



**UNIVERSITY OF NAIROBI**  
**COLLEGE OF BIOLOGICAL AND PHYSICAL SCIENCES**  
**SCHOOL OF COMPUTING AND INFORMATICS**

**Social Networks Integration into Teaching and Learning in  
Higher Education in Kenya**

**By**

**EMMANUEL KIPKORIR CHOGE**

P54/78998/2015

Supervisor:

**Dr. CHRISTOPHER CHEPKEN**

A project report submitted in partial fulfillment of the requirements for the award of  
Master of Science in Information Technology Management of University of Nairobi.

**October 2016**

## DECLARATION

This project is my original work and to the best of my knowledge, it has not been submitted for any other award in any University.

Name: **Emmanuel Kipkorir Choge**

Reg No: P54/78998/2015

Signature: \_\_\_\_\_

Date: November 01, 2016

This project report has been submitted in partial fulfillment of the requirements for the Master of Science Degree in Information Technology Management of the University of Nairobi with my approval as the University supervisor.

Supervisor Name: **Dr. Christopher K. Chepken**

School of Computing and Informatics

University of Nairobi

Signature: \_\_\_\_\_

Date: November 01, 2016

## **DEDICATION**

I dedicate this research to my entire family and friends who gave me great support in my pursuit of knowledge.

## **ACKNOWLEDGEMENT**

I would like to thank God for the strength and health during the entire research period. A special thank you to my family and friends for the support that they gave me throughout the research period. I would like to thank my employer and colleagues for the support and time taken off work to carry out this research. I would also like to express my utmost gratitude to my supervisor Dr. Christopher Chepken for giving me useful and valuable guidelines during the research process.

## **ABSTRACT**

### **Problem**

The recent innovations in ICT have seen an upsurge in social networking platforms. Everyone is using at least one of the many Social Networks platforms. Lecturers are facing new encounters on how to leverage the positive aspects offered by the social media platforms. The integration of social networks to enhance and complement other teaching methods is thus hampered. Various educationalists feel that social networking is inherently disruptive to the education process. Learners can access them on any computing device. Social Networking platforms help learners become communally and scholastically integrated as well as improving learning amid not being used in institutions of higher education for teaching and learning.

### **Objectives**

The researcher wanted to find out the integration of Social Networks into teaching and learning in the institutions of higher learning. More specifically, it was looking into the pedagogical, social media usage skills, the attitudes, and perceptions of lecturers towards integrating these technologies into teaching and learning. The preparedness by the institutions for social networks integration and hurdles encountered while integrating these technologies were also examined. A framework for social networks integration into teaching and learning was proposed.

### **Methodology**

A survey approach was adopted for this research. This employed a questionnaire sent to the respondents. The collected data was analyzed and presented. Regression and correlation techniques were used to check the associations amongst the variables and the significance of the variables to the study. TPACK framework by represented better the integration compared to "Modeling educational usage of the Facebook" framework by Mazman and Usluel.

### **Results**

Results showed that Social networking is not a new phenomenon to most of the respondents. The majority of the lecturers use Social Networks platforms but mainly for personal use. They should be motivated to repurpose these platforms for teaching. Lecturers attitudes and perceptions, pedagogical and technological usage skills are crucial while planning to integrate social networks into teaching. This is because they are the primary content deliverers. The

availability of sufficient internet connection, computing devices, and ICT support services shows that the institutions are prepared. Challenges pointed out include privacy concerns, data security, policies to guide integration, management support among others. The findings can be used while formulating policies in the education sector.

### **Conclusion**

This study examines social media utilization by lecturers in institutions of higher learning. The findings strengthen the pedagogical and technological theory base for sound decision making in social media use in teaching and learning. The lecturers, being the content deliverers, are key in determining the success of the integration. Thus, they should be motivated to champion the integration of social platforms into the learning process. The higher learning institutions are prepared for the integration of social media into the learning process due to the availability of sufficient computing devices and internet connectivity. Proper guidelines, management support and user training should be put in place to address some of the challenges raised by lecturers. Future studies should further examine the role played by Institutions' support programs in encouraging faculty to re-purpose social media usage, the role played by training sessions in supporting its use and also the role played by the type of subject taught and how the chosen social platform fits the subject.

# TABLE OF CONTENT

<b>DECLARATION .....</b>	<b>I</b>
<b>DEDICATION .....</b>	<b>II</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>III</b>
<b>ABSTRACT.....</b>	<b>IV</b>
<b>LIST OF FIGURES .....</b>	<b>VIII</b>
<b>LIST OF TABLES .....</b>	<b>VIII</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>IX</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION .....</b>	<b>1</b>
1.1 BACKGROUND.....	1
1.2 THE PROMISE OF SOCIAL MEDIA .....	2
1.3 PROBLEM STATEMENT.....	3
1.4 OBJECTIVES OF THE STUDY .....	3
1.4.1 <i>General Objectives</i> .....	3
1.4.2 <i>The definite aims of the study were to find out:</i> .....	3
1.5 SCOPE OF THE STUDY .....	4
1.6 ASSUMPTIONS OF THE STUDY .....	4
<b>CHAPTER TWO .....</b>	<b>5</b>
<b>LITERATURE REVIEW .....</b>	<b>5</b>
2.1 POTENTIALS AND CHALLENGES OF SOCIAL MEDIA IN THE LEARNING PROCESS.....	5
2.2 RESEARCH MODEL.....	7
2.2.1 <i>Mazman and Usluel's framework</i> .....	7
2.2.2 <i>TPACK 2.0</i> .....	9
2.2.3 <i>Research Framework for Social Networks integration into the learning process</i> .....	13
2.2.4 <i>Summary of Literature Review</i> .....	14
<b>CHAPTER THREE .....</b>	<b>15</b>
<b>RESEARCH DESIGN AND METHODOLOGY .....</b>	<b>15</b>
3.1 INTRODUCTION .....	15
3.2 RESEARCH PHYLOSOPHY .....	15
3.3 RESEARCH DESIGN .....	15
3.4 RESEARCH POPULATION .....	16

3.5 SAMPLING .....	16
3.5.1 <i>Sample Design</i> .....	16
3.5.2 <i>Sample Size</i> .....	16
3.6 DATA COLLECTION .....	16
3.7 DATA COLLECTION ISSUES CONSIDERED .....	17
3.7.1 <i>Logical and ethical issues</i> .....	17
3.7.2 <i>Validity of the instrument</i> .....	17
3.7.3 <i>Reliability of the instruments</i> .....	17
3.8 DATA ANALYSIS .....	18
<b>CHAPTER FOUR.....</b>	<b>19</b>
<b>RESULTS .....</b>	<b>19</b>
4.1: INTRODUCTION .....	19
4.2: RESPONSE RATE .....	19
4.3 SOCIAL PLATFORMS USED .....	19
4.4 SOCIAL NETWORKING SITES ENHANCE LEARNING.....	20
4.5 DESCRIPTIVE ANALYSIS .....	20
4.5.1 <i>Lecturers attitudes and perceptions</i> .....	20
4.5.2 <i>Preparedness for social Networks Integration</i> .....	21
4.5.3 <i>Challenges Faced while incorporating the Social Networks</i> .....	21
4.5.4 <i>Suitable Framework for Social Networks Integration</i> .....	22
<b>CHAPTER FIVE .....</b>	<b>26</b>
<b>CONCLUSION AND RECOMMENDATIONS.....</b>	<b>26</b>
5.1 INTRODUCTION .....	26
5.2 SUMMARY OF FINDINGS.....	26
5.3 CONCLUSION.....	27
5.4 SELECTED FRAMEWORK .....	27
5.5 RECOMMENDATION OF THE STUDY .....	29
5.5 AREAS FOR FUTURE RESEARCH.....	29
5.6 LIMITATIONS OF THE STUDY .....	30
<b>REFERENCES.....</b>	<b>31</b>
<b>APPENDICES .....</b>	<b>36</b>
APPENDIX I: QUESTIONNAIRE .....	36



## LIST OF FIGURES

Figure 1: Adopted form Mazman and Usluel. Modeling Educational Usage of Facebook (2010).....	7
Figure 2: TPACK framework for describing and understanding the goals for technology use. Koehler & Rosenberg, (2014).....	10
Figure 3: Proposed research framework with constructs from the two models, Figure 1 and Figure 2 above. )Page 7-12).....	13
Figure 4: Social Network platforms used by the respondents .....	19
Figure 5: Social Networks enhances learning process.....	20
Figure 6: Facilitating conditions influences Social Networks integration into the learning process.....	21
Figure 7: Percentage of lecturers using Social Media for teaching .....	22
Figure 8: Concerns raised by respondents for not using Social Networks for teaching.....	22
Figure 9: TPACK Framework for describing and understanding the goals for technology use. Koehler & Rosenberg, (2014).....	28

## LIST OF TABLES

Table 1:Social Networks Model Validity .....	22
Table 2:Social Networks Integration Model Summary .....	23
Table 3: Regression weights for social networks integration .....	24

## List of Abbreviations

D-Learning	- Distance Learning
e-Learning	- Electronic Learning
ICT	- Information and Communication Technology
IT	- Information Technology
m-Learning	- Mobile Learning
SNS	- Social Networking Sites
SNTs	- Social Networking Technologies
TPACK Web 2.0	- Technological Pedagogical Content Knowledge Web 2.0
WIFI	- Wireless Fidelity
WWW	- World Wide Web
$R^2$	- <i>R-squared</i> is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determination for multiple regression
$\beta$	- <i>Beta coefficients</i> , are the estimates resulting from a regression analysis that has been standardized so that the variances of dependent and independent variables are 1. Therefore, standardized coefficients refer to how many standard deviations a dependent variable will change, per standard deviation increase in the predictor variable.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background

In the scholastic research literature, Social Media has been a topic of numerous discussions. Some authors use Social Media interchangeably with the term Web 2.0 (Mason & Rennie, 2008; O'Reilly, 2007), others with social software (Ellison & Boyd, 2013; Ravenscroft, 2009), or with social web (Brown, 2012). Other scholars have provided tentative definitions, such as; "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" (Kaplan & Haenlein, 2010, p. 61). However, as pointed out by Tess (2013), the task of defining these platforms is made more thought-provoking by the fact that they are constantly in a state of change. Today, social networking sites, blogs, wikis, multimedia platforms, virtual game worlds, and virtual social worlds are among the applications typically included in the Social Media landscape. Tess, (2013). Notwithstanding the disputed terminology differences, Social Media refer to a wide range of applications which enable users to create, share, comment and discuss digital contents. They are also illustrated as 'dynamic', 'interactive', 'democratic', 'people centric', 'volatile', 'social' and 'adaptive', (Brown, 2012). Due to these features, Social Media are often seen as means through which to deeply transform teaching and learning process as more social, open and collaboration oriented. Social networking tools are viewed as able to support a distributed and networked process of knowledge building through the connection and the promotion of networks and social interaction (Dron & Anderson, 2014; Siemens & Weller, 2011).

