



ASSESSMENT OF THE EFFECT OF WHATSAPP MESSENGER USAGE ON STUDENT ACADEMIC PERFORMANCE: A LITERATURE REVIEW

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Abstract-The global era of information and communication technology (ICT) in academic cannot be over emphasized. Integration of technology in education has shown positive effects on the behavior, attitude, perception, personality, knowledge etc. and some negative effects respectively. The main goal or the philosophy behind this paper is to assess the impact of WhatsApp usage on student academic performance. The paper reviewed enormous works on the research topic in order to make a position on how far WhatsApp has impacted on academic performance. The model adapted in the work indicated a clear relationship between WhatsApp and academic performance. The research methodology was essentially exploratory and therefore depended on secondary data for the examination of issues surrounding WhatsApp and academic performance. Content analysis was used to make analysis. The researchers found out that evolution of ICT in the world has led to uncountable effects on education, especially on academic performance. People use social WhatsApp to pass time, for entertainment and learning at large. Many people get socialized through the use of WhatsApp. This avails them the opportunity to share pictures, academic videos, group/class interaction and other vital academic materials online. Also most students tend to spend time on WhatsApp than academic activities. Researches also indicated poor academic communication among students while writing examination. This to us will greatly affect the human capital development on the long run leading to half-baked and unproductive graduates. The researchers therefore, advice that strict rules and regulations should be made to that effect by the various educational institutions towards eliminating this abnormality.

Key words: WhatsApp Messenger, academic performance, impact and education.

1. INTRODUCTION

We cannot doubt the global era of technology in today's educational environment. It has entered in almost every sector and is flourishing each day. Acceptance of social media in education such as facebook, whatsapp, twitter, telegram is increasing day by day as students of higher learning in this globalized world are striving to gain a distinctive competitive edge. These social networks help to expand the knowledge base of a student of every higher institution through communication with friends and other social information engines. The use of technological media in education has shown positive effects on the behavior, attitude, perception, personality, knowledge etc. of both the teachers and the students (Rhonda, 2014) cited in (Prerana, 2017). Use of social media, computer systems, internet connectivity, and use of other electronic media has made teaching more impressive (Prerana, 2017). According to Global Information Technology Report (2001-2002), it helped them with the feeling of being empowered, and also provided a platform to compete in a global knowledge-based economy where their knowledge, plan and perception are valued in the world. It also provides them with greater allegiance and disposition to share and embrace innovative solutions especially from the youth of the country along with other sections of the society which includes different communities, parents, teachers, government and students.

However, recent observation in the wrong use of social media especially the whatsapp social network is alarming. Students spend much of their time chatting especially during lectures and examination periods. This undoubtedly leads to poor academic performance, poor time management, and poor research work among others. Significant number of researchers have observed that a lot of English words have been abused due to the way and manner students use social media. For instance the use of U to represent you, impt to represent important, lol to represent laugh, Ppl to represent people, wcm to represent welcome among others while writing assignments and examinations are very discouraging. This tends to undermine the primary objective of education, which is to know how to read and write. Abdulla, (2017) opined that social networks, used in the appropriate time and space, can



generate positive results, such as the groups that are created in WhatsApp, Facebook, usually in academia are composed of students of specific course, also in the best until teachers are added to these teams, facilitating and improving teaching student and teacher pedagogy, since currently a student must meet extracurricular hours and for this, keeping in constant communication with classmates and teachers is essential.

On the contrary, social networks when used inappropriately can generate negative results. American Educational Research Association conducted a research and it was declared on its annual conference in San Diego, California (2009) stated that social network sites (SNSs) users studied less and obtained lower grades eventually (Davood and Maryam, 2016). Similarly, Banquil et al., (2009) found a continuing drop of grades among student users of social networking sites. This posed the researchers with the question of whether the use of whatsapp in education should be encouraged or discouraged. Due to this observation, the researchers therefore, deemed it necessary that exposure on the Impact of whatsapp on student academic performance will guide every student in higher institution to be watchful against the consequences.

2. LITERATURE REVIEW

2.1 Evolution of ICT in the world

ICT is evolving in a very fast pace. Our grandparents grew up in a society with no telephone; our parents in a society in which the radio was the first and television was the last source of information. We live in a world of internet. And the new generation in the wireless world. As a result the world around us also has changed dramatically over the years. This dramatic change in the field of ICT is as a result of innovations in the field of science, defense and business. These innovations have reduced the sizes of the technological tools and increased the speed in which they operate to process data and communicate information.

