# Usage Of Information Communication Technologies (Ict's) Among University Students And Their Social Needs

**Yamna Sabir,** Research Scholar, Department of Mass Communication, Government College University Faisalabad, Pakistan Email: yamnasabir@hotmail.com

**Dr. Ashraf Iqbal, In charge,** Assistant Professor,Department of Mass Communication, Government College University Faisalabad, Pakistan Email: ashraf_zahidi@yahoo.com

**Dr. Badshah Rehman,** Assistant Professor, Department of Islamic Studies, University of Malakand Chakdara Dir Lower, Pakistan. Email:badshahrehman@uom.edu.pk

**ABSTRACT**

The study was conducted to know about the Information Communication Technology (ICT) usage among the university students of Faisalabad. As ICT plays a vital role in the lives of the students. Therefore, the study aimed at the extent to which university students were gratifying their social needs by using ICT gadgets, to know the usage pattern of ICT devices and also to know the enhancement of motivation in the students. In this study survey method was used and data was collected from the students who were enrolled in regular institutions. The study was based on the "Uses and Gratification Theory" and "Diffusion of Innovation Theory". The tool for data collection was questionnaire that consisted of close-ended questions. Likert scale was used in the questionnaire. Probability random sampling was used in for the selection of the correspondents. Sample size of 300 students was taken from different public and private sector universities of Faisalabad. Data was analyzed by using SPSS. By applying chi-square on the data collected from the respondents, the general findings came out were that students were motivated and satisfied by fulfilling their social needs. Over all, the research hypotheses were supported by the results.

**Keywords:** Technology, Communication, Gadgets, Social Needs, Information, Gratification.

## INTRODUCTION

Education is the most important factor of the success of any country. The current trend about the education has vastly expanded in modern world as developed nations are optimizing their education services by integrating the Information Communication Technologies (ICT) in the education system which is helpful for students to get appropriate information about the studies. The educational institutes of Pakistan are also very advanced in the technology of ICT. The previously used manual systems have been converted into the automated websites because of the excess usage of proper ICT services in the premises of institutions.

The present study contains the details about the background of the research topic, in which the basic information about the integration of ICT has been discussed; on the other hand the information about aims and the objectives of the current research topic has been mentioned in this chapter. According to Livingstone (2012) ICT have several definitions but generally it is the usage of the modern computing systems in different departments for the portability and the effective communication between the people. The research is based on the usage of ICT devices in the educational institutions where it is necessary to ease the way of studies for the students in all fields.

Present research was conducted in Faisalabad which is the third largest city of Pakistan. As the city is under the process of development so the number of educational institutions is increasing day by day. There are many public and private sector universities in Faisalabad that are offering full time regular programs in different fields. A well-qualified teaching staff is hired for the sake of quality education. The students are examined through their assignments, presentation work and examinations.

There are seven public sector universities and five private sector universities. Names of public sector universities are University of Agriculture Faisalabad (UAF), Government College University Faisalabad (GCUF), National Textile University (NTU), National Fertilizer University (NFC), Government College Women University of Faisalabad (GCWUF), University of Education, University of Sargodha. Names of private sector universities are The University of Faisalabad (TUF), Preston University, National University of Modern Languages (NUML), Riphah University and University of Engineering Technology. Details of some universities in Faisalabad are given below.

In current era, technology is rapidly increasing in the field of education because the use of computing and technology is necessary for the students to compete with the modern world. ICT is the combination of the communication and the technology, both of them are important to integrate professionalism in the institutes for the better grooming of the students. Previously the institutes were based on the manual systems which were hard and complex. Using ICT gadgets in education saves the time of the teachers as well as the students (Hijzen, 2007).

The present study is conducted to know about the importance, usage as well as the motivation behind using Information Communication Technology (ICT) by the students of public and private sector universities and the gratification of their social needs. Among university students, it is very important to discuss ICT to get more and more productive work from such sources. University students are the building blocks of any country and nation, if they know how to get the latest and most advanced teachings from such devices that can impact their educational and social standards.

**REVIEW OF LITERATURE**

ICT is important in the educational system of a country as it provides opportunities to the students to fulfill their academic needs by spending less money through the use of computer, access to internet, projector, USB devices and gadgets like that. ICT is spreading

rapidly day by day as Bill Gates states that students of present era use better computers as compared to him when he launched his company. ICT is helping governments of almost all countries to develop an advance education system. It is also promoting equality among all the students in getting education. ICT is improving the quality of education by adding advance methods of teaching as well as learning and also minimizing the cost to numerous educational opportunities for the students (Magyar, 2003).

