INFORMATION COMMUNICATION TECHNOLOGY AND LEARNING
AT KAMPALA INTERNATIONAL UNIVERSITY

BY

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE
OF BACHELOR OF ARTS WITH EDUCATION OF
KAMPALA INTERNATIONAL UNIVERSITY

JULY, 2017
DECLARATION

I Namubiru Esther declare that this dissertation is my original work and has never been submitted for the award of a degree, diploma or any other academic qualification in any other university, college or institution before.

Signature: .................................................. Date: 11th 03/03/2017

NAMUBIRU ESTHER
APPROVAL

This dissertation entitled 'Information communication technology and learning at Kampala International University' was done under my supervision and has been submitted to the College of Education Open and Distance e-Learning of Kampala International University with my approval as the supervisor.

Signature: __________________________ Date: 04/08/2017

KAMULEGEYA SIRAJE
DEDICATION

This work is dedicated to my family for their mentorship and support.
ACKNOWLEDGMENT

My appreciation goes to all those persons who made this study a reality. I am grateful to the staff of the College of Education Open and Distance e-Learning of Kampala International University and the respondents who participated in this study. Thanks also go to my parents, relatives and friends who morally supported me throughout my education. God bless you all.
ABBREVIATIONS

CEODL : College of Education Open and Distance e-Learning
ICTs : Information and communications technologies.
KIU : Kampala International University
SEAS : School of Engineering and Applied Sciences
CEM : College of Economics and Management
SOL : School of Law
TV : Television
WAP : Warless Access Protocol
USA : United States of America
UK : United Kingdom
WWW : World Wide Web
ISP : Internet Service Provider
KEY TERMS

Information and communications technologies: Electronic means for the creation, storage, management and dissemination of information [Internet, TV, radio, newspaper, fax, telephone].

Learning: The acquiring of knowledge: the acquisition of knowledge or skill
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ABSTRACT

This study investigated ICT and learning at KIU. This was after the realisation that ICTs play a major role in University education. ICTs facilitate an individual to access education and learning information from anywhere any time (e.g., by single click on the keypad after the emergence of the mobile computers, mobile phones and web technologies). The study specifically sought to achieve the following objectives: to establish the types of ICTs used for learning at KIU; to examine the role of ICTs learning at KIU; and to find out the challenges faced using ICTs in learning at KIU.

The study design took the form of a case study design and purposive sampling in which the data sought were qualitative. A sample of 50 respondents was selected for the study. The data were collected using interviews and observations [for primary data] and documents analysis [for secondary data]. Data were qualitatively analysed by the literal description, narration and quoting in verbatim. This was followed by content analysis in order to make conclusions with great authenticity.

The study established that the types of ICTs used for learning at KIU included: Internet, telephone and mass media [TV, radio and newspapers]. Further, the study found out that the role of ICTs in learning at KIU included: provision of information, medium for advertising and marketing, customer- management relations and growth of e-tourism. The study also established that the challenges faced using ICTs in learning at KIU included: the infrastructural bottlenecks in ICTs and the lack of knowhow and capacity in ICT training.

The study concludes by noting that traditional [radio, TV and newspapers] and modern forms of ICTs [Internet and cell phone] are both widely used in learning at KIU. The traditional ICTs [though outdated] will for some years continue to be important in learning at KIU not until the ICTs limitations such as ICT illiteracy, poverty, lack of adequate facilities and limited knowhow and capacity in ICTs are overcome. The study also notes that ICTs [Internet and mobile phone] have enhanced a level of collaboration between learners and between learners and educators. The web service discovery has enabled the identification of alternatives and the value for money and time. This has enabled learning and education packages to be constructed and greater customization of education services. The study also concludes by noting that ICT gaps must be
bridged. The integration of ICTs in learning is significant even with the limitations of ICTs infrastructure and personnel. The new ICTs have a complementary function in learning. Their benefits enable learning to be far much easier and interesting buildings competitiveness.

The study recommends that stakeholders must put in place conditions that make ICTs readily accessed (e.g., through radios, TVs, Internet and libraries) so as to demystify ICTs. The study also calls for the regular update of ICTs with new information and fresh deals for the sites to get noticed by the wider client base. Thus, universities must continue to attract learners by using ICTs through online text, sophisticated images, videos, virtual education and it should be easily accessible in mobile devices and in newer applications. Lastly, the study recommends the need for a strategic approach to integrate ICTs with learning by making it more accessible, affordable and efficient as well as training manpower and building capacity in e-learning.
CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the background, problem statement, purpose, specific objectives, research questions, significance and scope of the study.

