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IMPORTANCE OF SOCIAL NETWORKING FOR STUDENT PARTICIPATION IN EDUCATION IN TANZANIA

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ABSTRACT

The web 2.0 technology and its associated social networks have brought tremendous effects in each day life. The effect is now reaching the educational settings due to online increasing activities. Indeed, new ways of learning have started to attract the ongoing debate for inclusion web 2.0 technologies into pedagogy. The effects of Blogs, Wikis, Twitter, Facebook, MySpace, Moodle, RSS feeds and other related social networking tools in the formal and informal education, is vividly seen. Educators all over the World are keen to implement them into educational practices.

What benefits have so far been observed by both students and educators? This is an important question that needs to be answered thoroughly, in order to establish a new shift in educational and pedagogical thinking. Information sharing accompanied by openness and a great deal of voluntary collaboration, is what forces the exploration in this area of informatics.

In Tanzania, the Ministry for Education and Vocational Training has developed a policy for Information and Communication Technology for Basic Education in July, 2007. This was done so as to integrate ICT in education after realizing its potentials in daily life. Through this policy and other initiatives supported by Swedish International Development Agency (SIDA), a birth of eSchools was realized for integrating ICT in Education.

The aim of this study is investigating the importance of online social networking sites in education in Tanzania. Using a quantitative method, this study includes a total of 56 participants (key informants) as a sample. All participants are students at the University of Dar es Salaam pursuing various courses. The instrument for data collection was a questionnaire composed of 19 questions. The usable rate of returned responses was 61% of the anticipated responses. The responses were then collated for analysis by means of MS excel.

The study was conducted in March and April, 2012 and revealed that, the online social networks is not fully utilized in Tanzania

for educational purposes. Lack of wider access to technology is a big hindrance, although not a definite factor by itself. Another factor has been identified as lack of sensitization among students and educators.

Furthermore, the report provides recommendations on how this technology can be fully exploited for the benefits of the students and community at large.

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Chapter.1: INTRODUCTION

This chapter describes the Preface and Rationale of this research work, Problem Definition, Aims and Objective. Furthermore, Research Questions and thesis layout are described.

1.1 PREFACE

In the recent few years the world has experienced a fast transformation into being a global digital village. In this view, the online social networks have emerged as a big player in this transformation. People increasingly use social networks such as Blogs, Facebook, Twitter and LinkedIn to connect, to share information and knowledge, to create contents and to communicate with each other. In this view the emergence of online social networks, has recently helped Tanzania community in bringing changes in the society. Increasingly, people are now freely and transparently participating in the discussion of the country's development including education. This particular area is being addressed in the context of Computer Science/Informatics under the E-Culture topic. Its importance comes in the light that the World has now changed drastically because of virtual communication and participation and growth is tremendous.

Due to continuous growth of user generated content and the subsequent ability to share and even collaborate online, the social networking sites have emerged to be of great importance. The importance is not only in information sharing but also in education processes. Definitely, this study will focus on finding out the exploitation of the use of the social networking sites into education.

1.2 RATIONALE

The Internet World and its accompanied technology have grown in way that the changes experienced in the past few years have taken a very interesting pattern socially. Most of the companies and investors are willing to pour in their resources while on the other hand the media has reported a lot about the social networking sites and its growth.

The users and their respective contents have formed a great deal of attention and thus revolutionize the whole internet, and the social networking sites. This has led to overwhelming sharing of contents across the globe, at a faster pace not experienced before in the universe. Various discussions are going on globally, involving even the professionals on the importance and use of the social networking sites. The use is not only in business, but also education and accompanied pedagogy.

On the other hand, the communities have not yet realized the great potential lying in the social networking sites in terms of education. Despite the publications and studies done elsewhere including America and Europe still much has not been done in the developing World and particularly in Tanzania. This study will concentrate on the use of the social networking sites into academic perspective putting focus on the students.

Empirical study will be conducted among the users of social networking sites (University students in this case) so as to identify the potentials of the social networking sites in education.

1.3 PROBLEM STATEMENT

Enhancement of the education dissemination and improvements of the pedagogical approach in Tanzania is inevitable. This is due to the fact that, there is a big growth of ICT and wider penetration of the internet in the country. Students need the sophisticated and easier means to communicate, create, share and collaborate on their contents, information and studies.

Ministry for Education and Vocational Training in Tanzania developed an Information and Communication Technology (ICT) policy for Basic Education in 2007. This policy, together with Tanzania National ICT policy of 2003, has made the guidelines in integration ICT in education in Tanzania.

The policy is guided by the overall objective of global education and covers pre-primary, primary, secondary and teacher education. On the other hand, the policy is linked to ICT activities in other areas and sectors, especially Vocational Training, Higher Education, Regional Administration and Local Government. (Tanzania Information and Communication Technology Policy for Basic Education, 2007).

Hence, there is a need to analyze the way social networking sites and emergent Web 2.0 usages can be used by students to enhance the educational processes.

1.4 AIM OF THE RESEARCH

The aim of the thesis project is to initiate a comprehensive analysis of how online social networking can be fully utilized in information and knowledge sharing in Tanzania, and how Tanzanians and especially students can exploit these modern resources in community participation in education.

1.5 OBJECTIVES OF THE STUDY

The following research objectives will be followed in this study;-

- To conduct a research from existing literature, concerning information, and knowledge sharing, community participation, and online social networks. The better understanding of the research problem and its related issues will be derived from the thorough investigation of the data relevant to education policy, web 2.0 and online social networks. A number of resources will be consulted to draw a better understanding of the concepts.
- To examine the opportunities of using social networking sites, as a source of academic, practical knowledge and as a complementary tool for learning. Here, we will look at how students associate education and online social networks.
- To issue recommendation based on the findings to provide opportunity for better utilization of online social networks in education and provide the light for further research of the concept. The intention here will be to assist the community with the understanding of the effective and efficient use of the online social networks in Tanzania, and identify related areas of further research.

1.6 RESEARCH QUESTIONS/HYPOTHESIS

The following are research questions for this study;

- **Is there any significant relationship between online social networks, and information sharing in university education in Tanzania?** Here, we look at the way the prevailing situation and the applicable technologies assist, in the information sharing and to what extent do the people take it its importance.
- **Are more males using social networking as compared to females in Tanzania?** According to varied literature, more men make more use of Internet as compared to women although women participate more in online social exchanges.
- **Does social networking sites usage increase, as age decreases for Tanzanian University students aged 20 to 45?** Here, the study looks at the trend if the age of the sampled population increases with decrease of social networking usage.
- **Are the online social networks effective in education dissemination in Tanzania?** How effective are the online social networks in education perspective, we also look at it as the alternative knowledge source in comparison to the traditional resources?
- **Can the online social networks in Tanzania be taken as a reliable source of education?** Here the study looks at how the pedagogy can accommodate the current changes brought by the online social networking.
- **How can this be improved to realize the educational development in the community and country wise?** The study looks at the way how social networks can be fully utilized in bringing the changes in the country for the benefits of the whole community.

1.7 THESIS LAYOUT

Here in this section is where the outline of different sections and overall structure of the thesis is described.

- **Introduction-** This is the first chapter and introduces the thesis and provides the background to the study and research problem. Research purpose and the objectives are outlined.
- **Literature Review-** The relevant literature in the area of study is divided into sub section and explored. The light for further investigation is even established at this point.
- **Methodology-** This section details the research approach and the methods employed into collection of relevant study data and its subsequent analysis. The limitations of the study are further discussed in this section.
- **Findings and Analysis-** Here the data obtained from questionnaires are analyzed and discussed.
- **Conclusions-** In this section report is summarized and the conclusions from the findings are drawn.
- **Recommendations-** This section will contain recommendations by the researcher drawn from the research findings. The recommendations are directed to the community and the educational professionals for the purpose of improving the educational process and pedagogy. Also the recommendations will highlight the possible area for further research.

Chapter.2: THEORY AND LITERATURE REVIEW

This chapter contains Literature Review, to identify the issues surrounding the Web 2.0 technology, Social Networking Sites and relevance to education.

2.1 INTRODUCTION TO LITERATURE

The literature review makes a foundation for discussion of the research problem and the predefined objectives. In order to create that foundation, we have addressed the fundamentals of each topic.

The findings from other studies and gatherings from journals, books, proceedings, academic literature and websites pertaining to social networking sites, web 2.0 technologies and relation of education to social networking sites are presented here. The essential topics included are:

- Web 2.0 that is divided into sub section such as,
 - ✓ Definition of Web 2.0
 - ✓ Introduction to Web 2.0
 - ✓ Web 2.0 technology
- Social Networking sites that is as well as broken into sub sections
 - ✓ Basics of Social Networking Sites
 - ✓ Social Networking Sites and Associated Characteristics
 - ✓ Social Networking Sites and Education
 - ✓ Internet and Social Networking in Tanzania

2.2 WEB 2.0

Web 2.0 is the cumulative platform of web applications that assist users into information sharing, collaboration and wider interaction on the World Wide Web. Tim O'Reilly (2004) triggered critics with his O'Reilly Media Web 2.0 conference as the term was related and ambiguous. He stresses it by comparing it with many other important concepts, and that Web 2.0 doesn't have a hard boundary but rather, a gravitational core. He went further by describing that Web 2.0 can be visualized as a set of principles and practices that tie together veritable solar systems of sites that demonstrate some or all of those principles, at a varying distance from that core.

According to Tim O'Really, Web 2.0 is the business revolution in the computer industry caused by the move to tie internet as platform, and an attempt to understand the rules for success on that new platform. Chief among those rules is this: Build applications that harness network effects to get better the more people use them.

“A true Web 2.0 application is one that gets better the more people use it. Google gets smarter every time someone makes a link on the web, Google gets smarter every time someone makes a search. It gets smarter every time someone clicks on an ad. And it immediately acts on that information to improve the experience for everyone else.” (Tim O'Really)

Web 2.0 is both a platform on which innovative technologies have been built and a space where users are treated as first class objects (Krishnamurthy Cormode, 2008).

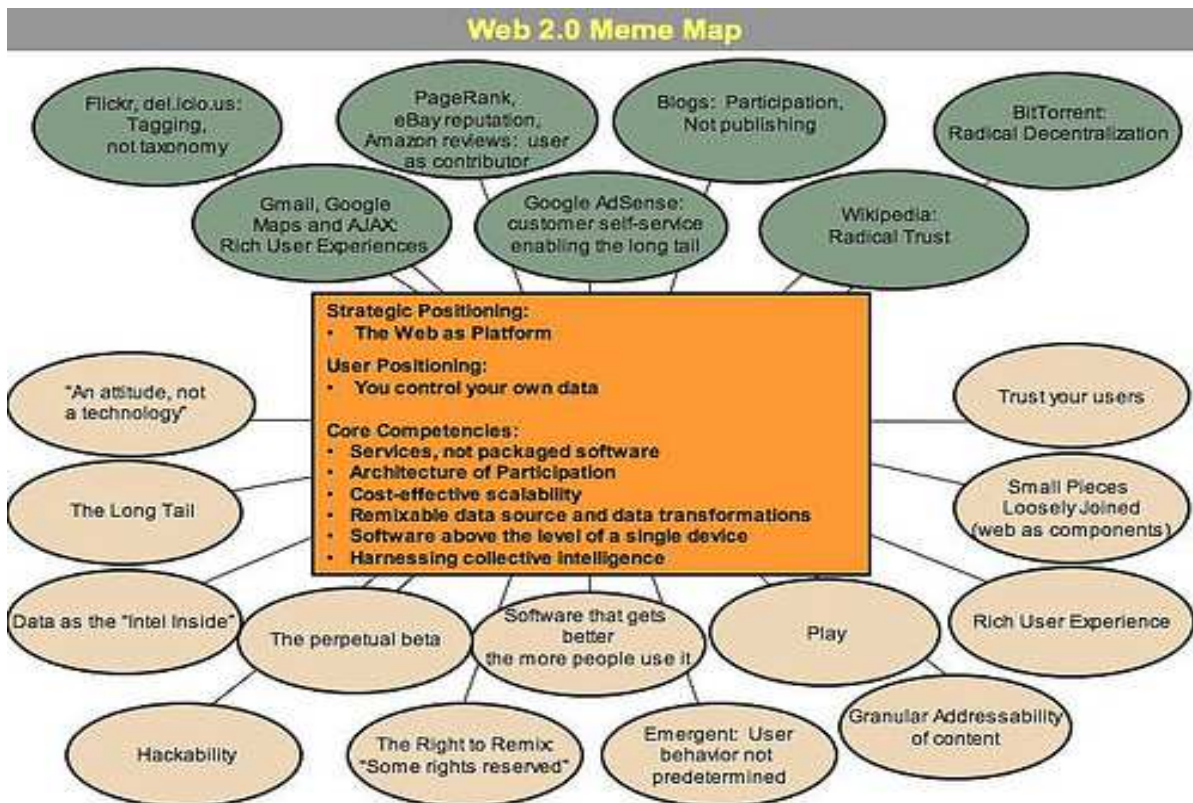


Figure 1: Web 2.0 Meme Map Showing how the Web 2.0 Platform (Picture by courtesy of oreilly.com)

Some of the scholars view the Web 2.0 as the upgrade from the Web 1.0, and that it might also have been just a catch phrase. During brainstorming conference session between O’reilly and the MediLive International was discussed when Web 2.0 concept emerged for the first time.