Similarly (Passey, 2003) is of the view that using ICT enhances the level of interest in the curricular activities as well as it gives the ability to think in a broader perspective. Students also give brighter ideas and their learning skills are sharpened. ICT usage adds confidence and motivation in the students that empower them to present their work in a better way. Quality of their work is also increased.

Using ICT for study purposes grab the attention of the students towards academic work and they become more responsible as they observe the points more carefully for their given assignment and are also able to guide their mates properly and able to give logical comments by analyzing the work of other class mates. ICT help the students to complete the given work in proper time as it help them searching relevant data more easily. Along with the quality work, the presentation skills of students are getting better day by day because they are able to search freely without any restriction. Moreover, the spelling, grammar and the skills of editing has been improved by the frequent usage of ICT devices.

Level of communication between the students, teachers, different education welfare officers and career officers with the schools has been improved a lot. Uploading attendance online electronically by using various gadgets have become an easier process both for the students and teachers. Discussion of academic tasks with the teachers and the students and sharing their views digitally by the use of email and different groups on social media has promoted more advantageous activities and like this student are able to spend more time with their work rather than paying attention to extracurricular activities. Moreover, the use of different emoticons while chatting with friends for academic purpose has also become a source of entertainment and an enjoyable activity for the users.

The resource that is mostly liked in ICT by the students of present era is internet because it is widely used by the students to conduct their researches as it gives them most logical and relevant data. Presentation, editing and publishing software are also being used by the students because it boosts up and support the process of learning for the students. Replacement of lessons and presentations with the advance technology of visual aids has promoted the level of interest in the students. Visual aids not only boosted the level of interest in the students while delivering presentation but it also increased the level of conceptual clarification both to the presenter and to the listener. The effect of ICT is more on the students who are older in age as they can use it in a more efficient manner.

It seems that ICT has created a lot of developments in the educational sector and has changed the way of acquiring knowledge through its advancements. It has even altered the living styles as compared to the past. Students use ICT in the classrooms that has created such an ease to study in any field and to contact their peers as well as their teachers for assistance and guidance. Furthermore, it has reduced the level of difficulty that students

face in their academic syllabus. Shareable resources are accessible by the students by the means of ICT. According to the researcher ICT has minimized the obstacles for the students that "When and Where to learn" as it has given access to infinite references to the students who are busy in their project work or research.

ICT has provided a number of facilities to the people who learn as well as who teach. Through ICT usage the formation of the new programs being offered in the universities for higher studies has become an effortless task as one has to design the syllabus by using various sources as it has also reduced the complexities and pressure for the human brain cells and also the nerves. ICT has replaced the traditional style of learning with a number of new options and choices for the students and it accelerates the process of learning. (Oliver, 2002).

ICT includes the technologies that wangle the process of communication as well as the flow of information. Commercial ICT kiosks and community radio are being used for the development and they are spreading with a rapid increase in growth in different parts of the world (Daniel, 2005).

ICT has propelled the technological system in a way that the conventional style of teaching the students has been changed over to the advanced educating style. ICT extends the learning capacity of the students by giving an assorted variety of activities which makes it simple to retain in their own particular swiftness. It boosts up the creativity, a sense of discovering solutions for the challenges and furthermore makes a link between the theories and practices.

There are a lot of reasons for ICT usage in education. The social reason is that it helps the students to get a better place in the society, the vocational reason is that it focuses on the skills through which students would be able to get good jobs in the future, pedagogical reason emphasizes on the improvement of learning and teaching skills by the help of digital gadgets, catalytic reason focuses on the importance of ICT in bringing educational change, where as another reason that belongs to the information technology industry is that it pays attention on the promotion of ICT industry in education and most importantly it also focuses on the reason from which the expanses for acquiring education would be reduced.

Our society is not only a simple society in present era, it has been transferred in the information based society and using different gadgets like computer and cellular mobiles has become a part of daily life. Without it, a student will face a lot of obstacles to survive in the world. Therefore, in early 1980's it was necessary for every student to have basic knowledge of ICT and hence in North America and Western Europe computer literacy was added as a subject in the syllabus for the students (Voogt, 2003).

Through the application and in addition the use of ICT, constant learning is the passage to construct a solid, capable and dynamic elucidation of information. By utilizing and applying ICT for scholarly needs the students can connect socially which makes it easy for them to communicate with each other by utilizing distinctive gadgets (Vygotsky, 1978).

