



## INFLUENCE OF EVOLVING TECHNOLOGY IN EMERGING ONLINE LIVES OF THE DIGITAL NATIVE UNIVERSITY STUDENTS

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### Abstract

Evolving technological advancement and emerging digital environments have permeated and changed the lives of young people, commonly known as digital natives, globally. The students of today have spent a good part of their lives surrounded by and using computers, videogames, smart phones, and similar tools of the digital age. As such, they are more comfortable in the midst of their smart phones, tablets and netbooks as compared with textbooks and lecture notes. This study delves further into students' technological activities and intends to study the influence of evolving technology in the emerging online lives of the digital native university students at a University in Fiji. A survey research design using a Likert type scale was implemented and the data was analysed using SPSS and discussed using a thematic approach. Findings reveal that young digital native university students were born in the digital age and have grown up appreciating the power of digital connectedness at a massive rate in their daily lives. Findings also have implications for pedagogy and practice as traditional approaches to teaching can be met with resistance and scepticism by the millennials. This paper recommends that since digital natives are technologically savvy, technological tools could be used to enhance digital literacy and numeracy leading towards a vibrant digital economy.

**Keywords:** Digital Natives, Technology, Savvy, Millennials, Social Media.

### 1. Introduction

The dawn of the new millennium saw the first surge of the digital natives or the Net Generation began entering colleges and universities, forcing educational institutions to deal with a new pedigree of learners with unique characteristics and demands. The Net Generation is the cohort of young people born between 1982 and 1991 and who have grown up in an environment in which they are constantly exposed to computer-based technology. The term 'Digital Native' was suggested by Marc Prensky in 2001 where he defined 'digital natives' as young people who grew up surrounded by, and using computers, cell phones and other tools of the digital age (Prensky, 2001). His theory implied that young people are all "native speakers" of the digital language of computers and the internet. This powerful metaphor quickly found prominence amongst the scholars and is even popular amongst the media and the public. Several new terms were introduced such as 'Millennials', 'Generation Z' and 'iGeneration' to describe young people who inherently possess the digital wisdom (Prensky, 2012) and the skills for safe and effective use of digital technologies (ECDL, 2018).

When the notions of digital natives and the Net generation (Tapscott, 1998) first prompted discussion around the characteristics of students entering higher education, they were believed to have a high digital aptitude, a preference for multitasking and a desire to be constantly connected (Barnes et al., 2007; Odhiambo, 2008; Prensky, 2001). Although older and younger generations unfailingly tend to disagree on values and are inclined to perceive one another with a certain degree of scepticism and disapproval, it is an obvious reality that

today's students are approaching life differently and they need our understanding and assistance (Wisniewski, 2010). Digital tools have infiltrated the millennial environments at a massive rate and changed the lives of young people born after 1980 the world over. They have special likes and dislikes and prefer to be alone and play games on their smart phones than to have a friendly chat even in the company of their friends. In particular, digital native generation have a gluttonous appetite for technology and enjoy playing games on their mobile phones and other digital devices (Morrison, 2015).

## **2. Aim of the Study**

While research evidence proves that smart phones and relevant applications are technologies that have an impact on students' education and psychological wellbeing (Jesse, 2015), this study intends to find how the first year students at a University in Fiji, a developing nation, are affected by the technological revolution and their perceptions about their use of technology tools in their daily lives.

## **3. Research Questions**

The following overarching question guided this study:

*What is the influence of evolving technology in the emerging online lives of the first year university students?*

The study was further guided by the following underlying questions:

1. How long have you been in contact with digital tools?
2. What are the most common digital tools that you are familiar with?
3. What technological application are you most familiar with?

## **4. Significance of Study**

There are several reasons why this research is considered to be significant. There has been a paucity of previous research regarding influence of evolving technology in the emerging online lives of the digital native university students in Fiji. The present research will be significant because it will provide first-hand information about tertiary students' perception of evolving technology in their online lives. This study will contribute to local literature on the subject, which in turn could be used by relevant authorities in improving their understanding and developing of relevant professional development programs.

The study will also inform the students through relevant curriculum so that they are more aware about better usage of online learning applications. This knowledge will hopefully trickle down to parents and the community at large. The program can inform the curriculum developers in the preparation of relevant curriculum materials for students as well as for use at future leaders' workshops. Future leaders' workshops are organized to educate new and aspiring leaders with effective leadership strategies. It will also provide valuable information to the Education Ministries to give due recognition to the integration of information communication and technology in their teaching. The findings will inform the faculties to appraise their understanding of the digital natives to make learning more effective, applicable and enjoyable.