“Dale Dougherty, web pioneer and O’Reilly VP, noted that far from having "crashed", the web was more important than ever, with exciting new applications and sites popping up with surprising regularity. What’s more, the companies that had survived the collapse seemed to have some things in common.” (O’Reilly).

Web 1.0	-->	Web 2.0
DoubleClick	-->	Google AdSense
Ofoto	-->	Flickr
Akamai	-->	BitTorrent
mp3.com	-->	Napster
Britannica Online	-->	Wikipedia
personal websites	-->	blogging
evite	-->	upcoming.org and EVDB
domain name speculation	-->	search engine optimization
page views	-->	cost per click
screen scraping	-->	web services
publishing	-->	participation
content management systems	-->	wikis
directories (taxonomy)	-->	tagging ("folksonomy")
stickiness	-->	syndication

Table 1: The comparison between Web 1.0 and Web 2.0 (Courtesy of oreilly.com)

According to Krishnamurthy and Cormode (2008), the difference between Web 1.0 and Web 2.0 lies on the fact that in Web 1.0 the content creators were very few and users act as the consumers of content while in Web 2.0 the creators of content are the participants themselves. Collaboration

and interaction are the main foundations of the Web 2.0. Hoegg et al, (2006) pointed out the main focus of the Web 2.0 environment lies on the tools and services that allow the contents to be collaboratively created, managed and shared. Thus it is the process whereby the user is responsible for the content and the service providers give technical services that in turn will realize the achievement of the objective and the vision.

Web 2.0 has a number of features although the most popular one is the Blogs and the RSS technology that has led to new and effective way of sharing contents among the wider and dispersed audience. This has been possible due to capability of the RSS to allow one to link a page, subscribe to it, and further get notification whenever the page is changed.

The Web 2.0 is as well as capable of social bookmarking and tagging, whereas with tagging the content can be categorized by users (example of folksonomies). In social bookmarking, the content on any webpage can be immediately shared among the social networking sites in the Web 2.0 community.

However you define Web 2.0, most agree that it's woven from a fabric of technologies designed to ease collaboration and break down information silos, whether they're individual Web Sites, portals, or business intelligence systems. (infoworld.com, 2007)

Hoegg et al, described the services on Web 2.0 to fall under three categories named platforms, online collaboration tools and community services. Community services unite users through a common objective, while platforms offer the media for users to express themselves and on the other hand the online collaboration tools improve processes by making information accessible from every location.

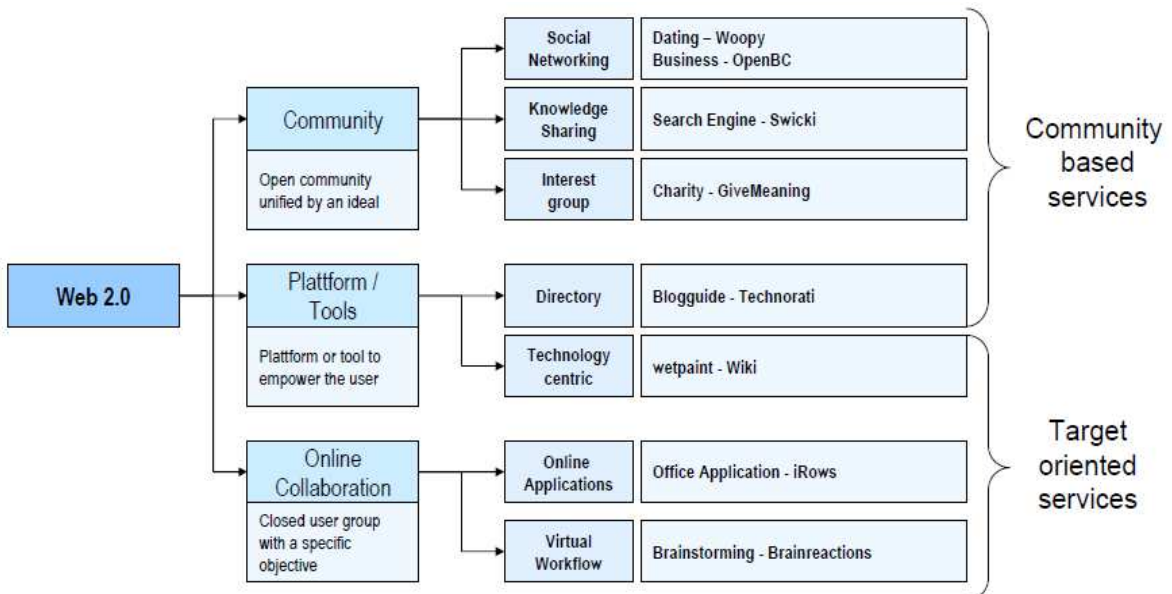


Figure 2: Clustered Overview of Web 2.0 Applications (Picture by courtesy of Hoegg et al, 2006)

2.3 SOCIAL NETWORKING

2.3.1 The Basics of Social Networking

Wellman (1997) defined social networking sites as the set of people or rather other social entities such as organizations connected by a set of socially meaningful relationships. For example, Facebook is currently the fastest growing commercial social networking site in the world, with more than 350 million subscribers/active user profiles worldwide in 2010. Twitter had claimed to have 175 million registered users in 2011 and is still adding 15 million users per month, while LinkedIn claimed to have 100 million active users globally by 2011 and 20 million users in Europe alone by 2010 (Social Media Statics, 2011). It is said that Americans spend more than twice as much time on social networks than any other online activity; 36% of time spent is on social networks, blogs, personal email and instant messaging (Nielsen, 2010).

Top 10 Sectors by Share of U.S. Internet Time				
RANK	Category	Share of Time June 2010	Share of Time June 2009	% Change in Share of Time
1	Social Networks	22.7%	15.8%	43%
2	Online Games	10.2%	9.3%	10%
3	E-mail	8.3%	11.5%	-28%
4	Portals	4.4%	5.5%	-19%
5	Instant Messaging	4.0%	4.7%	-15%
6	Videos/Movies**	3.9%	3.5%	12%
7	Search	3.5%	3.4%	1%
8	Software Manufacturers	3.3%	3.3%	0%
9	Multi-category Entertainment	2.8%	3.0%	-7%
10	Classifieds/Auctions	2.7%	2.7%	-2%
	Other*	34.3%	37.3%	-8%

Figure 3: Ranking of Social Networking Sites use by time (Courtesy of Nielsen NetView June 2009 – June 2010)

Social Networking sites are believed to be the most popular with prominent activities within the Web 2.0 platform. The social networking sites are considered to provide a platform for social relations whereby people share activities, ideas, events and interests.

According to Boyd and Ellison, (2007) the social networking sites are the web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.

2.3.2 Social Networking and Associated Characteristics

Online social networks are based on users as opposed to content like in other regular websites. In that view the users are united online based on their interests, activities and common views or goals. Some other things that may bring together audiences from all around the globe are the religious matters, common language, and nationality, sexual or racial interests.

Users are the core of the social networking sites in a way that without them there would be empty forums, chat room and even applications. Users are the one who direct and provide dynamics in network. Interaction is another exciting characteristic of social networks where by connecting to one another and have fun with friends is a priority. Social networks thrive on relationships in a way that more relationships in a network then more profound is the network and more strong it becomes.

“Social networking websites provide rich information about the person and his network, which can be utilized for various business purposes. Some of the main characteristics of social networking sites are:

- *They act as a resource for advertisers to promote their brands through word-of-mouth to targeted customers.*
- *They provide a base for a new teacher-student relationship with more interactive sessions online.*
- *They promote the use of embedded advertisements in online videos.*
- *They provide a platform for new artists to show their profile.”* (Ateeq Ahmad, 2011).

According to Ateeq (2011), Middle East and Africa have grown in terms of social networking sites use by 66% between June 2007 and June 2008, as compared to 9% growth in America.

Social Networking sites Worldwide	Growth of Social Networking Sites		
	June-2007	June-2008	Percent Change
Asia Pacific	162,738	200,555	23
Europe	122,527	165,256	35
North America	120,848	131,255	9
Latin America	40,098	53,248	33
Middle East – Africa	18,226	30,197	66

Table 2: Analysis of social networking sites by growth between June 2007 and June 2008. (Courtesy of Ateeq Ahmad)

2.3.3 *Social Networking and Education*

Due to the fact that many students are using social networking sites, teachers on the other hand have started adjusting themselves in this pattern by using it as the tool for communication with their students. Teachers and lecturers involve themselves in creating chat rooms, online groups and forums for the sake of academic discussions, posts assignments, tests and quizzes as well as assisting with homework.

“The National School Boards Association reports that almost 60 percent of students who use social networking talk about education topics online, and more than 50 percent talk specifically about schoolwork. Yet the vast majority of school districts have stringent rules against nearly all forms of social networking during the school day — even though students and parents report few problem behaviors online.” (US National School Board Association)

96% of the young people surveyed by the US National School Boards Association to explore into the online behaviors of US 9 to 17 years old reported to be using some form of social networking technology. The findings indicated that education-related topics are the most common, with 60% talking about education-related topics and 50% discussing their schoolwork. What is clear is that young people regard social networking services as just another part of their social and often school-related activities. (National School Boards Association, 2007).

New forms of relationships and communication have influenced the way people learn and this has been enhanced by the access to the web and greater innovation of the web 2.0 technology and applications. The participants are creators of knowledge and seekers of engaging personal experiences (McLoughlin and Lee, 2008). Personalization and socialization have been sited to be the major potential in the web 2.0 technologies and the driving factor in social networking attributed by the transparency and ability to create awareness (Dalsgaard, C). With online social networks, people can share and pass knowledge and information to each other, expand their collective knowledge and relationships to the new heights.

Education has expanded past local resources and bring information from vast library of knowledge (Horton, M., 2010). According to ScienceDaily (June 20, 2008), the researchers at the University of Minnesota came with discovery out of social networking sites and went further in suggesting the necessity of the enrichment of emerging ideas about what it means to be a good digital citizen and leader through the use of the online social networks.

Despite the application of formal pedagogical practices used in the education sector and especially in universities, we cannot ignore the contributions of informal learning. Young people have now more choices over what, how, and with whom they learn in a wide range of settings: classrooms, after school programs, home-school, formal online learning programs, and web-enabled spaces that dominate popular culture (Greenhow, 2011).

Through social networking, students have transparency among each other and socialization on the other hand, leading to collaboration on their works, productions and ideas. Things like notes, literatures, assignments and other related information are shared. Anyone among the friends or rather participants can have access and view, modify or develop a content found on other's profile or personal pages. The collaborative web is rich in applications that can facilitate knowledge sharing, interaction, collaboration and communication, and the collaborative web

therefore supports social networked learning in which learners use personal tools for self-directed and problem based learning (Munguatosha et al, 2011).

Due to ubiquitous computing and demand-driven learning, the need for expansion of pedagogy in order to make learners be active participants and co-producers of content rather than be consumers, also be able to look at learning process as participatory and social, supportive of personal life goals and needs (McLoughlin, 2008). Many people are enthusiastic and have been taking part in producing self-developed contents and share them by means of online dissemination using blogs and even using distribution of digital files in the form of audio and video popularly known as pod-casting.

Although there is a tremendous interest in associating social networking sites with educational prosperity but yet the literature is limited.

2.3.4 Potentials of Social Networks and Web 2.0 in Education

The web 2.0 applications have been gradually noted to have potentials and educational impact in the same way as the formal Information Communication Technology applications used in formal settings. They form an important means of education dissemination and knowledge impact as part of eLearning applications.

The social networked learning connects learners in the virtual space enabling them to interact and to collaborate as they execute learning activities, and through their participation they actively engage in the learning process and experience flexible environments for communication, global information sharing, personalized learning and independent learning in respect to time and place (Munguatosha et al, 2011). Donmus (2010) insists in not ignoring the students complaints on lack of communication, personalized content and following a strict curriculum associated with many learning systems and thus there should be an emphasis to provide an informal learning to students by adopting social networks to existing learning implementations.

2.3.5 Transparency as Important Component of Social Networks

Transparency is an important aspect in social networking supported by awareness of users and participants in learning. For example, the transparency associated with how the participants or students in particular who work towards a common goal of accomplishing an assignment, or project is vital as they'll all share each other's resources in a way that honesty and appropriate information is shared. Thus students are related to each other as potential resources and partners. Connection and subscription to one another's profiles and accompanied personal tools is possible and allowed. Things like notes, resources, ideas and individual works are shared transparently.

2.4 WIDELY USED SOCIAL NETWORKS FOR LEARNING

There are a number of social networks for learning but here we'll look into few social networks broken down or grouped by types of software in use for information sharing and in turn learning and knowledge dissemination.

2.4.1 Content Management Systems

Content management systems do facilitate the production and dissemination of ideas, enable writings be done in collaboration while at the same time allowing each other members to modify

and edit the content. That is the publishing and peer review is possible and the examples are such as Wikis, Blogs and Web annotation systems.