ICT supports the performance of students in various activities and motivates them. Educational opportunities and learning for long lifetime are due to the help and strength of far reaching tools of ICT. The researcher is of the opinion that ICT is a miracle to the people of the community who are minor in quantity i.e. the disabled person as well as the people with different religion. In other words ICT tools brought comfort to the minorities of a society who are not able to participate in different tasks physically but can participate in all activities virtually. Furthermore ICT has provided the teachers and students of present era with independence as they don't have to follow the old patterns to learn something that includes referring books and visiting libraries in fact they are able to invent their own innovative learning strategies as they have easy access to material present on internet (González-Aller, 2015).

Students learning approach is enhanced, they get an independence and motivation in their learning skills and they feel themselves encouraged to use ICT for their learning activities. ICT helps in updating and promoting the existing information in the field of education which results in the invention and implementation of better ideas (Kalusopa, 2005).

According to the scholars, without the involvement of people ICTs are simple objects they seem like lifeless material but when people start using them, they become crucial parts of the communication process. (Marshal Scoot Poole, 1993)

In many organizations, people use several communication options to achieve their specific goal and they keep on using different ICT gadgets until they get their desired response. Sometimes using the combination of various ICT devices at a time has also been practiced for distinguished communication purposes. (Stephen A. Rains, 2016)

In the 21$^{st}$ century, ICT has an important role in the education of students because it helps them in learning activities. ICT allows the students to learn through a number of ways as it enhances their learning speed and gives the conceptual understanding of the content relevant to their coursework. By the help of ICT, students are able to browse and download the notes independently. Moreover it has created such an ease for pupil that they can get help relevant to their field of study at any time as ICT has finished the concept of waiting, it works on an instant phenomena. It assures the availability of numerous useful resources throughout the whole day and students are able to access that material free of cost as well as in a very short period of time. (Mbwesa, 2002)

ICT is rapidly taking place in the field of education because the students find it difficult to manage the flow of their studies as the institutes are not able to fulfill the requirements of the education. On other hand education is becoming more and more advance now a day so a proper platform is necessary for the understanding purpose that is why ICT is important in the field of education (Pelgrum, 2001).

The countries of Middle East are rapidly changing the manual education systems as the system is integrating the ICT services to fulfill the academic and the social needs of the students because the students should have some appropriate platform where they can learn more about the latest technology. Majority of the institutes are having extensive

computer labs and the other embedded labs which are having latest material regarding the information technology. Students are grooming by using the ICT services now a day which is good sign because the skills are more important than the academic degrees (Khan, 2012).

In an educational institute, not only the students are getting benefits from the ICT systems but the management of an institute also gets a lot of benefits while integrating the ICT services such as the management of student records is also considered as the complex step. ICT systems automate the student information system which will be time saving for the members of the management in educational institute (Robertson, 2005).

Initially there were no online web portals for the students as the students considered to make the notes and to manage the notes manually while the interaction with the supervisors with respect to their final year projects .With the passage of time, the technology evolved and now every institute is having the extensive web portal as the scope of web development is getting vast and vast now a day. The student's online portals provides the information about the daily lectures to the students where they can see the information about their current lectures and make the download from there. These systems are portable for the students (Chai, 2011).

ICT has enabled more information to be readily available and shared through the use of the internet. The information now is readily accessible and cheap. This has led to reduced load of books that students had to carry. The amount of information students can access is vast. This has led to more knowledgeable students who can adapt rapidly to changing technological environment. According to the researcher Ghulam Shabir & Babar Shah (2017), literacy provides students with the opportunity to explore how information and knowledge shapes their lives, their community, and the world. Students become critical users of information, learning how to situate information and Knowledge in a diverse global environment.

The cost of the educational materials has greatly reduced due to the use of ICT. Students can now access them readily in digital format. Personal digital assistants can be used to carry the learning materials and also download the reading materials. This has reduced cost of education materials. Student learning environment has become friendlier in the professions which required specialized training like Engineering, this is by use of computer applications like computer-aided applications and virtual environment for training of pilots (Ezziane, 2007)

ICT has changed the standards of entertainment as compared to the past. In fact, more enjoyment has been added to the level of entertainment through the usage of different ICT gadgets. It has provided access to unlimited entertainment stuff like movies, music and games. Some of the items related to entertainment could also be purchased online without any charges or at low cost whereas gambling is also considered as a great source of entertainment and it could also be accessed online through different websites.