The following section provides a robust corpus of literature on digital natives coinciding with the digital revolution that is characterized as being at the heart of the new digital orientation.

## **5. Literature Review**

There have been many claims about the characteristics of the digital native students participating in higher education. This cohort has been given a wide range of names, including Digital Natives (Prensky, 2001), Millennials (Neil Howe & Strauss, 2000), and Net Generation (Tapscott, 1998) to mention a few. A digital native is an individual who was born after the widespread adoption of digital technology, but doesn't refer to a particular generation. Instead, it is a catch-all category for children who have grown up in the midst of and using

technology like the Internet, computers and mobile devices. At times the digital native is used interchangeably with the term millennials and the discussion around the digital natives has been prevalent and they have been reciprocally identified in the literature as those born in or after 1980 (Neil Howe & Nadler, 2010; Katz-Sidlow et al, 2016; Tanner, 2010).According to Coomes and DeBard (2004), this cohort is highly skilled in technology and are quite used to innovation and change. Howe and Nadler (2010) are in acquiesce with Coomes and DeBard (2004) that growing up with technology and digital media has basically altered the way this rising generation reads, processes information and solves problems. Not only are today's tertiary students more likely to be exposed to technology at younger ages, but they are using internet and devices at higher rates and frequencies (Kurkovsky & Syta, 2010).Accordingly, Prensky (2012)establishes that the online life of the digital natives has become their entire philosophy of life as they live and “thrive in the 21<sup>st</sup> century where cyberspace has become a part of everyday life” (p. 88).

Having grown up with widespread access to technology, the digital natives are able to intuitively use a variety of Information technology devices and navigate the Internet with ease. They are comfortable using technology without an instruction manual, as they have ample knowledge and hands on experience(Corrin et al., 2011). In a survey undertaken in America about the lifestyle of the millennials, it reveals that they have exceptional attachment with technological tools. According to Taylor and Keeter (2006), it is not their propensity towards their gadgets but it is the way they have fused their social lives into them. On the same note, Cheta (2014) supports the views of Taylor and Keeter (2006)that the millennials have very good multi-tasking ability and an instantaneous ability to move between the real and the cybernetic sphere. Subsequently, Kurkovsky and Syta (2010)assert that students not only check email and media messages daily for social reasons, they use their mobiles as a major mechanism for communicating with faculty and classmates. Accordingly, Cheta (2014) describes the digital native environment as learner-centered where they have little patience for waiting for the teacher to give direction and information rather they try to actively search for the needed information on their own.

There is no doubt that social media has gained wider acceptability and usability becoming the most important communication tool amongst the digital natives(Rifkin, Longnecker, Leach, Davis, & Ortia, 2009). There are many digital tools and applications like Facebook and Twitter that seemed to have bridged the gap that had existed in communication for some time(Al-Rahmi & Othman, 2017).Thus, smartphones and Applications (Apps) are inventions that can be downloaded to smartphones to keep individuals connected to society, including college and university students. Accordingly, Jesse(2015) affirms that apps are a portable way to stay connected to social media and 97% of smartphone users use apps for social networking purposes. While there are benefits as well as demerits of using social media, if used with responsibility, the gains outweigh the limitations greatly. Similarly, Brown (2010)and Schroeder, Minocha, & Schneider, (2010) are assertive that the driving force behind the adoption of social media is the ubiquitous access, convenience and flexibility of social technologies. Moreover, there is ample research discourse that holds the view that social technologies support the social constructivist mode of student interaction and learning (Ferdig, 2007; McLoughlin & Lee, 2008; Schroeder et al., 2010). Additional advantages of the tools and web based applications available on the internet is that they are usually free or require marginal investment and are easily adopted by the digital natives (Brown, 2010).