1.2 Background to the study

The education can be seen as one of the sectors where functions are almost exclusively using information communications technologies (ICTs) (Apichai, 2011). ICTs facilitate this integration and enable customization of learning to suit the needs of the individuals. The potential values ICTs offer in the development of learning need to be exploited in order to raise corporate performance and a competitive position. The consideration of ICTs in learning has only recently emerged as a serious area of research (Anand, 2013). The education sector is one of the leading sectors in marketing and selling online and is therefore, considered to use ICTs for very specific purposes (Lynda, 2013).

ICTs broadly include the radio [analogue, digital and high frequency two-way], television, telephone, fax, computers and the Internet. Newspapers are also included as they also often now have an electronic form on the World Wide Web (Baryamureeba, nd.). The old types of ICTs [newspapers, radio and television] have the advantages of low cost, requiring little skill to operate and the potential to be highly relevant to the needs of the users in terms of local information delivered in local languages. Their downsides are to do with the often one-sided nature of the communication and potential for censure by governments.

The new and more advanced forms of ICTs include the networked computers, satellite-sourced communication, wireless technology and the Internet. A feature of these technologies is their capacity to be networked and interlinked to form a massive infrastructure of interconnected telephone services, standardized computing hardware, the Internet, radio and television, which reach into every corner of the globe (Baryamureeba, nd.). Learners have changed their behaviour and technology progresses have conveyed new services and applications. For example, the
Internet enables learners to search, select, create and share information, contributing to the dissemination of their experiences in a collaborative approach (Rodolfo et. al., 2014).

1.3 Statement of the problem

The advent of ICTs has had a paramount impact on learning. The effects of this revolution continue to change the nature of contemporary learner on a day-to-day basis. The globalization of information, open innovation, better access and collaboration in generation of information and technological convergence, have all contributed to the design of a new scientific paradigm. Thanks to our passion for research and to the continuous advancements in the technological ecosystem as well as the possibility of better understanding human activity and behavior we are on the threshold of a new era of education and learning (Rodolfo et. al., 2014). This new social and technological paradigm affects learning and human mobility in a way that gives the research process unheard-of possibilities. The current level of technological development allows for the construction of objects that are smaller, more intelligent and embedded in the environment and even wearable. These objects which record and learn our habits are connected to the Internet and they have computing capabilities. They can also be interconnected and generate large quantities of information to benefit the environment in which they are located. This gives rise to a new world of interconnected personal machines. This new world involves a convergence among what is physical, what is social and what is digital. Within this context, research assumes the principal role to guide evolution, transferring knowledge to the industry. Relevant academic research is more necessary than ever before in order to explore how ICTs in learning can contribute to face the challenges of education.

1.4 Purpose of the study

The purpose of this study was to investigate information communication technology and learning at Kampala International University.

1.5 Specific objectives

The study was guided by the following objectives:
1. To establish the types of ICTs used for learning at KIU.
2. To examine the role of ICTs in learning at KIU.
3. To find out the challenges faced using ICTs in learning at KIU.

1.6 Research questions

The study was guided by the following research questions:
1. What types of ICTs are used for learning at KIU?
2. What is the role of ICTs in learning at KIU?
3. What challenges are faced using ICTs in learning at KIU?

1.7 Significance of the study

Data on ICTs and learning at KIU is sketchy and often generalised. This study generated data presumed to be useful for proper planning and institutionalisation of a framework of action into the integration of ICTs in learning at KIU in particular and Uganda as whole. The findings, recommendations and conclusions will hopefully, benefit educators, politicians, government, non-governmental organisations (NGOs), academics and opinion leaders. Thus, they will have to base their decisions and actions on researched information. The researcher also hopes that this study will form a basis for further research into ICTs and education in Uganda.

1.8 Scope of the study

The study on ICTs and learning at KIU, centred on four colleges or schools namely: CEODL, SOL, SEAS and CEM. The major concepts investigated included: types of ICTs used for learning at KIU; role of ICTs in learning at KIU; and challenges faced using ICTs in learning at KIU. The study was qualitative and conducted in May 2017 using a case study design and purposive sampling technique. A sample of 50 respondents was selected for the study. The respondents included students and academics at KIU. The data were collected using interviews and observations for primary data and documents analysis for secondary data.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviewed the literature related to ICTs and learning at KIU. The literature particularly focused on the: types of ICTs used for learning at KIU; role of ICTs in learning at KIU; and challenges faced using ICTs in learning at KIU which all relate to the objectives of the study.

2.2 Types of ICTs used in learning

There is a diversity of ICTs that contribute to learning the world over. The most noticeable include the: TV, radio, internet, mobile phone and newspapers.