We can identify five phases of ICT evolution. They are evolution in computer, PC, microprocessor, internet and wireless links.

2.1.1 Phase I

The first phase related to evolution of ICT is identified with the creation of electromagnetic calculator during World War II, weighing about 5 tons. Invention of transistors in 1947 led to development of smaller but versatile computers. With the input-output technology changing from punch cards to magnetic tapes, "Computer" became a catch word.

2.1.2 Phase II

The second phase of ICT evolution is associated with the development of personal computers during 1970's. Development of chip technology and manufacturing magnetic discs transformed huge computers into desktops, which are called personal computers. Word processing, accounting and graphics became very accessible.

2.1.3 Phase III

Third phase of ICT evolution is related to development of microprocessors. Microprocessor, a multipurpose, programmable device that accepts digital data as input, processes it according to instructions stored in its memory, and provides results as output. Microprocessors reduced the cost of processing power.

2.1.4 Phase IV

The fourth phase of ICT evolution is around networking. Starting from connecting computers within a small geographic area for the field of Defense and Education to connecting the computers worldwide resulting in internet is the landmark development in the field of ICT. This resulted in breaking the distance barrier across the geographies and world being called a global village. Social networking is a byproduct of this. Introduction of broadband has accelerated this evolution.

2.1.5 Phase V

The fifth phase of ICT evolution is related to the development of wireless, which refers to the present phase. This phase began with the invention of the mobile phone. The initial mobile phones were large and bulky. Reduction in size has been accompanied by a greatly expanded range of functions. Now mobile phones are used for talking, transmitting messages, pictures and music, browsing, navigating. Satellite phones have allowed us to get connected even in the absence of telephone and cell phones (<http://www.riemysore.ac.in/ict/unit>).

3. EFFECT OF WHATSAPP ON ACADEMIC PERFORMANCE

The use of social media can generate contexts that include collaborative and cooperative based on horizontality along with more traditional teaching practices. Ultimately, the significance of educational networks will be linked to educational project in which every experience is framed (Rouis, 2011). According to Norazah (2015), mentioned that to encourage the process of education, it's important to begin to develop from informal (family, leisure...)

educational environments, the school must also integrate the new culture: digital literacy, information source productivity tool for work, teaching materials, cognitive instrument. Obviously school students should approach today's culture, not the culture of yesterday. Abdulla (2017), posited that, Humanity has significantly altered the ways to communicate, to entertain, to work, to negotiate, to govern and to socialize, based on the dissemination and use of ICT globally. It is also universally recognized that ICT is responsible for increases in productivity, previously unimaginable, in the most varied sectors of business activity, and prominently in knowledge economies and innovation. The two major reasons for the extensive use of ICT in educational practices are the paradigm shift in favor of constructivism which put more emphasis in interactivity in learning and emergence of ICT with the features of the provision to express oneself freely and synchronous interactivity (Khan, 2011). Gurikar et al (2015), mentioned that the purpose of social networking is not only imparting knowledge to students but also used to share scientific findings and to prevent new knowledge from remaining static, that is, working for the democratization of knowledge and its dissemination. The versatility of educational networks can combine in one space study different ways of teaching and learning. Some of the most prominent technological innovations are smartphones, laptops and using the internet. They have greatly affected many aspects of our lives (Johnson & George, 2014). The mobile application (WhatsApp) is one of the modern communication technologies. This process, which started by commonly used web-based social networks (Facebook, Twitter, etc.) in particular, began to be approached in different dimensions after the introduction of the messaging applications rooted in mobile phones and are specifically designed for mobile phones (WhatsApp, BBM, Line, etc.). Though they differ structurally to some extent (Boyd & Ellison, 2007; Taylor, Lewin, & Strutton, 2011), it hasn't taken much time for the social networks, which have become a part of users' daily lives, to be used in education. Though there are a lot of instant messaging applications that can operate on mobile devices, it is seen that WhatsApp application is one of the most favored mobile based applications (see SimilarWeb, 2016; Statista, 2016). WhatsApp has grown in popularity due to its benefits such as being able to send real-time messages to an individual or groups of friends simultaneously, low-cost, and privacy (Church & de Oliveira, 2013).