However, there are certain fallacies or misconceptions about digital natives that needs to be taken into consideration. The notion that digital natives know all about information technology is a dangerous fallacy that risks leaving young people without the competences required for job market (ECDL, 2015). For they may be computer savvy, but they may lack the theoretical knowledge base required for particular occupation. According to O'Sullivan (2018) many young people, the so-called digital natives, show limitations in their use of technology. He further reiterates that the digital natives do have daily digital experience of smartphones using Facebook, twitter, texting and sharing of photos, to mention a few, but this use of technology cannot be considered evidence of digital literacy. As such, it is a canard

that digital natives have all the skills and competences required to perform effectively in the modern workplace(O'Sullivan, 2018). Consequently, digital natives use of digital technologies usually tend to miscalculate their ICT knowledge and skills. This concern may have led Prensky to develop the concept of digital wisdom. According to him, a digitally wise person not only knows how to use digital technologies, but also has a capacity to critically evaluate them, make ethical choices and more pragmatic decisions. By shifting his discourse around digital natives he recognized the fact that in order to use digital technologies critically and effectively, young people need to acquire digital wisdom(Prensky, 2012).

## **6. Methodology**

The forthcoming section discusses the research paradigm adopted for this research and articulates the research design and the method adopted for this study.

### **6.1 Research Paradigm**

Education research, as well as research in other similar areas of inquiry, is typically conducted within appropriate research paradigm. Paradigm according to Coll and Chapman (2000) are belief systems that are constructed on ontological, epistemological, and methodological assumptions. Accordingly, paradigm is regarded as a worldview or a set of beliefs shared by a community of researchers. Some of the competing or alternative paradigms are positivism, post-positivism, critical theory, and interpretivism/constructivism(Lincoln & Guba, 1985; Robottom & Hart, 1993). This research falls within the interpretive paradigm as the key concern is understanding the phenomenon under study from the participant's perspective (Merriam, 1998).Miles and Huberman(1994) point out that the interpretivist approach is that which is concerned with providing a practical understanding of meanings and actions. As such, this research was conducted from within an interpretive paradigm, and this has implications for the selection of an appropriate research design.

### **6.2 Survey Research Design**

Survey research is one of the most important areas of measurement in applied social research. The broad area of survey research encompasses any measurement procedures that involve asking questions of respondents (Akiba et al, 2007). Survey research does not belong to any one field and it can be employed by almost any discipline (García, 2014). Hence, surveys are a favoured tool for many who are engaged in research as it provides a quick and effective way of collecting data(Wilkinson & Birmingham, 2003).Previous research in this field has revealed that scholars have often used surveys as a preferred research design. Evidently, Jesse (2015) adopted survey research design in his study about the usage and the effects of smartphones on student's social lives, education lives, and physical activity. Similarly, Kurkovsky and Syta (2010)implemented a survey research design in their study of over 330 young people aged 18 to 25, to evaluate their use of mobile technology as well as their perceptions of different ways how security and privacy could be improved in future mobile devices. Similarly, in a study about undergraduate students' perceptions towards the use of technology for teaching and learning employed survey research design surveying 1438 students at The Chinese University of Hong Kong (Lam, Lee, Chan, & McNaught, 2011). Having considered previous procedures, a survey using assorted Likert type scales were used for numbers 1 to 25 in the survey to develop an understanding of the influence of evolving technology in the emerging online lives of the digital native university students.

### **6.3 Research Sample**

Selecting research sample is an imminent issue frequently raised by researchers and students (Minichiello et al., 2008). According to Fraenkel & Wallen (2006) researchers are always concerned with what can be labelled as an adequate size for a sample. They further suggest that despite shortage of time and financial constraints into consideration, it is advisable to obtain "as large a sample as they reasonably can" (Fraenkel & Wallen, 2006, p. 104). For the purpose of this study, the first year university students were targeted, but it was

not possible to survey all the students because of the number and their availability. There were altogether 779 first year students enrolled in different bachelor level programs offered by the 5 faculties at the University. 500 students were randomly selected from the 5 schools and 418 students attempted the survey resulting in a response rate of 82% which is acceptable for discussion.

### 6.4 Reliability of the Study Constructs

Diverse variables were considered for the various items in the survey to assess the influence of evolving technology in the emerging online lives of the digital native university students. The Cronbach's coefficient alpha [ $\alpha$ ] was used to assess the reliability of the study constructs as it is widely used for assessing the reliability of measurement scales with multi-point items. Thus, the overall reliability of the constructs was .598 on 15 items that are discussed for the purpose of this study. Table 1 shows the Cronbach's Alpha values of the study constructs. Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. The average value of Cronbach's Alpha reveals that the constructs are at an acceptable level to address the research question.