2.2.1 Television (TV)

This is a system of mass communication, involving the transmission of images and sounds to distant screens, by electronic means over electrical or fibre-optic transmission lines or by electromagnetic radiation (Encarta Dictionaries, 2009). The TV is a vastly important medium, for a number of reasons: the amount of time that many people spend watching it [31 hours per week, for average United States adults, 25 for Britons]; its ability to bring together diverse groups of people in a sense of shared national identity; and its powerful role as a source of information about experiences other than the viewer’s own. It is the prime route to the public for presenting news and current affairs, including the progress of wars and political campaigns. It is thus, a powerful influence on public perception and opinion (Hesmondhalgh, 2008). Thus, it could be argued that the TV can play a leading role in promoting tourism as experience has shown for countries such Malaysia, Emirates and other emerging economies that have packaged themselves as major tourism destinations using the TV. The TV at its best has been remarkable for its innovation, providing new forms of popular entertainment, which speak to people across class, ethnic and gender divisions and provide information about wonderful and interesting places to visit. Hesmondhalgh notes that the audiences for TV programmes tend to be active
interpreters of meaning which indicates its central role in modern social and cultural life [including learning and education].

2.2.2 Radio

Indeed, it was the perceived power of the medium of radio to influence public opinion that shaped the development of international broadcasting. Its potential as a tool of propaganda was recognized instantly by the Nazis, who described radio as the most modern, the strongest and the most revolutionary weapon which we possess in the battle against an extinct world (Hendy, 2008). Definitely, promoters of education in countries like Uganda can borrow a leaflet from this.

This appeal for the imagination extends to different aspects of life such as radio drama, tourism, entertainment, radio news, current-affairs and talk shows. Thus, listeners create their own mental images of the people speaking and their physical surroundings and what they are talking about. To Hendy programme-makers of all types will often concentrate therefore, on portraying the sound of a person, place or an action as much as possible, in a way that prompts the listener to fill in the gaps accurately. Since each individual listener will create a different mental image, the radio is often described as an intimate medium. With the ability to create a unique picture of a person speaking on the radio, allows the listener to form a close relationship with that speaker and what he is talking about.

2.2.3 Internet

Educational institutions use the Internet in many ways (e.g., in e-Learning, voice and video conferencing and other forms of communication that enable people to telecommute. The use of e-mail speeds communication between learners. Educational institutions run online programmes, distribute educational films and broadcast audio and video, including live radio and television programmes. According to Internet (2008), the internet facilitates file-sharing services, let individuals swap data, digital photos and applications while online chat allows people to carry on discussions using written text. Generally, individuals use the Internet for communication, entertainment, finding information and education. The Internet has made it possible for people all over the world to communicate with one another effectively, inexpensively and instantly.
Unlike traditional broadcasting media, such as radio and television, the Internet does not have a centralized distribution system. Instead, an individual who has Internet access can communicate directly with anyone else on the Internet, post information for general consumption, retrieve information, use distant applications and services or buy and sell products (Internet, 2008). The Internet has brought new opportunities in education. Learners can use the Internet to interact with others. Many learners use the Internet for communicating through electronic mail (e-mail), retrieving news, researching information and making telephone calls (ibid.)

2.2.4 Newspapers

Newspapers are publications usually issued on a daily or weekly basis. The main function of which is to report the news. Newspapers also provide commentary on the news, advocate various public policies, furnish special information and advice to readers, and sometimes include features such as comic strips, cartoons and serialized books (Newspapers, 2008). In nearly all cases and in varying degrees, they depend on the publication of commercial advertising for their income. According to Newspapers (2008), in 2007, UK had 10 major national daily newspapers with a total daily circulation of around 12 million copies. There was a similar picture to be drawn in many developed nations while in USA in 2000, 1500 daily newspapers printed a total of 56 million copies. On average, each copy was read by at least two people. Under such readership, newspapers can promote so many activities including learning.

2.2.5 Mobile Phone

Mobile (cellular) phones have become invaluable for people who need to stay in touch while on the move. Among these include the learners who need to keep in touch. Cellular telephone systems combine radio and television technology with computer systems. As a caller moves from one geographical cell (the name given to a specific part of the area being covered by the system) to another, computers in switching offices transfer calls among variously located antenna transmitters without interrupting service (Encarta Encyclopedia, 2008). Early 2000 saw the introduction of WAP (Wireless Access Protocol) mobile phones on which Internet services became available. These handsets are capable of retrieving information from the Internet using the WAP, which is designed to allow a mobile device to exchange information (Cellular Radio, 2008). This has taken learning to new heights. Because the display on a mobile phone is limited,
the information delivered has to be restricted and this is what WAP, and its associated protocols, does.