According to Fame (2010), in some countries like Kenya and United states, online games have taken the place of movies and music. In US, youth gives more attention towards video games to entertain themselves. Therefore, US have developed in the digital gaming

technology and contain a larger market of home video games than that of music and films. ICT gadgets like smart phone, TV, flash drives and other devices like that have created a great ease to fulfil the social needs in all fields

## THEORETICAL FRAMEWORK

Theoretical framework has a great importance in a research study as it gives clear vision and structure to the research to be strong and enables an organized flow as well as proper understanding about the research topic. It supports the rationale of the study conducted and the purpose, the significance, and the research questions (Osanloo, 2014) . According to Lovitts (2005), theoretical framework consists of selected theories which logically interpret the thinking, concepts and ideas of the researcher being used in a study.

### Uses and Gratification Theory (UGT)

As per Bryant & Street (1988), "in discipline of Communication active communicator's notion has a distinguished position". UGT has shifted to users from receivers of media. According to this theory audience member is assumed responsive and active to contents of media which are offered to them. Elihu Katz (1959) carved out the Uses and Gratification term. It was in response of Bernard Berelson's claim (1959) that discipline Communication field is deceased. He responded that for protecting Mass Communication we have to answer a simple question, "What do public do to media?"

The categories of needs which people want to gratify by using media were classified by McQuail, Blumler and Brown (1972). The categories of needs were diversions, personal relationship, personal identity and surveillance. Diversion describes the emotional release and escape from numerous day to day complications. Personal relationships represent media as a source to strengthen and uphold association with other community members. Personal identity includes reality exploration, self-understanding, and reinforcement and self-reference. This also reflects characters of media as glooms of people's actual lifetime difficulties.

Haas, Gurevitch and Katz (1973) saw media as medium to connecting people and communities. Needs were further classified into succeeding categories: tension release needs, social integrative needs, personal integrative needs, affective needs and cognitive needs.

This theory fulfill the cognitive needs of the organization such as the latest search engines are helping the people to get the information about the latest news of several field such as the political news are considered as the most important and the critical information, so the ICT systems are helping to fulfill the cognitive needs with respect to the Uses and gratification theory.

According to the current theory, people use the televisions and the music to satisfy their emotional needs and this theory have linked this factor with the ICT system because the televisions are also considered as the appropriate source of the communication systems.

**Diffusion of Innovation**

The theory named diffusion of innovation was introduced by the famous researcher, Everett Roger, in 1961 in which the author has described about the basic combination about the diffusion and the innovation to provide the platform that how the innovations and the communication can be considered as an appropriate finding.

In 1969, Bass developed a model named innovation diffusion model and in that model five adoption categories were mentioned that were innovators, early adopters, early majority, late majority and laggards. According to the model presented by Bass, the communication was affected by internal and external influences i.e. were "mass media" and "word of mouth."

Later, in 1995, Moore also developed his own model for diffusion of technological innovations by using the same categories but in this model, those five categories were used as traditional Diffusion of Innovation (DOI) School of thoughts. It represented the forward stages of innovation adoption (Sroufe et al., 2000). In this model the researcher focused only on the organization, with a new technology adoption requirement.

Scarcely any sociology hypotheses have a past filled with theoretical and experimental examination so far as does the dissemination of advancements. The vigor of this hypothesis gets from the numerous orders and fields of concentrate in which dissemination has been examined, from the global lavishness of these examinations, and from the assortment of new thoughts, practices, projects, and advancements that have been the objects of dispersion look into early estimating from the earliest starting point of the twentieth century was step by step uprooted by post hoc observational research that depicted and clarified dispersion forms.

By the 1950s, dissemination scientists had started to apply the aggregate information found out about naturalistic dispersion in trial of process mediations to influence the spread of advancements. Presently, this purposive goal has offered frame to an art of dispersal in which prove based practices are planned from the earlier not simply to bring about interior legitimacy but rather to improve the probability that outside legitimacy and dissemination both will probably come about. Here, dissemination hypothesis and spotlight on seven ideas that are mediation characteristics, intercession bunches, show ventures, societal divisions, fortifying relevant conditions, sentiment administration, and intercession adjustment with potential for quickening the spread of confirmation-based practices, projects, and arrangements in the field of social work.