Table 1 : Reliability Statistics of Study Constructs

Cronbach's Alpha	N of Items
.598	15

The findings section will discuss the items in the table with reference to pertinent literature wherever possible.

### 6.5 Validity

Having discussed reliability, validity is another important issue that needs to be addressed before research methodology is discussed in detail. The validity was achieved in data collection as there was significant congruency with reality in the research findings (Merriam, 2002). She further claims that valid data gives a truthful portrayal of the subject matter being studied as was in this case. Babbie (2010) subsequently states that validity refers to the point or degree to which an empirical measurement adequately reflects the real meaning of the concepts under consideration. As such, in this case the validity and reliability of data were issues taken into consideration during the entire study as the data was analysed and discussed neutrally without any bias and preconception.

### 6.6 Ethical Considerations

Ethical issues were taken into consideration throughout the course of this study. A number of commentators of educational research have stressed the importance of adopting a set of ethical procedures. This is in line with the views expressed by Fontana and Frey (1994), that is, research should not exploit informants, but enhance their confidence by voluntarily sharing worthwhile information with the researcher. The participants have not been identified in order to maintain confidentiality and anonymity. To further maintain the ethical etiquettes, relevant information such as the aim and the purpose of the study were communicated well in advance to the participants of the present study. Subsequently, the survey was administered by respective lecturers and no direct contact or interference was made with the participants in order to uphold ethical standards.

## 7. Findings and Discussion

This section discusses the findings as per the research questions according to thematic approach. For the purpose of this study, only 15 items in the survey is discussed in relation with appropriate literature. Table 2 shows the item statistics for the study.

Table 2 :Item statistics

	Mean	Std. Deviation	N
Do you have a computer at your home?	1.22	.417	417
Do you have a cell phone	1.08	.278	417
If yes, is it a smart phone, such as an iPhone, Samsung, Video, Alcatel, Android, etc.?	1.09	.281	417
Is/Are your parent[s] computer savvy?	1.35	.477	417
How often are you online or connected to internet?	2.48	.704	417
Do you have a personal e-mail address?	1.08	.270	417
How often do you check your e-mails?	2.88	.849	417
Do you have a computer of your own?	1.25	.432	417
Do you send photos to others through a cell phone?	1.15	.354	417
Do you have a Facebook account?	1.13	.341	417
How often do you check Facebook?	2.20	.907	417
Do you send E-vites to people?	2.16	.792	417
How do you look up movie times?	2.26	.975	417
Do you access the Moodle using your mobile phone?	1.44	.761	417
What would you prefer?	1.18	.388	417

## 7.1 Transition to Higher Education

Studying for a higher education qualification can be a time of significant transition, where students learn new skills, gain knowledge and are exposed to various technological tools of learning and teaching. Findings reveal that majority (67%) of the students enrolled in the first year degree programs fall in the 19 years (41%) -20 years (26%) demarcation. Some (20%) of the students fall in the 17 years to 19 years portion while a few (12%) fell in the 22 year plus category. Analysis of pertinent literature indicates that full-time young 18 year entrants make up the highest proportion of all entrants. Literature further entails that the proportion of 18-year-olds applying for full-time undergraduate education have risen throughout the United Kingdom (O'Prey, 2015). Similarly, an Australian Study revealed that majority of higher education students began their course directly, or relatively soon after finishing secondary school, mostly (59%) were between 15 and 24 years, while 41% of students were aged 25-64 years(Norton, 2012). Eventually for these students technology has become a central pillar to the process of learning and teaching in higher education.

## 7.2 Having Access to Computers

As discussed earlier in the literature section, this is the cohort that has been given a wide range of names, including Digital Natives (Prensky, 2001), Millennials (Neil Howe & Strauss, 2000) , and Net Generation (Tapscott, 1998) to mention a few. All the respondents in the survey were born after the widespread adoption of digital technology and are categorized as digital natives as they have grown up using technology like the Internet, computers and mobile devices. Findings support the previous assertions as it revealed that majority (78%) of the students have access to computer at their homes.

Literature entails having access to computers at home greatly assists students in completing their tasks and developing basic computer literacy (Hargittai, 2007). Similarly, the development of literacy skills and educational outcomes are associated with other educational resources(Becker, 2000). For example, students have superior outcomes if they have relevant Apps on their computers, have a suitable workstation and a quiet place to

study. As educational systems fully incorporate ICT into curriculum and teaching, access to the Internet at school and at home may become as important a predictor of literacy as the number of books in the library or at home (Willms & Corbett, 2003).