2.3 Role of ICTs in the development of education

The role of ICTs in the growth and development of education can be expounded in a multifaceted manner. Details are discussed in the subsections below:

2.3.1 New face of the learning

The integration of ICT in the education is essential for the success of the education enterprise. ICT facilitates an individual to access the education from anywhere any time. Education can also reach the targeted customers across the globe in a single click on the keypad after the emergence of mobile computers, web technologies and smart phones (Anand, 2013). ICTs have been transforming learning lobally. The ICT driven re-engineering has gradually generated a new paradigm-shift, altering the industry structure and developing a whole range of opportunities and threats. ICTs empower consumers to identify, customize and purchase education and support the globalization of the industry by providing tools for developing, managing and distributing offerings worldwide. Increasingly ICTs play a critical role for the competitiveness of education organizations. ICTs are becoming a key determinant of organizational competitiveness. The enhancements in ICTs’ capabilities in combination with the decrease of the size of equipment and ICTs’ costs, improved the reliability, compatibility and inter-connectivity of numerous terminals and applications cannot be underestimated. ICTs provide a powerful tool that can bring advantages in promoting and strengthening education and operations.

2.3.2 Advertisement using ICT

The Internet, cell phone and mass media [TV, radio and newspapers] are some of the ICT channels through which education is taking place. Advertising defined as a collective term for public announcements designed to promote specific commodities or services (History of Advertising Trust & Nik Mahon, 2008) is important in the promotion of education using ICTs. Advertising techniques range in complexity. From the publishing of simple, straightforward notices in newspapers to the concerted use of magazines, television, radio, internet, direct mail and other communications media in the course of a single advertising campaign (ibid.). Thus,
publicity as an activity involving the stimulating of public interest especially through advertising and the dissemination of information [e.g., by ICTs], designed to increase public interest in or awareness of something or somebody (Encarta Dictionaries. 2009) should be an integral part in the development of tourism.

2.3.3 Marketing of the education destinations and services

Selling education services online has changed from being just price-conscious to being an inspiration to the viewer (Apichai, 2011). As the online user absorbs information from a variety of sources, it is usually the site or information source that can best stimulate the viewer to learn that will be remembered by the user. Digital marketing and a variety of other channels exist today for reaching the potential learner. However, it is the appeal of the content, combined with the right pricing that will ultimately attract the user to your business [such as the learner].

2.3.4 Social networks

As ICTs evolve, social networks that subsequently benefit learning are developing much faster than ever. Thanks to the ICTs especially the social media. This has determined the readiness of the marketers of education to respond to customer requirements promptly. As more travelers expect personalized products and services to meet their demands, it is important for the learners to have tools that can store and monitor information in order to meet the individual needs of their clients (Apichai, 2011). The better you know your customer, the more likely you will retain them for a longer period of time. The internet has revolutionized learning more than any other factor in the last few decades. Also, as more people are connected to each other, with access to the vast pool of information available online, an increasing number of learners are seeking information via the internet prior to making any learning decisions (Apichai). Hence, it has become important for the learner to adapt and uplift his practices and skills.

2.4 Challenges of promoting education using ICTs

A multiple of factors interplay to curtail the growth and development of learning using ICTs: (e.g., the lack of access to the internet [in the case of the Third World], technical challenges, government controls and censorship, fraudsters and the changing landscape of ICT).
2.4.1 Internet access

The term Internet access refers to the communication between a residence or business and the Internet service provider (ISP) that connects to the Internet (Internet, 2008). In the developing world [such as Uganda], access to the Internet is limited by a range of factors that include: the lack of equipment from which to access the Internet (i.e., laptops, personal computers, smartphones or iPods). Even where the Internet is available say in the internet cafes, its flow could be questionable as it may be extremely too slow and therefore, frustrating. Yet, organizations such as universities rely on the Internet to communicate with learners. Indeed, social media have grown to be one of the most effective means for learners to seek information and share learning experiences (Cox et al. 2009; Gretzel 2006; Yoo & Gretzel 2008 In. Rodolfo eta l., 2014). Given the prevalence of social media use among learners, social media have become indispensable platforms. The availability, efficiency and affordability of the Internet remain a thorn in the flesh of the Third World.

2.4.2 Technical challenges

Several technical challenges must be overcome if the Internet, TV, mobile phone, newspapers, radio and other ICTs are to continue to grow exponentially. The primary challenge is to create enough capacity to accommodate increases in traffic [in case of the Internet and cell phone], transmitters that can relay information to long distances [in case of the radio, cell phone and TV] and efficient printing machines [in case of newspapers, brochures and magazines]. For example, the Internet and cell phone traffic are increasing as more people become Internet and cell phone users and existing users send greater amounts of data. If the volume of traffic increases faster than the capacity of the network increases, congestion will occur, similar to the congestion that occurs when too many cars attempt to use a road (Internet, 2008). It is not a surprise that reports of a slow Internet and dropped cell phone calls are common in the developing world [Uganda inclusive]. This was bound to slow businesses such as education where learners frequently and constantly seek information and want to share learning experiences.
2.4.3 Government controls and censorship