Smit (2012), in their research, observed that WhatsApp application has the potential to increase learning. It also leads to interaction between students on personal, school, and course-related topics (Cifuentes & Lents, 2010; Smit, 2012), create sense of belonging (Doering, Lewis, Veletsianos, and Nichols-Besel, 2008; Sweeny, 2010), eliminate social barriers (Doering, Lewis, Veletsianos, Nichols-Besel, 2008), and increase students' motivation (Plana et al., 2013). By the help of these benefits, which are also supported by the studies conducted on WhatsApp (Bouhnik & Deshen, 2014; Church & de Oliveira, 2013; Nguyen & Fussell, 2016), it is noted that this application can be a useful tool within the scope of learning anytime and anywhere, and creates collaborative learning. Kuppuswamy and Narayan (2011), argued in their research "against the notion claiming that due to the rapid popularity of social networking sites the youth tends to distract themselves from their studies and professions but on the contrary is also developing friendly and social ties with the world that revolves around them". In the work of Jain et al (2012), on analysis of Impact of social networking sites in the changing mindsets of youth on social issues cited by Khurana, (2015). The paper elucidates that men spend more time as compared to women on social networking sites to review these social issues and yet women are very sensitive to issues like these existing in the world. Johnson (2014) examines how the WhatsApp application can affect the students at Tertiary Institutions, Ghana in the field of academic performance. The sample of the study was (418) students (Male: 142, Female: 276). The researcher used the questionnaire to collect the data from (418) students and interview (50) students among them. The study concludes that the WhatsApp application is necessary for easy communication between students and fast with an effective due to its ability to share information and resources between students. In the same line Abdulla (2017), observed in his research that social media has a positive impact on academic performance and 57% of students prefer the mobile application WhatsApp as a social media for their academic purpose. Another study is the study of (Tulika B., 2014) which is aimed to examine how the WhatsApp application can affect the education on the B.Ed. students at Maharshi Dayanand University, Haryana, India. The study used two tools of the data collection, in the first tool they used questionnaire from (37) students, while in the second tool they used the interview as a qualitative method. The results of the study found that 73% of the students considering the WhatsApp as a tool that allows them for learning anytime, while 56% of students agreed that the WhatsApp application has educational benefits. On the other hand, 64% of the students agreed that the WhatsApp application allows them for more interactive and more discussions. The study concludes that the WhatsApp application has great benefits in learning due to its flexibility for students' communication. In the study conducted by Englander et al., (2010), he observed that students spend more time using SNSs for other purposes apart from educational use, thus affecting their academic performance. In another study by Nalwa and Anand, (2003), shows that students like to use the internet for their own responsibilities and this affects their academic performance. This study is further elaborated by Karpinski, (2009) where they stated that SNSs users had lower grade rankings than students who never engage in social interactions.



In another study by Khan (2011) on "Impact of social networking websites on students" it emerged that the fact that all respondents were direct, almost 55.4% of the total population of people ranging in the group from 15 at the age of 25, they use social networking sites and also states that most users of the same age group use these sites as a means of seeking entertainment. In terms of gender division, male users are more compared to female users, where male users generally obtain information based on the knowledge of these sites. It focuses on the fact that most young people use these sites because of the influence of their friends and just because their friends have used and accessed these sites. This also illustrates the academic performance of students using social networking sites. Students who acquire a 3.0 to 3.5 GPA on exams are the most inclined to these entertainment sites. The truth is not far from the analysis, students who spend less time on social networks can do better on the exam. Camilia, Ibrahim, and Dalhatu (2013), on the effect of social networking sites on students, have justified that no significant effect of these sites has managed to hinder their studies, but there is no clear balance of its use. Students do not realize when and where to use these social networking sites and are witness to having them used in areas such as reading classrooms while lectures are underway and also during the hours of study and reading of their work programs. However, Kolek and Saunders (2008) have decided that SNS users who are students have no effect on academic performance. Roblyer et al., (2010) explained that the SNS are sources of communication between students and teachers in their respective faculties.

4. ACADEMIC PERFORMANCE

Tuckman (1975) defined performance as a demonstration of a person's understanding, concepts, abilities, ideas and knowledge. According to Johnson and George (2014) added that academic performance should be managed efficiently, taking into account factors that can positively or negatively impact their educational performance. The academic performance is defined by Kobal and Musek, (2001) refers to the numerical scores of the student's knowledge, which represent the degree of adaptation of the student to the school and to the educational system. Tuckman (1975) proposed that the Internet be beneficial for students and teachers. The whole definitions boils down to imply the abilities and achievement of a goal.