The diffusion of innovation theory analyses how the social members adopt the new innovative ideas and how they are able to make the decision towards it. Both mass media and interpersonal communication channel are involved in the diffusion process. The theory heavily relies on human capital. According to the theory, innovations should be widely adopted in order to attain development and sustainability. In real life situations the adaptability of the culture played a very relevant role where ever the theory was applied. Rogers proposed four elements of diffusion of innovations they are innovation, communication channel, time, social system (Lyytinen, 2001)

## MATERIAL AND METHODS

Methodology is the essential part of a research as it describes the research methods that the researcher used to collect and analyze the data to conduct an appropriate study. According to Howell (2013), methodology describes about the strategy and it elaborates the methods by which the data was collected, research questions, hypothesis and the research design. In addition, it explains about the software from which the data was analyzed and moreover, the logic for the tests applied to analyze the data. The methodology of the present study is designed to explore the usage of ICT among the university students and to what extent they are using ICT gadgets to fulfill their social needs.

Following were the research questions and hypothesis that were developed

**Q1**. What is the main purpose of utilizing ICT gadgets by university students?

**Q2**. What are the patterns of ICT devices utilization among university students?

**Q3**. To what level does ICT gratifies the social needs of university students?

**H1**. The social needs of university students are gratified by using Information Communication Technology (ICT)

**H2.** Public sector university students use ICT tools more than that of private sector students

**H3.** By gratifying their needs through ICT gadgets, students feel themselves confident in their studies.

## Quantitative Research

Van der Merwe (1996) defines quantitative research as an approach with the goal of testing theories, determining facts, demonstrating relationships between variables, and predicting outcomes. According to Leedy (1993) quantitative research methods are the research methods that deals with numbers and anything that is measurable in a systematic way of investigation of phenomena and their relationships. The present study used quantitative research to collect the target audience that was students from different universities to know the usage of ICT gadgets and gratification of their social needs. Previous researches related to the ICT used quantitative research and therefore, the current study also uses this methodology for the execution of analysis.

Kerlinger (1973) defined survey research as a study on large and small populations by selecting samples chosen from the desired population and to discover relative incidence, distribution and interrelations. McBurney (1994) defines the survey research as assessing public opinion or individual characteristics by the use of questionnaire and sampling methods.

Survey research was conducted to gather the data for the present research. The survey research included the students of three government sector and three private sector universities. The universities that were surveyed to collect the data are situated in Faisalabad District of Pakistan. The government sector universities that included in the

survey were University of Agriculture Faisalabad (UAF), Government College Women University Faisalabad (GCWUF), Government College University Faisalabad (GCUF) whereas, the private sector universities that are included in the survey were National University of Modern Languages (NUML), University of Central Punjab (UCP) and TUF (The University of Faisalabad).

## Population

The population of this research were the students of private and government universities who were enrolled in BS (hons), Masters and MPhil programmes from different departments and field of studies

## Sample size

The sample size consisted of 300 students from private and government sector universities of Faisalabad. Sample of 50 students from each government and Private Sector University was collected.

## Data collection tool

Data was collected by questionnaire. The questionnaire consisted of close ended questions. There were different sections in the questionnaire. The first one contains the questions that were relevant to the demographic details in which the name of institution, gender, age and level of education were asked from the respondents. In The second section the usage of ICT gadgets as well as the time being spent by them with these gadgets on daily basis was asked from the students from different public and private sector universities of Faisalabad. Furthermore in the third section of the questionnaire, students were asked about the gratification of their social needs by the usage of different ICT gadgets by mentioning different purposes. Likert scale was used throughout the questionnaire.

## Data processing

After getting the responses from all the participants, all the filled questionnaires were thoroughly checked in order to know about the unfilled and missing questions. The questionnaires with the missing responses were not included in the research and students were asked to fill that questionnaire again to get proper and reliable responses. Then, the information and responses gained from the students were encoded into the form of values in SPSS software.

## Data Analysis

After the processing of data and encoding the responses, data was analyzed in the SPSS software by keeping in view the objectives, research questions and hypothesis.For the purpose of analyzing the data, the encoded responses were reviewed and frequency tables of all the questions asked in the questionnaire were made. First of all the frequency tables of the demographic data were made that included university, gender, age and level of education. Then frequency tables of the ICT gadgets being used by the students, time being

spent by them on using the ICT gadgets per day and the purposes for which students were using ICT gadgets were also made.

