.	Social media networks distract me from my	Male	73	2.89	1.03	HE
	studies.	Female	100	2.83	.92	HE
3.	I spend time chatting on Facebook and	Male	73	2.79	.91	HE
	WhatsApp.	Female	100	2.67	.88	HE
4.	My mathematics results have been	Male	73	2.45	1.00	LE
	negatively affected since I became engaged	Female	100	2.30	.88	LE
	with these social media.					
5.	Overuse of social media platforms makes	Male	73	2.66	1.00	HE
	me lazy in doing my mathematics take-home	Female	100	2.57	.96	HE
	assignments.					
6.	I leave school for Internet Café to do 'Yahoo	Male	73	2.67	.97	HE
	Yahoo'.	Female	100	2.51	1.01	HE
7.	I watch pornographic images and videos.	Male	73	2.82	.82	HE
		Female	100	2.89	.86	HE
8.	I have sleepless nights engaging myself on	Male	73	2.74	.96	HE
	social media.	Female	100	2.70	.94	HE
9.	I chat on social media even when I am	Male	73	2.41	.94	LE
	eating.	Female	100	2.45	.99	LE
10.	I come to school with my phone in order to	Male	73	2.64	.89	HE
	chat on social media.	Female	100	2.58	.93	HE
	Overall Mean	Male	73	2.69	.51	HE
		Female	100	2.62	.49	HE
*7		2 40 T	1			2.40

Key: 3.50 – 4.00 = Very High Extent (VHE); 2.50 – 3.49 = High Extent (HE); 1.50 – 2.49 = Low Extent (LE); 0.50 – 1.49 = Very Low Extent (VLE)

Table 1 shows the mean responses of both male and female SS 2 mathematics students on their level of addiction to social media in Udi LGA, Enugu State. It indicates that the mean responses of the male and female students to items 1-3 and 5-8 and 10 are within the real limit decision point of 2.50-3.49. This implies that both the male and female SS 2 students in the secondary schools engage in the statements in items 1-3 and 5-8 to a high

extent. Also, the mean responses of both male and female students to items 3 and 9 are within the real limit decision point of 1.50-2.49. This implies that the male and female students engage in the statements in items 3 and 9 to a low extent. The overall means of 2.69 (SD = .51) and 2.62 (SD = .49) for the male and female students, respectively, imply that the male and female students obtained a higher mean rating, which indicates a higher level of addiction than their female counterparts.

Hypothesis 1: There is no significant difference in the mean responses of male and female students on their level of addiction to social media.

Table 2: t-test score on the level of students' addiction to social media by gender											
Gender	Ν	Х	SD	df	t-cal	Sig. (2-tailed)	Decision				
Male	73	2.69	.51								
				171	.83	.410	HO ₁ Accepted				
Female	100	2.62	.49				L.				

Data in table 2 shows the t-test score on the level of mathematics students' addictiveness to social media by gender, t(171) = .83, p = .410 > .05. Since the *p*-value of .410 is greater than the 0.05 probability level set for the study, the null hypothesis, which states that there is no significant difference in the mean responses of male and female students on their level of addictiveness to social media, is accepted. This implies that there is no significant difference in the mean responses of male and female students on their level of addiction to social media in secondary schools.

Research Question 2: What are the mean responses of male and female students on the influence of social media on their involvement in cybercrime?

Table 3: Mean and standard deviation of the respondents on the influence of social media
on their involvement in cybercrime

on their involvement in cybercrime								
S/N	Item Statement	Gender	n	Х	SD	Decision		
11.	I use the Internet to dupe people.	Male	73	3.18	.77	А		
		Female	100	3.01	.88	А		
12.	I constantly place unwanted calls to people.	Male	73	2.86	.85	А		
		Female	100	3.01	.73	А		
13.	I send unwanted text messages and email to	Male	73	3.05	.74	А		
	people.	Female	100	2.85	.81	А		
14.	I upload female pictures on social media	Male	73	3.00	.78	А		
	without their consent.	Female	100	3.07	.84	А		
15.	I use the Internet to do illegal business.	Male	73	2.52	.94	А		
		Female	100	2.46	.96	D		
16.	I always access cyber pornographic images	Male	73	3.29	.70	А		
	and videos.	Female	100	3.20	.82	А		
17.	I hack into people's personal and sensitive	Male	73	2.66	.97	А		