Other important questions concerning Internet growth relate to government controls especially censorship (Internet, 2008). Censorship involves laws concerned with state restrictions on the expression, the publication, and the dissemination of information (Hanna & Levene, 2008). In a democracy, freedom from censorship is an important protection of particular freedoms, especially freedom of speech and freedom of the press. The introduction of censorship laws has been rigorously opposed in the many democracies by Internet and cell phone users who regard such regulation as an infringement of their constitutional right to free speech. In some police states [e.g., North Korea and Eritrea], access to the Internet hardly exists while in some democracies [i.e., USA, UK, France, etc.] there is big brother watching what you do on the Internet or recording what you say on the cell phone. Newspaper publishers, TV and radio too have to contend with self or government censorship or else they risk a ban if they do not trade the line of the authorities. Never the less, newspapers, TV and radio are still a powerful force in any democracy and thus, could be a tool for promoting learning effectively and efficiently.

2.4.4 Threat of fraud

The increasing rate of criminal activities on the Internet and within education is a challenge which learners must grapple with. The increasing commercial use of the Internet has heightened security and privacy concerns as well as the threat of fraudsters. With a credit or debit card, an Internet user can order almost anything from an Internet site and have it delivered to their home or office. Companies doing business over the Internet need sophisticated security measures to protect credit card, bank account and national insurance numbers from unauthorized access as they pass across the Internet (Internet, 2008). Any organization that connects its intranet to the global Internet must carefully control the access point to ensure that outsiders cannot disrupt the organization’s internal networks or gain unauthorized access to the organization’s computer systems and data. Learners are not exceptional to this threat of fraudsters more so where they do online payment of tuition among others.
2.4.5 Changing landscape of the newspaper industry

Currently, the landscape of the newspaper industry the world over is marked by a continuous fall in the circulation of daily newspapers, particularly national papers [for example in France]. This can be explained by the fierce competition from other media such as television and the Internet and free newspapers. To survive, the big national dailies must find new sources of finance, which raises the issue of their editorial independence and be ever more innovative in their methods for attracting readers [including potential tourists]. This raises the question whether the newspaper will continue to be a reliable tool for learning. Some people believe that the newspaper of the future will not be printed but will be an electronic information service instantly available in every home. Today most major newspapers have online versions on the Internet that can be accessed by anybody with a personal computer and modem (Newspapers, 2008). The number of newspaper online editions worldwide has more than quadrupled doubled since 1999.

2.4.6 Inaccurate education of the right technology

The biggest challenge imposed upon the learners in adopting technology is the lack of accurate education of the right technology that is suitable for learning (Apichai, 2011). There is a very big gap between the learner and the technology industry. Some organizations have been able to tap into this gap and have turned into online learning. Even though the growth of learners using ICT to source information is increasing at a rapid pace, the operators and workforce within the ICT do not have sufficient knowledge, tools and strategy to utilize ICT correctly for learning (Apichai).
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the study area, research design, sample framework, sample size, methods of data collection, data analysis and limitations of the study.

3.2 Area of study

The study was carried out at KIU. This is one of largest private universities in Uganda with a multicultural and multinational appearance. The university offers a cocktail of courses ranging from education, sciences, humanities, engineering and law. All these combine to make KIU a hive of activities including the use of ICT in learning.

3.3 Research design

This was a case study design that involved an in-depth and holistic study of ICT and learning at KIU. Purposive sampling technique was then used in the selection of the respondents presumed to have the relevant information on the study. The data collected were qualitative captured through interviews and observations. This constituted the primary data while the secondary data were got by the review of the literature related to the study.

3.4 Target population

The target population consisted of all the colleges and schools at KIU and their students and teachers [lectures/professors].

3.5 Sample framework and sample size

The study involved a non-probability sampling technique encompassing purposive sampling. The judgment was on the researcher as to who to include in the study in order to provide the best information for the stated objectives. Thus, the respondents with the relevant information had to be identified first. These included a sample of 60 respondents categorized as students, ICT experts and academics. Fifteen respondents were selected from each category. The data were
collected using interviews and observations [for primary data]. After interacting with 60 respondents, it was assumed that the data saturation point had been reached as no more new information was emerging. Accordingly, the sample size was determined. Thus, the sample size was determined by the data saturation point instead of being fixed in advance a phenomenon acceptable in qualitative research.

3.6 Data collection

The data collected were both primary and secondary. Primary data were collected using field observations and interviews while secondary data were collected by documents analysis (i.e. by the review of official records, government publications, reports, journals and internet search).

