

# Internet Usage Among Undergraduate Students in Ghana: An Exploratory Study

Samuel Danso<sup>1</sup>, Bernice Awudi<sup>2</sup>, Martin Thompson Kwadzo Ntem<sup>3</sup>, Gyasi Appau Augustine<sup>4</sup>, Emmanuel Larbi Ayetey<sup>5</sup>

<sup>1</sup>Department of Communication Studies, Pentecost University

<sup>2</sup>Department of Physics Education, University of Education, Winneba, Ghana

<sup>3</sup>Department of Media Studies, Ghana Institute of Journalism, Ghana

<sup>4</sup>School of Nursing, Ghana Baptist University College, Ghana

<sup>5</sup>Department of Mathematics, Presbyterian College of Education, Kibi, Ghana

## ABSTRACT

The Internet has changed the face of technology, especially the way students interact with each other. This means that students have greater autonomy over time where communication is no longer limited to certain times. Widespread Internet availability can substantially benefit students by enhancing their access to a broader range of information, creating an avenue for social communication and conducting research. This study through a qualitative case study design critically examined Internet usage among undergraduate students of the University of Education, Winneba. The study also examined the consequences of students' intensive use of the Internet. The study revealed that students use the Internet to satisfy certain gratifications. Themes such as academic research, entertainment, news sharing and socialisation were found as the motivation behind students' use of the Internet. It was discovered that although the Internet help students positively in many ways, it also impacts on them negatively. Themes such as decline in academic performance, social isolation and financial constraints were identified as some of the consequences of students' intensive use of the Internet. The study revealed that it is important to investigate the intensity of Internet addiction among university students. The study concluded that even though the Internet is important to students, they need to be cautious of its overuse in order not to be addicted.

**Keywords:** Internet, students, academic performance, motivation, consequences

## INTRODUCTION

The Internet is an evolving tool that contains amazing variety of information. Leiner et al. (2009) indicate that history of the Internet is complex. The influence of the Internet does not reach the technical fields alone but also throughout the entire society as the use of online tools has become common. Firth et al. (2019) assert that the Internet is the most widespread and rapidly adopted technology in the history of humanity.

With the advent of smartphones and computers, Internet access has become ubiquitous (Anderson, 2018). As of June 30, 2020, more than half (62.0%) of the world's population used the Internet (Zhang et al., 2021) and this percentage has increased rapidly in recent years to more than four billion users worldwide (Al-shawi et al., 2021). The availability and accessibility of the Internet could be said to have positively influenced the lives of many people, especially university students all over the world (Apuke & Iyendo, 2018). This has become a reality because the Internet is useful for students' academic work. The use of the Internet help students in their educational research such as learning languages, solving problems and browsing libraries online (Danso & Awudi, 2022). Updated and current information are well organised on the Internet for easy search and has contributed significantly to students' academic achievements (Kumah, 2015). Many students prepare course assignments, make study notes, tutor themselves with specialised multimedia and process data for research projects (Bashir et al., 2016). Most students access library

catalogues, bibliographic databases, and other academic resources in text, graphics, and imagery on the World Wide Web (Asan & Koca, 2006 as cited in Bashir et al., 2016). Usun (2003) mentions that the Internet is appealing to higher education for a number of reasons: it reduces the time lag between the production and utilisation of knowledge; it promotes international cooperation and exchange of opinions; it furthers the sharing of information; and promotes multidisciplinary research.

Due to technological advances and the growing available access to the Internet, students are logging on to the net for other possible reasons (Masud et al., 2016). They are meeting new friends, socialising with others and solving basic problems in life. The Internet is becoming a widely accepted channel for information exchange and networking among students (Akhter, 2013). The Internet has also influenced communication and culture through increased interpersonal communication, assisting students to reach friends regardless of time. Students now connect directly to other people and are involved in specialised relationships. The Internet has also become a way of life for the majority of university students all around the world. For most university students, the Internet is a functional tool. Students exchange emails with faculty, peers and remote experts. Students also keep up to date in their fields on the Internet, accessing newsgroups, bulletin boards, listservs, and websites posted by professional organisations.

The advent of social media has also significantly impacted students both in their academic and social life as a means of making connections for various purposes (Tayo, Adebola & Yahya, 2019). Boateng and Amankwaa (2016) assert that social media has influenced instructors, students, and other academic stakeholders to unite with each other to promote knowledge construction in teaching and learning. For this reason, McLoughlin & Lee (2007) state that using social media platforms has positively impacted students by creating diversification between different categories of people. The use of social media has become global. Some of the popular social media platforms are Facebook, WhatsApp, Twitter, Myspace, Instagram, LinkedIn, and Google Plus, among others.