On the academic context, some authors like Brown & Adler, (2008) have emphasized that the adoption of social platforms requires a radical change of the pedagogical paradigm with 'revolutionary' consequences for academic institutions. Junco, (2014) has also pointed out how an increased use of Social Media in higher education would lead to reconnecting academic institutions to the new generations of students. However, much of the literature in the field focuses on the potentials of Social Media in the learning process (Greenhow & Askari, 2015; Manca & Ranieri, 2013, 2015; Tess, 2013) or provides empirical evidence relating to their use by students in higher education (Bennett, Bishop, Dalgarno, Waycott, & Kennedy, 2012; Cooke, 2015; Karvounidis, Chimos, Bersimis, & Douligeris, 2014).

## **1.2 The Promise of Social Media**

Social media offer users with interactive services, in which they have control over their own data and information and are able to collaborate and share information. It is perceived as a promising learning platform owing to its structure and diverse utilities. Purposes and how the social platforms will be utilized in an educational context is a rich area for future research. According to (Ajjan & Hartshorne, 2008; Lockyer & Patterson, 2008), these platforms aid informal learning due to their active role in users' day-to-day lives. Social Networks backs mutual learning, engages learners in critical thinking. It also enhances interaction and writing abilities through activating members work in personalized environments

Apart from helping impart old information in new ways, these technologies help also share new material using new approaches. The institutions of higher learning are under increasing pressure from the stakeholders to use the innovative solutions to educate learners what is needed in this century where every aspect of life has ICT solution behind it. This is emboldening institutions of higher learning to evaluate key aspects of teaching and to re-evaluate what is delivered, to who and how. JISC (2011).

According to Consumer Insight (2015) study on youth, there is a clear convergence of equipment that simplifies everyday life into a single device, mobile technology. Over 90% access the internet via a mobile device. Of this, 52% use it to access social networks. This informs that it is a platform which can be tapped for educational purposes. As the Internet and the Web 2.0/3.0 technology access through mobile devices increases exponentially year after year, social media users are set to explode (Forrester, 2011).

Institutions of higher learning are recognizing the Internet and Social Networks' value of education for learning and teaching purposes. According to Nafukho et al (2013), rapid social and technological changes in the world shifts focus on different learning methods like open and distance learning. Assimilation of Social Networks into teaching expands education horizon. Aviram et al (2006).

Higher education learners use Social media tools for a number of reasons including connecting with friends and family, reading news, event notifications, entertainment and so forth. The adoption of social media applications by learners for entertainment and learning is common. College students use various social media applications (Cao & Hong, 2011; Dahlstrom, 2012), as it has become an indispensable part of their everyday life for personal and learning purposes.

Mobile technologies and smartphones interweave social media in their palms and at their command (Dahlstrom, 2012).

According to Kister, (2011), technology has become a fundamental part of people's lives, and one way that many learners stay connected is through the use of the various types of Social Network platforms available. When SNTs are introduced into learning, it fosters several benefits for instance lecturers sharing learning materials with learners. This makes teaching and learning locale neutral, enhancing resourcefulness and novelty, easy to learn to use, quite a number are free, provision of multimedia tools for enriching the appreciation of the content by the learners.

### **1.3 Problem Statement**

According to Kister, (2011), various educationalists feel that social networking is inherently disruptive to the education process. Learners can access them on their laptops, mobile phones or other computing devices during lectures. According to Under Science Publishers, (2011), Social Network platforms can help learners become academically and socially integrated as well as improving learning outcomes and yet they are not being used in institutions for teaching and learning. Therefore this research sought to find out how these Social platforms are being integrated into the learning process, based on the advantages highlighted, in the institutions of higher learning in Kenya.

### **1.4 Objectives of the Study**

#### **1.4.1 General Objectives**

To investigate the integration of Social Networks into teaching in higher education in Kenyan institutions, a case of Strathmore University and Eastlands College of Technology.

#### **1.4.2 The definite aims of the study were to find out:**

- i. The lecturers' insights on integrating the social platforms into the learning process.
- ii. The challenges encountered while integrating these technologies into learning.
- iii. The level of preparedness by the institutions for social networks integration.
- iv. To propose a framework for integration of social platforms into teaching in higher education in Kenya.

### **1.5 Scope of the Study**

This study was looking into the integration of Social Networks into teaching and learning in institutions of higher learning in Kenya. The study targeted private tertiary institutions in Nairobi. The respondents were the lecturers teaching at these institutions. A sample size of 102 respondents was used. A survey was carried out and questionnaires were used to collect data from the respondents. The research was carried out between August and October 2016.

### **1.6 Assumptions of the study**

This research was grounded on the notion that the sample selected is representative of the entire population. Another assumption is that the information gathered could be generalized to a wider population.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Potentials and challenges of Social Media in the learning process**

The fast evolution of Web 2.0 has had a weighty consequence on education. Learning outside the classroom is increasingly becoming important with the dominance of social networks. Learners can share ideas, discuss and exchange question and interact with their lecturers via social networks. Several studies counting Shih (2010) indicate that using online tools in education has become essential in order to go beyond the limits of the schoolroom walls.

SNSs ,according to Shembilu, A. (2013), social networks are the web-based services that allow individuals to create a profile within a circumscribed ecosystem. The individuals have a group which shares a correlation. They view and crisscross their list of acquaintances and those made by others within the same ecosystem. Social Networking platforms are considered to be the most popular with activities within the Web 2.0 platform.

Ahmed, A. (2011) says that Web 2.0 is the next stage of growth of the WWW, illustrated by the shift from static web pages to dynamic coupled with user-generated content. As proposed by Bruns (2008), the WWW has drastically changed. It has moved from just an information repository to an environment which is more social. Users are not just passive receivers or active consumers of information, they also generate content. As Suter, et al (2005) points out, web-based technologies now encompass the socializing features of virtual spaces that have emerged as areas for information sharing.

Quite a number of SNSs are in use and different organizations have created rankings on the mostly used SNSs. Facebook tops in most of the rankings followed by others, mostly Twitter and LinkedIn. The eBizMBA (2016) rankings show that by February 2016 the top five SNSs were Facebook, Twitter, LinkedIn, Pinterest, and Google+. Moreau, (2016) provided a list of top 15 SNSs. In that list, the top five were Facebook, Twitter, LinkedIn, Google+, and YouTube. According to TopTenReviews (2016), the top five SNSs used in the world as of February 2016 were Facebook, Twitter, Google+, Myspace and LinkedIn. SNSs are meant to socially connect the community of friends together. As highlighted by Heiberger, et al (2008), Social Networks technology has become conventional among higher learning learners and have

made them become dependent on it. Olatokun, et al, (2014) pointed out that over the years, social networking among university learners has become more and more popular. It is a way of remaining connected within and outside of school.

A number of research works have indicated that learners in higher learning use SNSs for social reasons. For example, in a study by Sponcil, et al (n.d), the most important reason for SNSs use by higher learning learners was to stay in touch with friends and family. Sheldon, P (2008) found that learners use SNSs to pass time, for entertainment and maintain existing relationships with peers. The author pointed out that higher learning learners use SNSs to communicate with peers. Hanson et al, (2011) pointed out that the primary focus of many learners is to be socially connected rather than academics, thus they use SNSs for social purposes. This is also supported by Junco, et al (2011) who said that the use of SNSs has been shown to improve learners' social engagement and decrease academic engagement.

Numerous SNSs have been shown to create a positive learning environment for learners. It is said by Brubaker, (2013) that as learners create groups in Social Networks, they are able to engage with other learners in their class. Research by Olatokun, W., and Ilevbare, G. (2014). has suggested that through peer interaction and group collaboration with Social Networks, a constructive effect on learning occurs. As Brubaker suggested, SNSs are used to enable learners to interact with one another and provide constructive criticism on scholastic matters. Research has shown that institutions of higher learning which incorporate some level of technology, such as Social Networks, into the curriculum have seen positive academic results, Junco, et al. (2011).

Through an increase of class collaboration through Social Networks, instructors can facilitate learning and positively utilize the social learning habits of the learners. As presented in the surveyed literature, some studies indicated that the uses of Social Networks by higher learning learners are for social reasons. But other studies indicate academic purpose as a reason for Social Networks use. There are also studies that indicate that SNS are used for both academic and social reasons, as suggested by Abdelraheem, A. Y. (2013). This is why Brubaker, B.E (2013) cautioned that positive academic results will only occur if Social Networks is utilized within the course work.