3.6.1 Interviews

This involved face-to-face communication between the researcher and respondents intended to elicit opinions and attitudes on ICT and learning. The researcher had an interview questionnaire [questionnaire schedule]. Structured and unstructured questions were used in the interviews. Under the structured interviews, a formal list of open-ended questions was asked to all respondents in the same way [appendix A]. For the unstructured interviews, the interviewer asked questions according to the answers provided by the respondents. In the interviews, the researcher asked questions: to establish the types of ICTs used for learning at KIU; to examine the role of ICTs in learning at KIU; and to find out the challenges faced using ICTs in learning at KIU. The interviews were conducted with 60 respondents purposively selected on their presumed knowledge on the topic of study. These included students, ICT experts and academics. This enabled the collection of data that were hard to observe and also to ascertain the accuracy of the answers given and to seek clarifications.

3.6.2 Observations

Data were also gathered through disguised observations. This involved the researcher passively taking notes in his diary on what he had observed (e.g., existence of ICTs facilities and use of ICTs facilities). To achieve this, a list of items to be observed was made. The list consisted of computers, Internet use, computer use and applications, TV and radio use, and newspaper availability [appendix B]. The researcher was therefore, able to get information as it occurs,
explore topics that may be uncomfortable to the respondents and to bridge the gap between what
the respondents say and the reality. This enabled the researcher to establish the types of ICTs
used for learning at KIU; to examine the role of ICTs in learning at KIU; and to find out the
challenges faced using ICTs in learning at KIU.

3.7 Data analysis

Data analysis began with the editing of the data of errors (e.g., inconsistencies in responses). This was then followed by the qualitative analysis of the data. This involved the literal
description and narration of the emerging issues and quoting extensively in verbatim out of
which authentic conclusions were made. During the interviews and observations, the researcher
noted down in his diary the emerging issues for accurate reporting. Thus, the themes that
emerged from the field observations and interviews were noted down. This was followed by the
content analysis of the interviews and field observations in order to make conclusions with great authenticity.

3.8 Limitations of the study

The study on ICT and learning at KIU could have covered all the colleges or schools at KIU.
However, the case study design and purposive sampling technique confined the study to a
relatively small area (i.e., CEODL, SEAS, SOL and CEM). The study was also qualitative
implying that the interpretations of the findings were highly subjective. Further, the tools that
were used in data collection [observations and interviews] have their own weaknesses. In
addition, the study was conducted for only one month in May 2017 using a small sample size of
only 60 respondents, which limited the scope of the data collected. Such methodological
weaknesses may limit the generalisation of the study to other parts of Uganda or lower the
validity and reliability of the findings.
CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis, interpretation and discussion of the findings [results] on ICT and learning at KIU. The findings are based on the objectives of the study that were: to establish the types of ICTs used for learning at KIU; to examine the role of ICTs in learning at KIU; and to find out the challenges faced using ICTs in learning at KIU. To achieve the stated objectives, the study was guided by the following research questions: what types of ICTs are used for learning at KIU? What is the role of ICTs in learning at KIU? What challenges are faced using ICTs in learning at KIU? Data analysis and interpretation targeted a purposive sample of 50 respondents using a case study design. The data collected were qualitative captured through interviews and observations for primary data and documents analysis for secondary data. The discussion of the findings is under the following headings: types of ICTs used for learning at KIU; role of ICTs in learning at KIU; and challenges faced using ICTs in learning at KIU all of which relate to the objectives of the study.

4.2 Types of ICTs used for learning at KIU

The first objective of this study was to establish the types of ICTs used for learning at KIU. To achieve the stated objective, the study was guided by the following research question: what types of ICTs are used for learning at KIU? The data collected and analysed under this question indicated that there are numerous types of ICTs used for learning at KIU. These included the Internet, telephone and mass media [TV, radio and newspapers]. The analysis and interpretation of the findings are presented in the subsections below:

4.2.1 Internet

The findings revealed that the Internet was one of the ICTs used for learning at KIU. The Internet was being used to connect learners amongst themselves and learners and lectures through electronic mails and the exchange information using the social media [Whatsup, G-mail,
Twitter, Face-book, You-tube, Linked-in, Google, Yahoo, etc.] about learning and new experiences. A 23-year old education student had this to say about the Internet:

“After being taught in class I endeavor to visit the Internet so that I thoroughly understand what was taught.”1

A graduate student noted that sometimes data from the Internet could be misleading. Thus, it calls for thorough crosschecking before you could fully accept it.

This implies that students at KIU were using the Internet as a tool for learning and that they were aware of its shortfalls.

4.2.2 Telephone [mobile phone]

The results further revealed that telephone [mobile phone] was a major form of ICT used for learning at KIU since there were relatively high incidence of mobile phone ownership and use among learners and lecturers at all levels. Learners and lectures were in constant touch with each other given the two way means of communication the telephone offers. (For example, learners and lecturers could fix lecture time through telephone exchanges). This is what one of the CEODL lecturers had to say:

“There is no way you can operate in an academic environment without a telephone [cell phone]. Students [and lecturers] constantly call you about academic matters. If your phone is out of reach, you are not taken serious.”2

A third-year law student noted this about the telephone:

“In our class, almost every student has a smart phone which enables one to keep in touch with fellow students and lecturers (e.g., a simple call instantly link you to your classmates).”3

The implication is that should the telephone fail to operate, learning could suffer more if you are away from campus.