In the same vein, home computers provide excellent opportunities for children in completing their homework as well provide a vast array of information if connected with internet (Becker, 2000). Robinson stresses the importance of students to have access to technology to participate in current educational practices. However, it is noteworthy to mention that some (20%) of the students still do not have access to computers at home. The insurgence of new technologies and current trends towards having access to computers at home has created an additional challenge for the society as it widens the digital divide. Emerging in the 1990s, the digital divide is used to describe those who did not have access to a computer and/or the internet and those that did have the access (Robinson, 2007). The effects of student's access to computers at home are still being explored and according to Becker (2000) the gap in the use of home computers in the United States between the 'haves' and the 'have nots' is immense. Fiji being a developing country has integrated technology quite well in all ambits of development but it also has a fair share of disparity in the socio economic status of its people. None the less, computers are these days have become a norm in the lives of many of the working parents.

### 7.3 Mobile Technology

The usage of ICT is the norm of the contemporary civilization, and the mobile phones have become one of the most 'ubiquitous' devices found in most parts of the world (Shava, Chinyamurindi, & Somdyala, 2016). Previous research reveals that 99.8% of college students have cellphones and they regard it as indispensable in their lives (Jesse, 2015). He further claims that more students use mobile phones for texting and running apps as compared with those making calls. Moreover, mobile social media applications enable users' access to their social media sites anywhere, anytime instead of having to sit in front of their computers. Peterson (2011) agrees that mobile phones provide a portable way to stay connected to social media and according to his study, majority (97%) of smart phone users use them for social networking purposes. In this manner, students globally have a strong attachment with mobile phones and the current study also ascertains that students have had access to mobile phones from quite early ages.

Findings from the current study reveal that students have had access to mobile phones from as early as when they were in Year 5 in primary schools. Some may have one even before they were 11 years old but this study only focuses on 11 years and above. Many (31%) of the students owned mobile phones by the time they were 15 years old while majority of them owned one from the age of 16 to 18 years. The reasons for the huge increases in years 16 and 18 may be due to getting gifts from parents upon successful completion of secondary education and entering of universities for higher education. Previous research reveals that handheld devices such as mobile phones are emerging as one of the most promising technologies for supporting learning and particularly collaborative learning opportunities for the students (Gansemer-Topf, Zhang, Beatty, & Paja, 2014). Emerging technologies, such as the massive advent of smart phones are leading to the development of many new prospects to guide and enhance learning that did not seem possible even a few years ago. Previous literature confirms that supportive campus environments are a measure of the degree to which students' recognize their importance towards quality learning (Laird & Kuh, 2005).

Findings further reveal that majority (58%) of the students are able to use a number of applications and are able to use their mobiles for sending pictures. Subsequently, most (85%) of them use their mobile to send photos. This shows that students are mobile phone savvy and this knowledge and understanding can be of great assistance for lecturers and students as they can use them as learning tools. For example, findings further reveal that majority (72%) of the students always used their mobile phones to access Moodle. Mobile phones theoretically make learner-centred learning possible by enabling students to customize the transfer of and access to information in order to build on their skills and

knowledge to meet their own educational goals(Sharples, Taylor, & Vavoula, 2007). Previous research claim that mobile learning exerts a democratizing effect on the learning experience as learners take a greater responsibility for the learning process instead of being passively fed information by teachers (Valk, Rashid, & Elder, 2010). Hence, mobile learning empowers students to actively participate in the learning process to make it a process of construction and not mere instruction.

Subsequently, findings reveal that most (89%) of the students use their mobile phones one time or another to access the Moodle which is a learning platform designed to provide educators, administrators and learners with a robust and integrated learning environment. This intervention can be enhanced and can be strengthened as a meaningful learning tool. With the growing prominence now being given to the role of mobiles in the educational sector in developing countries, there is a genuine need to take stock of the available evidence of the educational benefits that mobile phones provide in the developing world. According to Valk, Rashid and Elder (2010)mobile phones increase the access to educational services as they facilitate alternative learning processes. Literature entails that mobile phone usage has gained a lot wider presence in our society than computers and their importance in our everyday communication make mobile phones almost indispensable (Puga et al, 2009).