## 2.2 Research Model

The researcher used the TPACK 2.0 and Mazman and Usluel's frameworks. TPACK framework is concerned the skill sets the trainer should have while planning to integrate social networks into learning. Mazman and Usluel's Modeling educational Usage of Facebook is closely related to the study of Social Networks integration into the learning process.

### 2.2.1 Mazman and Usluel's framework

It consists of three underlying variables and eleven observed variables:

- **Adoption:** It is described by the following variables; *usefulness, ease of use, social influence, facilitating conditions and community identity.*
- **Purpose:** It is elaborated by the following variables; *Social relations, work related and Daily activity.*
- **Educational Usage:** Explained by the following variables; *Communication, Collaboration and Resource sharing.*

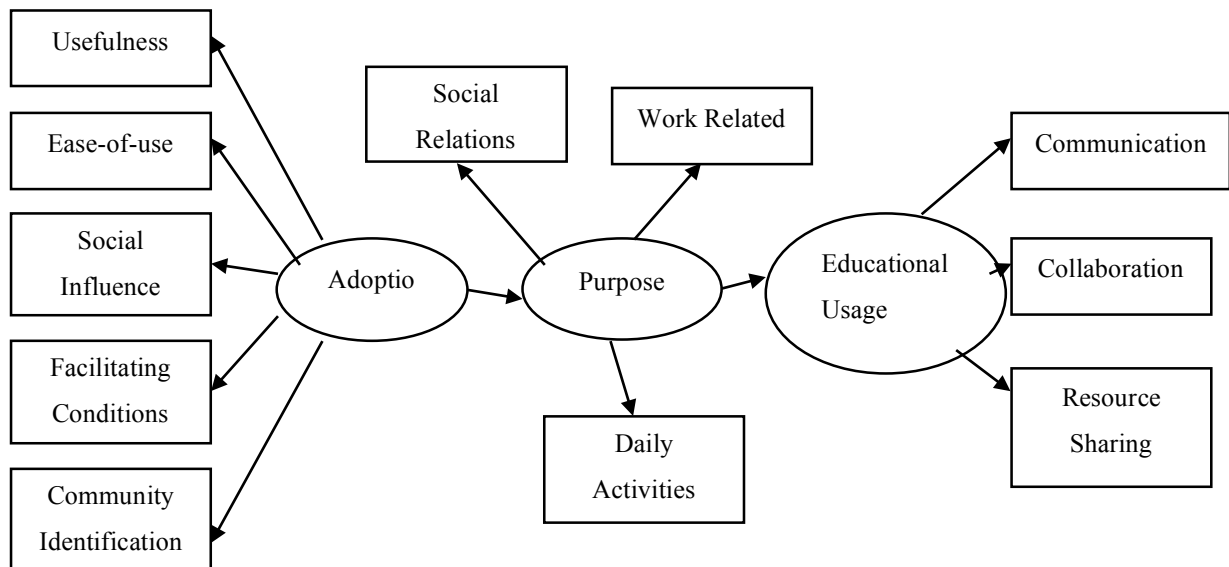


Figure 1: Adopted form Mazman and Usluel. Modeling Educational Usage of Facebook (2010).

### Adoption of Social Networks Platforms

Individual factors and Social Networks features should be considered while examining implementation activities of Social Networks. This is because the applications have both technological and social dimensions. Diverse people all over the world use Social Network applications for communication, sharing, interaction and collaboration. Some possible factors

that may affect Social Networks integration are discussed. *Facilitating conditions, Usefulness, Ease-of-Use, Community identity and Social influence* are viewed to be playing an influential role in Social platform integration into teaching.

**Usefulness:** According to Davis, (1989), Usefulness is the degree to which someone believes that using a particular system will enhance job performance. While terming usefulness as a relative advantage, puts it as the level to which an innovation is perceived as being better than its predecessor. According to Davis, (1989), “usefulness is identified to be a key predictor of a system's acceptance and diffusion”.

**Ease-of-Use:** Davis, (1989) points out that this refers to the extent to which a user believes that using a particular technology would be free of effort. Rogers (2003) on the other hand suggests that *ease-of-use* is the intricacy of which a platform is observed as somewhat difficult to appreciate.

**Social Influence:** Fishbein & Ajzen, (1975); Venkatesh et. al, (2003) suggests that Social Influence is someone's predetermined view of how another person will judge another's behavior. Thompson et al., (1991) termed social influence as social factors i.e. person's internalization of the reference crowds' skewed norms and particular relational agreements that someone has created in certain social situations.

**Facilitating Conditions:** According to Venkatesh et al, (2003), “It is the found unbiased factors in the environment that users concur to make a task easy to accomplish, provision of support for end-users in the case of difficulties and also easily controlling environment according to own mind”.

**Community Identity:** It is perceived key factors of an individual's enthusiasm to partake in cybernetic societies. According to Dholakia, et al (2004), this is the individual's affinity with the group in the sense that the person comes to view oneself belonging to the community.

### **Purpose of the platform Usage**

**Social Relations:** It includes making new acquaintances, keeping existing ones and often remain connected with them.

**Work related:** A user's professional reasons may include retrieving material, supplementing their ongoing work using related functions, sharing projects, materials, resources, ideas et cetera.

**Daily activities** could explain the reason for signing up into Social Networks. This undertaking includes keeping up-to-date on happening's around user's social circles, entertainment or joining groups among others.

### **Educational Usage of Social Networks platforms**

**Communication** as one of the educational usage of Social Networks consists of undertakings such as facilitating interaction among lecturers and learners, facilitating class consultations, coursework announcement, and sharing, general communication from school/faculty, informing on resources and relevant links to the shared resources.

**Collaboration:** Selwyn. N (2007), argues that as Social Networks contains diverse groups. Opportunities for learners are provided so as to join new groups so as to open up space for collaborative learning. Learners can exchange ideas, share information and work together within which they have common interests.

**Resource Sharing:** As learners exchange ideas and information on Social Networks, they can also share their resources, materials, projects et cetera. This can help a lot in pedagogical innovation.

### **2.2.2 TPACK 2.0**

TPACK categorizes the type of knowledge requisite by lecturers for technology incorporation in their teaching process while tackling the intricate, complex and situated nature of lecturer's experience. Successful technology integration for teaching around specific subject matter requires developing sensitivity to the dynamic, exchange-based relationship between these knowledge components positioned in distinctive perspectives. Individual lecturers, grade-level, school-specific factors, demographics, culture, and other factors ensure that every situation is distinctive. This means that the combination of Content, Technology, and Pedagogy will not apply for all lecturers, courses or any aspect of teaching.

According to Jimoyianni, et al (2011), TPACK 2.0 proposes new approaches to a multifaceted task, for instance enhancing teacher’s skills and understanding needed to support the fruitful integration of interactive web tools in class content delivery. It has the following knowledge areas: *Technological Content Knowledge (TCK)*, *Pedagogical Content Knowledge(PCK)* and *Technological Pedagogical Knowledge(TPK)*.

Figure 2 below shows the TPACK framework for describing and understanding the goals for technology use. It comprises the knowledge of the instructive concepts and in what way they can be utilized to support particular educational objectives, for instance, nurturing inquisitive studying, auxiliary on introspective studying et cetera.

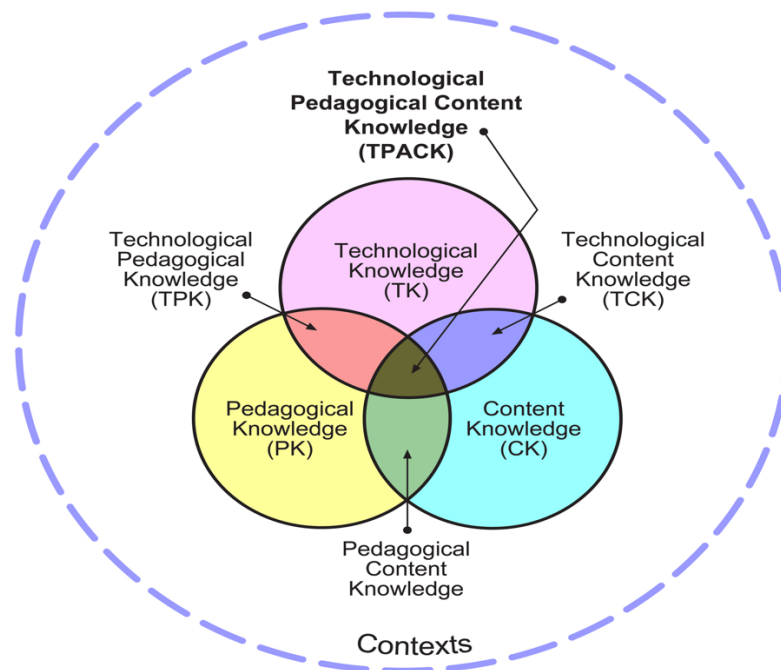


Figure 2: TPACK framework for describing and understanding the goals for technology use. Koehler & Rosenberg, (2014).

The various parts of the TPACK framework are explained below:

**Content Knowledge (CK)** – According to Koehler & Mishra, (2009), “this refers to the lecturers’ knowledge concerning the subject matter to be imparted. As Shulman (1986) noted, this includes concepts, theories, ideas, organizational frameworks, knowledge of evidence and proof. It also includes established practices and approaches toward developing such knowledge”.

**Pedagogical Knowledge (PK)** – According to Koehler & Mishra, (2009), “this is the lecturers’ deep knowledge about the processes and methods of teaching and learning. They comprise

overall educational purposes, values, aims among other things. This generic form of knowledge applies to understanding how learners understand, general classroom management skills, lesson planning and learner assessment”.