**Chi-Square Test**

By keeping in view the objectives, research questions and hypothesis, data was further analyzed by applying chi-square in order to check the significant association of the perception of respondents from different universities with respect to the ICT gadgets being used by them, time being spent on these devices on daily basis as well as purposes for which they were using ICT gadgets to gratify their social needs. In Chi-square, the "p-value" plays an important role as the normal p-value is 0.05 if the value of p is greater than this normal value then it shows non-significant association between two variables and if the p-value is less than the moderate value then it shows significant association between the two variables.

**ANALYSIS AND DISCUSSIONS**

This chapter deals with data analysis and its interpretation. The purpose of this research was to find out the relationship between Usage of social media among university students and their social needs. The researcher also wanted to explore that how the university students gratify their social needs. Data was collected from 6 different public and private sector universities in Faisalabad. Required data was collected from 300 male and female from both public and private university and it was gathered to explore the effect of Information Communication technology (ICT) on the university students. For this purpose data was collected from female and male students through questionnaire. The questionnaire was distributed to the public and private university of District Faisalabad. The questionnaire at Likert Scale used for the study was consisted of 24 items. The answers were obtained on five point scale.

The researcher assigned the Positive statements' scores as Very Often=5, Often=4, Sometimes=3, Rarely= 2, and Never=1. For negative statements the point scale was decoded as Never=1, Rarely= 2, Sometimes=3, Often=4 and Very Often=5. The researcher made the frequency tables of the demographic data that included university name, gender, age and education and other items that include familiarity with gadgets, time spent on ICT gadgets and different purposes for which ICT is being used by the students. The researcher also calculated the frequency of never, rarely, sometimes, often and very often for each item separately and then found out percentage for each item. Each item was analyzed and tabulated for these frequencies. Whole questionnaire was analyzed to show overall categories of respondents. SPSS (Statistical Product for Service Solution) was used for data analysis. Chi-square was used to see the association between respondents from different universities and usage of ICT devices to fulfill the social needs. This chapter deals with the analysis and interpretation of collected data. The interpretation of analysis has been mentioned below each table along with clarifying the meaning of responses.

How often do you use ICT gadgets?

|  |  | **Never** | **Rarely** | **Sometimes** | **Often** | **Very often** |
|---|---|---|---|---|---|---|
| Laptop | F | 33 | 43 | 131 | 56 | 37 |
|  | % | 11.0 | 14.3 | 43.7 | 18.7 | 12.3 |
| Cellular Mobile Phone | F | 6 | 35 | 82 | 88 | 89 |
|  | % | 2.0 | 11.7 | 27.3 | 29.3 | 29.7 |
| Internet | F | 15 | 23 | 70 | 104 | 88 |
|  | % | 5.0 | 7.7 | 23.3 | 34.7 | 29.3 |
| Wireless network | F | 27 | 39 | 72 | 106 | 56 |
|  | % | 9.0 | 13.0 | 24.0 | 35.3 | 18.7 |
| Television | F | 28 | 45 | 111 | 92 | 24 |
|  | % | 9.3 | 15.0 | 37.0 | 30.7 | 8.0 |
| Radio | F | 74 | 57 | 76 | 68 | 25 |
|  | % | 24.7 | 19.0 | 25.3 | 22.7 | 8.3 |
| Landline Telephone | F | 73 | 59 | 78 | 63 | 27 |
|  | % | 24.3 | 19.7 | 26.0 | 21.0 | 9.0 |
| USB/Wireless Devices | F | 19 | 45 | 109 | 83 | 44 |
|  | % | 6.3 | 15.0 | 36.3 | 27.7 | 14.7 |

Table4. 5 shows the frequency distribution regarding the statement, "How often do you use ICT gadgets" therefore the "Laptop Users" who were, Never, 33(11.0%), Rarely, 43(14.3%), Sometimes, 131(43.7%), often 56(18.7%), Very Often 37(12.3%). Those respondents who used "Cellular Phone" were Never 6(2.0%), Rarely 35(11.7%), Sometimes 82(27.3%), often 88(29.3%), Very Often 89(29.7%). "Internet Users" were Never 15(5.0%), Rarely 23(7.7%), Sometimes 70(23.3%), often 104(34.7%), Very Often 88(29.3%). Those respondents who have access to "Wireless Network" were Never 27(9.0%), Rarely 39(13.0%), Sometimes 72(24.0%), often 106(35.3%), Very Often 56(18.7%).