With the development of society and information technology, the Internet has brought convenience and also some problems, especially for undergraduate students (Liang et al., 2021). Students' intensive use of the Internet is a serious problem for an increasing number of people (Danso & Awudi, 2022). University students may be prone to Internet addiction which affects their physical health (Alaca, 2020), mental health (Lam, 2020), academic performance (Fossion et al., 2018) and even generate suicidal ideation (Lu et al., 2020). Saisan et al. (2012) acknowledge that the most common physical symptoms of intensive use of the Internet are back pain, stiffness in arms and joints, and dry and strained eyes (as cited in Karacic & Oreskovic, 2017). The use of the Internet can be considered a significant threat to one's social well-being because it enforces anti-social behaviour. The Internet is considered one of the major causes of damaged relationships among students. Students who are addicted to the Internet neglect social interaction with their family and friends.

The use of the Internet has become a common practice across generations (Anunobi, 2006), which has made it an indispensable part of our modern life in accordance with the information technologies that have been growing rapidly (Ozkisi & Topaloglu, 2015). The Internet is considered the most effective and efficient medium of knowledge transfer and dissemination from advanced nations to developing nations in the digital age. Thus, the infusion of the Internet into university education has intensified access to archived information sources from various parts of the world (Nwagwu, Adekannbi & Bello, 2009).

However, there are still uncertainties regarding the motivations for students' use of the Internet and its predisposing risk factors. Although there are some existing studies, most of the findings are based on epidemiological surveys including convenience samples (Müller et al., 2013). For example, Ko et al. (2012) found that while reward dependence decreased, novelty-seeking rather increased among Asian students who use the Internet. In addition, according to their Five-Factor Model of personality, Rahmani and Lavasani (2011) found that those suffering from excessive use of the Internet in a student sample reported decreased

scores in conscientiousness and agreeableness. In a similar survey, Kuss et al. (2011) identified increased neuroticism and low agreeableness as risk factors for using the Internet. Therefore, these uncertainties regarding Internet use and the associated risk factors set the basis for this research. It appears the literature on the use of the Internet and its associated risk factors among undergraduate students are limited. Also, there are hardly any Ghanaian studies that focus on Internet use and its associated risk factors through the qualitative research approach. Against this background, the study investigates Internet use among undergraduate students at the University of Education, Winneba.

The present study was carried out to study the following objectives. Firstly, to examine the motivations behind undergraduate students' use of the Internet. Secondly, to investigate the consequences of using the Internet among undergraduate students. To meet the objectives, the following research questions were posed.

1. What are the motivations behind undergraduate students' use of the Internet?
2. What are the consequences associated with undergraduate students' use of the Internet?

## METHOD

### *Research Approach*

The study was conducted using an exploratory qualitative case study at the University of Education, Winneba in Ghana. Creswell (2014) notes that if a concept or phenomenon needs to be explored and understood because little research has been done on it, then it merits a qualitative approach. Internet usage among undergraduate students is an area where little research has been done through the qualitative approach (Li et al., 2015).

### *Sample*

Prior to data collection, ethical approval for the study was granted by the university Research Ethics Committee. Data were collected from 12 students (8 men and 4 women) between August 5th and September 25th, 2022 through semi-structured interviews. The participants were undergraduate students at the University of Education, Winneba aged between 18 and 23 years old. The participants were selected from the School of Communication and Media Studies, Faculty of Science Education, School of Business Studies and Faculty of Social Science Education. They were selected by employing an expert sampling technique. The participants were selected using a purposive sampling approach.

### *Data Analysis Procedure*

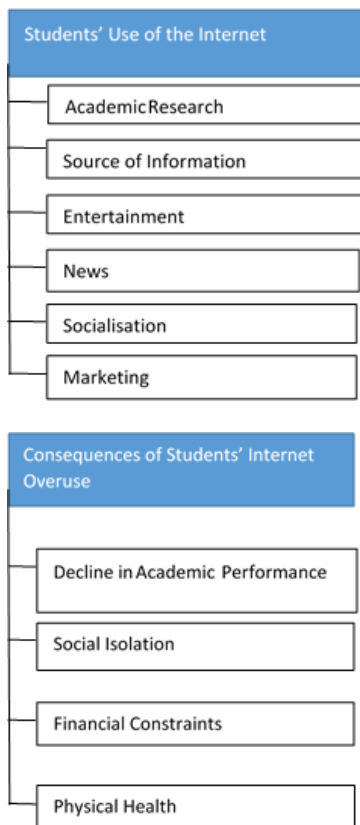
Audiotapes of the interviews were transcribed verbatim and checked for accuracy by the researchers. The findings were coded and analysed using a thematic analysis approach with close reference to the research objectives and research questions. We categorised the data into themes. We coded the various interviews conducted with the participants. We noted the issues that run through the interviews and categorised them under various themes. We used the inductive type of thematic analysis (Braun & Clark, 2013) where the researcher does not fit the data into any form of preconceived analysis or pre-existing coding frame. Direct quotes were also used to support the discussions and interpretations. Pseudonyms were given to participants due to confidentiality.

Two overarching themes emerged from the interviews. For each theme, subthemes were also derived. During the process, we organised the codes into main themes and sub-themes. Initially, codes were generated from the research objectives on Internet usage among undergraduate students. Then, we reviewed the codes in context, providing labels and definitions reflective of the raw data. Further, in accordance with DeCuir-Gunby et al. (2011) recommendations, the second round of coding was conducted on the level of

meaning via a data-driven method, which enables codes to be developed on the sentence and paragraph level. In this round of coding, we checked whether any new theme or sub-theme could be identified.