**Technology Knowledge (TK)** – “This is about the knowledge about ways of thinking about and working with technology and as well as resources. It involves understanding IT broad enough to apply it productively at work and in everyday life. It comprises also of being able to recognize when IT can aid or impede the achievement of a goal, and being able continually to adapt to changes in IT”. Koehler & Mishra, (2009).

**Pedagogical Content Knowledge (PCK)** – “This is the knowledge of tutoring that is relevant to the teaching of specific content. At the center of Shulman’s idea of PCK is the concept of the transformation of the subject matter for teaching. Shulman (1986), points out that this transformation takes place as the lecturer interprets the subject matter, invents numerous ways to exemplify it, adapts the teaching resources to alternative notions and learners’ prior knowledge. Learning, teaching, assessment, curriculum, assessment and reporting, i.e the environments that promote learning and the links among curriculum, assessment, and pedagogy, is what PCK covers”. Koehler & Mishra, (2009).

**Technological Content Knowledge (TCK)** – “This relates to the understanding of ways in which technology and content influence and constrain one another. The teachers need to be an expert in not just the subject that they teach, but must as well have a profound understanding of approaches in which the content can be changed by application of particular technologies. Lecturers need to understand which specific technologies are best suited for addressing subject-matter learning in their domains and how the content dictates or perhaps even changes the technology—or vice versa”. Koehler & Mishra, (2009).

**Technological Pedagogical Knowledge (TPK)** –Koehler & Mishra, (2009) points out that “this is the understanding of how teaching and learning can change when particular technologies are used in particular ways. This includes knowing the pedagogical affordances and constraints of a range of technological tools as they relate to disciplinary and developmentally appropriate teaching schemes and approaches”.

**TPACK** – As pointed out by Koehler & Mishra, (2009). "This is profoundly skilled teaching with technology. TPACK is distinct from the other three concepts. In its place, TPACK is the

foundation of successful teaching with technology. It requires an understanding of the illustration of concepts using technologies; pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help redress some of the problems that learners face; knowledge of learners' prior understanding and notions of epistemology; and familiarity of how technologies can be leveraged to construct on the existing knowledge to develop new epistemologies or improve existing one".

### 2.2.3 Research Framework for Social Networks integration into the learning process.

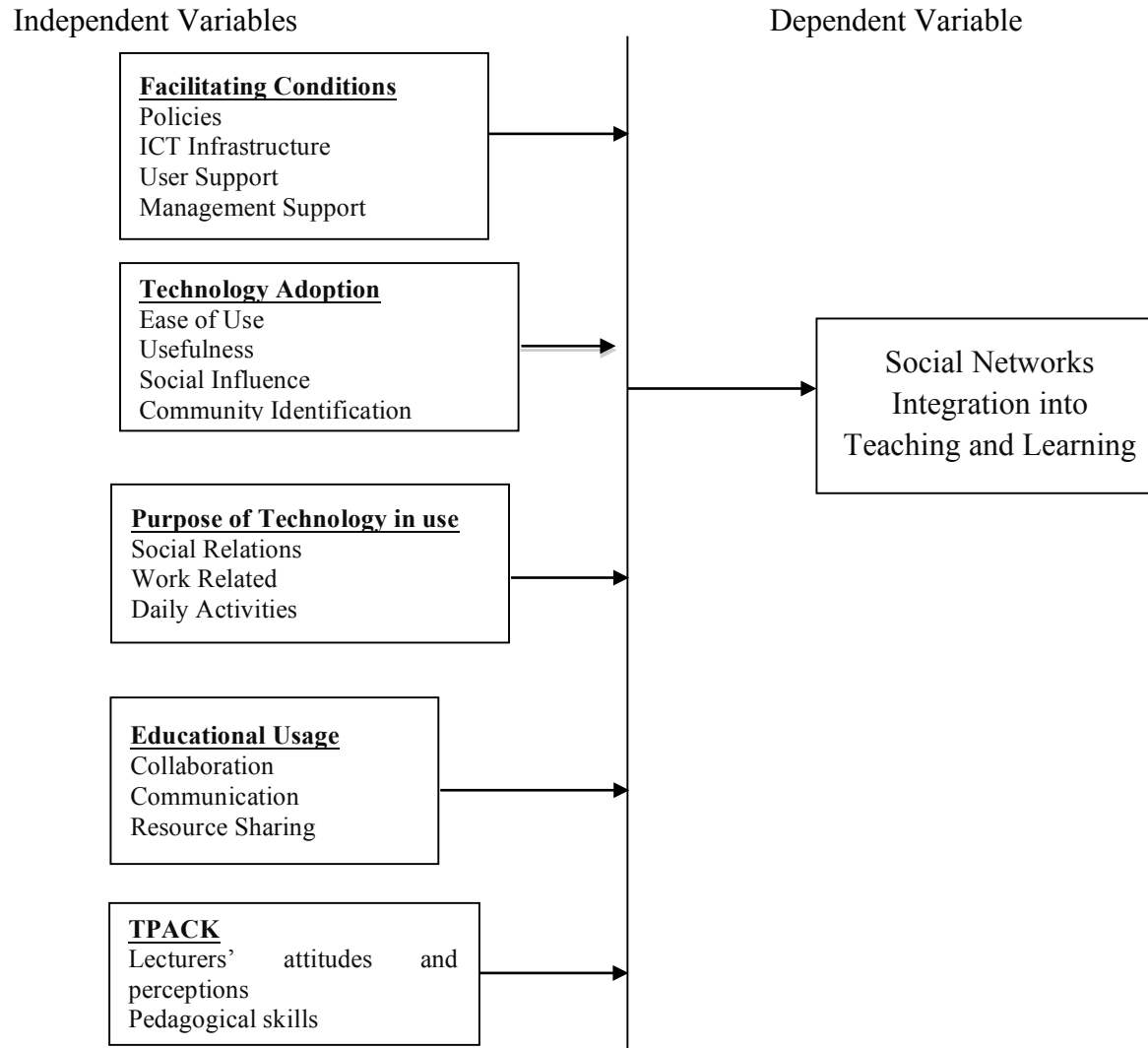


Figure 3: Proposed research framework with constructs from the two models, Figure 1 and Figure 2 above. )Page 7-12)

The research wanted to find out how the attitudes and opinions of the lecturers, facilitating conditions, Technology Adoption, Purpose of use of the technology and Educational Usage play a role in the Social Platforms integration into the learning process. Dependent variable was formed by Social Networks Integration in the learning process while the lecturer's attitudes and perceptions, pedagogical skills, resource sharing, collaboration, communication, daily activities, work-related, social relations, community identification, social influence, usefulness, ease-of-use, support services, ICT infrastructure, and Policies forms the independent variables. These variables were adapted from the two frameworks (Modeling education Usage of Facebook and TPACK) discussed in figure 1 and 2 above.

#### **2.2.4 Summary of Literature Review**

The fast evolution of Web 2.0 has had a weighty consequence on education. Learning outside the classroom is increasingly becoming important with the dominance of social networks. Several studies indicate that using online tools in education has become essential in order to go beyond the limits of the school. A number of research works have indicated that learners in higher learning use SNSs for social reasons, for instance, to pass time, for entertainment and maintain existing relationships with peers. Other studies indicate that the use of SNSs has been shown to improve learners' social engagement and decrease academic engagement. A contrary study by Olatokun, W., and Ilevbare, G. (2014). has suggested that through peer interaction and group collaboration with Social Networks, a positive impact on student learning can occur. Other research work has shown that institutions of higher learning which incorporate some level of technology, such as Social Networks, into the curriculum have seen positive academic results. The study used two frameworks: Modelling educational usage of Facebook and the TPACK framework for describing and understanding the goals for technology use. TPACK is the guiding principle supporting teaching using web 2.0 technologies which were relevant for discussing Social Networks integration into the learning process.



## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1 Introduction

This chapter comprises of research philosophy, design, sample population, Sampling, data collection instruments, data validity and reliability, logical and ethical issues and data analysis.

#### 3.2 Research Philosophy

Saunders et al. (2009) argue that the research philosophy has “assumptions about how the authors view the world and this view should underpin the research strategy of the work”. The research philosophy used in the study is Positivism. Positivism adheres to the view that only "factual" knowledge gained through observation (the senses), including measurement, is trustworthy. In positivism studies the role of the researcher is limited to data collection and interpretation through the objective approach and the research findings are usually observable and quantifiable. It depends on quantifiable observations that lead themselves to statistical analysis. It has been noted that “as a philosophy, positivism is in accordance with the empiricist view that knowledge stems from human experience. It has an atomistic, ontological view of the world as comprising discrete, observable elements and events that interact in an observable, determined and regular manner” Collins, (2010) . Positivism was chosen because the research is founded on work done by other people and the views/or experiences of respondents working in the institutions. This guided how the data was to be collected, analyzed and interpreted.

#### 3.3 Research Design

Kumar (2011) argues that "research design is a plan, structure, and strategy of investigation so conceived as to obtain answers to research questions or problems; the choice of the most appropriate design depends largely on the objectives of the research and how much we already know about the problem and the research objectives”. This study used a case study approach. Kothari, (2004), points out that a case study encompasses a meticulous and thorough inspection of a group. This approach highlights more on depth rather than the breadth of the study. The researcher wanted to find out from the respondents the following:

- i. The attitudes and perceptions of trainers regarding the integration of the Social platforms into the learning process.
- ii. Issues encountered by lecturers while integrating these technologies into teaching.

- iii. The readiness of the institutions of higher learning for integration of Social platforms into the learning process.
- iv. Recommendations for integration of these platforms into the learning process.