2.4.2 Learning Management Systems

The main application of such software in learning context is sharing and distribution of resources, and communication among members and furthermore facilitation of group works. Examples of such software are Moodle, ATutor, Blackboard, ZARIS and ARIS (Academic Registration Information System).

2.4.3 Relationship Management Systems

Examples are Facebook, Bebo, MySpace and other related sites. They allow creation of spaces and identity for communication, connectivity and maintenance of social contacts. Pedagogically allows the creation of ideas and involvement of enhanced interaction among members in sharing and dissemination of educational knowledge.

2.4.4 Syndication Systems

The syndication systems are widely used for the pedagogical purposes of maintaining links with new content. It also allows filtering and customization of content for display and on top of that allowing multi-modal access to information. Examples are the List-Servers and RSS aggregators.

2.4.5 Distributed Classification Systems

These systems allow organization and classification of content by use of tags. They do maintain the collection of resources that can be shared and reused and categorizing of resources. Examples are social bookmarking sites such as del.icio.us and Digg.

2.4.6 Learning Support from Social Networks

A great content is very vital for learning in social networks. However the contributions from the participants enhance the knowledge base shared, and thus engagement is sought out of a curiosity based on the content to be shared. According to Greenhow (2011), students use their online social networks to fulfill social learning functions, to obtain validation and appreciation of creative work through feedback on their profile pages, to get peer/alumni support and to help with school-related tasks. In the learning point of view, we do not restrict on the use of personal pages for personalization purposes but rather for sharing as the case of discussion forums.

Mazman and Usluel (2010) have adopted a model shown below, to describe the educational use of Facebook. They linked the relationship among educational usage and purpose that in turn provide some adoptions. Educational usage identified its own variables such as collaboration, communication, material and resource sharing. They further conducted an online survey that included a total of 606 respondents and the results showed that the use of Facebook has influenced the respondents positively. The influence has been contributed by means of relationship among educational usage with communication, collaboration, material and resource sharing.

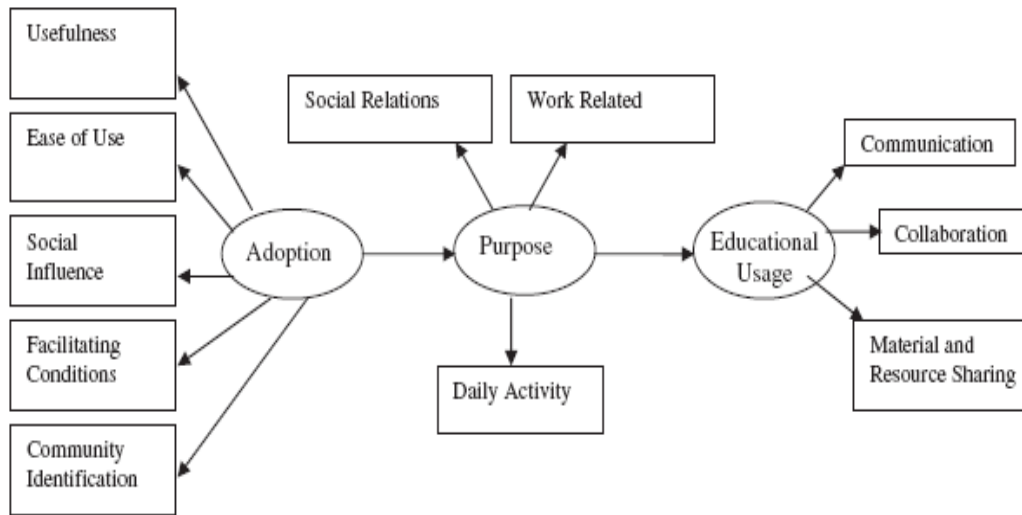


Figure 4: Example use of Facebook in Research Model for Education (Courtesy of Mazman & Usuel, 2010)

2.5 INTERNET AND SOCIAL NETWORKING IN TANZANIA

Despite the fact that the growth of Social Networking Sites (SNS) including Facebook, LinkedIn and MySpace take a rising trend among today's college students (Brady K.P et al., 2010), the same is observed among the normal citizens and laymen in worldwide. This is contributed by the expansion of social dimension of internet (Chachage, B.L., 2001) taking into consideration an example of the virtual communication among Tanzanians via Tanzanet forum and mailing lists.

There is in Tanzania a huge improvement in the Internet access and its subsequent use, and contribution to the online social networking are very high compared to ten years back. In 1999 for example, in Tanzania there were estimated only 2,500 internet users as compared to the 1,000,000 users in Africa. The trend is different now with more users and more ISP's and widespread of Internet facilities in the country.

According to Buddecomm (2012) it is estimated by the end of year 2012, the market penetration rate of Internet in Tanzania telecommunication sector will be at 13% as compared to 1.3% in the year 2008.

Year	Users (Thousands)	Penetration
2003	250	0.7%
2004	333	0.9%
2005	384	1.0%
2006	390	1.0%
2007	400	1.0%
2008	520	1.3%

Table 3: Internet users and respective internet penetration rate in Tanzania (source: Buddecomm, 2009)

By June, 2010 the number of Internet subscribers stood at 4.8 million and TCRA (Tanzania Communications Regulatory Authority), 2010 described that Internet is the growing popular means of communication in Tanzania next to voice telephone.

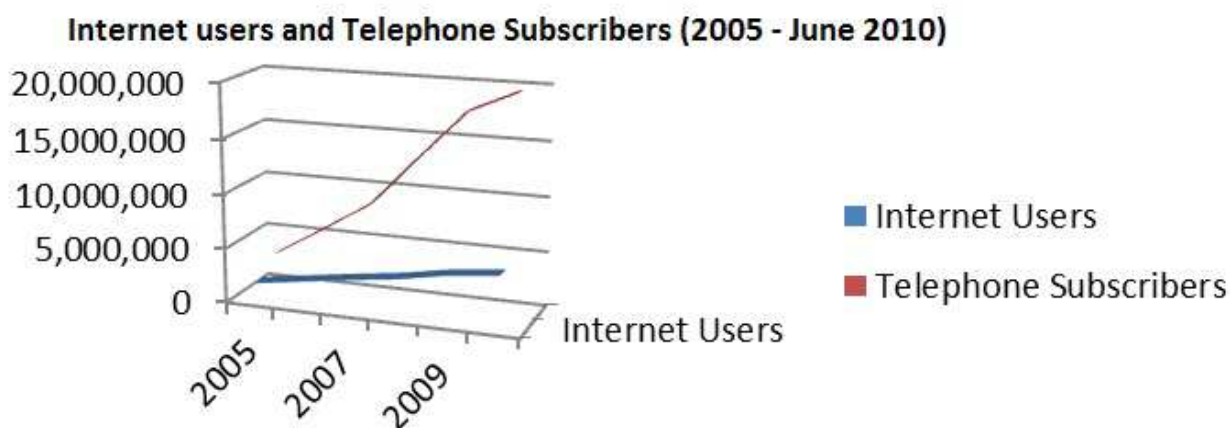


Figure 5: Internet users and telephone subscribers (2005 – June 2010) Source: TCRA-2010

And by 31st December, 2011 Internet users in Tanzania numbered 4.9 million, with penetration rate of 11.5% (great increase of 10.2% in comparison to the year 2008). Facebook users in Tanzania by 31st March, 2012 stand at 437,040. Out of the same data Tanzania has been ranked number six of the Africa top Internet countries by 31st December, 2012. (Miniwarts Marketing Group).

INTERNET USERS, POPULATION AND FACEBOOK STATISTICS FOR AFRICA						
<u>AFRICA</u>	Population (2011 Est.)	Internet Users Dec/2000	Internet Users 31-Dec-11	Penetration (% Population)	Users % Africa	Facebook 31-Mar-12
<u>Tanzania</u>	42,746,620	115,000	4,932,535	11.5 %	3.5 %	437,040
TOTAL AFRICA	1,037,524,058	4,514,400	139,875,242	13.5 %	100.0 %	40,205,580

Table 4: Internet Users, Population and Facebook Statistics for Tanzania, 2011. (Miniwarts Marketing Group).

Chapter.3: RESEARCH METHODOLOGY

This chapter describes the research methods used in order to attain the aim and objectives of this study. Approach, issues, and rationale for selecting the used methods in this study will be addressed. The appropriate method for collecting data was the survey using a questionnaire that consisted of 19 questions.

3.1 RESEARCH APPROACH

The methodology included a mixed research methodology that combined literature review on the research concepts related to online social networking practices, and involved survey to University of Dar es Salaam students for the purpose of data collection.

3.2 RESEARCH DESIGN

According to Saunders et al (2007), research design refers to the general plan on how the research questions will be addressed. There are three principle methods in conducting an exploratory research, one being the searching existing literature, interviewing experts in the subject and conducting focus group interviews (Saunders et al, 2007). This study includes exploratory in a sense that extensive literature review on the subject was conducted. This was necessary so as to get relevant information on the topic. Descriptive and casual researches are other research that might have been used. According to Patton (2002), a descriptive research aims at portraying accurate profile of people, events or situations, and when conducting a descriptive research, the problem that is being addressed should be clear prior to the research. Thus, specific aims and objective were derived out of descriptive research after initial phase of exploratory method. Hence, by means of these two methods (exploratory and descriptive), the approach to the research was structured.

The study further employed descriptive approach, whereby data and characteristics of the population were thoroughly described. The descriptive research usually combines the elements of both qualitative and quantitative research methodologies.

Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts and describes the data collection (Glass & Hopkins, 1984). In assisting the reader to comprehend the data distribution, descriptive research usually uses visual aids such as graphs and charts. It is as well as normal for a descriptive research to report the percentage summary based on a single variable. Most of the times, descriptive studies yield data that lead to important recommendations, although yet it does not gather the causes behind the situation. In this view a quantitative method was used by employing survey questionnaire, and formed a part of the descriptive approach.

The influence of online social networks on community participation in education was to be analyzed. Thus Self-administered questionnaires were distributed for filling by the students and before filling up a brief explanation of the nature and requirement of the survey was given to the participants (University Students).

The development of the questions considered the research questions and in line with literature review. 19 questions were derived so as to give a better overview of the questionnaire. Initial questionnaire was reviewed thesis adviser and feedback was used for improvement. Fewer questions could lead to not getting enough information, while too many questions would results

into lower response rate. Lower response rate would be as a result of skipped questions or rather unreturned questionnaire by respondents.

3.3 THE SURVEY

The primary data was gathered using the survey questionnaire distributed to the University of Dar es Salaam students. Each questionnaire paper contained a total of 19 questions where by a respondent had to select the correct answer(s) as per his/her consent. The questions were divided into four broad categories covering (1) general issues, (2) technology (3) issues, online social networking issues (4) and Information sharing and education pedagogy issues. (Refer appendix A on Page 44)

The general questions were mandatory to be answered. The questionnaire was self-administered in a way that there was no interaction between the respondent and the researcher. Due the fact that the social networking sites are rapidly changing and growing, the data collected were relevant to the populations studied at this particular time and in this light the study was cross-sectional.

(1) General questions: these questions aim at finding out about the gender, age group, student level and the main course of study of the respondent.

(2) Technology questions: whereby the aim will be to explore about the internet and associated technology availability, use and efficiency to students.

(3) Online social networking questions: with the aim of exploring the social networks widely in use by the students, the frequency of the visits, and associated activities being done while on those networks.

(4) Information sharing and education pedagogy issues: looking if there are networks specialized for education at the University of Dar es Salaam, association of the networks to academics, possibility of knowledge creation, and the wide importance of social networks to education and academic activities of students at the University.

3.4 POPULATION

The population included students from University of Dar es Salaam. The population of this study is defined as all students who are stakeholders in the online social networks and education participation in the community.

3.5 SAMPLE AND SAMPLING PROCEDURE

Sample is the representation of the population, and the sample in this case was 56 University of Dar es Salaam students. There was no predefined qualifications in terms of age, course, student level (undergraduate, postgraduate). The only qualification was being a student.

The sample size was 92, as 92 invitation to participate were distributed of which 67 responses were received of which 56 respondents were part of the population being studied.

The raw response rate rendered was $67/92= 73\%$, usable response rate of $56/92= 61\%$ of which aligns to what was originally expected.

3.6 RATIONALE OF THE SELECTED METHOD

Literature review aimed at building a better understanding of what knowledge exists pertaining to accomplishing of research objectives. After review of the existing data the decision was made to use quantitative method of which questionnaire was designed. Questionnaire is known for yielding high response rate, being of low cost, high reach and quick response time frame.

3.7 CONFIDENTIALITY

All the data acquired had been dealt with high level of confidentiality and the participants were assured of the anonymity. Thus the data shared will as well as be anonymously.

3.8 DATA AUTHENTICITY

The questions have been made straight and easy to understand so as to remove the room for misinterpretation.

3.9 DELIMITATION OF THE STUDY

Out of thousands of the University of Dar es Salaam students, only 56 were used to conduct the survey, The invitations done was 92 but 67 were returned as usable responses. The coverage of the study was limited to only students and leaving away the lecturers as the sample for the study. Thus only student respondents were included.

This study considers every aspect of student online social activities that has an impact on the educational processes.