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1 Education student
2 CEODL Lecturer
3 Law student
4.2.3 TV and radio

The results also revealed that the TV was an important means of communication and accessing information at KIU and therefore integral in learning. Virtually in all the places frequented by learners at KIU had a TV (i.e., library, hostels, restaurants, clubs, etc.). TV was found to relay local and foreign news, issues on entertainment, health and education among others. This is what an academic from SEAS had to say:

"The information you see on our local TV stations may appear scanty. However, it plays a role of educating people including our students on a range of issues such business, environment etc".4

The radio too was found to be an important means of communication that promotes learning at KIU. Kampala City was found to be saturated with numerous FM radio stations both private and government with different agendas including the communication of basic news on environment, politics, culture, society, governance and economics which all have serious implications for the learning and education of KIU students. From the interviews, students were found to be learning many things on environment, politics, culture, society, governance and economics using the radio.

4.2.4 Newspapers

The results showed that newspapers were a form of ICT used for learning and education at KIU. The newspapers were found to be advantageous in terms of local information. Their downsides were to do with the often one-sided nature of the communication and potential for censure by the government. This is what a law lecturer observed:

"Censure is a big problem to newspapers. To stay alive, they sometime trade the government line even when it is misleading. This can give distortions to learners."5

This means that the newspaper can never be 100% a reliable source for academic data though it could be a starting point for investigation.

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4 Academic from SEAS
5 Hotel Manager
4.3 Role of ICTs in learning at KIU

The second objective of this study was to examine the role of ICTs in learning at KIU. To achieve the stated objective, the study was guided by the following research question: what is the role of ICTs in learning at KIU? The data collected and analysed under this question indicated that there are multiple roles ICTs play in learning at KIU. These included the following: sources of information, medium for advertising and marketing, customer-management relations and e-Learning. The analysis and interpretation of the findings are presented in the subsections below:

4.3.1 Source of information

ICTs (i.e., internet, mass media [TV, radio and newspapers] and telephone) were found to be a major source of information for learning at KIU. The ICTs were providing learners and lecturers with opportunities to receive up-to-date information, the ability to communicate more easily and to achieve an enhanced ability to communicate with others (e.g., through the social media). The new forms of ICTs [cell phone and Internet] were also found to offer an effective two-way communication on a one-to-one or one-to-many basis and were also available 24 hours a day. Further, the ICTs through their interconnected infrastructure were found to cover a wider geographical distance not possible in the recent past. They were also found to have a relatively reduced cost of communication. Such communications were pivotal to learning in various ways. A student of education had this to say:

"Some of the things we do in our research are directly from the Internet, videos, TV or radio and if stuck, you call a friend for assistance or clarification."6

The explicit or implicit objective of ICTs should be to promote communication and access to better opportunities and this is what the ICTs are doing at KIU.

4.3.2 Medium for marketing talent

The results revealed that besides being sources of information, ICTs were also a tool for marketing of the talents of learners. Students were found to be heavily relying on ICTs to market themselves on the Internet (e.g., to find scholarships and employment). An ICT talented student on condition of anonymity had this to say:

6 Education student
“Young people below the age of 30 years are the majority the world over. They can read and write and the majority are computer literate and can access the Internet. They are increasingly using the mobile phones [including the smart phones] to showcase their abilities and potentials.”

4.3.3 Social networks

The findings revealed that the ICT infrastructure and software applications were important in building learning social networks. The ICTs were found to be enabling the learners to be in contact with learners thousands of miles away. This is what a student leader had to say:

“Through social media platforms [like Face-book, Twitter and blogs], students have the ability to share information on academic and social conditions.”

The implication is that in this digital age, one cannot afford to be complacent. Social networks are a must in this competitive and globalised world where anything deemed funny and negative can easily go viral on social media outlets.

4.3.4 Growth of e-Learning

The findings revealed that the Internet, computers and smart phones had revolutionized education. It was found out that as learners have become much more sophisticated. Learners can now register online for their education and learning. ICTs provide unique opportunities for innovative institutions to redesign education programmes to address societal needs. A foreign had this to say:

“Having been exposed to several education systems, e-learning is the way to go in this digital age and more so where time for travel is getting scarce.”

The implication is that as people get more exposed to the electronic technology, the more demanding they become and this comes along with opportunities and challenges. (For example, learners are increasingly demanding more value for their money and more importantly the value for time, a reflection of people’s shortage of time).