	information on the Internet.	Female	100	2.69	.94	А
18.	I use social networking sites and technology	Male	73	2.05	.88	D
	to track people.	Female	100	2.07	.95	D
19.	I use social networking sites to blackmail	Male	73	2.42	.90	D
	people.	Female	100	2.29	.84	D
20.	I use a cell phone to bridge into people's	Male	73	2.88	.90	А
	privacy.	Female	100	2.83	.87	А
21.	I use social media for examination	Male	73	3.05	.81	А
	malpractice.	Female	100	2.75	.91	А
	Overall Mean	Male	73	2.82	.36	Α
		Female	100	2.75	.38	Α

Key: 3.50 - 4.00 = Strongly Agree (SA); 2.50 - 3.49 = Agree (A); 1.50 - 2.49 = Disagree (D); 0.50 - 1.49 = Strongly Disagree (SD)

Table 3 shows the mean responses of both male and female SS 2 students in Udi LGA, Enugu State, on the influence of social media on their involvement in cybercrime. It indicates that the mean responses of the male and female students to items 11-14, 16, 17, 20 and 21 are within the real decision point limit of 2.50 - 3.49. This implies that both the male and female SS 2 students in the secondary schools agree with the statements in items 11-14, 16, 17, 20 and 21. Secondly, the mean response of male students to item 15 is within the real limit decision point of 2.50-3.49, while that of their female counterparts is in the real limit decision point of 1.50-2.49. This implies that the male students agree with the item statement while their female counterparts disagree. Again, the mean responses of both male and female students to items 18 and 19 are in the real limit decision point of 1.50-2.49. This indicates that the male and female students disagree with the statements in items 18 and 19. The overall means 2.82 (SD = .36) and 2.75(SD = .38) for the male and female students, respectively, implying that the male and female students in the secondary schools agree with the statements in the items. It also implies that the male and female students' involvement in cybercrime is influenced by social media, though the male students obtained a higher mean rating, an indication that male students are more involved in cybercrime as a result of social media influence.

Hypothesis 2: There is no significant difference in the mean responses of male and female students on the influence of social media on their involvement in cybercrime.

Table 4: t-test score on the influence of social media on mathematics students' involvement
in cybercrime by gender

In cyberennie by gender									
Gender	n	Х	SD	df	t-cal	Sig. (2-tailed)	Decision		
Male	73	2.82	.36						
				171	1.19	.237	HO ₂ Accepted		
Female	100	2.75	.38				-		

Data in table 6 shows the t-test score on the influence of social media on mathematics students' involvement in cybercrime by gender, t(171) =1.19, p = .237 > .05. Since the *p*-value of .237 is greater than the 0.05 probability level set for the study, the null hypothesis, which states that there is no significant difference in the mean responses of male and female students on the influence of social media on their involvement in cybercrime, is accepted. This implies that there is no significant difference in the mean responses of male and female students on the influence of social media on their involvement in cybercrime in secondary schools.

Discussion

The findings of this study revealed that male students have a higher level of addiction to social media than their female counterparts in the secondary schools in the Udi Local Government Area of Enugu State. The study also found that there is no significant difference in the mean responses of the male and female students on their level of addiction to social media in secondary schools. This finding is in agreement with the findings of Osharive (2015) that a great number of students at the University of Lagos are addicted to social media. This is corroborated by Avatalumo and Ukegbu (2018), who revealed that most of the Nigerian students spend 3-5 hours of their study time on social media. The findings of this study is also in line with Azizi et al. (2019), who found that male students had a higher level of addiction to social media than female students. Bhandarkar et al. (2021) revealed a strong positive correlation between social media usage and the social media addiction score. Supporting this finding, Wordu et al. (2021) revealed that students who spent more time on social media were more likely to have higher Internet addiction.

Evidence from the study reveals that the male students are more involved in cybercrime as a result of social media influence than their female counterparts. It also reveals that there is no significant difference in the mean responses of male and female students on the influence of social media on their involvement in cybercrime in secondary schools in the Udi Local Government Area of Enugu State. This agrees with the finding of Umeozulu (2012) that the Internet is used by Nigerian youths for the perpetuation of criminal spamming activities. It is also in line with Asogwa (2019), who revealed a significant association between digital media and cybercrime, and Agara et al. (2021), who found that Facebook, Instagram and Twitter (now X) significantly expose students to cybercrimes.