Chapter.4: FINDINGS AND ANALYSIS

This chapter will deal with the analysis and discussion of the collected results by means of questionnaire. Graphics will be included for better understanding of the analysis. The finding of the questionnaire are discussed and commentary given in each of the four questions categories namely general questions, technology questions, social networking question and the information sharing and education pedagogy questions.

4.1 GENERAL ISSUES:

The research was segmented based on the responses by gender and the information was very useful for further analysis.

The total of 67 individual questionnaire responses were received out of 92 distributed questionnaire. Out of this 69% (46) were male and 31% (21) were female. Thus the gender difference did not have affected the results of the overall study due to accepted proportions.

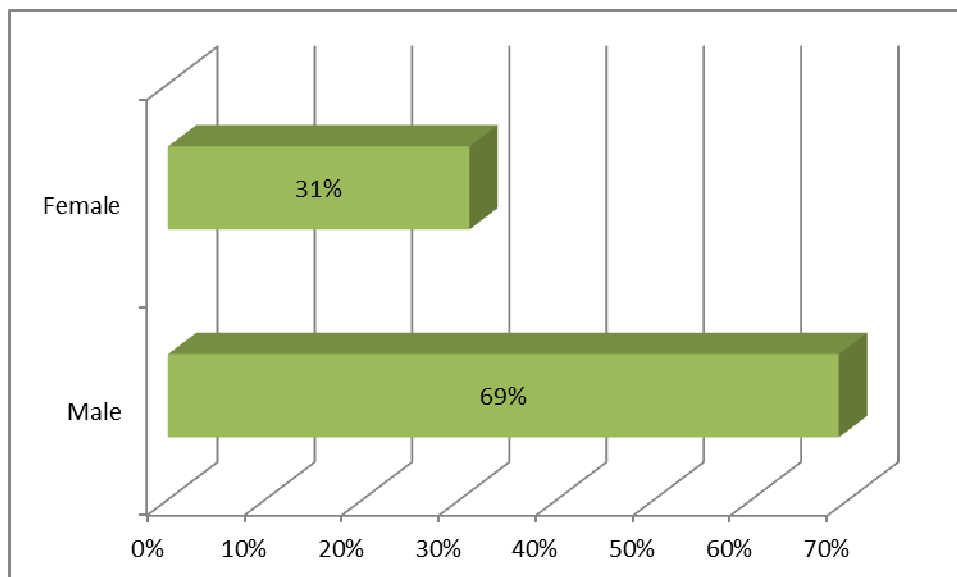


Figure 6: Gender Response Findings

Respondents had an opportunity to select the age group in which they belong and the results were as follows;-

58% (39) were respondents belonging to the age group between 21 to 24 years old, 28% (19) were respondents between 25 to 39 years of age, 11% (7) were respondents in the group of 40 and over years of age and 3% (2) were respondents at the age of 20 and below.

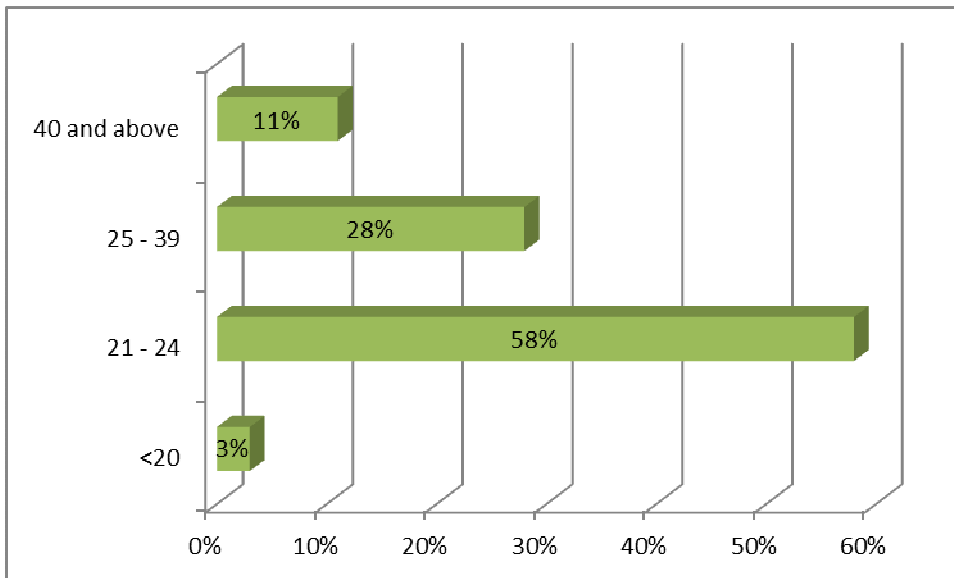


Figure 7: Age group findings

In the questionnaire, respondents were requested to indicate student status they have, and undergraduate topped up the representation with 60% (40) were undergraduate students, 37% (25) students were postgraduate and 3% (2) students were taking PhD courses. The major representation of the undergraduate students can be backed up by the age score whereby most respondents had between 21 and 24 years.

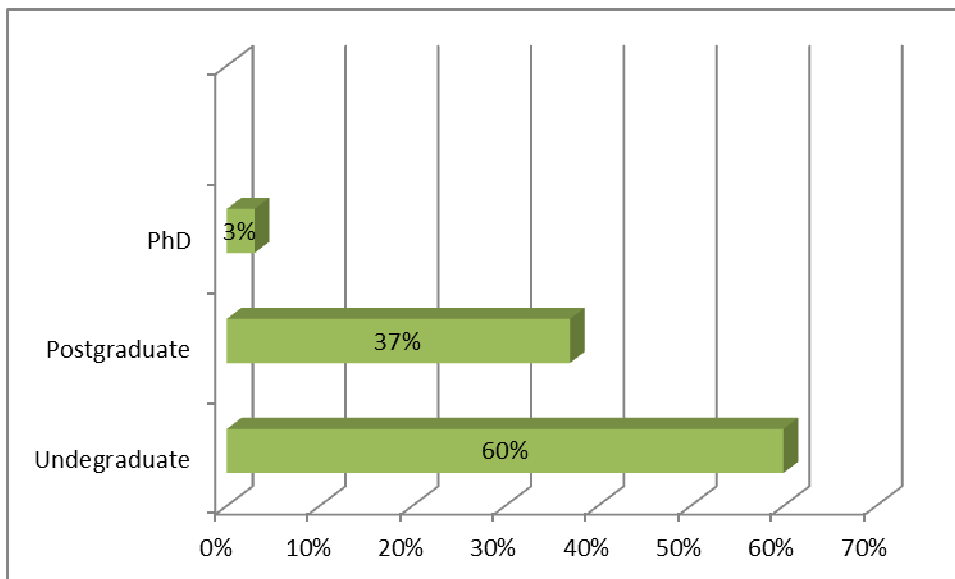


Figure 8: Student status findings

Strategically the questionnaire had to request for one's course of study and the results showed that 42% (28) were engineering students, 25% (17) were natural science students, 16% (11) were arts and social sciences students, 11% (7) were education students and 6% (4) were development studies students.

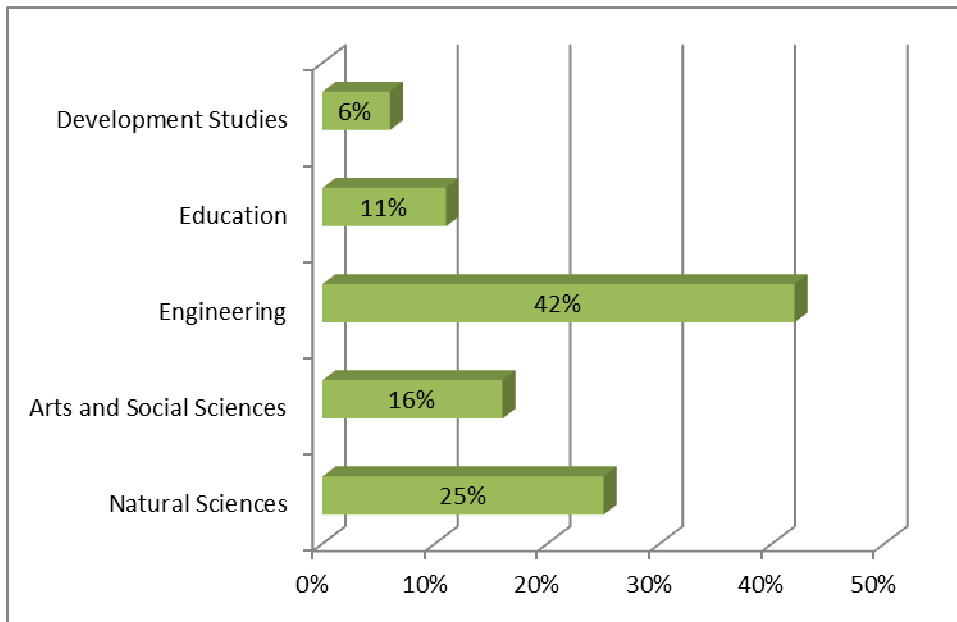


Figure 9: Course of study findings

The questionnaire provided an opportunity for finding out about the students' residence and the results showed that 79% (53) of all the students were residing on campus at Mlimani and 21% (14) were off campus.

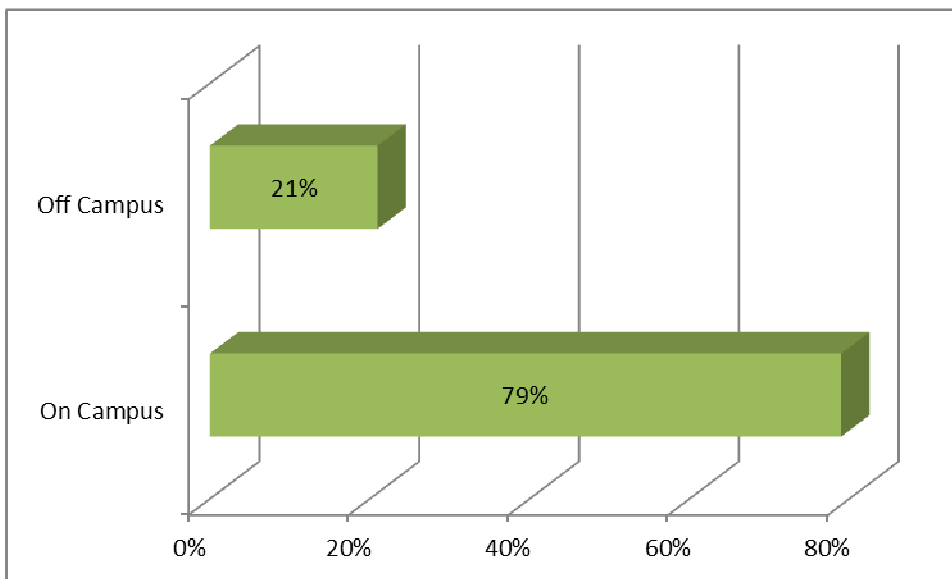


Figure 10: Residence status findings

Discussion on General Questions

Out of the findings from the first part of the questionnaire it is revealed that more responses were received from male respondents. The largest proportion of students who responded aged between 21 to 24 years old, the age that is most active in the use of the social networking sites according to the literature. According to study by Pew Internet (2012), the most active age group in the use of social networking is 18 – 29 years (87% of all users surveyed), followed by 30 – 49 years old.

Out of this study males (69%) have dominated the use of social networks as compared to the females (31%). But with the recent studies going on around there are results that show women to be using the social networks more than men. However there is an exchanging trend of dominance by type of social networking sites.

Most of the students were pursuing undergraduate studies and engineering students were leading the group as compared to the rest of the courses. The residence was on campus to most of the students who took part into the study and others were off campus including homes and hostels.

4.2 TECHNOLOGY ISSUES:

This section analyzed the use of Internet, and respondents were asked to indicate from where they access internet, the purpose of their Internet activities, nature of academic use, the speed of Internet, bandwidth and flexibility of Internet services in modern Tanzania.

From the results, 98% (66) had access of Internet at the University. The question allowed multiple answers and the yielded a total count of 173 responses. The Internet access via cellphone had 78% (52) and access from home scored 64% (43) and only 18% (12) had access via Internet cafés.

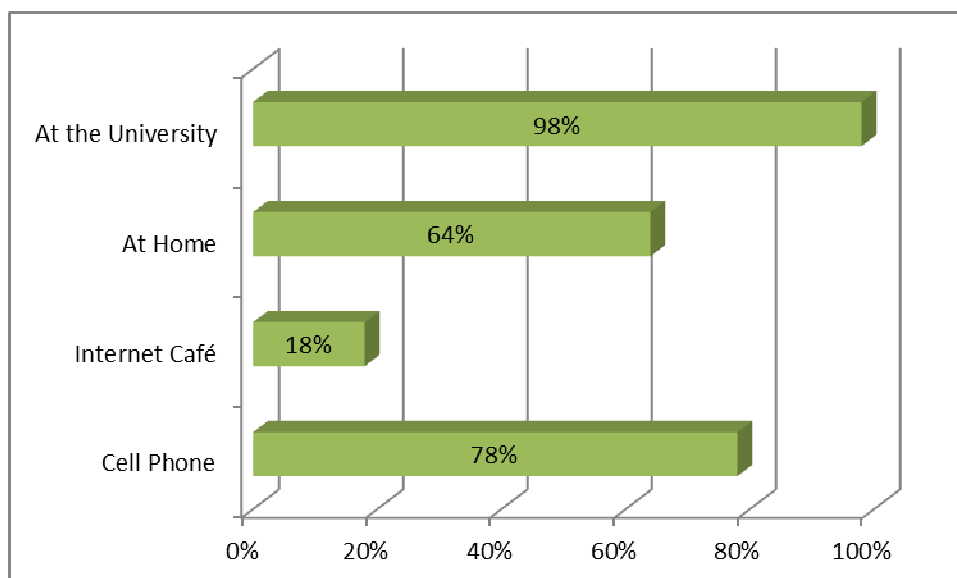


Figure 11: Internet access findings

Respondents were given opportunity to indicate the purpose of their use for Internet, and for purpose of email was 96% (64) and connecting with friends via social networks was 95% (63). For the purpose of news was 52% (35) and 54% (36) was for chatting. The use for academic purposes was 62% (41) that shows to be not a widely used platform for education. Multiple answers were allowed and the total response count was 239.