## RESULTS

The code used for the Interview Participants is IP. Two primary themes were identified, each with a particular distinction represented through subthemes. Figure 1 shows a diagram with all the themes and subthemes.



**Figure 1: Diagram of Themes and Subthemes**

*RQ1. What are the Motivations behind Undergraduate Students' Use of the Internet?*

Theme 1 discusses students' use of the Internet. With the Internet considered the main channel by which students explore a wider area, research question one sought to examine the motivations behind students' use of the Internet. The data revealed that undergraduate students use the Internet for various reasons and to satisfy certain gratifications. Findings from the study showed that one of the motivators for using the internet was academic purposes. One participant commented as follows:

*I use the Internet for academic research. When I'm studying and come across unfamiliar words, I google for the root meaning of that word in order to understand the concept better. I also watch videos on YouTube on concepts which seem so difficult. Sometimes, I do my personal studies on the Internet on concepts which I'm not taught in class. (IP3)*

Most of the participants indicated that they use the Internet to access information on issues related to their course of study. It is evident from the study that the Internet opens the doorway to a wealth of information on educational issues, creating the opportunity for students to increase their knowledge. The study revealed that the Internet is the most useful technology of modern times which helps students gather information on

educational materials. A participant said this:

*I use the Internet to search for information related to my course of study (IP1).*

Again, we found that entertainment motives were fundamental to students' use of the internet. Many participants reported that the Internet helps them relax their minds while exploring more about the world. The Internet offers more convenience to students when it comes to entertainment. We found that students engage in playing online games, chatting with friends, watching online videos and listening to online music.

A participant commented as follows:

*I actually use the Internet as my source of entertainment. Everyone needs entertainment in one way or the other. If I want to entertain myself, I just use google or opera mini to search for the latest movies. I download them and watch them. I also play online games just to entertain myself. (IP3)*

Again, we found that the use of social networking sites was a great source of entertainment as well.

*Facebook is where I usually have my fun. I am the type who uses Facebook basically to connect with friends. WhatsApp entertains me when I watch friends' status. Some of the messages are funny. (IP9)*

The study also revealed that students use the Internet as a medium for listening to the news. The majority of the participants indicated that they use the Internet as a medium for listening to news around the world. With the advent of the Internet, news has become readily accessible to students. Online news sharing provides a common informational background for further interactions, allowing students to exchange opinions naturally, and strengthening feelings of connection with one another.

One interview participant commented as follows:

*I read news on the Internet. This time round you wouldn't get time to go and read graphic and other newspapers. Graphic is now online. You can read news pertaining to politics, education and health. If there are any occurrences, they put them on these online platforms. You just glance through and actually see what is happening (IP12).*

*I use search engines and other social media handles to access news on the Internet. When you subscribe to their channels, they give you updates on the latest trending news (IP8).*

The Internet has revolutionised the way students socialise among themselves. The study revealed that one of the avenues for socialisation is email. Email is a simple form of one-to-one communication used in the exchange of informational messages between at least two people over a computer network. Instant messaging programmes shared on Facebook and WhatsApp also offer more immediate forms of chatting, while video call software allows students to socialise visually, not just through text chat.

One of the participants said this:

*I socialise a lot on the Internet through my social media handles. For example, on Facebook, a lot of people sends me friend request and I also send them friend request. I accept their friend request and they also accept mine. Some of them are those that I know but have lost their contact for a longer time so the Internet helps in socialising a lot (IP4).*

The Internet can be seen as a catalyst to help create new real-life friendship.

Findings from the study revealed that students engage in online marketing. Few participants indicated that

they use the Internet for marketing. The study revealed that the Internet enable students to buy and sell products online.

A participant commented as follows:

*I visit the Internet to find items that people are selling. I do online buying (IP).*

Initially, the Internet seemed to be used primarily to obtain information. Currently, the Internet is also used for online marketing. The Internet represents the new revolution and frontier of marketing which has created a paradigm shift in business and at the same time changed the ways of engaging in business among students. Early Internet marketing tools, such as banners and pop-up advertisements have given way to a new model of Internet marketing that offers more value to the students. This involves the use of search engines and social networking sites, such as Facebook and Twitter. This new type of Internet marketing strategy helps students to interact and connect with advertisers. One of the participants said this:

*WhatsApp status has been so much helpful. I post items that I want to sell over there. My friends watch them and we do the bargaining and finally they come to buy the stuff from the house. And then sometimes when it is necessary, I post some of the things on my Facebook page which people go there to watch. I do marketing from there also.” (IP2).*

*RQ 2. What are the consequences associated with undergraduate students’ use of the Internet?*

Theme 2 focuses on the consequences of Students’ Internet Overuse. In spite of the fact that the Internet helps students positively in many ways, it also affects them negatively. The excessive use of the Internet among undergraduate students is an important issue that needs to be addressed. The theme “consequences of students Internet overuse” was characterized by participant descriptions of short- and long-term effects of Internet use. With the growth of the Internet over the last two decades, the number of students experiencing massive negative consequences in their lives has also grown extensively.