Those who watched "Television" were Never 28(9.3%), Rarely 45(15.0%), Sometimes 111(37.0%), often 92(30.7%), Very Often 24(8.0%). Those who used to listen "Radio" were Never 74(24.7%), Rarely 57(19.0%), Sometimes 76(25.3%), often 68(22.7%), Very Often 25(8.3%). Those respondents who had "Landline" connection were Never 73(24.3%), Rarely 59(19.7%), Sometimes 78(26.0%), often 63(21.0%), Very Often 27(9.0%). Those who had access to "USB/Wireless devices" were Never 19(6.3%), Rarely 45(15.0%), Sometimes 109(36.3%), often 83(27.7%), Very Often 44(14.7%).

Perception of university students with respect to downloading, uploading or browsing learning material on university's website

| University | | Never | Rarely | Sometimes | Often | Very Often | Total | χ² | p-value |
|---|---|---|---|---|---|---|---|---|---|
| UAF | F | 6 | 14 | 13 | 12 | 5 | 50 | | |
| | % | 2.0% | 4.7% | 4.3% | 4.0% | 1.7% | 16.7% | | |
| GCWUF | F | 12 | 12 | 16 | 6 | 4 | 50 | | |
| | % | 4.0% | 4.0% | 5.3% | 2.0% | 1.3% | 16.7% | | |
| GCUF | F | 8 | 13 | 18 | 6 | 5 | 50 | | |
| | % | 2.7% | 4.3% | 6.0% | 2.0% | 1.7% | 16.7% | | |
| TUF | F | 2 | 9 | 16 | 18 | 5 | 50 | 37.516 | .010 |
| | % | 0.7% | 3.0% | 5.3% | 6.0% | 1.7% | 16.7% | | |
| NUML | F | 4 | 7 | 14 | 16 | 9 | 50 | | |
| | % | 1.3% | 2.3% | 4.7% | 5.3% | 3.0% | 16.7% | | |
| UCP | F | 0 | 14 | 21 | 10 | 5 | 50 | | |
| | % | 0.0% | 4.7% | 7.0% | 3.3% | 1.7% | 16.7% | | |
| Total | F | 32 | 69 | 98 | 68 | 33 | 300 | | |
| | % | 10.7% | 23.0% | 32.7% | 22.7% | 11.0% | 100.0% | | |

The calculations in the table show the frequency distribution as well as the percentage of different university students who downloaded, uploaded or browsed learning material on university's website. This table also shows the analysis regarding the statement that the respondents related to different universities were satisfied by downloading, uploading or browsing learning material on university's website. The Statistical value $\chi^2$= 37.516 and p-value=.010 (P< 0.05) showsthat there is statistically significant association between respondents of different universities and downloading, uploading or browsing learning material on university's website. It was concluded that using ICT for downloading, uploading and browsing learning material on university's website fulfilled the requirements of the students from different universities.

Perception of University students with respect to judging the reliability of information found on the internet

| University | | Never | Rarely | Sometimes | Often | Very Often | Total | $\chi^2$ | p-value |
|---|---|---|---|---|---|---|---|---|---|
| UAF | F | 7 | 15 | 11 | 13 | 4 | 50 | | |
| | % | 2.3% | 5.0% | 3.7% | 4.3% | 1.3% | 16.7% | | |
| GCWUF | F | 4 | 18 | 13 | 10 | 5 | 50 | | |
| | % | 1.3% | 6.0% | 4.3% | 3.3% | 1.7% | 16.7% | | |
| GCUF | F | 5 | 8 | 23 | 9 | 5 | 50 | | |
| | % | 1.7% | 2.7% | 7.7% | 3.0% | 1.7% | 16.7% | | |
| TUF | F | 3 | 8 | 20 | 12 | 7 | 50 | 28.167 | .106 |
| | % | 1.0% | 2.7% | 6.7% | 4.0% | 2.3% | 16.7% | | |
| NUML | F | 5 | 15 | 12 | 12 | 6 | 50 | | |
| | % | 1.7% | 5.0% | 4.0% | 4.0% | 2.0% | 16.7% | | |
| UCP | F | 0 | 11 | 26 | 8 | 5 | 50 | | |
| | % | 0.0% | 3.7% | 8.7% | 2.7% | 1.7% | 16.7% | | |
| Total | F | 24 | 75 | 105 | 64 | 32 | 300 | | |
| | % | 8.0% | 25.0% | 35.0% | 21.3% | 10.7% | 100.0% | | |

The calculations in the table show the frequency distribution as well as the percentage of different university students who judged the reliability of information found on the internet. This table also shows the analysis regarding the statement that the respondents from different universities were not satisfied by judging the reliability of information found on the internet. The Statistical value $\chi^2$= 28.167 and p-value=.106 (P> 0.05) showsthat there is no statistically significant association between respondents of different universities and judging the reliability of information found on the internet. It was concluded that using ICT for judging the reliability of information found on the internet did not satisfy the social needs of university students.