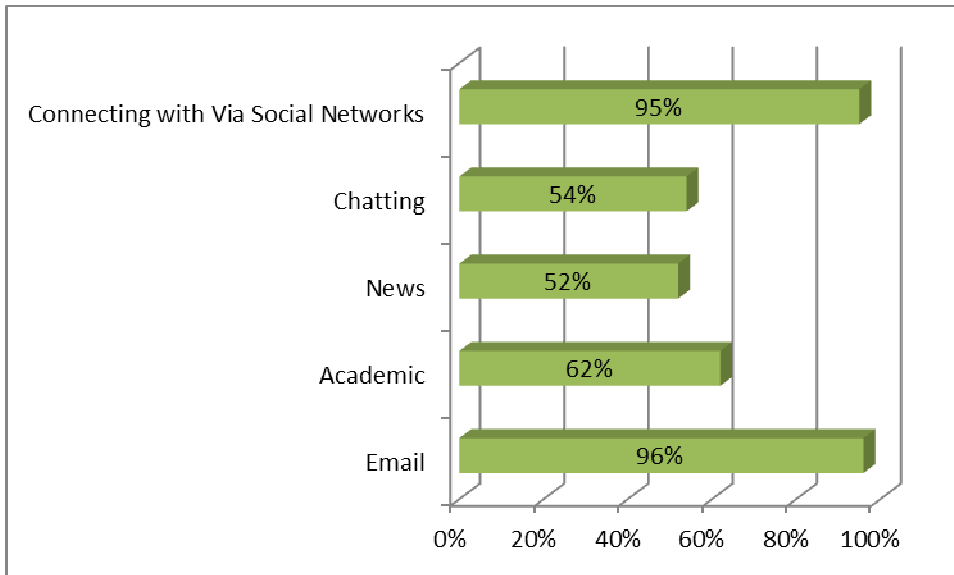


Figure 12: Internet use findings

The questionnaire went further in asking about the exactly use in terms of academic purpose and the results showed that 94% (63) was for discussion on academic matters. The question allowed multiple answers and it was interesting to see that the use for tutorial space 63% (42) and the use for sharing of course materials 61% (41) had almost been in comparison.

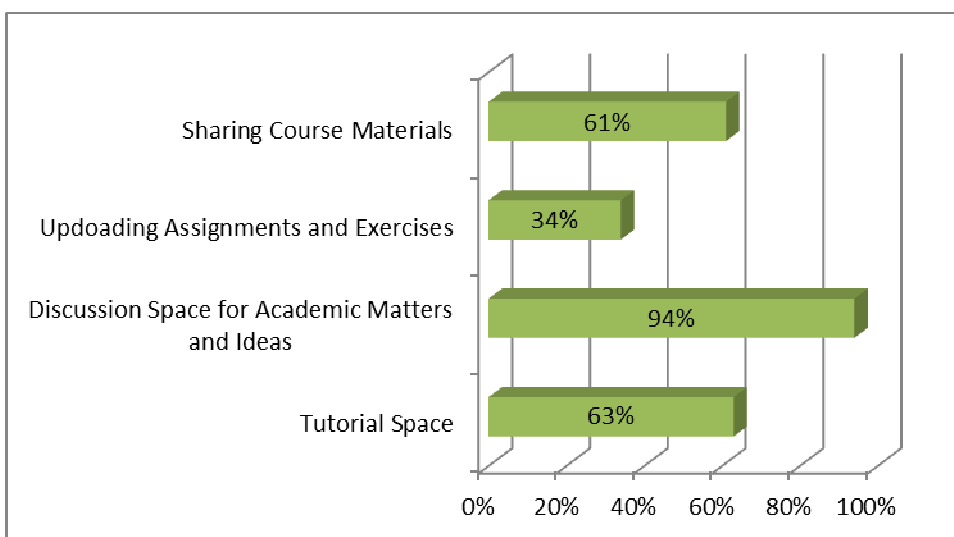


Figure 13: Academic use of Internet findings

When asked to give their opinions on the status of Internet access today in comparison to the past five years in Tanzania. The responses were 89% (60) readily available with number of ISPs to opt from while 11% (7) had feelings that it is still difficult to access.

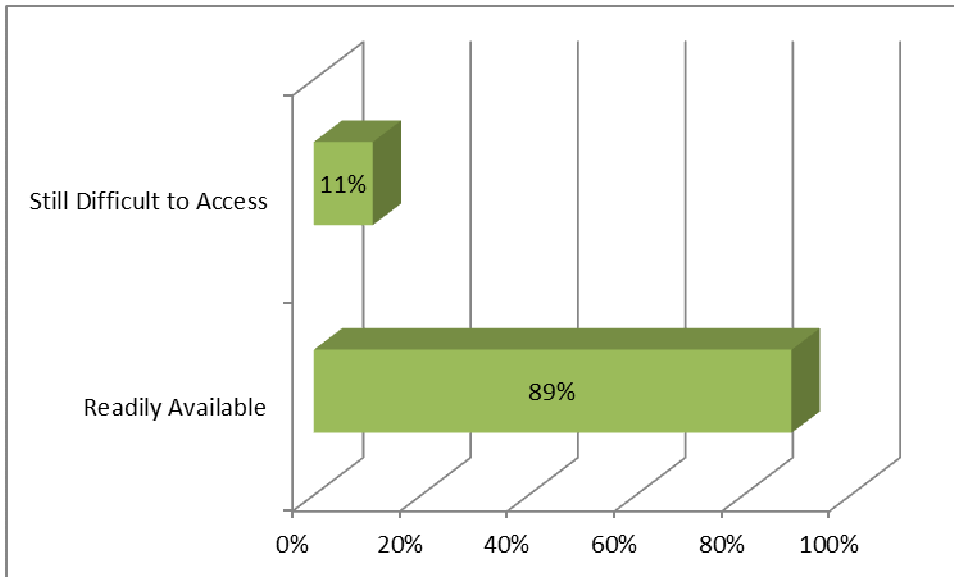


Figure 14: Internet availability findings

The questionnaire wanted to know about the sufficiency of bandwidth and the results showed that 97% (65) agreed that it was sufficient and only 3% (2) disagreed.

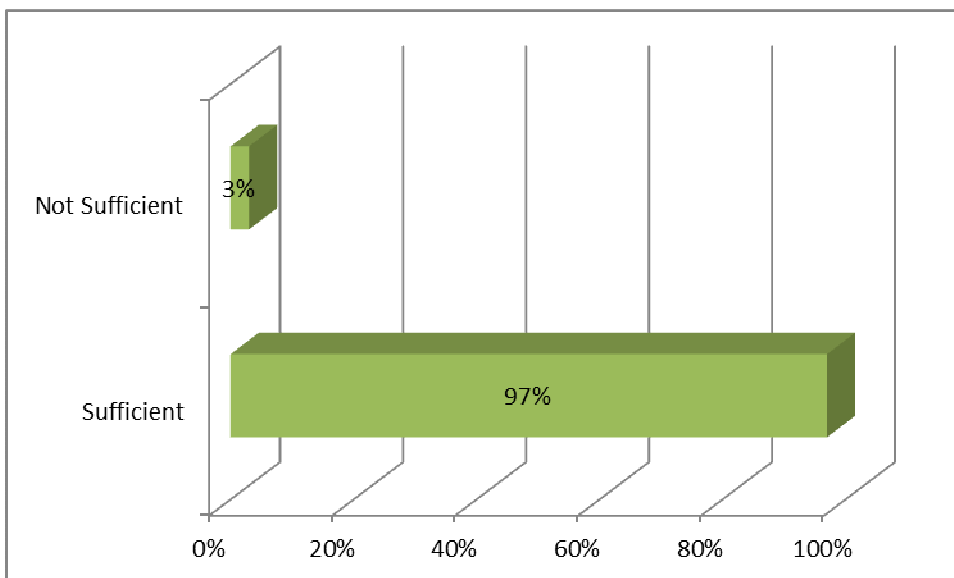


Figure 15: Bandwidth findings

Questionnaire asked about the Internet flexibility in Tanzania and the respondents indicated that 68% (46) was widely accessible and 32% (21) indicated to be fairly accessible. There has been no score for poor and very poor.

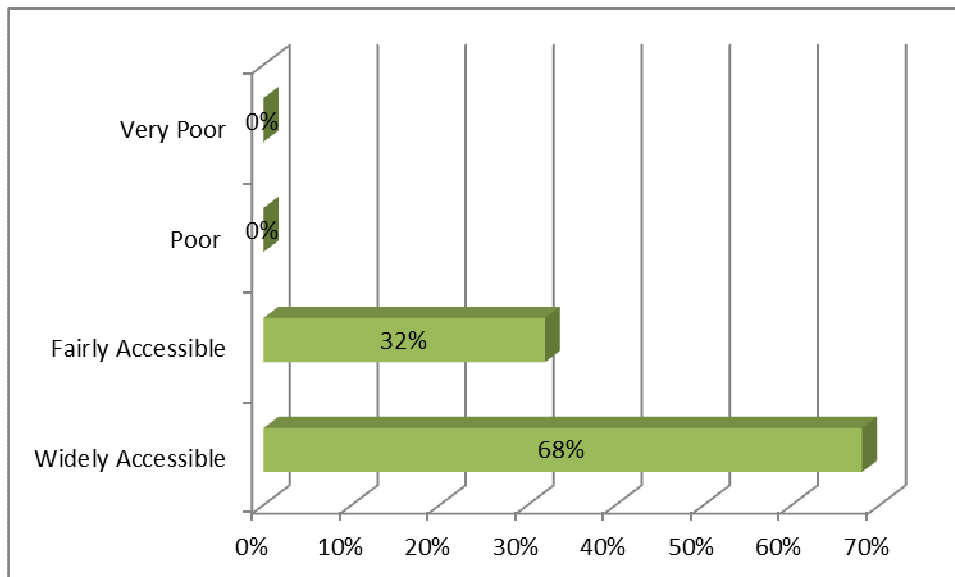


Figure 16: Internet flexibility findings

Discussion on Technology issues

Internet accessibility at the University has been identified as the main access point, followed by mobile phones and access from home. Very few did access Internet via Internet café. The reason given is that, Dar es Salaam University provides various computer labs with Internet access and yet there are various wireless (WIFI) hotspots for connectivity. Due to the fact that, University of Dar es Salaam was issued a free international data license, the Internet service is restricted to the University community and resale of services to the general public is prohibited. (UNECA). i.e The Internet services are restricted to the University community only, and yet satisfying the academic community

Some indicated that there is a wide option of mobile Internet with flexible bundles to suit for each one's choice. All six major telecommunication companies (SASATEL, TIGO, TTCL, AIRTEL, ZANTEL and VODACOM) are all providing internet services via 3G, GPRS, WSPA, and memory stick kind of modems. Yet there are other options via satellite links (VSAT), fiber optics cables, WIMAX for corporate customers and wireless (WIFI) hotspots mainly for metropolitan areas.

With status of Internet in comparison to the past five years, respondents showed satisfaction with the availability and pointed out the presence of various ISPs. This includes the laying down of three big internet fiber optics cables (SEACOM, TEAMS and EAZY) and distribution of Tanzania National ICT backbone has improved the situation. 89% of the respondents revealed that internet is readily available with a number of ISPs to opt from, and 97% agreed that the bandwidth is sufficient for normal traffics such as visiting webs and accessing portals.

In terms of bandwidth the majority of the respondents indicated that satisfaction with both the download and upload speed, although they insisted that with large files it is too hectic as there are limited bundles allocated or rather speed is limited so as not to affect other users on a network.

From the respondent the results revealed that purpose of Internet use by most of them is mainly for connecting with friends and colleagues and that for academic use is only 62%. The results for academic purposes were yet encouraging in a way that discussions pertaining to courses take place. According to Jamieson (2004), many students have moved on, with their social lives and using of online tools that are much more flexible and user centered, whilst the academic staff are still struggling to work out how best to make use of older technologies.

In addition, students revealed that they use sometimes discussion groups via Google or Facebook based on their courses and interests. They further pointed out that there are portals and learning management systems and thus no enough sensitization has been made to use social networking sites for educational issues. The portals that are current in use at the University are UDSM alumni web portal, ARIS (for record keeping), MITOCW (courseware), iLab, Open source MOODLE, Blackboard Learning Management System and ZARIS (Zalongwa Academic Registrar Information System).