The study revealed that excessive use of the Internet has negative effect on students’ academic performance. Majority of the participants indicated that academic problems associated with their intensive Internet use include missing classes, decline in study habits, significant drop in grades, increased risk of being placed on academic probation and deprived integration in additional activities. A participant said this:

*Students who spend valuable time on the Internet always perform poorly in their exams. Basically, because they use most of their time surfing the Internet, they have limited time to study which leads to decline in academic performance (IP).*

The study found out that students engage in some online activities such as playing video games, which negatively affect their academic performance. One respondent said:

*When students spend more time on the Internet playing online games, they perform poorly in their exams because they do not have time to study (IP11).*

The study revealed that excessive use of the Internet has negative effect on students, as they are socially isolated from their family and friends. Majority of the participants indicated that problems associated with students who are socially isolated because of their intensive Internet use are loneliness and decreased social tolerance. Most of the participants also said that their intensive use of the Internet has effect on their relationship with people. A participant said this:

*The Internet has negative impact on my relationship with other people. Sometimes I am not able to make time with my friends because I spend most of my valuable time searching for information on the Internet (IP12).*

From the study, majority of the participants indicated that intensive use of the Internet affects them financially. As a result, they find it difficult to provide for their basic needs. The study showed that with online classes becoming the new normal for most university students, the cost of data has been another digital obstacle to surmount even for those with access to smart phones and Internet connectivity. One of the interview participants said this:

*As a student, having access to the Internet requires buying of data which comes at a cost. If the school Wi-Fi is not working, you will definitely have to buy data which inadvertently affects your finance (IP3).*

The study revealed that increasing amount of time spent online has direct impact on student's physical health. Majority of the participants indicated that the most common physical symptoms associated with using the Internet excessively are back pain, stiffness in arms and joints, dry and strained eyes. A participant said this:

*Sometimes when I am on the Internet for a long time, I feel pains in my wrist (IP2).*

Adopting the correct sitting position is essential for maintaining good posture. Prolonged sitting on the computer can cause range of adverse health effects, including bad posture and back health.

The study also revealed that students are also likely to suffer from radiations which affect the eyes. A participant commented as follows:

*When you are online for a long time, you expose your eyes to a lot of radiations which can lead to poor vision and other ocular defects (IP5).*

The study further revealed that students are likely to suffer from carpal tunnel syndrome, which cause pain, numbness, tingling and weakness in the hand and wrist.

## **DISCUSSION**

This study explored Internet usage among undergraduate students at the University of Education, Winneba. The study provided rich and detailed descriptions related to students use of the Internet by directly quoting participants' words in the interview and focus group discussions. Further, the qualitative themes that were generated from the interviews and focus group discussions contextualized relevant findings from previous qualitative studies.

Findings from the study showed that undergraduate students use the Internet for their academic research. The Internet is a very powerful worldwide instrument, which serves as a good source for research work and learning. It generates current information, facts-finding, and is the most outstanding invention in the area of academic research. The theme of academic research points to the fact that the use of Internet for educational purpose is the heart of student's academic achievement (Kim, 2011). The study revealed that it is impossible for students to engage in their academic or research activities without the Internet. One of the reasons is that the Internet creates positive impact in education by increasing communication with classmates and lecturers, reviewing e-books, increasing access to libraries and educational databases, and improving study hours and study habits (Akhter, 2013). Sahin et al. (2010) support this view because they note that the use of credible Internet resources is of greater importance for academic study, especially in higher level courses which

require academic review of literature. Students have access to global ideas in their pursuit of academic excellence. Findings from the study indicate that students use the Internet when conducting research for their assignments, semester papers and project work. Findings of the study are in line with Kumah's (2015) study which found that in Ghana, undergraduate students see the library as a favourable environment for studies, and a source of relevant and realistic information for their research work. This also confirms the views of Gaurav (2019) which avers that the uses and gratification theory provide content gratification that serves as the basis for students' academic research.

The qualitative findings revealed that university students use the Internet as a tool in searching for information. It is evident from the study that the Internet opens doorway to wealth of information on educational issues by increasing opportunities for students to increase their knowledge. The Internet is one of the most important sources through which students quickly get access to information, remain in touch with their friends, and perform other activities. It is a vital source of information, a social platform, and a business network. Many university students have described the Internet as a functional tool that helps them to communicate and interact with their lecturers. Chou (2001) supports the above view that university and college students appreciate the interactivity, ease of use, availability and breadth of information accessed on the Internet. The study revealed that the Internet is the most useful technology of modern times which help students gather information on educational materials. Popular search engines such as google and chrome are the topmost choice of students as they offer instant and easy reach to vast amount of information. This affirms the view of Akhter (2013) that the Internet is becoming a widely accepted channel for information exchange and networking among students. Almarabeh (2016) agrees that people use social media networks, and in particular, university students represent a large proportion of users on social media networks who communicate, search for information and interact with friends. Park and Biddix (2008) add that on a more comprehensive basis, it can be pointed out that the Internet has some functions, especially in education, and these can be listed as storehouse of information, communication without boundaries, online interactive learning, innovation in the new world, improve interest in learning, global education, and information catalogues. Interactivity has been pinpointed as the key feature of Internet technology that makes it a compelling communication tool (Lustria, 2007). This view is supported by Greenfield (1999) who asserts that the Internet's accessibility, intensity of information that can be accessed online and the potency of its contents are unique characteristics which contribute to its popularity among students.