5. CONCLUSIONS OF LITERATURE REVIEW

It is very obvious that these social networks do not only have positive effects on student academic performance they also have negative effect on student academic performance as some works of other authors have shown. Also, Boranbayev, (2015) and Gurikar et al. (2015), believe that digital media are useful to complete the process of teaching and learning in the context of today's information society tool. The authors (Ibrahim, 2014; Harper, 2010; Blanka, 2015) cited in Abdulla, (2017) concluded that by using social media at educational environment, students activities can be more than the activities of traditional classrooms, because these social media can be used at anytime and anywhere by teachers and students for variety of academic purposes that results of enhancing the academic performance of the students and provide an easiest way for teachers also for receiving the comments and discuss them via social media types.

6. RESEARCH MODEL

According to Sedigheh (nd) et al, Social networking sites are "used by individuals for various purposes, such as communication, work related activities, and socialization". The use of WhatsApp in education is not off from the point. According to Perse & Ferguson (2000) cited in Sedigheh (nd) et al the three main reasons people use SNS are for learning, entertainment, and passing time.

The above three reasons people use SNS will be discussed below.

6.1 Learning

Kabilan, Ahmad, & Abidin, (2010) said that "Social media can be used in academic settings to promote student engagement and facilitate better student learning. Because student engagement represents the time and effort that students invest in collaborative and educational activities. In the same line of thought, Kuh, (2001), opined that it is often linked with the achievement of positive student learning outcomes, such as critical thinking and individual student development. Roblyer et al., (2010) explained that SNSs are sources of communication among students and lecturers in their respective faculties. On the contrary, in the study conducted by Englander et al., (2010), he observed that students spend more time using SNSs for other purposes apart from educational use, thus affecting their academic performance. Villiers (2010), concludes that despite the fact that a relatively large number of SNS including Facebook and WhatsApp were initially created for learning purposes, there is some evidence that most SNS users show almost no attitudes towards finding academic information.

6.2 Passing Time

A lot of empirical studies conclude that both students and lecturers mostly used WhatsApp as a means of passing time and Relaxation. Sheldon (2008) pointed out that "college students who are anxious and fear face-to-face (FTF)

communication used Facebook and WhatsApp to pass time and as an outlet for their loneliness”. Rouis, (2012) in the same line of thought maintains that many students tend to spend their free time surfing SNS, and this has made them to be able to express themselves, experience greater integration with their peers, find new friends, and maintain a continuous exchange of knowledge and information with their online friends.

6.3 Entertainment

Literature made it clear that many users of WhatsApp and other social networks use SNS for entertainment. There are also many users who use it to share fun and enjoyable activities. (Waters & Ackerman, 2011). Nyland et al. (2007). Pointed out that most users accessed SNS for recreational and entertainment purposes. However, this justification has been found out to affect social capital (Sedigheh et al, nd). The research model of this study is adapted from the work of Sedigheh et al, (nd) and it is shown in

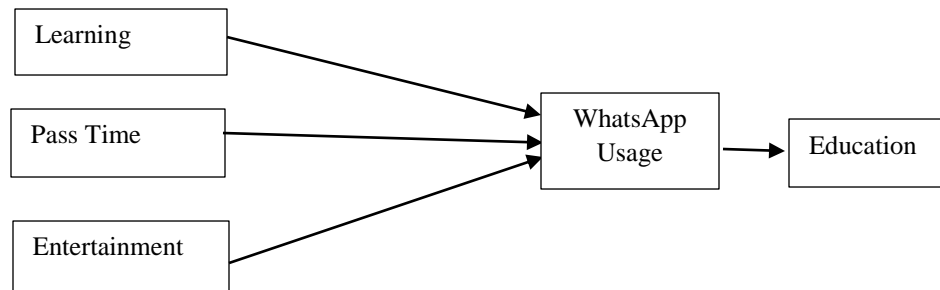


Fig. 6.1 Source: Adapted from Sedigheh et al, nd.

7. RESEARCH METHOD

This conceptual paper is based solely on a review and analysis of research and data from the literature. Secondary data were extracted from relevant books, journals, the internet, seminar papers and unpublished works. The data were analyzed using content analysis. Terms such as academic performance, WhatsApp, and ICT were used, and enormous amount of information was found. Information on an academic performance, by Tuckman (1975) proved promising. Literature from the Abdulla (2017) was used to add value to the research. The most helpful piece of literature was Kabilan, Ahmad, and Abidin, (2010) which said that “Social media can be used in academic settings to promote student engagement and facilitate better student learning.