7 ICT Expert
8 Student leader
9 Foreign student
4.3.5 Challenges faced in using ICTs at KIU

The third objective of this study was to find out the challenges faced in using ICTs in learning at KIU. To achieve the stated objectives, the study was guided by the following research question: what are the challenges faced in using ICTs in learning at KIU? The data collected and analysed under this question indicated that there are multiple of challenges faced in using ICTs in learning at KIU.

The findings showed that some of the University websites were not up-to-date. (For example, the majority of the college visited had not updated their websites in the last three few months or so). Matters were worsened by the top level management that was not aware of ICT updates. This implies that learners could not access current information about new happenings online. This could dent the growth and expansion of e-Learning.

The findings also revealed that some students and lectures were not thoroughly trained in the usage of ICTs. Many were still operating with the traditional tools [the paper and pen, and old computers with old software]. The majority of the university computers were also not integrated with the updated ICT software and facilities. Still, most of the students and lectures were not utilizing the social media [face-book, twitter, etc.] for learning purposes. Worse still, the Internet connectivity at KIU was found not to be the best. This was evident from the slow Internet.

The findings further showed that although the Internet was a commonly available technology at KIU, awareness of its functionality and the resources and expertise to take advantage of this functionality were lacking. It was observed that many of the students and lectures either were not aware of this or do not possess or have ready access to resources [computers or smart-phones] needed to make use of the available ICTs.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

This study investigated ICT and learning at KIU after the realization of the role ICTs play in education and learning. ICTs facilitate an individual to access information from anywhere any time. Learning can also reach the targeted consumers across the globe in a single click on the keypad after the emergence of the mobile computers, smart phones and web technologies. The purpose of this study was to investigate ICT and learning at KIU. The study was qualitative and conducted using a case study design and purposive sampling technique. The data were collected using interviews and observations for primary data and documents analysis for secondary data. The study objectives were: types of ICTs used for learning at KIU; role of ICTs in learning at KIU; and challenges faced using ICTs in learning at KIU. The study established that the types of ICTs used in learning at KIU were: Internet, telephone and mass media (i.e., TV, radio and newspapers). Further, the study found out that the the role of ICTs in learning at KIU included the provision of information, medium for marketing talent, building social networks and e-learning. The study also established that the challenges faced in using ICTs in learning at KIU included the infrastructural bottlenecks in ICTs and the lack of knowhow and capacity in ICT training.

5.2 Conclusions

Basing on the summary above, the researcher made the following conclusions:

First, the study concludes by noting that traditional [radio, TV and newspapers] and modern forms of ICTs [Internet and cell phone] were both widely used in learning at KIU. The traditional ICTs [though outdated] will for some years continue to be important at KIU not until the ICT limitations such as illiteracy, poverty, lack of adequate facilities and limited knowhow and capacity in ICT were overcome.

Secondly, the study concludes by noting that ICTs [Internet and mobile phone] had enhanced a level of collaboration between the learners and lectures and the greater world. The web service
discovery had enabled the identification of alternatives and the value for money and time for learners and lectures.

Thirdly, the study concludes by noting that the gaps between learners/lecturers and ICTs must be bridged. The integration of ICTs in learning was significant even with the limited ICT infrastructure and personnel since ICTs have a complementary function and their benefits have enabled e-Learning. This was a foundation for building competitiveness.

5.4 Recommendations

In view of the above conclusions, the researcher made the following recommendations:

The study recommends that stakeholders [government, civil society, tour operators, etc.] must put in place conditions that make ICTs readily accessed (e.g., through community radios, TVs, Internet and libraries) so as to demystify ICT.

The study recommends the regular update of ICTs and websites with new information and for the sites to get noticed by the wider client base.

The study recommends the need for a strategic approach to integrate ICT with learning by making it more accessible, affordable and efficient as well as training manpower and building capacity in e-Learning.

5.4.1 Recommended areas for further research

More research should be done on the followings:
1. E-Learning at University in Uganda.
2. ICT literacy by learners and teachers in Universities in Uganda.
REFERENCES AND SOURCES


Baryamureeba, V. (nd.). *ICT as an Engine for Uganda’s Economic Growth: The Role of and Opportunities for Makerere University.*


APPENDIX A

INTERVIEW SCHEDULE

1. What types of ICTs are used for learning at KIU?
2. What is the role of ICTs in learning at KIU?
3. What challenges are faced in learning at KIU using ICTs?
4. Suggest ways of overcoming the challenges faced in learning at KIU using ICTs?
APPENDIX B

OBSERVATION CHECKLIST

1. Internet facilities
2. Computer facilities
3. Learners
4. Use of computers, smart phones and Internet
5. Newspapers, magazines and brochures
6. TV sets and radios