4.3 Social Networking Sites issues

This part of questionnaire had intent to inquire on which social networking sites were popular and mostly used by the students.

Among the social networking site in use Facebook topped up with 96% (64) of respondents' preference, followed by blogs 92% (62) and Twitter 88% (59). Other scored 55% (37), LinkedIn and MySpace both scored 42% (28) and 26% (17) respectively. The question allowed multiple answers whenever possible the total responses receive were 267, and there was not response on the use of Xing and Bebo.

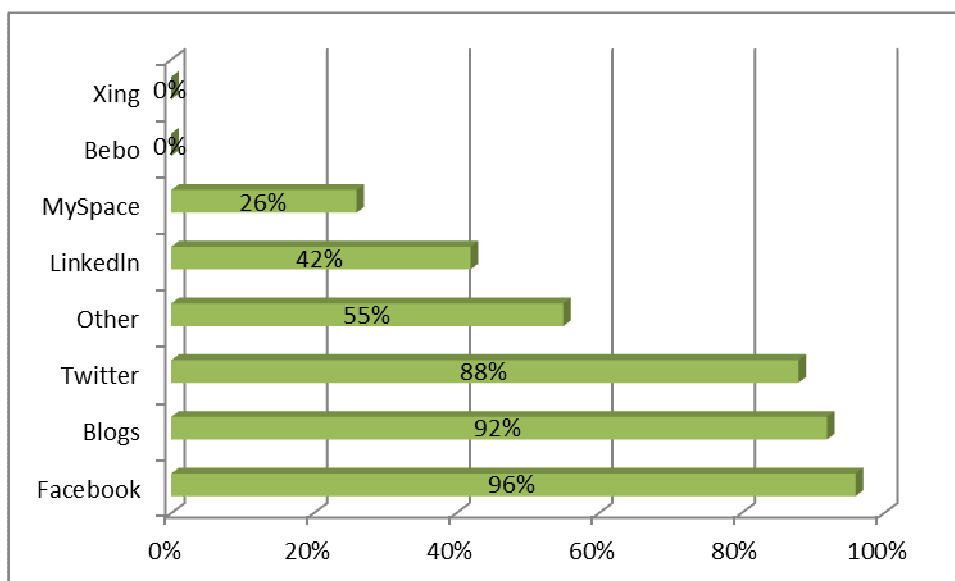


Figure 17: Findings on social networking sites in use

The questionnaire wanted to explore the number of times respondents pay a visit to the chosen social networking sites. The results showed that 75% (50) pay visit several times a day, 18% (12) paid a visit 4 to 5 times a week and 7% (5) paid a visit 1 to 3 times a week.

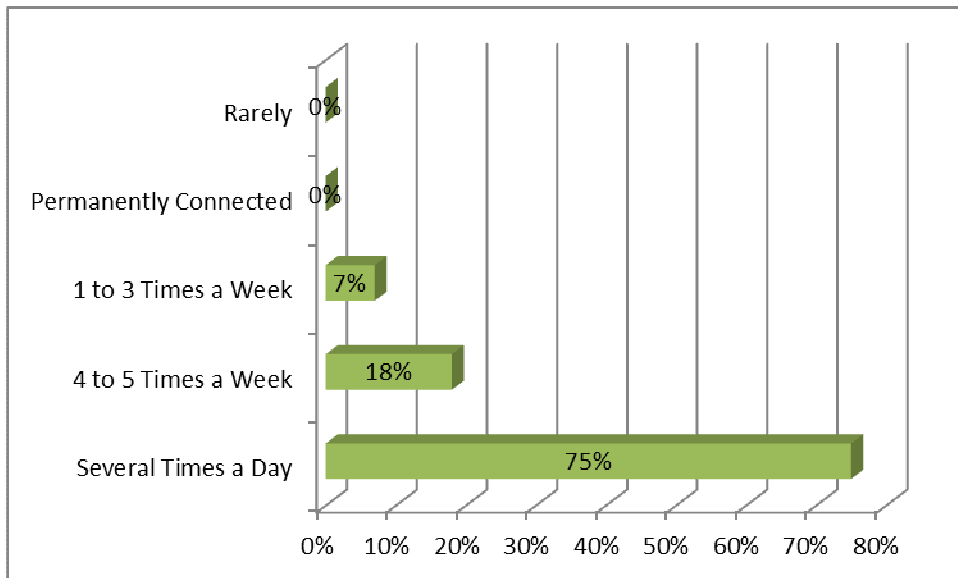


Figure18: Findings on number of visits

When asked about the reasons for their visits to the social networking sites, 96% (64) showed that it is for connecting with friends, 63% (42) to share academic interests, 37% (25) looking for professional opportunities, 23% (15) was to find friends with similar interests. The questionnaire provided an opportunity to select multiple answers and the total responses yielded was 146.

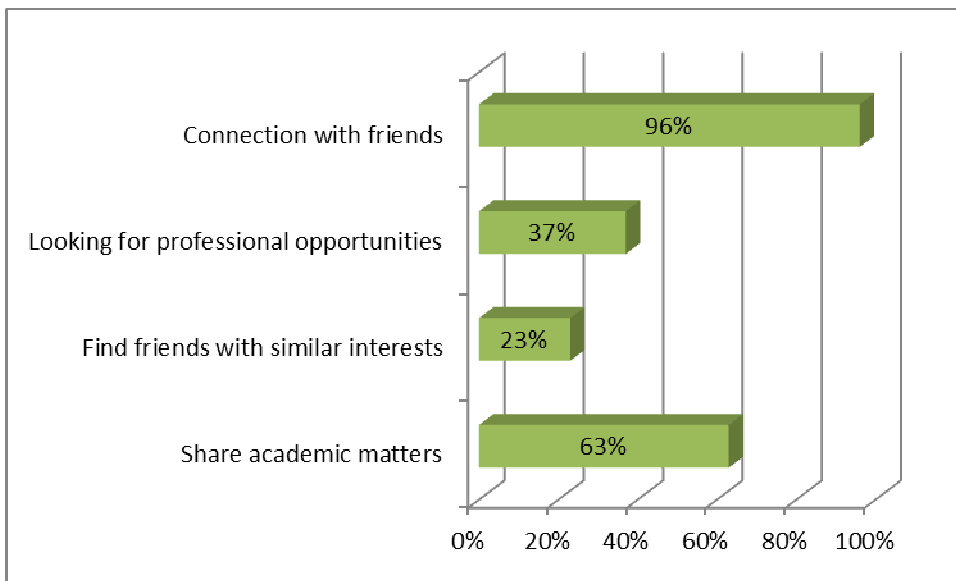


Figure 19: Findings on reasons for visits

Discussion on Social Networking Sites Questions

Several visits to the social networking sites in day were popular by scoring 75% of the total responses. However when asked of the reasons for visits 96% showed that interest with socialization among friends and 63% for sharing academic interests.

They explained that the presence of other online learning management systems such as Moodle as the factor for most of them not involving much into the use of the social networking sites for educational purposes.

Facebook was the most preferred social networking site, followed by blogs with 92% preference rate. Students pointed out the use of other social networking tools such as YouTube, games and forums whereby they claim to get whatever they need in support for their studies on top of socialization. This finding has confirmed the literature that shows Facebook to be the leading social networking site globally. Rambe and N’gambi, (2011), revealed that unlike Learning Management System’s (LMS) collaborative tools such as discussion boards and chats, which learners often conceive as provided by the institution and open to educator manipulation and regulation, learners usually perceive Facebook as a technology in their control.

4.4 Information Sharing and Educational Pedagogy issues

The questionnaire wanted to explore the presence of self-built social networking sites for educational sharing and the results showed that 73% (49) agreed and 27% (18) disagreed.

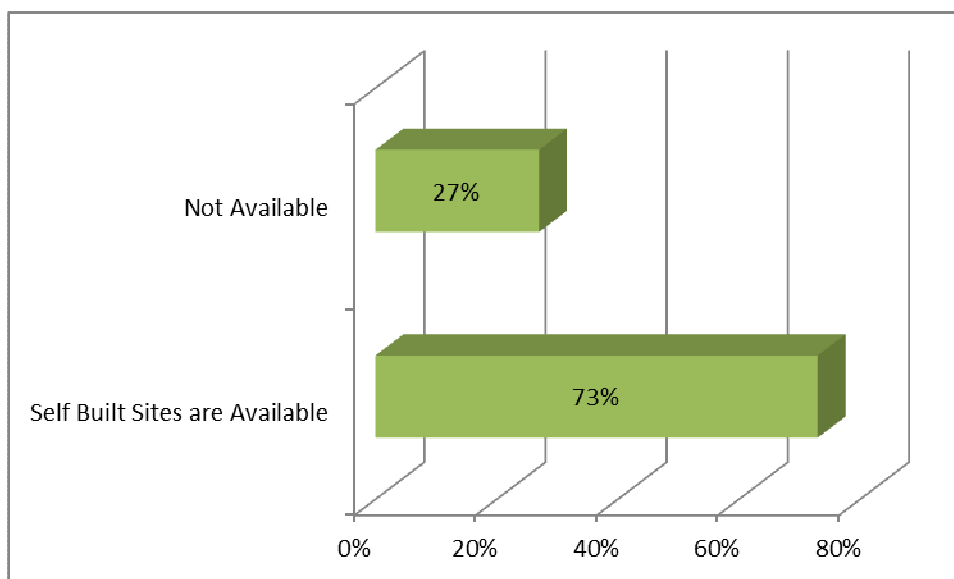


Figure 20: Findings on availability of self- built social network for education

The questionnaire went further in exploring if the self-built sites are present then how useful are they in education. The results were 88% (59) agreed to be very useful and only 12% (8) showed a disagreement.

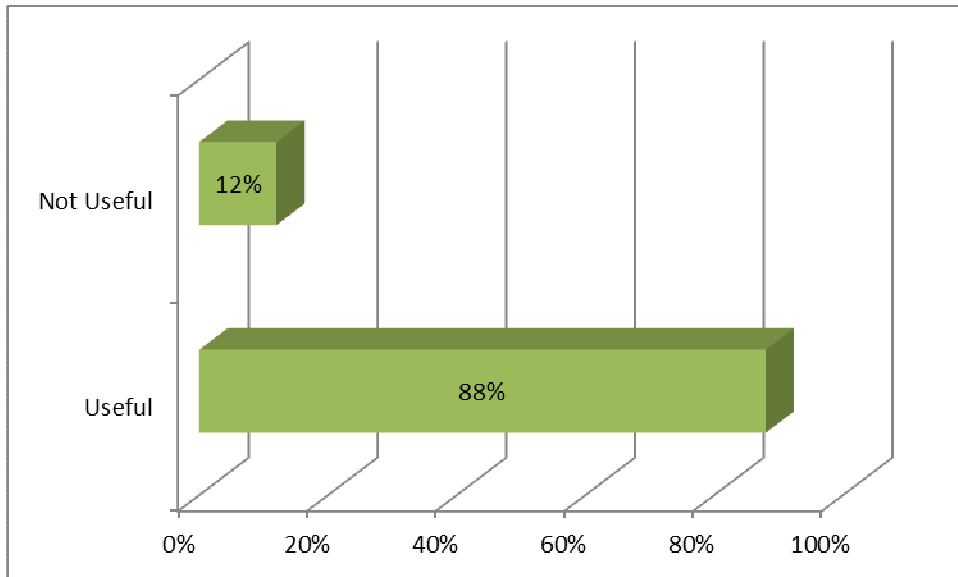


Figure 21: Findings on usefulness of social networking sites in education

When asked to indicated if there is a grooming opportunity to encourage building of networks for educational sharing. Moreover those sites to play part on knowledge dissemination the results were 92% (62) agreed and 8% (5) disagreed.

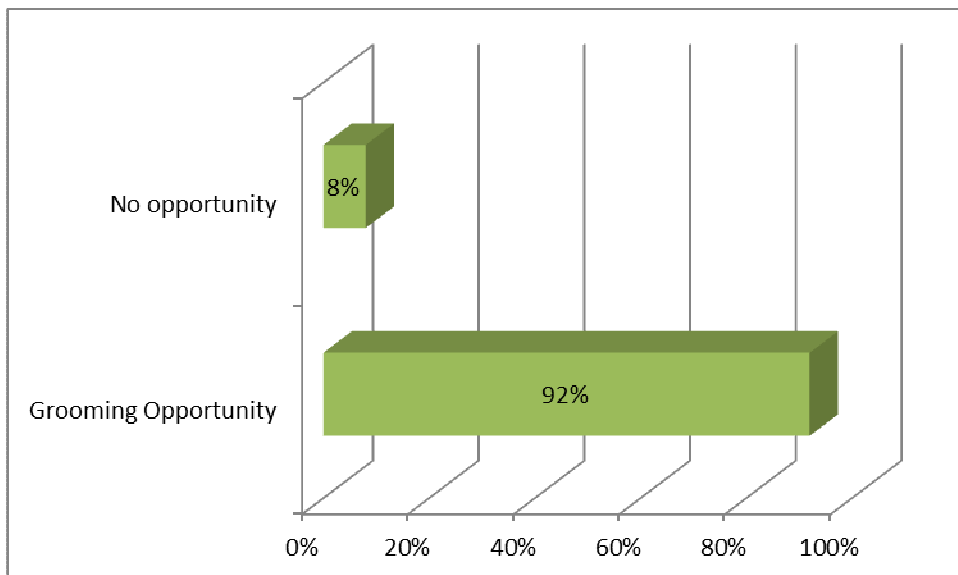


Figure 22: Findings on grooming opportunities for building networks for educational sharing

The questionnaire wanted to explore the way respondents take the use of social networks in information sharing and knowledge impacting. The results showed that 65% (44) had impression that it is a two way process, 32% (21) see it as one way process and 3% (2) still viewed it as the traditional method.