8. FINDINGS AND DISCUSSIONS FROM THE LITERATURE

The introduction of ICT into education has brought enormous changes in educational system, especially among students of tertiary institutions. Literature was useful for understanding the topic for this conceptual paper. We cannot doubt the fact that we live in a world of internet. This was as a result of series of stages that occurred in ICT world. It is said to have been started with the creation of electromagnetic calculator during World War II, weighing about 5 tons and Invention of transistors in 1947 which led to development of smaller but versatile computers. This made today's generation and new ones to come to live in a wireless world. As a result, the world around us also has changed dramatically over the years. These powerful and expressive changes in the field of ICT are as a result of new ways of doing things or innovations in the field of science, business and defense. These brought about reduction in the shapes of technology and raised the velocity in which they operate to process data and pass across information to people. The second phase of ICT evolution is associated with the development of personal computers during 1970's. Nowadays, majority number of people no longer travel miles to access or make use of ICT. They rather have it at their disposal for one operation or the other. Third phase of ICT evolution is said to relate to development of microprocessors. This has helped to processed many digital inputs to output. A world of continuous changes. The fourth phase of ICT evolution is very interesting and intriguing because it is around networking. Here computers are now connected with others within a small geographical area. The major drive for this was for effectiveness and efficiency in national Defense and education. This in no doubt resulted in cutting the distance barrier across the geographies and the world at large. Social networking is a byproduct of this. Introduction of broadband has accelerated this evolution.

Today, we are in the fifth phase of ICT evolution where mobile and related ICT devices are used to transmit messages, pictures, music, and the likes. This stage as we can observe carter ported the use of ICT for countless social activities especially in education among lecturers and students of higher institutions.

Furthermore, literature have it that social media has affected academic performance to a greater height. WhatsApp as one of the social networking applications is in tune to that regard. It was also discovered that, in spite of enormous

benefits of WhatsApp on academic performance there are also aspects of its weakness on education. Tuckman (1975) proposed that internet is advantageous to both students and teachers if used as a tool of knowledge creation and dissemination. Earlier stated by Kuh, (2001), opined that it is often linked with the achievement of positive student learning outcomes, such as critical thinking and individual student development cited in (Johnson, 2014). Roblyer et al., (2010) explained that SNSs are sources of communication among students and lecturers in their respective faculties. On the contrary, as earlier stated, Englander et al., (2010), observed that students spend more time using SNSs for other purposes rather than for educational use, thus affecting their academic performance. Villiers (2010), concludes that despite the fact that a relatively large number of SNS including Facebook and WhatsApp were initially created for learning purposes, there is some evidence that most SNS users show almost no attitudes towards finding academic information. Johnson (2014), also revealed that it takes much of the students studies time, results in procrastination related problems, destroys students grammar and spellings, leads to lack of concentration during lectures and difficulty in balancing online activities and academic preparation.

CONCLUSION

The findings let us to draw conclusions about effects of WhatsApp messenger usage on student academic performance. It is obvious that there are a lot of effects of WhatsApp messenger usage on academic performance. There are both positive and negative effects of WhatsApp usage on academic performance. Based on the reviewed literature the positive effects seemed to outweigh its shortfall. Many people get socialized through the use of WhatsApp. This avails them the opportunity to share pictures, academic videos, group/class interaction and other vital academic materials online. This was supported by these authors; Johnson (2014), Abdulla (2017), Gurikar et al (2015) just to mention but a few. On the contrary, some students also abuse the use of WhatsApp through the sharing of illicit and socially unacceptable pictures like pornographies, videos and others rather than academic motives. It has adverse effects on students studies time, results in procrastination related problems, destroys students grammar and spellings, leads to lack of concentration during lectures and difficulty in balancing online activities and academic preparation. The model used in the work portrayed that both students and others in academic environment use WhatsApp to pass time, entertainment, learning and others. The review also indicated that student's communication skills have been affected poorly due to the use of jargons and slangs when carrying out communication (Johnson, 2014).

RECOMMENDATIONS

The authors' advice that every educational institution should carry out campaign in academic environment towards enlighten people on the negative effect of social networks especially the Whatsapp messenger on student academic performance. Also emphasis should be made to regulate the use of phones while receiving lectures in the class. Lastly, students should be informed that assessment and quizzes can be done at any time without a prior notice. This will strengthen their reading ability and less attention to social network sites if not for educational purpose.

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