Conclusion

From the findings of this study, the following conclusions are drawn: Evidence from the findings of this study on the level of addictiveness to social media showed that the male students had a higher level of addiction to social media than their female counterparts in the secondary schools in Udi Local Government Area. This calls for proper orientation of the students, especially in the senior classes, on the adverse effects of addiction to social media usage. The results of the findings on students' involvement in cybercrime as a result of social media revealed that male students are more involved in cybercrime as a result of social media influence than their female counterparts. The school authorities should do their best to discourage students from using phones in school. The students should also be made to understand the law of the land against cybercriminals.

Recommendations

Based on the findings of this study, the following recommendations were made:

- 1. School administrators should give students proper orientation, especially those in the senior classes, on the adverse effects of addiction to social media.
- 2. Teachers should teach students to understand the law of the land against cybercrime.
- 3. The school authorities should monitor both the male and female students on the usage of social media in schools, as their usage relates to their involvement in cybercrime.

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References:

- 1. Adeleke, R. G. (2017). *Perception of cybercrime among Nigerian youths: A case study of Caritas University*, 5-47, https://uniprojects.net/project-materials/perception-of-cybercrimeamong-nigerian-youths/
- Agara, E. P., Ojong, F. E., Emeka, J. O., Ogaboh Agba, A. M., Akintola, A. I., & Ogunsola, O. V. (2021). Social Media Platforms: Exposing students to cybercrimes. *ARRUS Journal of Social Sciences* and Humanities, 1(1), 45-54.

- 3. Angioha, P. U., Enukoha, C. U., Agba, R. U., & Ikhizamah, G. U. (2020). Information technology predictor variables and employee productivity in commercial banks. *Journal of Information and Visualisation*, 1 (1), 44-52.
- 4. Asemah, E.S., & Edegoh, L.O.N. (2012). *Social media and insecurity in Nigeria: a critical appraisal.* Being a paper presented at the 15th National Conference of the African Council for Communication Education, which took place at the conference hall of the Federal University of Technology, Minna, Nigeria.
- 5. Aslan, Y. (2006). Global nature of computer crimes and the convention on cybercrime. *Ankara Law Review*, *3*(2), 129-142.
- 6. Asogwa, C. E. (2019). Public perception of the influence of digital media on cybersecurity in Nigeria. *Universal Journal of Electrical and Electronic Engineering* 6(5): 366-372.
- 7. Chaubey, R. K. (2012). An introduction to cyber crime and cyber *law*. India: Kamal Law House.
- 8. Chauhan, A. A. (2012). Preventing cyber crime: A study regarding awareness of cyber crime in Tricity. *International Journal of Enterprise Computing and Business Systems*, 2(1). 1-7.
- 9. Das, S., & Nayak, T. (2013). Impact of cybercrime: Issues and challenges. *International Journal of Engineering Sciences & Emerging Technologies*, 6(2), 142-153.
- Gupta, N. (2020). Influence of social media and growth of cyber crimes – A case study. *International Journal of Law Management & Humanities*, 3(6), 861.
- 11. Hernandez, E. (2018). The 16 most common types of cybercrime acts. Retrieved on 28th October 2019 from <u>https://www.voipshied.com</u>
- 12. Ibikunle, F., & Eweniyi, O. (2013). Approach to cyber security issues in Nigeria: Challenges and solutions. *International Journal of Cognitive Research in Science, Engineering and Education, 1*(1), 15-22.
- 13. Kamini, D. (2011). Cyber crime in the society: Problems and preventions. *Journal of Alternative Perspectives in the Social Sciences*, 3(1), 240-259.
- 14. Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2017). Advances in social media research: Past, present and future. *Information Systems Frontiers*, *1-28*.
- 15. Khalid, F., Daud, Y., Rahman, M. J., & Nasir, K. M. (2018). An investigation of university students' awareness on cybersecurity. *International Journal of Engineering & Technology*, 11-14.