### 3.4 Research Population

This research targeted 120 lecturers from the two institutions namely; Eastlands College of Technology and Strathmore University.

### 3.5 Sampling

#### 3.5.1 Sample Design

Kothari (2009) established that “a sample design is a definite plan determined before any data are actually collected for obtaining a sample from a given population”. In this research, the survey was used where a small sample of the population is chosen to represent the entire population. The sample design used non-probabilistic sampling where the aim is to generate a sample that is representative and also provides meaningful information (Graff, 2014). “Purposive or non-probability sampling is a method that involves purposive or deliberate selection of particular units of the universe for constituting a sample which represents the entire population”. Random sampling is ‘typically used by research in the positivist paradigm because it ensures the objective reality is being measured accurately’ (Davis et.al. 2013).

#### 3.5.2 Sample Size

Davis et.al. (2013) states that “sample size is the number of data sources that are selected from the total population”. The size of the sample depends on a number of factors the researchers have to give in statistically information before they can get an answer’. To determine a manageable sample size, Slovincs 1960 formula was applied to sample the respondents with a marginal error of 3%.

The formula is as follows:-

$n = \frac{N}{1 + Ne^2}$  Where: *n* is the sample size, *N* is the population size, *E* is the margin error, *1* is the constant value.

Therefore,  $n = \frac{120}{1 + 120(0.03)^2} = 120$ .

### 3.6 Data Collection

Data was collected using online questionnaire. The questionnaire had close-ended questions on a 5-Point Likert scale (ranging from *strongly agree* to *strongly disagree*) for pre-established and predetermined response and open-ended questions for items that require narrative were

used. Other questions were simply *Yes, No or Maybe* type. This online questionnaire, via a uniform resource locator, was designed and sent to the respondents. The questionnaire was the appropriate tool to use as it was assumed that all the respondents in this study were literate and able to answer the questions asked adequately. Hence, they understood the questions and gave their opinion on the matters highlighted. The questionnaire also aided in covering a wider scope of respondents in a relatively short period of time

### **3.7 Data Collection Issues considered**

The researcher having set goals on how to collect data and already decided on the respondents in the target population, other data gathering issues were considered which include:-

#### **3.7.1 Logical and ethical issues**

Creswell et al. (2011) described the ‘gate keepers’ as an individual in the organization supportive of proposed research who will essentially open up the organization. Approval for this study was sought from the School of Computing and Informatics. Authority to visit institutions of higher learning was sought from administrators in charge of research of the respective institutions. The assurance was given to the respondents on confidentiality of the information provided and were assured that it was exclusively for academic purposes.

#### **3.7.2 Validity of the instrument**

This is the extent to which the instrument measures what it is supposed to measure (Mugenda & Mugenda, 2003). In this case, validity was aimed at gauging whether the subject matter was clear in generating relevant data. The questionnaire ensured therefore that each of the items addressed specific contents of a particular concept of the study. Moreover, the instruments were given to ten respondents to test the validity of instruments.

#### **3.7.3 Reliability of the instruments**

Orodho (2009) established that reliability is the “degree to which a measuring procedure gives similar results in a number of repeated trials”. This is used to test whether the instruments were reliable enough to collect data. Prior to visiting the sampled institutions of higher learning for data collection, the researcher pre- tested the questionnaire using two institutions of higher learning in Kenya located in Nairobi and Machakos Counties which were not part of the study group. The purpose of the pilot study was to enable the researcher to improve the validity and reliability of the questionnaire and to familiarize with its administration. Pre-testing provided feedback on the feasibility of the proposed procedure for coding data and some flaws and ambiguities in the questionnaire were noted and improved. The test-retest technique of

measuring reliability was used in this case and it included administering the questionnaires to ten pilot respondents.

### 3.8 Data Analysis

Campbell (2008) defines regression as "a statistical technique to determine the linear relationship between two or more variables; regression is primarily used for prediction and causal inference. Normally, a regression analysis is used for one (or more) of three purposes: prediction of the target variable (forecasting), modeling the relationship between x and y and testing of hypotheses. Thus the researcher used multiple regressions to evaluate the effect of independent variables on the dependent variable. Multiple regression allows additional factors to be analyzed separately so that the effect of each can be estimated. It is valuable for quantifying the impact of various simultaneous influences upon a single dependent variable (Sykes, 1993). Further, because of omitted variables bias with simple regression, multiple regressions are often essential even when the researcher is only interested in the effects of one of the independent variables. In its simplest form, regression shows the relationship between one independent variable (X) and a dependent variable (Y), as in the formula" below:-

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon$$

*Where: Y= Social Networks Integration,  $\beta_0$ = Constant Term,  $\beta$ = Beta coefficients,  $X_1$ - Facilitating Conditions,  $X_2$ = Technology Adoption,  $X_3$  = Platform Purpose,  $X_4$ - Educational Usage,  $X_5$ - TPACK and  $\epsilon$  - Error Term.*

## CHAPTER FOUR

### RESULTS

#### 4.1: Introduction

This chapter highlights the analysis and findings of the research which was to examine the integration of Social platforms into learning process in higher education in Kenya.

#### 4.2: Response rate

Out of the targeted 120 lecturers targeted, 102 responses were received, constituting 85% response rate, which is adequate to make the analysis. According to Mugenda and Mugenda (2003), a 50% response rate is adequate, 60% is rated good while 70% is appraised very well.

#### 4.3 Social Platforms used

From the survey, it emerged that all teaching staff uses one or more Social platform. WhatsApp emerged as the most commonly used social platform with over 99% of participants admitted to using it. Facebook and LinkedIn follow WhatsApp respectively as a commonly used platform. Twitter, YouTube, Google+,Pinterest, Telegram were popular with the respondents as shown in the figure below. This shows that Social Networking is not a new phenomenon to the respondents as they use at least one of the platforms.

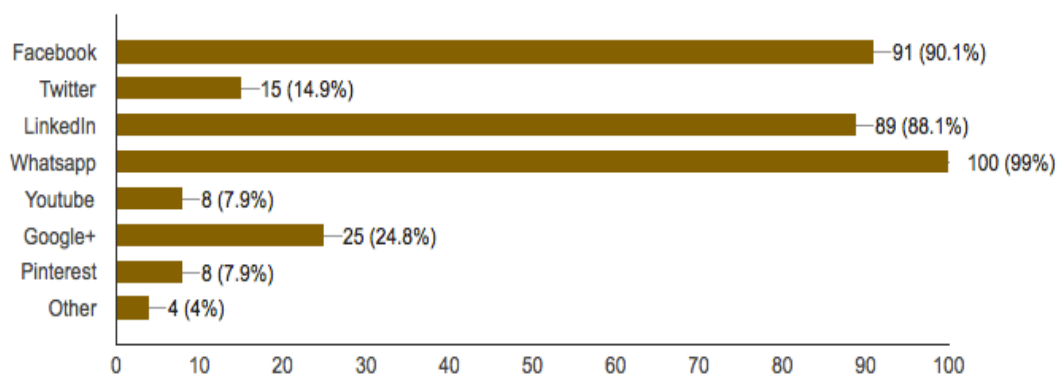


Figure 4: Social Network platforms used by the respondents

#### 4.4 Social networking sites enhance learning

From the responses to an unambiguous question concerning the outlooks for SNSs as an alternative for teaching, a majority of the participants believe that social networking sites enhance the learning experience. (Figure 4).

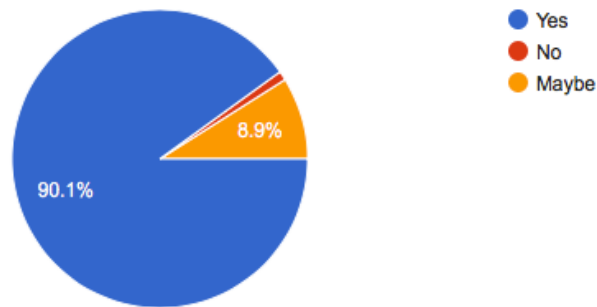


Figure 5: Social Networks enhances learning process

#### 4.5 Descriptive Analysis

##### 4.5.1 Lecturers attitudes and perceptions

The respondents were asked about the attitudes and perceptions of lecturers towards the integration of these platforms into teaching and learning. 90% of the respondents believe that the lecturers are the custodians of the teaching process and their willingness to use Social Networks platforms influences Social Networks integration into teaching and learning. The respondents also believe that the pedagogical and Social Networks usage skills are crucial in consolidating the Social Networks integration efforts.

Neyland, E. (2011), points out that there exists a connection between lecturers' teaching viewpoints and technology usage. Expertise in technology might not necessarily be used lest it matches with prevailing pedagogic opinions of the instructor. From the results, the educational dogmas of the trainers had a significant impact on the adoption of the technology into the teaching process.

#### 4.5.2 Preparedness for social Networks Integration

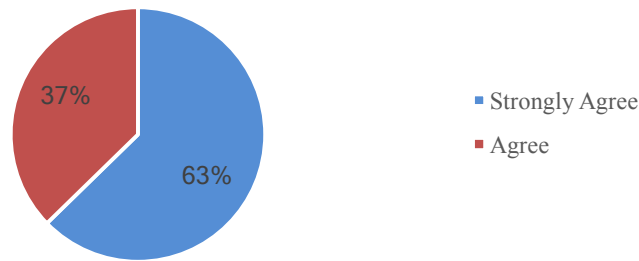


Figure 6: Facilitating conditions influences Social Networks integration into the learning process

The majority of the respondents believe that facilitating conditions at the institution like ICT infrastructure, sufficient internet bandwidth, access to a computing device et cetera, influences the incorporation of Social Networks into teaching. The institutions have sufficient fiber internet connection with a backup in case of outage from the primary internet service provider. The institutions also have computer laboratories which are sufficient for students and the lecturers. Each member of staff has a working station with a computer. Around the facility, there is access to WIFI enabling users to have internet connection even when outside classrooms and computer laboratories. Most of the participants responded that they have sufficient resources to access internet resource. Similar to the respondents in this study, Chou, S. W. (2005), perceived that technical and institutional factors are key when it comes to lecturers' approaches towards the general appreciation of technology. This will, later on, aide in ease of integration of the Social Platforms into teaching.