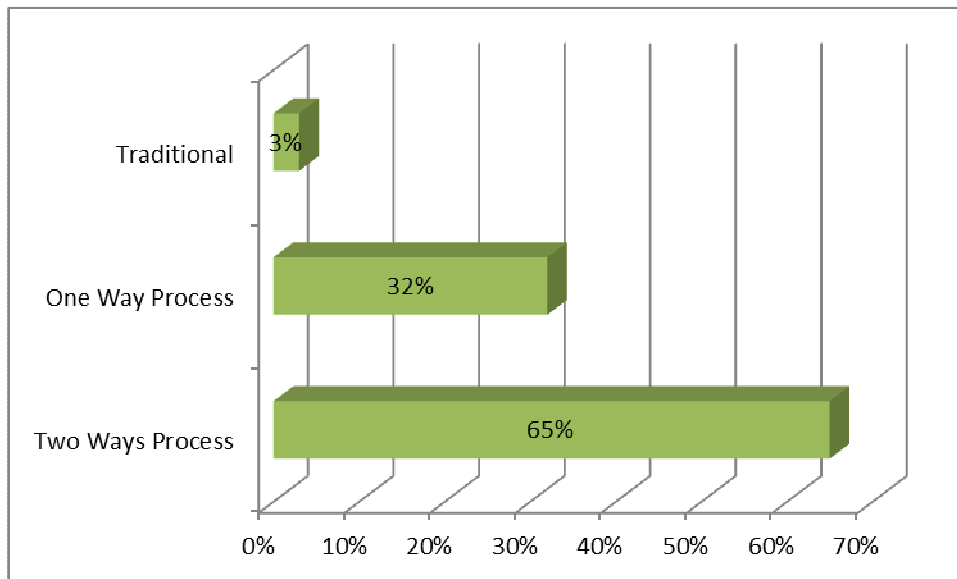


Figure 23: Findings on the view of interactive behavior of social networks in education

Respondents were further asked about the possible measures to address and promote the idea of using the social networks in educational pedagogy. The results showed that 87% (58) agreed with sensitization to students and educators, 68% (46) wanted to see the students and educators are given access to Internet and technology and 42% (28) agreed to distribution of Internet and accompanied Information technology across the country and only 12% (8) agreed to forcing the government to initiate Internet centers free to everyone.

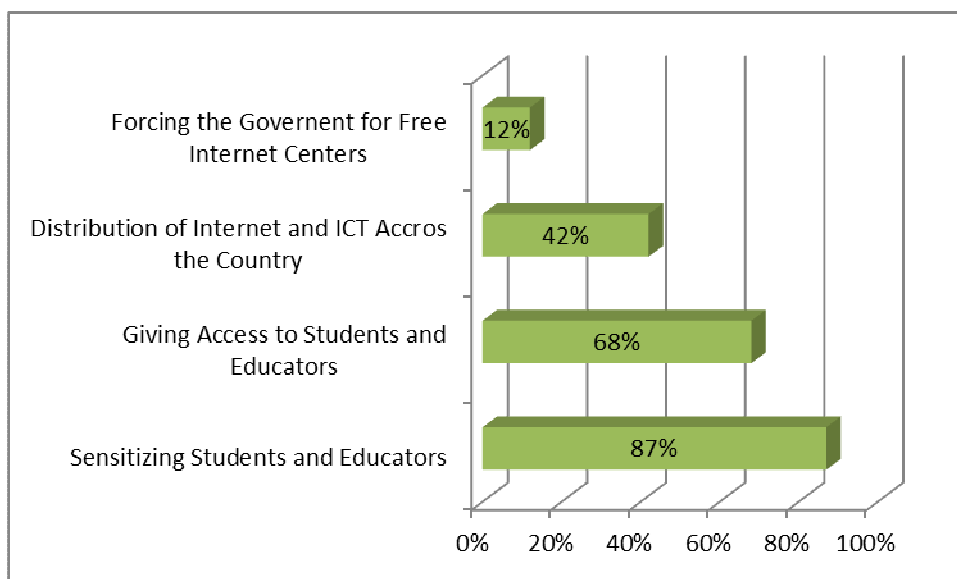


Figure 24: Possible measures to address and promote the use of social networks in education

Discussion on Information Sharing and Educational Pedagogy Questions

Respondents agreed to the presence of the self-built social networking sites for information and education sharing. 72% of the respondents agreed to this and pointed out that they do have Facebook pages, Google groups and others for their course material sharing. They use the same for discussions and tutorials. Invitations would be sent and accepted from members who follow the same particular course. Sometimes the lecturers would build a course site whereby assignments and tutorials are post but not widely practiced.

92% of the respondents agreed to the grooming opportunity to encourage building of self-social networks for educational sharing. They agreed that social networks are the convenient way to collaborate and share academic information widely and to a faster pace. Owing the fact that some courses are being shared among students of different departments (case of development studies courses and mathematics), and then the social networks can assist for tutorials and discussions despite one's timetable. This importance is supported by Moran et al. (2011) who researched on Pearson faculty use of social media, they found out that nearly two-thirds of all faculties have used social media during a class session, and 30% have posted content for students to view or read outside class. Over 40% of faculty has required students to read or view social media as part of a course assignment, and 20% have assigned students to comment on or post to social media sites. Online video is by far the most common type of social media used in class, posted outside class, or assigned to students to view, with 80% of faculty reporting some form of class use of online video.

The respondents (65%) showed that the use of social networks is the two way process in terms of learning as the students can share and collaborate on each other's critical views on the subject matter (the flow is not one way but rather interactive). The ideas presented are enriched by the participants as opposed to the traditional way whereby there is only one flow of knowledge and information that is ideally unchallengeable. That is, students can criticize each other, can add new information, edit and even contribute a new idea related to the topic in discussion.

Sensitization to students and educators (87%) is the leading possible measure in making sure that students devote themselves to and make use of social networks for education. The World is changing in this aspect and those students need to adjust themselves accordingly.

Chapter.5: CONCLUSION

This report aims at providing wider information on the social networking sites, and the importance of social networking sites in education. The data are from current literature and subsequent review of the concepts of web 2.0, social networking sites and it's relation to education.

In empirical study a total of 92 invitations were sent out for students to participate in the study and the instrument used was questionnaire. The usable responses were 67 and results were collated in the MS excel spreadsheet for analysis.

The results of the empirical study among the student who use social networking sites have been presented and discussed.

The findings of the survey and discussion of the results show that there is use of social networks in education in Tanzania but the means have not been fully utilized (only 63% according to this study). That is student have not been sensitized enough and not much has been done to make it happen.

According to this study, the global use of social networks in education is promising (63%). Yet, the countrywide faces challenges that hinder full utilization. It is the fact that not much has been done to sensitize students in schools and colleges/Universities to use social networks in education and especially in rural areas. The following factors are related to the low usage of ICT and accompanied Internet facilities;

- *Infrastructure and cost of bandwidth: Many rural and remote schools and colleges depend on VSAT satellites for Internet and data connectivity. This results into higher cost of bandwidth and in turn low use of ICT and related facilities.*
- *Due to the fact that Kiswahili is the widely used language as compared to English, many students find comfort in using Kiswahili. Much software has been developed in English, although there are changes to produce Kiswahili versions as well. e.g Microsoft Windows 7 Kiswahili Pack, Microsoft Office Kiswahili Version and other Open Source Software.*
- *Lack of electrical power in some areas and power shedding at large pose a big hindrance in using ICT and Internet. Some schools and colleges/Universities do not have even an access to the National grid for electricity. Thanks to some donors, some schools and colleges are now getting electrical power by solar energy.*

Working on the above and increase sensitization to students and teachers will realize the fully utilization of the social networks in education.

In addition, the completion of the National Fiber Optic Network (NAFN), that is expected to cover all districts and regions by the end of the year 2012, will boost the use of the ICT and Internet in schools and colleges/Universities. This project is jointly financed by China and Tanzania.

Moreover, the government is determined to set aside a budget in the financial year 2012/2013, to fund the special project by the name of Tanzania Beyond Tomorrow (TBT). The project aims at empowering teachers through ICT to teach many students from various

regions. This will definitely trigger the use of social networks in education by learners and facilitators all together.

5.1 ANSWERS TO RESEARCH QUESTIONS

5.1.1 Research Question 1

Is there any significant relationship between online social networks and information sharing in university education in Tanzania?

The first research question, wanted to explore the significant relationship between social networks and information sharing, in University education in Tanzania. Results revealed that, there is a connection and all three categories of University students supported this hypothesis. The study results revealed that 63% use is for academic purposes. Among the reasons for academic use, 94% was for discussion on academic matters, 63% for tutorial space and for sharing of course materials was 61%. This is supported by Mazman and Usluel (2009) who revealed from their study that, more internet and web activities by users have a direct relationship with the possibility of using new learning media. Sharing of electronic resources in web-enabled environments is becoming an embedded practice among University students (Rambe and Ng'ambi, 2008).

5.1.2 Research Question 2

Are more males using social networking as compared to females in Tanzania?

On looking at the question whether more males are using social networking as compared to females in Tanzania, the results revealed that more males (69%) use social networking as compared to 31% of females. Study made by Waldstrom and Madsen in 2007 showed women to be less likely to use social networking sites and the Internet than men, because of lack of information security on social networking sites. But still, the use of social networks gender wise has discrepancies according to Greg Finn who reported the findings by Pew Internet that conducted a study in 2011 (Pew Internet and American Life Project, 2011). He narrated the discrepancies to be due to unpredictable patterns in use of different social networks by gender. The results of his studies revealed that LinkedIn is the only social network that has more men than women and the number nearly doubled. On the other hand Twitter, is almost exactly the opposite of LinkedIn with women making up 64% of the total users. Thus the use of social networking as related to gender depends on particular social network site in use.

5.1.3 Research Question 3

Does social networking sites usage increase as age decreases for Tanzanian University students aged 20 to 45?

On the basis of social networking, the usage increases with decrease of age for Tanzanian University students, aged 20 to 45 years, and the hypothesis was supported by the results. The results revealed that 58% of 21-24 use social networks, followed by 28% of respondents aged 23 – 39 years old while 40 and above is only 11%. However various studies categorize different age class, such as 26 to 39 as active on social media. However, the in general the age group from 21 to 45 is active in social media in the wider population. In the Universities, it is the age from 21 to 45.

5.1.4 Research Question 4

Are the online social networks effective in education dissemination in Tanzania?

However, looking at the effectiveness of social networks in education dissemination in Tanzania, the results showed that 62% supported social networks to be one of the platforms for education. According to Jones (2004), there is a direct link between networking and learning. He further stressed on the importance of facilitating connections between learners, learners and tutors, learners and resources used in their learning.

If the social networking sites and its relation to learning are going to be fully exploited, putting emphasis on knowledge creation and networking, then there is a big benefit in teaching and learning (self-directed learning). The pedagogical potential of social networking sites lies on the fact that students can be able to create and produce contents and ideas on top of collaboration and sharing. Klopfer et al. (2009) supports that web 2.0 can assist very much in learning. This is by bridging the disconnect between the way students are taught in school and the way the outside world approaches socialization, meaning-making, and accomplishment. The authors insist of leveraging the power of web 2.0 and associated technology for instructional gain. That is, the technology has provided the ability to convey concepts in new ways that would otherwise not be possible, efficient, or effective with other instructional methods.

5.1.5 Research Question 5

Can the online social networks in Tanzania be taken as a reliable source of education?

Despite the fact that the social networks have significant influence in the World, its impacts on education and in academics is in infancy stage. In Tanzania, there is a need for educators to reflect in deep about the inclusion of social networking sites in education considering the potentials provided by the online social networks. There is a big need for integrating them into formal process of education in order to bring efficiency and reduce costs in the long run. Social networking sites such as Facebook, MySpace, Twitter, and Friendster are widely used as media for communication, collaboration, and interaction between learners, teachers or faculty in learning communities. (Roblyer et al, 2010).

5.1.6 Research Question 6

How can this be improved to realize the educational development in the community and country wise?

The study has revealed that 87% of respondents' wants sensitization to be done to students and educators, and access to Internet and technology be given to students and educators. This will assist in increasing the use of social networks in education and further determine if can be takes as reliable source of knowledge and education.