Study participants revealed that students use the Internet as a medium of entertainment. The Internet plays an important role in helping students relax their minds while exploring more about the world. The Internet has changed the way entertainment is viewed, consumed and received. Previously, students were entertained through televisions and movie theatre. Currently, with just a click of the mouse, students can get access to information on entertainment. The Internet has therefore taken entertainment to another level. Huxhold et al. (2020) state that the Internet has expanded our idea of entertainment far beyond past norms of going to the movie theatre or reading magazines. The data revealed that students engage in playing online games, chatting with friends, watching online videos and listening to online music. This affirms earlier submission of Ndawula (2011) that students engage in downloading music and videos and playing online games as a source of entertainment. Students use the Internet for many reasons. The benefit of entertainment on the Internet has actually transformed the world of students. Zainudin et al. (2013) support the above view that widespread Internet availability can substantially benefit students by enhancing their access to a broader range of information, thereby creating an avenue for social communication and entertainment. The study also revealed that students use the Internet as a source of entertainment through social media. It is interesting to acknowledge that social media has grown with a great rhythm and has become extremely popular. Most students use social networking sites such as WhatsApp, Twitter and Facebook as a new form of entertainment. These social media handles enable students to acquire multitask experience by connecting with others and sharing their opinions. This corroborates the argument of Dogruer et al. (2011) that the use of the Internet is mainly for social and entertainment purposes since the Internet revolution is not just



limited to finding information but also bringing people together. Social media are extensively used and are efficient in reaching many audiences with great speed and a lot of content offering the capability of interactions. Students watch funny videos on WhatsApp and Facebook. This enable student to have fun. Ndawula (2011) agrees that some of the activities that undergraduate students engage in for entertainment are: online dating which allows them to make contact and communicate with each other, downloading music and videos, and playing online games. This also confirm the views of Gaurav (2019) who indicates that the uses and gratification theory provide content gratification which serves as the basis for students' source of entertainment.

Several quotes from the participants indicate that students use the Internet as a medium of listening to news. The study revealed that the Internet serves as a medium through which students access news stories and also share them. This affirms the view of Dogruer et al. (2011) that the Internet can be used as a tool by which one gets himself/herself abreast with the latest news around the world. It also helps in getting any kind of information that serve different purposes such as learning more information about a hobby or health. With the prevalence of Internet, students access news stories through social media platforms. According to Mitchell and Page (2014), it cannot be ignored that social media have become a constitutive part of online news distribution and consumption among students. On social media platforms, a piece of news can be distributed and discussed by people around the world within minutes. Sharing news on social media platforms such as WhatsApp, Facebook and Twitter have become a phenomenon of growing social and economic importance among students. This confirms earlier submission by Kumpel et al. (2015) that given today's rapid dissemination of social media platforms such as Twitter and Facebook, news sharing among students have increased tremendously.

Findings from the study revealed that students engage in socialisation as part of their online activities. The Internet has revolutionised the way students socialise among themselves. Socialisation is about people being able to mingle and establish connections at one or more levels. They speak with one another, share ideas and information and confirm the connections made through an agreed upon means. The initial phase of socialisation is achieved through interacting with one another and sharing ideas and information. As a result of this shared experience, students are able to familiarise and relate to one another and also establish connections. The Internet provides the platform for social interactions among students. Students engage in online dating as part of their socialisation. This confirms the view of Ndawula (2011) that some undergraduate students engage in online dating which allows them to make contact and communicate with each other. The study revealed that the Internet offers many different ways for students to socialize. One of the avenues for socialisation is the email. Email is a simple form of one-to-one communication. It is used in the exchange of informational messages between at least two people over a computer network. Email is now a ubiquitous channel of communication, to the point that in current use, an e-mail address is often treated as a basic and necessary part of many processes especially on university campuses. It is frequently used by university students in their interactions with lecturers on submission of assignments and getting in touch with the administration.

Instant messaging programmes shared on Facebook and WhatsApp also offer more immediate forms of chatting, while video call software allows students to socialise visually, not just through text chat. Instant messaging has become a common way for students to socialise with peers, friends, and communicate with family members. Evolving technology means that new ways to communicate online are constantly developing. For example, Facebook, the world's largest social network (Eghtesadi & Florea, 2020) includes elements of text-based, photo sharing, private message and instant messenger forms of communication. As a way of socialising, students send and accept friend request while on Facebook and WhatsApp. Zainudin et al. (2013) confirm that widespread Internet availability can substantially benefit students by enhancing their access and avenue for social communication.