#### 4.5.3 Challenges Faced while incorporating the Social Networks

Notwithstanding the triumphs disclosed by the participants, some key issues appear to require more attention while thinking about using the social platforms in the learning process. Among the issues raised as to why not using the Social platforms for teaching include privacy concerns, students should accept to use them, support from management, proper guidelines on how to use social platforms in the learning process. Figure 9 below shows a percentage of lecturers who use social media for teaching and Figure 10 shows some of the challenges faced in the efforts to integrate social platforms into the learning process.

### Do you use Social Media for Teaching?

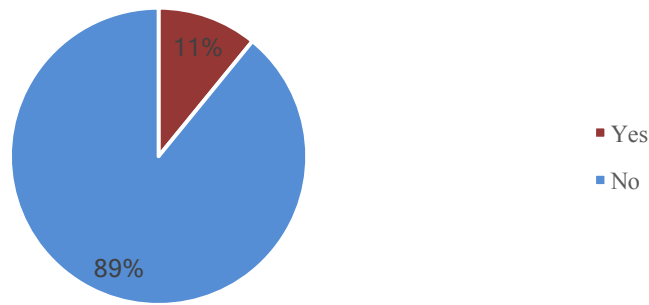


Figure 7: Percentage of lecturers using Social Media for teaching

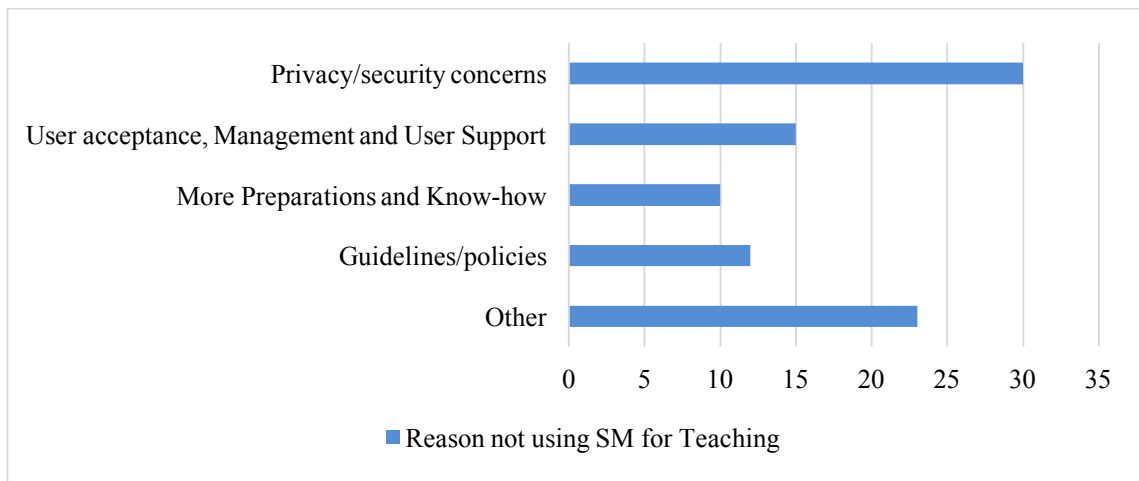


Figure 8: Concerns raised by respondents for not using Social Networks for teaching.

#### 4.5.4 Suitable Framework for Social Networks Integration

Table 1: Social Networks Model Validity

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.773	5	.955	10.716	.000 <sup>b</sup>
	Residual	8.552	96	.089		
	Total	13.326	101			

a. Dependent Variable: Social Media integration into Teaching and Learning

b. Predictors: (Constant), TPACK, Technology Adoption, Facilitating Conditions, Educational Usage, Platform Purpose

Source: Field Data 2016.



The total variance (13.326) was the difference in the variance which can be explained by the independent variables (Model) and the variance which was not explained by the independent variables (Error). The study established that there existed a significant goodness of fit between variable as F-test  $F_{(5, 96)}=10.716$ ,  $P<0.01$  as shown in table 1. F-critical of 10.716 implied that the level of variation between the independent and dependent variable was significant at 95% confidence level. This indicated that the model created between Independent and dependent variables was a good fit for the data. The strength of variation of the predictor values of integration of the social platforms into the learning process was significant on  $P= 0.01<0.05$ .

### Model Summary

Table 2: Social Networks Integration Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599 <sup>a</sup>	.358	.325	.29848

a. Predictors: (Constant), TPACK, Technology Adoption, Facilitating Conditions, Educational Usage, Platform Purpose

Source: Field Data 2016.

$R^2$  also called the coefficient of determination, indicates how the Integration of Social Networks will vary with variation in the effect of Independent variables which includes Facilitating Conditions, Technology Adoption, Educational Usage, Platform purpose, and TPACK. From the table above, the value of  $R^2$  is 0.358 as shown in table 2.

This implies that there was a variation of 35.8% of independent variables in effect of integration of social platforms into the learning process with a confidence level of 95%. However, since the value of the constant in table 5 is not statistically significant, the study uses adjusted  $R^2$  which shows that all the 5 predictor variables explain 32.5% of the total variation in integration.

### Test of Significance on the Constructs

Table 3: Regression weights for social networks integration

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.243	.161		7.718	.000
	Facilitating Conditions	.010	.087	.011	.117	.907
	Technology Adoption	.096	.094	.107	1.023	.309
	Platform Purpose	.053	.090	.063	.589	.558
	Educational Usage	-.130	.090	-.148	-1.452	.150
	TPACK	.195	.028	.588	7.032	.000

a. Dependent Variable: Social Networks integration into Teaching and Learning

Source: Field Data 2016

The established regression equation was;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e. \text{ Substituting the terms,}$$

$$Y = 1.243 + 0.10X_1 + 0.096X_2 + 0.53X_3 + -0.13X_4 + 0.195X_5 + e$$

Where:  $Y$  = Integration of Social Platforms into the learning process,  $\alpha$  = Constant Term,

$\beta$  = Beta coefficients,  $X_1$  = Facilitating Conditions,  $X_2$  = Technology Adoption,

$X_3$  = Platform Purpose,  $X_4$  = Educational Usage,  $X_5$  = TPACK and  $e$  = Error Term.

Table 3 shows the regression weights on the relationship between variables on Social Networks Integration into teaching and learning. According to the study findings, and going back to table 3 which shows the model summary, this study uses the value of adjusted  $R^2$  which shows that all the predictor variables explain 35.8% of the total variation in performance. Facilitating Conditions ( $\beta_1 = .010$ ,  $P = .907$ ) is positively related to performance. However, this relationship is weak and is not statistically significant. Technology Adoption ( $\beta_2 = .096$ ,  $P = .309$ ) is positively related to performance. However, this relationship is weak and is not statistically significant. Platform Use ( $\beta_3 = .53$ ,  $P = .558$ ) is positively related to performance. However, this relationship is weak and is not statistically significant. Educational Usage ( $\beta_4 = -0.130$ ,  $P = .150$ ) is negatively related to performance. This relationship is negative and not significant as shown in table 3.

### **Significant Framework**

According to the study findings in table 3, TPACK is positively and highly significant to the Social Media integration into Teaching and Learning. In the teaching environment, the lecturers are often the custodians of the teaching process. TPACK is the foundation of effective teaching with technology. It acts as a useful framework for thinking about what knowledge teachers must have to integrate technology into teaching and how they might develop this knowledge. This significant match of TPACK shows how critical the role of lecturers play while integrating Social Networks platforms into teaching and learning. This is to say therefore that the TPACK variable ( $X_5$ ), is perfect and significantly related to Social Networks Integration ( $\beta_5 = .195$ ,  $P < 0.001$ ).

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presented the summary of findings, the conclusions, selected framework, recommendations, areas of future research and the limitations of the study on Social Networks integration into the learning process

#### 5.2 Summary of findings

Social networking platforms are presently used by vastly diverse people who use and incorporate social networks into their day-to-day activities. The researcher found out that Social Networks is not a new concept to the respondents. Its usage is mainly for social interaction and personal use. The most commonly used Social Networks platforms are Whatsapp, Facebook, Twitter, LinkedIn, and Google+. The age and teaching experience of the lecturers did not influence the use of Social Networks platforms for teaching and learning.

In this study, the researcher wanted to find out if the perceptions of lectures influence integration into teaching. The outcomes revealed that lecturers attitudes and perceptions, pedagogical and Social Networks usage skills influence the incorporation of Social Networks into teaching. The ICT infrastructure, support services, management support and Social Networks usage guidelines did not have a substantial influence on the tolerance of Social Networks platforms into teaching. This implies that the Mazman and Usluel framework did not fit this study on integrating Social Networks platforms into teaching and learning. This could be because it was exclusively used to model educational usage of Facebook. The other reason could be the context and scope of the study, most of its respondents were college learners who were using the Facebook platform.

The TPACK framework was the most suitable for integration of the platforms into teaching and learning. TPACK is the foundation of effectual instructing with technology. It requires the following; Appreciation of the demonstration of ideas using various tools. The instructional techniques that use various technological tools in constructive ways to educate. The understanding of what makes ideas challenging or easy to understand and in what way technology, more so, the social tools can help remedy the challenges that learners encounter during the learning process. The appreciation of learners' previous familiarity and principles

of epistemology and knowledge of how technologies can be used to build on existing knowledge to develop new epistemologies and/or reinforce the old ones.