- Maitanmi, O., Ogunlere, S., Ayinde, S., & Adekunle, Y. (2013). Impact of cyber crimes on the Nigerian economy. *International Journal of Engineering and Science (IJES)*, 2(4), 45–51.
- 17. Masese, C. B., Masoud, C., Charo, J. S., & Mvurya, M. (2021). Cybercrime issues on social media usage among higher learning institutions students in the Dar Es Salaam Region, Tanzania. *International Journal of Scientific Research in Science, Engineering and Technology*, 8(4), 138-148.
- Muraina, M. B., & Muraina, K. O. (2015). Peer pressure, parental socioeconomic status, and cybercrime habits among university undergraduates in Southwestern Nigeria. *International Journal of Technology in Teaching and Learning*, 11(1), 50-59.
- 19. Obar, J., & Wildman, S. (2015). Telecommunications policy. *Elsevier*, *39* (9), 745-750.
- 20. Odumesi, J. O. (2014). A socio-technological analysis of cybercrime and cybersecurity in Nigeria. *International Journal of Sociology and Anthropology*, 6(3), 116 125.
- 21. Okeshola F. B., & Adeta A. K., (2013). The nature, causes and consequences of cybercrime in tertiary institutions in Zaria, Kaduna State, Nigeria. *American International Journal of Contemporary Research*, 3(9), 98-114.
- 22. Oluga, A., Agana, H. C., & Inyiama, B. (2014). Cybercrime detection and control using the cyber user identification model. *International Journal of Computer Science and Information Technology and Security*, 5, 354–368.
- 23. Osharive, P. (2015). Social media and academic performance of students in the University of Lagos. (Unpublished bachelor's degree project), University of Lagos, Nigeria.
- 24. Perlmutter, D. (2019). *Social media: a haven for cybercriminals.* Retrieved on 23rd October 2019 from <u>https://blog.cyberint.com/social-media-a-heaven-for-cyber-criminals</u>
- 25. Senthilkumar, K., & Easwaramoorthy, S. (2017). A survey on cybersecurity awareness among college students in Tamil Nadu. *Materials Science and Engineering*, 263(4), 23-67.
- 26. Shehu, A. Y. (2014). Emerging issues in cybercrime: Causes, implications and effects for the legal profession. *Online Journal of Social Sciences Research*, *3*(7), 169-180.
- 27. Smith & Anderson (2018). Smith, A., & Anderson, M. (2018). Social media use 2018: Demographics and statistics. Washington DC: Pew Research Centre. https://www.pewresearch.org/internet/2018/03/01/social-media-usein-2018/

- 28. Soomro, T. R., & Hussain, M. (2019). Social media-related cybercrimes and techniques for their prevention. *Applied Computer Systems*, 24(1), 9–17
- 29. Svensson, P. (2011). Nasdaq hackers target service for corporate boards.
- 30. Thabet, N., & Soomro, T. R. (2015). Big data challenges. Journal of Computer Engineering & Information Technology, 4(3). <u>https://doi.org/10.4172/2324-9307.1000133</u>
- 31. Thukral, P., & Kainya, V. (2022). How social media influences crimes. *Indian Journal of Law and Legal Research*, 4(2), 1-11.
- 32. Ukwayi, J. K., Akintola, A., & Angioha, P. U. (2019). Biometric security in business organisation: An assessment of its impact on checking corporate crime in business organisations in Cross River State, Nigeria. *International Journal of Scientific and Research Publications (IJSRP)*, 9(5). 42-51.
- 33. Ukwayi, J. K., Obafaye, I. S., & Akintola, A. (2019). Information and communication technology and crime control in Calabar Metropolis, Cross River State, Nigeria. *European Journal of Social Sciences Studies*. 4(1), 77-89.
- 34. Umeozulu, F. (2012). Perception of cybercrime among Nigerian youths (A study of Caritas University), *Unpublished bachelor's degree project*, Caritas University, Amorji-Nike, Enugu, Nigeria.
- 35. Vorderer, P. (2016). Permanently online permanently connected: Explorations into university students' use of social media and mobile smart devices. *Computers in Human Behaviour, 63*, 694-703.
- 36. Wordu, H., Dan-Jumbo, I., & Dick-Mina, A. (2021). Effects of social media addiction on academic performance of students in secondary schools in Rivers State, Nigeria. *International Journal of Advanced Education and Research*, 6(6), 1-7.