Evidence in support of mobile phones and applications are countless (Kurkovsky & Syta, 2010; Morrison, 2015; Sharples et al., 2007; Valk et al., 2010). For example, according to Nahorniak (2012)professors and students at a University created an app for their finance class that was able to connect the theories and allowed students to develop a better understanding of the workings of the foundations of the economic theory. Jesse (2015) argues that it is high time authorities should consider allowing students to use their mobile phones in class as they are light and portable as compared with laptops and computers that are big and inconvenient to carry about. Additionally, mobile phones could be a good teaching tool to use in the classroom as applications like Dropbox can be effectively used for sharing handouts quickly saving time, money and paper (Jesse, 2015). There are many other benefits as well as shortfalls, but with appropriate regulations in place, mobile learning can become one of the best antidotes for the digital natives and the millennials.

#### 7.4 Being Connected

The internet is deeply embedded into our daily activities and it has become an integral part of the lives of millions of people in modern world. This phenomenon has enveloped not only large developed countries, but as well as small developing states(Tran Dinh Tan, Polyakova, & Shipilova, 2015). Internet communication is used in all spheres of human activity and has become very popular amongst the students. Consequently, much of the research on Internet use has focused on the college student population(Byun et al., 2009). According to Jones(2002), many students are able to benefit from the use of the Internet for research and communication purposes.Findings from the current study reveal that some (30%) of the students are connected to internet most of the time while few of them (12%) are connected to internet all the time. Majority (58%) of the students get connected to internet sometimes only meaning when there is a need they do get connected to internet. Literature entails that the Internet is a global system of connections between millions of computers that allow almost instant access to and dissemination of information. The use of the Internet as an instructional tool in higher education is swiftly snowballing. Today, there is an increase in the development of academic websites with huge amounts of learning materials entrenched within them(Hung, Huang, & Hwang, 2014; Judge, Puckett, & Bell, 2006; Kowch, 2009; 2011).The Internet's ability to provide students quick access to documents, scholarly articles and databases makes it a valuable information source for students. Subsequently, the advance of the Internet has been referred to as, "the most transforming technological event since the capture of fire"(Barlow, Birkets, Kelly, & Slouka, 1995, p. 35). While the previous statement may be an opinion only, the internet has surely made a great impact in the lives of the college and the university students. For instance, according to Jones, Johnson-Yale, Pérez, & Schuler, (2007) a study to determine students' activities and attitudes around use



of the Internet for academic purposes of undergraduates from 40 college campuses across the United States revealed that most of them (84%) believed the Internet had positively impacted their academic lives. One of the major academic benefits of the Internet is that it is cheap, easy, and immediate access to large amounts of information on almost any topic. According to Jones et al(2007) university and college students usually use the Internet to search for information via Google or Yahoo. Research further entails that most university libraries offer free access to hundreds of electronic databases and thousands of peer-reviewed journals, books, and other online resources. However, whether students know how to use these resources is beyond the scope of the current study, but may be an important issue to consider for later research.

Findings of the current study reveal that majority (82%) of the students preferred to have free data instead of talk time (see Table 10). This preference of data shows that students prefer internet so that they are able to surf the net and access websites and applications of their choice. Previous research by O'Sullivan (2018) show that college students use internet for various reasons, such as playing games, visiting social web sites, making new friends, keeping in touch with family and friends to mention a few. Another recent research shows majority (84%) of the participants who were college students used the Internet for academic purposes and believed it had positively impacted their academic lives(Jones et al., 2007). They further concluded that most college students' academic experiences are positively impacted by Internet use. The findings from this study and others (Kivunja, 2015; Kuh & Hu, 2001; Laird & Kuh, 2005) all confirm are latively high frequency with which students are using internet for educational purposes and indicate its use is associated with desirable outcomes.

## 7.5 Social Media

Our everyday lives are becoming more and more dependent on digital technologies. Life without a computer, a tablet or a mobile phone has become unimaginable to many as internet has infiltrated homes at an accelerated rate. This technological revolution has resulted in unanticipated increase in the popularity of social network sites over the past several years which in turn has encouraged scholars from various disciplines to study its impact from different perspectives (Boyd & Ellison, 2007). Subsequently, some of these studies provide valuable information about Facebook use among college and university students. Empirical data shows that more than 80% of the youth population (15-24-year-old) worldwide is online and that out of the 830 million young people are online most of the time (ECDL, 2018).Hence, there is no doubt that social media has gained extensive acceptability and usability and has become probably the most important communication tool among university students (Al-Rahmi & Othman, 2017). Within the social media, Facebook seems to have gained the most popularity amongst the students. Such applications and websites provide a social forum for communication and it has the potential to influence decision-making in a very short time regardless of the distance(Kivunja, 2015). Facebook is viewed as having bridged the gap that has existed in free communication and the students in the current study also seemed to have a massive attachment to it.