This study has shown that if properly integrated and used, social networking sites can be of a great importance into creation of new knowledge by means of collaboration and socialization. The results shown by the report are that users now consume and produce significant quantities of multimedia contents. Moreover, the harnessing of use of social networking sites in education is massive globally. Social networking sites give users the capacity to participate directly in creation, refinement and distribution of shared content. For instance, through the tagging of online content (i.e the labeling of excerpts of text, images or other forms of code), users are able

to sort and share content with each other whilst also appropriating and re-using existing content in the production of their own content.(Selwyn, N).

5.2 LIMITATIONS

This study had encountered some limitations. First there was no personal interview conducted, higher response rate could have been anticipated if personal interview were included but with time constraint this has not been possible. Reminders and close follow up has been done to ensure higher response rate with questionnaire.

Selection of the population was based on the easiness of accessibility to the researcher and to those who were most likely to respond to the questionnaire. Time constraints have as well as been the limiting factor into sampling.

In addition data were taken from only one University taking into consideration that all other Universities have the same learning context as that applied at the University of Dar es Salaam. The future sample for the similar study should be drawn from various Universities and schools for concrete results and findings.

Chapter.6: RECOMMENDATIONS

Provision of recommendation is a key objective for this research and is covered in this part of the report. The recommendations will be based on findings from the empirical study and from the literature survey we conducted.

6.1 IMPORTANCE OF STRATEGY

Strategies should always be formulated and developed before acting. During the development of a strategy, all stakeholders should be involved for their ideas and contributions. This will avoid some complications and barriers whenever performing web activities and furthermore match the aim and objectives of the particular group or organization. It is only through strategy that the educators and their students can plan and get the best out of the use of social networking in educational practices.

Strategy assists very much in determining goals and objectives of the social network. Apart from goals and objectives, one is able to research and add content that will attract more contacts. Relationships will build naturally and strengthen with time, while at the same time be able to measure results, adapt and improve for the benefits of both students and teachers.

In this case, Tanzania can put her strategies based on the latest opportunities available for ICT and educational development. According to Charlie Fripp of IT News Africa, Tanzania is one of the fastest growing African Nations in terms of ICT development and mobile deployment. (itnewsafrika.com, 2012).

“While Africa’s Internet penetration rate is only 13.5% which is way below the World average 32.7%, Tanzania ranks as one of the Africa’s top countries when it comes to the number of users on the net. The country ranks 6th in Africa on the World Internet Stats chart with 5.9 Million users, just below South Africa with 6.8 Million users”. (itnewsafrika.com, 2012).

On top of that, Tanzanians are rapidly increasing in using mobile Internet. In this way if successfully sensitized on taking advantage of the ICT and social networks will sooner rather than later realize the potentials of social networks in education. In 2010, there have been 3150 fixed broadband connections in Tanzania, that is one connection for every 0.001 people in a country where 5.9 Million people have access to the Internet (itnewsafrika.com, 2012).

Furthermore, Tanzania has been the first country in Africa for launching of commercially-available LTE (4G) technology for mobile Internet. This signifies the presence of wider opportunities for integration of ICT into many sectors including education. Yet, recently Tanzania has launched the project named “Tanzania 21st Century Basic Education Structure”. The project is being considered to be the best compared with other systems in East African region by experts (Southern and Eastern African Consortium For Monitoring Educational Quality (SACMEQ)). The project is being supported by the United States Agency for International Development (USAID), through Information Technology and is expected to help in the development of primary education.

This project and others, such as this coupled with sensitization of students in using social networks, will result into fruitful outputs in terms of education empowerment to Tanzanians. Thus, seizing of such opportunities is inevitable and should familiarize with setting of important strategies, in determining the use of ICT and accompanied social networks in education.

6.2 USE OF SOCIAL PROFILE

Still educators, students and even Educational Organizations can open and maintain the online social networking profile so long as many social networking sites allow individuals and Organization to make profiles and start own groups.

This can be used to send out information, invitations, and newsletters to members and non-members so as to sensitize on the importance of engaging in online activities for educational benefits. Feedback will be yielded in this way and will assist in the improvement of the pedagogy and other related learning activities.

Using social bookmarking, the large audience of people is reached and it is an excellent way for information dissemination. This is very important especially to educational organizations. Embedding social bookmarks into the organizational websites will assist the visitors to share the content of the webpage with other sites and thus reaching a multitude of other websites.

This will allow more and more dissemination of information and knowledge to realize the potentials of the social networking sites in education

The Web 2.0 is readily accessible to everyone. Students, educators and educational organizations can take advantage of this by creating their own tools that can be shared on social networking sites. In this way more collaboration will be realized and two way educational processes attained effectively.

Involving the stakeholders of education in discussing and brainstorming about various potentials of social networks to different learning activities will be an advantage as they can share rich ideas on how to use Web 2.0 effectively in education.

6.3 EFFECTIVE INTEGRATION OF SOCIAL NETWORKS IN EDUCATION

Appropriate integration of social networks into education, will assist effectively in a beneficial way, mutually in for learning. With the implementation of *Tanzania Beyond Tomorrow* project, social networks will play an important role. Students will not only be able to converge in a classroom but also interact massively via e-Learning platforms. In this way discussions and other learning activities will be best achieved via social networks.

Sufficient sensitization to ICT usage, to e-learning and to social networking will see Tanzania going an extra mile in enhancing education, and thus contributing a great deal in country's development in the information age.

6.4 AREAS FOR FURTHER RESEARCH

We feel that if there were enough time, the need for involving larger scale sample containing users from varied demography would have been worth.

Further researches are suggested to be conducted on the following:-

- *Moral and cognitive protection of students and children while using social networking sites for education.*
- *Privacy, trust and security issues associated with the use of social networking sites in education.*
- *Whether there is a need for involving teachers in regulating the social networking sites for education purposes.*

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APPENDICES

Appendix A: Questionnaire

Informed Consent

I would like to welcome and thank you for taking your time to respond this questionnaire.

I am conducting a thesis project as on the requirements for completion of the program of Master of Science in Informatics at Blekinge Technological University in Sweden.

I am investigating the possibilities of using the online social networks in information sharing and its inclusion in the educational pedagogy in Tanzania.

In this questionnaire you will be asked to respond according to your opinion and I hereby consent that the data gathered will solely be used for the purpose of thesis project stated herein. Data will be used confidentially and anonymously and no details will be collected that could possibly reveal your identity and personal information.

General Questions

Section A: General Questions

1. Please choose your gender
 - a) Male
 - b) Female

2. Please select your age group
 - a) < 20
 - b) 21 – 24
 - c) 25 – 39
 - d) 40 and above

3. Please select your student status
 - a) Undergraduate
 - b) Postgraduate
 - c) PhD

4. What is your course of study?
 - a) Engineering
 - b) Natural science
 - c) Arts and social sciences
 - d) Education
 - e) Development studies

5. Please select your residence
 - a) On campus
 - b) Off Campus

Technology Questions

6. From where do you access internet? (Multiple answers are accepted)
- a) At home
 - b) At the University
 - c) Via cell phone
 - d) At the Internet café
7. What is the common purpose of your Internet use? (multiple answers are accepted)
- a) Academic
 - b) News
 - c) Connecting with friends via social networks
 - d) Chatting
 - e) Email
8. In terms of academics, what exactly do you use social networks for? Multiple answers are allowed)
- a) Sharing course materials
 - b) Uploading assignment and exercises
 - c) A discussion space for academic matters and ideas
 - d) Tutorial space
9. How do you find Internet access today as compared to the last five years in Tanzania?
- a) Readily available with a number of Internet Service Provider to opt from
 - b) Still difficult to access Internet

10. Does the bandwidth suffice your requirements?

a) Yes

b) No

11. How do you find flexibility of Internet in Tanzania today?

a) Widely accessible

b) Fairly accessible

c) Poor

d) Very poor

Online Social Networking Questions

Section C: Online Social Networking

12. Which of the following social networking sites do you use?
(multiple answers are allowed)
- a) Various blogs
 - b) LinkedIn
 - c) Facebook
 - d) Twitter
 - e) MySpace
 - f) Hi5
 - g) Xing
 - h) Bebo
 - i) Other
13. How often do you visit the selected sites?
- a) Permanently connected
 - b) Several times a day
 - c) 1 to 3 times in a week
 - d) 4 to 5 times in a week
 - e) Rarely
14. Why do you like visiting the selected sites?(multiple answers are allowed)
- a) Share academic matters
 - b) Find friends with similar interests
 - c) Looking for professional opportunities
 - d) Connection with friends
-



Information Sharing and Educational Pedagogy Questions

Section D: Information Sharing and Educational Pedagogy

15. Are there self-built blogs or rather online networks for educational sharing in your University?
 - a) Yes
 - b) No
16. If yes from question 15 above, are the networks useful in academic terms?
 - a) Yes
 - b) No
17. If no, do you think that there is a grooming opportunity to do that and take it as part of the teaching and knowledge dissemination?
 - a) Yes
 - b) No
18. How do fellow students take the use of social networks in information sharing and knowledge impacting?
 - a) Two way process
 - b) On way process
 - c) Same as traditional methods
19. What can be the possible measures to address and promote the idea of using online social networks in education pedagogy? (multiple answers are allowed)
 - a) Sensitize students and educators all around the country
 - b) Distribute Internet and accompanied Information Technology across the country
 - c) Making sure that students and educators have access to the Internet and technology





Appendix B: Questionnaire Results

1. Please choose your gender

		Response Percentage	Response Count
Male		69%	46
Female		31%	21




Answered Questions: 67

2. Please select your age group

		Response Percentage	Response Count
<20		3%	2
21 - 24		58%	39
25 - 39		28%	19
40 and above		11%	7






Answered Questions: 67

3. Please choose your student status

		Response Percentage	Response Count
Undergraduate		60%	40
Postgraduate		37%	25
PhD		3%	2

Answered Questions: 67

4. What is your course of study?

		Response Percentage	Response Count
Engineering		42%	28
Natural Science		25%	17
Arts and Social Science		16%	11
Education		11%	7
Development Studies		6%	4





Answered Questions: 67

5. Please select your residence

	Response Percentage	Response Count
On Campus 	79%	53
Off Campus 	21%	14






Answered Questions: 67

6. From where do you access Internet

	Response Percentage	Response Count
At Home 	64%	43
At the University 	98%	66
Via Cell Phone 	78%	52
At the Internet Cafe 	18%	12





Answered Questions: 173

7. What is common purpose of your Internet use?

	Response Percentage	Response Count
Academic 	62%	41
News 	52%	35
Connecting with friends 	95%	63
Chatting 	54%	36
Email 	96%	64



Answered Questions: 239

8. In terms of academics, what exactly do you use social networks for?

	Response Percentage	Response Count
Sharing course materials 	61%	41
Uploading assignments 	34%	23
A discussion space 	94%	63
Tutorial space 	63%	42



Answered Questions: 169

9. How do you find Internet access today, as compared to the last five years in Tanzania?

	Response Percentage	Response Count
Readily available 	89%	60
Still difficult 	11%	7



Answered Questions: 67

10. Does the bandwidth suffice your requirement?

	Response Percentage	Response Count
Sufficient 	97%	65
Not sufficient 	3%	2







Answered Questions: 67

11. How do you find flexibility of internet in Tanzania today?

	Response Percentage	Response Count
Widely accessible 	68%	46
Fairly accessible 	32%	21
Poor	0%	
Very poor	0%	

Answered Questions: 67

12. Which of the following social networking sites do you use?

	Response Percentage	Response Count
Various blogs 	92%	62
LinkedIn 	42%	28
Facebook 	96%	64
Twitter 	88%	59
MySpace 	26%	17
Hi5	0%	
Xing	0%	
Other 	55%	37

Answered Questions: 267

13. How often do you visit the selected sites?

	Response Percentage	Response Count
Permanently connected	0%	
Several times a day	75%	50
1 to 3 times in a week	7%	5
4 to 5 times in a week	18%	12
Rarely	0%	0

Answered Questions: 67

14. Why do you like visiting the selected sites?

	Response Percentage	Response Count
Share academic matters	63%	42
Find friends with Similar interests	23%	15
Looking for professional Opportunities	37%	25
Connection with friends	96%	64

Answered Questions: 146

15. Are there self-built blogs?

	Response Percentage	Response Count
Yes, Self-built blogs	73%	49
No, not available	27%	18

Answered Questions: 67

16. If yes, from question 15 above, are the networks useful in academic terms?

	Response Percentage	Response Count
Yes, useful	88%	59
No, not useful	12%	8

Answered Questions: 67

17. If no, do you think there is a grooming opportunity to do that and take it as part of teaching and knowledge dissemination?

	Response Percentage	Response Count
Yes, grooming opportunity	92%	62
No opportunity	8%	5

Answered Questions: 67

18. How do fellow students take the use of social networks in information sharing and knowledge impacting?

	Response Percentage	Response Count
Two way process	65%	44
On way process	32%	21
Same as traditional	3%	2

Answered Questions: 67

19. What can be the possible measures to address and promote the idea of using online social networks in education pedagogy?

	Response Percentage	Response Count
Sensitize students and educators	87%	58
Distribute internet accompanied information technology across the country	42%	28
Making sure that students and educators have access to the Internet and technology	68%	46
Forcing the Government to Initiate Internet centers free to everyone	12%	8

Answered Questions: 140