### **5.3 Conclusion**

The objectives of the study were the social platforms incorporation into the learning process. More importantly, the perceptions of lecturers towards the integration, the preparedness of the institutions for the integration, challenges faced by lecturers while integrating the platforms into teaching and learning and finally propose a framework for integration of social networks into teaching and learning. According to the findings of the study, based on chapter Four, part 4.4, the pedagogical beliefs and opinions of the lecturers based on the TPACK framework had a significant effect on the integration of Social platforms into the learning process. It emerged that Social platforms are not new notions to the respondents. Almost all of them used at least one type of social platform but mainly for personal use. This revelation points out to the necessity for the institutions' management to sensitize the lecturers to re-purpose these technologies into the learning process.

On preparedness, the institutions have sufficient internet connection via a fiber connection with a secondary link whenever the primary link is interrupted. This ensures that students and lecturers have internet access within the school periphery at all times. The institutions also have sufficient computing devices in the computer laboratories and in lecturers offices. This means that there is some level of preparedness by the institutions for social networks integration.

Challenges raised by the respondents in regards to social networks integration into teaching and learning include; privacy/security concerns, acceptance by the students, management support, support services, guidelines/policies to guide usage, end-user training among others. These challenges have to be addressed to ensure smooth integration of the social platforms into the learning process.

### **5.4 Selected Framework**

The suitable framework recommended for social networks integration into teaching and learning is TPACK. It is the foundation of effective teaching with technology. TPACK acts as a useful framework for thinking about what knowledge teachers must have to integrate technology into teaching and how they might develop this knowledge. It recognizes the unique and interactive roles that content, technology, and pedagogy play in authentic teaching and learning environments and suggests the consideration of “an emergent form of knowledge” that goes beyond content, technology, and pedagogy alone (Mishra & Koehler, 2009, p. 1028).

The TPACK Framework requires an understanding of the illustration of concepts using technologies; pedagogical techniques that use technologies in constructive ways to teach content; knowledge of what makes concepts difficult or easy to learn and how technology can help address some of the problems that learners face; knowledge of learners' prior understanding and notions of epistemology. It also requires familiarity of how technologies can be leveraged to construct on the existing knowledge to develop new epistemologies or improve existing one. Koehler & Mishra, (2009). TPACK emphasizes a teacher's understanding of how technologies can be used effectively as a teaching tool and illustrate the rich overlap among the pedagogy, content, and technology knowledge bases.

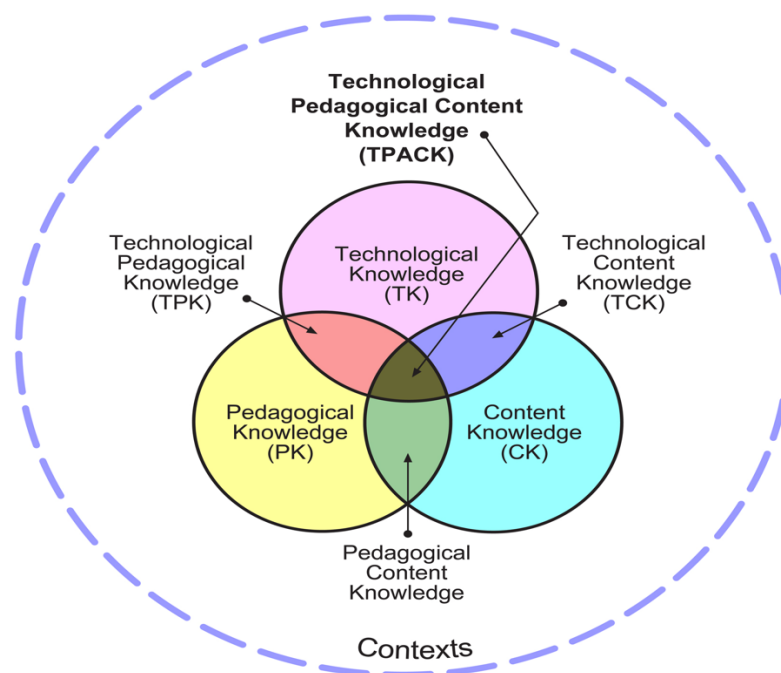


Figure 9: TPACK Framework for describing and understanding the goals for technology use. Koehler & Rosenberg, (2014).

It should be noted from this study that, integration of the Social platforms into the learning process should be an additional channel of knowledge dissemination and that lecturers who are already successful in operating traditionally, should not abandon hastily their traditional way of operation in favor of the Social Networks. Rather, Social Networks gives them a comparative advantage over traditional approaches. Integrating Social Networks helps them leverage the advantages that Social Networks offers in addition to the already established successes in the traditional approaches.

## **5.5 Recommendation of the Study**

This research was investigating social platforms integration into teaching at the institution of higher learning. The researcher recommends that lecturers be sensitized to repurpose usage of Social platforms into teaching. This sensitization is important because lecturers are the primary disseminators of knowledge.

Institutions should use Social Networks in the classroom to provide means for learners to collaborate and communicate with peers, faculty, and researchers outside the institutions' compound so as to provide learners with career skills, networking opportunities and to enhance their learning.

Ideally, the management of the institutions should encourage the faculty to use Social Networks and support them in their use. In addition, the evaluations common in most higher education should include questions about learners' experiences with Social Networks to better understand what works and what needs to be changed. This will help build more experiences with the use of different types of Social Network types for a variety of courses, environments, and participants.

## **5.5 Areas for Future Research**

The study looked into the integration of Social platforms into the learning process in higher education in Kenya with a private institutions focus. Future research could look at public institutions which might give a different perspective. This research focused on lecturers. There could be a different perspective if other stakeholders in the learning process are included i.e the learners, support staff, and Management. Another research should be undertaken to find out the perception of learners towards integration of Social Networks. There is limited research on the benefits to learners who are taking courses that leverage Social Networks and if their lectures are using these platforms. More experiences using Social Networks in a variety of educational settings will both further research and develop best practices. This research was done in a very short time. A longer research period with baseline surveys before and after integration of social platforms can be carried out.

The Social Networking platform is perceived as a promising instructive platform due to its configuration and numerous functionalities. However, in what way and for which purposes these technologies will be used in scholastic frameworks is yet a rich space for future research.

## **5.6 Limitations of the study**

This study was restricted to private institutions of higher learning located in Nairobi. This may narrow the ability to generalize the findings to all higher learning institutions in the other regions of Kenya. The respondents were lecturers at the institutions. This limits perspective as there are many players in the teaching process i.e. support staff, Management and learners, who are at the center of the teaching process. The duration of the study was very short. A longer period with follow-ups could give more insights on user perspectives. A baseline survey on outcomes of integration of Social Networks before and after integration could give more insights. The researcher also had some difficulties during data collection brought about by some of the respondents declining to participate in the survey.



## REFERENCES

- Abdelraheem, A. Y. (2013). University Students' Use of Social Networks Sites and Their Relation with Some Variables, WEI International Academic Conference Proceedings, January 14-16, 2013, Antalya, Turkey. Copyright.
- Ajjan, H., & Hartshorne, R. (2008). Investigating faculty decisions to adopt Web 2.0 technologies: theory and empirical tests. *The Internet and Higher Education*, 11(2), 71-80. Ajzen,
- Ahmed, A. (2011). Social networking sites and its popularity. *International Journal of Research and Reviews in Computer Science*, 2(2), 522-526.
- Aviram, A., & Eshet-Alkalai, Y. (2006). Towards a Theory of Digital Literacy: Three Scenarios for the Next Steps. *European Journal of Open, Distance, and E-Learning*.
- Bennett, S., Bishop, A., Dalgarno, B., Waycott, J., & Kennedy, G. (2012). Implementing Web 2.0 technologies in higher education: a collective case study. *Computers & Education*, 59(2), 524-534.
- Brown, J. S., & Adler, R. P. (2008). Minds on fire: open education, the long tail, and learning 2.0. *Educause Review*, 43(1), 16-32.
- Brown, S. A. (2012). Seeing Web 2.0 in context: a study of academic perceptions. *The Internet and Higher Education*, 15(1), 50-57.
- Brubaker, B. E. (2013). The Relationship between Facebook™ Activity and Academic Performance Among African American Students, A Dissertation Presented in Partial Fulfillment Of the Requirements for the Degree Doctor of Education, Liberty University.
- Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and beyond: From production to prod usage*. New York, NY: Lang.
- Campbell, D., & Campbell, S. (2008, October). Introduction to regression and data analysis. In *Stat Lab Workshop*.
- Chou, S. W. (2005). Designing good institutional contexts for innovation in a technology-mediated learning environment. *Journal of Computer Assisted Learning*, 21, 269-280.

- Collins, H. (2010) "Creative Research: The Theory and Practice of Research for the Creative Industries" AVA Publications, p.38
- Consumer Insight. – Holla, (2015). Retrieved February 03, 2016, from <http://www.ciafrica.com/oindex/index.php/archives/39-holla-2015>
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. Handbook of mixed methods in social and behavioral research, 209-240.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.
- Dholakia, U. M., Bagozzi, R. P., & Pearo, L. K. (2004). A social influence model of consumer participation in the network and small-group-based virtual communities. International Journal of Research in Marketing, 21(3), 241-263.
- eBizMBA (2016). Top 15 Most Popular Social Networking Sites, <http://www.ebizmba.com/articles/social-networking-websites>, retrieved on 22nd February 2016.
- Ellison, N. B., & Boyd, D. (2013). Sociality through social network sites. In W. H. Dutton (Ed.), The Oxford handbook of internet studies (pp. 151-172). Oxford, UK: Oxford University Press.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and research. Reading MA: Addison-Wesley
- Forrester (2011). Social media adoption in 2011. Cambridge, MA: Forrester Research.
- Greenhow, C., & Gleason, B. (2014). Social scholarship: reconsidering scholarly practices in the age of social media. British Journal of Educational Technology, 45(3), 392-402.
- Graff, C. (2014). Mixed methods research. Evidence Based Practice: An Integrative Approach to Research, Administration and Practice, 45-64.
- Hanson, T., Drumheller, K., Mallard, J., McKee, C., & Schlegel, P. (2011). Cell phones, text messaging, and Facebook: Competing time demands of today's college students. College Teaching, 59(1), 23-30.