Findings from the current study reveal that majority (86%) of the students have Facebook accounts. Literature entails that as the Internet quickly grew, many key online technologies like Facebook began to take shape. According to Hart (2010) in 2008, Facebook was among the fastest growing and most visited websites where the access jumped from the 60th most visited website to the 7th position in 2008. Facebook as a social network site originally began in February of 2004 by Mark Zuckerberg and has become very popular ever since. Today, it provides a platform for millions of users who are empowered to communicate with friends and family as they share information, photographs and videos to mention a few activities (Hart, 2010). According to Gray(2017) after Google and YouTube, Facebook is the third most visited web site in North and South America, Europe, the Middle East and in parts of Africa and Asia. Current study also reveals that students are Facebook enthusiasts as more than a quarter (27%) of the students accessed their Facebook on an hourly basis while some (32%)

of them check their Facebook one or more times each day. On the whole, majority (90%) of the students have a liking to Facebook and they use the Internet more than any other group.

Although there are mixed reactions in regards to the use of Facebook and its impact on students' academic performance, Irwin, Ball, Desbrow, and Leveritt (2012) argue that social media such as Facebook can be an excellent tool if properly used as they found that students were very receptive to incorporating it into their academic lives. This notion is also supported by Aghaee (2010) who maintains that social media provides a platform for collaboration and it is considered a tool in education used by many students. As such, it can be concluded that if Facebook is used properly, it can be an effective tool for educational purposes, but if abused it could result in the negative performance of the students. Further research is needed to determine whether other Internet related interventions would help university students improve their academic performance, in light of appropriate regulations to control potentially non-productive or excessive use of Internet.

### **8. Limitations of the Study**

The time available for this research was very limited as certain deadlines had to be met. The self-reported nature of the data was obtained from a survey only. As such, the results in this study could not be verified by observations or other independent measures. In addition, the sample only included first year students from one university for this research as such the findings may not be generalizable to the entire population of university students. Consequently, these results should be viewed as a snapshot of first year students' perception of the influence of evolving technology in their online lives and as a starting place for discussion and further investigation.

### **9. Implications**

Having seen the popularity of technology, social media and applications amongst the digital natives, it can be established that there are significant implications for educators and students alike. With students using information technology on a daily basis for their academic and non-academic pursuits at a rapid rate, calls for immediate action by relevant authorities. The results of this study suggest that with appropriate administrative policies in place mobile technology, social media and relevant applications can be used successfully for educational purposes. Moreover, universities should encourage students to connect to their campus community, collaborate with peers, acquire new information, and demonstrate their learning through technology. Hence, administrators should understand that living in a digital age, work, education, entertainment, and social connectivity are all experienced on the web. As such, this connectivity calls for its integration in formal education where blended learning and teaching can effectively take place with the use of web tools such as email, lecture recordings and dedicated university learning management systems like Moodle. There is ample support for these implications in the literature that mobile technology and social networking sites have the ability to enhance academic instruction and student learning experience (Irwin et al., 2012; Kivunja, 2015).

### **Conclusion**

The use of information technology has shown a very rapid growth during the last decade in almost every country in the world. Increasing computer ownership and access to the Internet and social media like Facebook have changed the lives of millions of people who get online on a daily basis. They go online to send and receive emails, chat, research for school or work, download music or images, and to do many other activities. Hence, there is a great influence of technology in the emerging online lives of the university students. They have grown up in the presence of a high digitalised world and cannot digest the thought of staying without them. They prefer to stay connected and apart from other applications, use Facebook to keep in touch with family and friends. The rapid advent of mobile technology, social media supported by internet opens up new and endless opportunities for academia provided educators and students are convinced to adopt new ways of interactions. Findings provide an awakening call for the tertiary educators who now need to adopt and adapt their pedagogy

and practice to suit the digital native university students. This study's findings provide a strong platform for further research and discussions around technology based pedagogy and practice for learning and teaching in higher education.

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