The qualitative study revealed that students engage in online marketing. The study revealed that the Internet enable students to buy and sell products online. Initially, the Internet seemed to be used primarily to obtain information. Currently, the Internet is also used for marketing. The Internet represents the new revolution and frontier of marketing which has created a paradigm shift in business and at the same time changed the ways of engaging in business among students. Early Internet marketing tools, such as banners and pop-up advertisements have given way to a new model of Internet marketing that offers more value to the students. This involves the use of search engines and social networking sites, such as Facebook and Twitter. This new type of Internet marketing strategies help students to interact and connect with advertisers. This confirm the view of Cheung and Huang (2005) who argue that the Internet has impacted the lives of people from all walks of life, including impacts on business, shopping and social activities. Hussain et al. (2012) agree that initially, the Internet seemed to be used primarily for obtaining information, but it is now used to network socially with friends and colleagues, shop online, and build new relationships. It has been accepted that the Internet will represent the new revolution and frontier of marketing (Hussain et al., 2012).

In spite of the fact that the Internet helps students positively in many ways, it also impacts on them negatively. The excessive use of the Internet among undergraduate students is an important issue that needs to be addressed. The theme “consequences of students Internet overuse” was characterized by participant descriptions of short- and long-term effects of Internet use. With the growth of the Internet over the last two decades, the number of students experiencing massive negative consequences in their lives has also grown extensively (Brand, Young & Laier, 2014).

The study revealed that excessive use of the Internet has negative effect on students’ academic performance. Akhter (2013) supports this view by indicating that students who fanatically spend more time on the Internet take away from valuable study time resulting in poor academic performance. Majority of the participants indicated that academic problems associated with intensive Internet use among students include missing classes, decline in study habits, significant drop in grades, increased risk of being placed on academic probation and deprived integration in additional activities. Kubey et al. (2001) argue that decline of student’s academic achievement is due to the application of synchronous communication such as visiting chat rooms and playing online games. Leung and Lee (2012) also confirm that heavy usage of the Internet among students as a result of visiting chat rooms cause them to stay up late and hence affecting their focus and attention in class. This is evident because when students spend excessive time on the internet, they have limited time to study.

The study revealed that excessive use of the Internet has negative effect on students, as they are socially isolated from their family and friends. Majority of the participants indicated that problems associated with students who are socially isolated because of their intensive Internet use are loneliness and decreased social tolerance. Danso and Awudi (2022) support that the Internet is considered as one of the major causes of damaged relationship among students. Danso & Awudi (2022) further confirmed that students who are addicted to the Internet neglect social interaction with their family and friends. The study found out that the Internet, which serves as a medium of communication speeds up the possibility of communication and interaction between people. However, Danso and Awudi (2022) argue that even though the Internet help students to communicate among their peers, it deprives them from formal and informal interactions thereby breaking their relationships.

From the study, majority of the participants indicated that intensive use of the Internet affects them financially. As a result, they find it difficult to provide for their basic needs. The study showed that with online classes becoming the new normal for most university students, the cost of data has been another digital obstacle to surmount even for those with access to smart phones and internet connectivity. Karacic and Oreskovic (2017) add that students who are supposed to use the little pocket money given by parents will rather spend it on buying data bundles for browsing. Karacic and Oreskovic (2017) further explain that

this menace gradually depletes students' coffers, putting extreme pressure on parents or guardians. This is evident because spending on Internet bundles affect your finance, making it difficult to attend to other important needs.

The study revealed that increasing amount of time spent online has direct impact on student's physical health. Majority of the participants indicated that the most common physical symptoms associated with using the Internet excessively are back pain, stiffness in arms and joints, dry and strained eyes. Saisan et al. (2012) confirm that the most common physical symptoms of using the Internet are back pain, stiffness in arms and joints, dry and strained eyes.

Given the rapid proliferation of the Internet, the study attempted to examine Internet usage among undergraduate students using only qualitative research approach. Using only qualitative research approach will not pave way for generalisation of the results. Also, using 12 participants to represent the entire student population of over 20,000 at the University of Education, Winneba did not provide fair representation for the study. However, since qualitative studies are not about large numbers but concerned with garnering an in-depth understanding of a phenomenon, the sample size gave a fair representation on how students use the Internet on campus, though not enough. Nevertheless, these limitations did not take away the credibility of the study, as it has implications for further studies. Further research is needed to ascertain the level of addiction among students use of the Internet through the quantitative approach and what triggers them to be online.

## CONCLUSION

This study examined Internet usage among undergraduate students in Ghana. From the study, it is evident that the Internet has become an integral part of student's life. The study revealed that students use the Internet for their academic research, news reading, socialisation, marketing, among others. This implies that with the development of society and information technology, the Internet has brought convenience to undergraduate students. Notwithstanding, excessive use of the Internet is a serious problem among students.

## ACKNOWLEDGEMENT

The authors would like to thank the Research Ethics Committee of the University of Education, Winneba for the approval to conduct the research on campus.