- Heiberger, G., & Harper, R. (2008). Have you Facebooked Astin lately? Using technology to increase student involvement. *New Directions for Student Services* (124), 19-35.
- I. Ahmed, and T.F. Qazi. A look out for academic impacts of Social networking sites (SNSs): A student-based perspective. *African Journal of Business Management*, 5(12), pp. 5022- 5031, 2011.
- JISC. (2011). JISC e-Learning programme. Retrieved 2013, from JISC e-Learning programme: [www.jisc.ac.uk/elearningprogramme](http://www.jisc.ac.uk/elearningprogramme).
- Junco, R., Loken, E., & Heiberger (2011). The effect of twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, 27(2), 119-132.
- Junco, R. (2014). *Engaging students through social media. Evidence-based practices for use in student affairs*. San Francisco, CA: Jossey-Bass.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59-68.
- Kumar, R. (2005). *Research methodology: A step-by-step guide for beginners* Frenchs Forest: Pearson Education.
- Mazman, S.G., Usluel, Y.K. (2010). "Modeling educational usage of Facebook", *Computers & Education*, 55: 444-453.
- Mishra, P., & Koehler, M. 2009. Too Cool for School? No Way! Using the TPACK Framework: You Can Have Your Hot Tools and Teach with Them, Too. *Learning & Leading with Technology*, 36 (7), 14-18
- Kister, and Porter, T. (2011) *Social Networking: Integrating student and University Professor Utilization*. *Global Conference on Business & Finance Proceedings*, 6 (1), 2011.
- Koehler, M. J. & Rosenberg, J. (2014) [Graphic image of TPACK framework]. Retrieved from <http://www.TPACK.org>.
- Kothari, C. R. (2009). *Research Methodology Methods and Techniques 2<sup>nd</sup> Revised edition* New Age International publishers.

- Lockyer, L., & Patterson, J. (2008). Integrating social networking technologies in education: a case study of a formal learning environment. In. Proceedings of the 8th IEEE international conference on advanced learning technologies (pp. 529-533). Spain: Santander.
- Mason, R., & Rennie, F. (2008). E-learning and social networking handbook. New York -London: Routledge.
- Moreau, E. (2016). Top 15 Social Networking Sites You Should Be Using, [http://webtrends.about.com /od/socialnetworkingreviews/tp/Social-Networking-Sites.htm](http://webtrends.about.com/od/socialnetworkingreviews/tp/Social-Networking-Sites.htm), retrieved on 22nd February, 2016.
- Mugenda, O. M. & Mugenda, A. G. (2003). Research methods: Quantitative and qualitative Approaches. Nairobi: African Centre for Technology Studies.
- Nafukho, F. M., & Machuma, H. M. (2013). The World Bank's Africa Virtual University Project: European Journal of Training and Development, 37 (7), 646-661.
- Neyland, E. (2011). Integrating online learning in NSW secondary schools: Three schools' Perspectives on ICT adoption. Australasian Journal of Educational Technology, 27 (1), 152-173.
- Olatokun, W., and Ilevbare, G. (2014). Probing university students' adoption and utilization of social networking websites in Nigeria, Annals of Library and Information Studies, Vol. 61.
- O'Reilly, T. (2007). What is web 2.0: design patterns and business models for the next generation of software. Communications & Strategies, 1.
- Orodho, J. A. (2009). Elements of education and social science research methods. *Nairobi/Maseno*, 126-133
- Ravenscroft, A. (2009). Social software, Web 2.0 and learning: status and implications of an evolving paradigm. Journal of Computer Assisted Learning, 25(1),1-5.
- Rogers, E. (2003). Diffusion of innovation. New York: Free Press.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). Understanding research philosophies and approaches. *Research methods for business students*, 4, 106-135.

- Shembilu, A. (2013). The importance of Social Networking for Student Participation in Education in Tanzania, A Thesis Report Submitted to the School of Computing, Blekinge Institute of Technology, in Partial Fulfillment of the Requirements for the Degree of Master of Science Program in Informatics.
- Sheldon, P. (2008). Student favorite: Facebook and motives for its use. *Southwestern Mass Communication Journal*, 23(2), 39-53.
- Shih R.C. (2013): Effect of Using Facebook to Assist English for Business Communication Course Instruction. *TOJET*, vol. 12, no. 1, pp. 52-59.
- Sponcil, M. and Gitimu, P. (n.d.). Use of social media by college students: Relationship to communication and self-concept, *Journal of Technology Research*
- Suter, V., Alexander, B. & Kaplan, P. (2005). Social software and the future of conferences right now. *EDUCAUSE Review*, January/February 2005, 47-59.
- Sykes, A. O. (1993). An introduction to regression analysis.
- Tess, P. A. (2013). The role of social media in higher education classes (real and virtual) - a literature review. *Computers in Human Behavior*, 29(5), A60-A68.
- Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal computing: toward a conceptual model of utilization. *MIS Quarterly*, 15(1), 124-143.
- TopTenReviews (2016). Social Networking Website Review, <http://social-networking-websites-review.toptenreviews.com/>, retrieved on 22nd February 2016.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: toward a unified view. *MIS Quarterly*, 27(3), 425-478.

## APPENDICES

### Appendix I: Questionnaire

I am a student at the University of Nairobi. This is a study on social networks integration into teaching and learning. I am interested in how Social Networks is being used in teaching and the lecturer's perceptions in integrating these tools into teaching.

Social Networks are applications which allow creation and exchange of user-generated content. It includes services such as social networking, professional online communities, wikis, blogs, and microblogging et cetera.

The information provided is anonymous and confidential. It will be used for academic purposes only.

Please check  the appropriate box or radio  and fill in where necessary on the dotted line.

### SECTION A: GENERAL INFORMATION

Please select your age (in years)

- 18 - 24             25 - 31             32 - 38             39 - 45             46 - 52  
 Over 52

What is your education level?

- Certificate             Diploma             Undergraduate             Graduate  
 Post Graduate             Other: \_\_\_\_\_

In which department do you teach?

- Arts             Humanities             Sciences (Engineering)  
 Biological and Physical sciences             Social Sciences             Other

How long have you been teaching (in years)?

- 0 - 3             4 - 7             8 - 11             12 - 15             16 - 19             Over 19

What type of institution do you work with?

- Public       Private

Does your institution have the following in place?

- Sufficient Internet    Computing devices    ICT Support services

## **SECTION B: SOCIAL NETWORKS**

In general, which of the following Social Networks platforms do you use? (*Check all that apply*) \*

- Facebook    Twitter       LinkedIn    WhatsApp    YouTube    Google+

- Pinterest    Other: \_\_\_\_\_

Do you use Social Networks for teaching?

- Yes    No

If Yes, what influenced your decision to use Social Networks in teaching? Please comment briefly

\_\_\_\_\_

If No, please comment briefly. (*The challenges faced while integrating Social Networks*)

\_\_\_\_\_

Does Social Networks enhance learning experience?

- Yes       No       Maybe

## SECTION C: FACILITATING CONDITIONS

*(The Ecosystem at the learning institution)*

ICT infrastructure, for instance, sufficient internet bandwidth and access to a computing device influences integration of Social Networks into teaching.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Support services on Social Networks usage have an impact on the integration of Social Networks into teaching.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Clear Social Networks usage guidelines have an influence on the integration of Social Networks into teaching?.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Support from the Institution Management influences integration of Social Networks into the teaching process.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

## SECTION D: TPACK

*(Truly expressive and profoundly skillful in instructing with technology)*

In your opinion, does the lecturer's motivation to use the Social Networks platforms influence the integration into teaching and learning?

---

In your opinion, does the lecturer's pedagogical and Social Networks usage skills have an impact on integration into teaching and learning?

---



## **SECTION E: ADOPTION OF A TECHNOLOGY**

*(Factors that enable users to adopt a technology)*

Does the Ease-of-use of a Social Networks platform have an influence on the integration of Social Networks into teaching process?

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Does the usefulness of a Social Networks platform have an influence on integration into teaching process?

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Social influence will have an impact on the integration of Social Networks into teaching .

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Community identification of the users will have an influence on integration of Social Networks into teaching.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

In your opinion, what influences Social Networks platform integration into teaching?

---

---

## **SECTION F: TECHNOLOGY PURPOSE**

*(Intended use of Social Networks platform)*

Use of Social Networks for social relations has an influence on integration into Teaching.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Use of Social Networks for work-related activities has an influence on integration into teaching.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Using Social Networks in daily activities has an influence on integration into teaching.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

## **SECTION G: EDUCATIONAL USAGE**

*(How Social Networks is used in relation to education)*

Using Social Networks for communication has an influence on integration into the teaching process.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Using Social Networks for collaboration has a significant influence on integration into teaching process.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree

Using Social Networks for resource sharing has a significant influence on integration into teaching process.

Strongly Agree     Agree     Uncertain     Disagree     Strongly Disagree