## REFERENCES

1. Akhter, N. (2013). Relationship between Internet addiction and academic performance among university undergraduates. *Education Research and Reviews*, 8(9), 1793-1796.
2. Alaca, N. (2020). The impact of Internet addiction on depression, physical activity level and trigger point sensitivity in Turkish university students. *Journal of back and musculoskeletal rehabilitation*, 33(4), 623- 630.
3. Almarabeh, T., Majdalawi, Y. K., & Mohammad, H. (2016). Internet usage, challenges, and attitudes among university students: case study of the University of Jordan. *Journal of Software Engineering and Applications*, 9(12), 577-587.
4. Al-Shawi, A. F., Hameed, A. K., Shalal, A. I., Abd Kareem, S. S., Majeed, M. A., & Humidy, S. T. (2021). Internet addiction and its relationship to gender, depression and anxiety among medical students in Anbar Governorate-West of Iraq. *International Quarterly of Community Health Education*, 1-4.
5. Anderson, K. E. (2018). Getting acquainted with social networks and apps: streaming video games on twitch tv. *Library Hi Tech News*, 35(9), 7-10.
6. Apuke, O.B., & Iyendo, T.O. (2018). University students' usage of the Internet sources for research

- and learning; forms of access and perceptions of utility. *PMC* 4(12), 1-10.
7. Bashir, S., Mahmood, K., & Shafique, F. (2016). Internet use among university students: a survey in University of the Punjab, Lahore. *Pakistan Journal of Information Management and Libraries*, 9(1), 1-17.
  8. Boateng, R., & Amankwaa, A. (2016). The impact of social media on student academic life in higher education. *Global Journal of Human-Social Science*, 16(4), 1-8.
  9. Brand, M., Young, K. S., & Laier, C. (2014). Prefrontal control and Internet addiction: a theoretical model and review of neuropsychological and neuroimaging findings. *Frontiers in human neuroscience*, 8, 375.
  10. Braun, V., & Clarke, V. (2013). *Successful Qualitative Research*. London: SAGE Publications.
  11. Cheung, W., & Huang, W. (2005). Proposing a framework to assess Internet usage in university education: an empirical investigation from a student's perspective. *British Journal of Educational Technology*, 36(2), 237-253.
  12. Chou, C. (2001). Internet heavy use and addiction among Taiwanese college students: An online interview study. *Cyber Psychology and Behavior* 4(5), 573-585.
  13. Creswell, J.W. (2014). *Research Design Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). California, Thousand Oaks: Sage Publications.
  14. Danso, S., & Awudi, B. (2022). Triggers of Internet addiction and control mechanisms among undergraduate students of University of Education, Winneba. *International Journal of Advance Research and Innovative Ideas in Education*, 8(3), 2022.
  15. DeCuir-Gunby, J. T., Marshall, P. L., & McCulloch, A. W. (2011). Developing and using a codebook for the analysis of interview data: An example from a professional development research project. *Field Methods*, 23(2), 136-155.
  16. Dogruer, N., Eyyam, R., & Menevis, I. (2011). The use of the Internet for educational purposes. *Procedia-Social and Behavioral Sciences*, 28, 606-611.
  17. Eghtesadi, M., & Florea, A. (2020). Facebook, Instagram, Reddit and TikTok: a proposal for health authorities to integrate popular social media platforms in contingency planning amid a global pandemic outbreak. *Canadian Journal of Public Health*, 111(3), 389-391.
  18. Firth, J., Torous, J., Stubbs, B., Firth, J. A., Steiner, G. Z., Smith, L., ... & Sarris, J. (2019). The "online brain": how the Internet may be changing our cognition. *World Psychiatry*, 18(2), 119-129.
  19. Fossion, P., Antonetti, S., & Lays, C. (2018). Internet: abuse, addiction and benefits. *Revue medicale de Bruxelles*, 39(4), 250-254.
  20. Gaurav, K. (2019). *Internet Uses and Gratification*. An Evidence from Millenials in Hyderabad. GRIN Verlag.
  21. Greenfield, D. (1999). Psychological characteristics of compulsive Internet use: A preliminary analysis. *Cyber Psychology and Behavior*, 2(5), 403-412.
  22. Hussain, W. M. H. W., Rahman, M. N. A., Mujani, W. K., Zainol, Z. A., & Yaakub, N. I. (2012). Internet marketing strategy for Malaysia medical practitioners. *Journal of Medical Marketing*, 12(1), 13-21.
  23. Huxhold, O., Hees, E., & Webster, N. J. (2020). Towards bridging the grey digital divide: changes in Internet access and its predictors from 2002 to 2014 in Germany. *European Journal of Ageing*, 17(3), 271-280.
  24. Karacic, S., & Oreskovic, S. (2017). Internet addiction and mental health status of adolescence in Croatia and Germany. *Psychiatria Danubina*, 29(3), 313-321.
  25. Kim, S. (2011). *The effects of Internet use on academic achievement and behavioral adjustment among South Korean adolescents: Mediating and moderating roles of parental factors*. Syracuse University.
  26. Ko, C. H., Yen, J. Y., Yen, C. F., Chen, C. S., & Chen, C. C. (2012). The association between Internet addiction and psychiatric disorder: a review of the literature. *European Psychiatry*, 27(1), 1-8.
  27. Kubey, R. W., Lavin, M. J., & Barrows, J. R. (2001). Internet use and collegiate academic performance decrements: Early findings. *Journal of Communication*, 51(2), 366-382.

28. Kumah, C. H. (2015). A Comparative study of use of the library and the Internet as sources of information by Graduate Students in the University of Ghana. *Library Philosophy and Practice*, 1298-1300.
29. Kumah, C. H. (2015). A Comparative study of use of the library and the Internet as sources of information by Graduate Students in the University of Ghana. *Library Philosophy and Practice*, 1298-1300.
30. Kümpel, A. S., Karnowski, V., & Keyling, T. (2015). News sharing on social media: A review of current research on news sharing users, content, and networks. *Social Media and Society*, 1(2), 1-14.
31. Kuss, D. J., & Griffiths, M. D. (2011). Online social networking and addiction: A review of the psychological literature. *International Journal of Environmental Research and Public Health*, 8(9), 3528-3552.
32. Lam, L. T. (2020). The roles of parent-and-child mental health and parental Internet addiction in adolescent Internet addiction: Does a parent-and-child gender match matter? *Frontiers in public health*, 8.
33. Leiner, B. M., Cerf, V. G., Clark, D. D., Kahn, R. E., Kleinrock, L., Lynch, D. C., ... & Wolff, S. (2009). A brief history of the Internet. ACM SIGCOMM. *Computer Communication Review*, 39(5), 22-31.
34. Li, W., O'Brien, J. E., Snyder, S. M., & Howard, M. O. (2015). Characteristics of Internet addiction/pathological Internet use in US university students: a qualitative-method investigation. *PloS one*, 10(2), 1-19.
35. Liang, L., Zhu, M., Dai, J., Li, M., & Zheng, Y. (2021). The Mediating roles of emotional regulation on negative emotion and Internet addiction among Chinese adolescents from a development perspective. *Frontiers in Psychiatry*, 12, 422.
36. Lu, L., Jian, S., Dong, M., Gao, J., Zhang, T., Chen, X., ... & Liu, S. (2020). Childhood trauma and suicidal ideation among Chinese university students: the mediating effect of Internet addiction and school bullying victimization. *Epidemiology and psychiatric sciences*, 29, 1-8.
37. Lustria, M. L. A. (2007). Can interactivity make a difference? Effects of interactivity on the comprehension of and attitudes toward online health content. *Journal of the American Society for Information Science and Technology*, 58(6), 766- 776.
38. Masud, M. M., Ahmed, S., Rahman, M., & Akhtar, R. (2016). Measuring psychological effects and Internet addiction towards academic performance of tertiary students in Malaysia. *International Journal in Business and Technology*, 9(1), 991-1002.
39. McLoughlin, C., & Lee, M. (2007). Social software and participatory learning: Pedagogical choices with technology affordances in the Web 2.0 era. In *ICT: Providing choices for learners and learning. Proceedings ascilite Singapore 2007* (pp. 664-675). Centre for Educational Development, Nanyang Techn....
40. Mitchell, A., & Page, D. (2014). State of the news media. Pew Research Center.
41. Ndawula, S. (2011). Access and use of the Internet: A case of undergraduate students in public universities of Uganda. In CICE 138th Seminar.
42. Nwagwu, E. W., Adekannbi, J., & Bello, O. (2009). Factors influencing use of the internet: A questionnaire survey of the students of University of Ibadan, Nigeria. *The electronic library*.
43. Ozkisi, H., & Topaloglu, M. (2015). The university students' knowledge of Internet applications and usage habits. *Procedia-Social and Behavioral Sciences*, 182, 584-589.
44. Park, H. W., & Biddix, J. P. (2008). Digital media education for Korean youth. *The International Information & Library Review*, 40(2), 104-111.
45. Sahin, Y. G., Balta, S. & Ercan, T. (2010). The Use of Internet Resources by University Students during their course projects elicitation: A case study. *TOJET: The Turkish Online Journal of Educational Technology*, 9(2), 234- 244.
46. Tayo, S. S., Adebola, S. T., & Yahya, D. O. (2019). Social Media: Usage and Influence on Undergraduate Studies in Nigerian Universities. *International Journal of Education and Development using Information and Communication Technology*, 15(3), 53-62.

47. Usun, S. (2003). Undergraduate students' attitudes towards educational uses of Internet. *Interactive Educational Multimedia*, 7, 46-62.
48. Zainudin, A., Din, M. M., & Othman, M. (2013). Impacts due to Internet addiction among Malaysian university students. *International Journal of Asian Social Sciences*, 3(9), 1922-1928.
49. Zhang, Y., Liu, Z., & Zhao, Y. (2021). Impulsivity, social support and depression are associated with latent profiles of Internet addiction among male college freshmen. *Frontiers in Psychiatry*, 12, 1-10.