ICT is being used by the students for following purposes

|  |  |  | Never | Rarely | Sometimes | Often | Very Often |
|---|---|---|---|---|---|---|---|
| 3 | Searching data for making assignments. | F | 23 | 56 | 112 | 52 | 57 |
|  |  | % | 7.7 | 18.7 | 37.3 | 17.3 | 19.0 |
| 4 | For making presentations. | F | 5 | 46 | 112 | 91 | 46 |
|  |  | % | 1.7 | 15.3 | 37.3 | 30.3 | 15.3 |
| 5 | Searching online for information and learning about a particular topic you're interested in. | F | 9 | 42 | 110 | 89 | 50 |
|  |  | % | 3.0 | 14.0 | 36.7 | 29.7 | 16.7 |
| 6 | Visiting online communities or forums related to the subjects you study. | F | 15 | 74 | 110 | 63 | 38 |
|  |  | % | 5.0 | 24.7 | 36.7 | 21.0 | 12.7 |
| 7 | Participating in online learning programs. | F | 39 | 75 | 95 | 63 | 28 |
|  |  | % | 13.0 | 25.0 | 31.7 | 21.0 | 9.3 |
| 8 | Coordinating with other fellows regarding assignments and presentations. | F | 11 | 51 | 111 | 84 | 43 |
|  |  | % | 3.7 | 17.0 | 37.0 | 28.0 | 14.3 |
| 9 | Using other online tools (Instant Messenger, Facebook, etc.) to contact other students about university work. | F | 16 | 45 | 108 | 82 | 49 |
|  |  | % | 5.3 | 15.0 | 36.0 | 27.3 | 16.3 |
| 10 | Checking the university website for announcements, dates, etc. | F | 19 | 58 | 107 | 83 | 33 |
|  |  | % | 6.3 | 19.3 | 35.7 | 27.7 | 11.0 |
| 11 | Downloading, uploading or browsing learning | F | 32 | 69 | 98 | 68 | 33 |
|  |  | % | 10.7 | 23.0 | 32.7 | 22.7 | 11.0 |

| No. | Item | | | | | | |
|---|---|---|---|---|---|---|---|
| | material on your university's website | | | | | | |
| 12 | Emailing teachers | F | 37 | 64 | 102 | 80 | 17 |
| | | % | 12.3 | 21.3 | 34.0 | 26.7 | 5.7 |
| 13 | Collecting information online and organizing it in files | F | 21 | 74 | 109 | 63 | 33 |
| | | % | 7.0 | 24.7 | 36.3 | 21.0 | 11.0 |
| 14 | Sending or reading email messages | F | 12 | 62 | 101 | 90 | 35 |
| | | % | 4.0 | 20.7 | 33.7 | 30.0 | 11.7 |
| 15 | Searching the internet to collect information | F | 7 | 43 | 113 | 89 | 48 |
| | | % | 2.3 | 14.3 | 37.7 | 29.7 | 16.0 |
| 16 | Watching movies and TV serials | F | 12 | 62 | 96 | 78 | 52 |
| | | % | 4.0 | 20.7 | 32.0 | 26.0 | 17.3 |
| 17 | Using computers when working in groups | F | 27 | 60 | 96 | 78 | 39 |
| | | % | 9.0 | 20.0 | 32.0 | 26.0 | 13.0 |
| 18 | Contributing in creating blogs or discussion forums for university work | F | 41 | 69 | 100 | 64 | 26 |
| | | % | 13.7 | 23.0 | 33.3 | 21.3 | 8.7 |
| 19 | Installing software | F | 39 | 52 | 107 | 73 | 29 |
| | | % | 13.0 | 17.3 | 35.7 | 24.3 | 9.7 |
| 20 | Judging the reliability of information found on the Internet | F | 24 | 75 | 105 | 64 | 32 |
| | | % | 8.0 | 25.0 | 35.0 | 21.3 | 10.7 |
| 21 | Using information found on the internet without plagiarizing (e.g. copy/paste in home work) | F | 22 | 57 | 122 | 73 | 26 |
| | | % | 7.3 | 19.0 | 40.7 | 24.3 | 8.7 |
| 22 | Protecting | F | 36 | 47 | 101 | 74 | 42 |
| | | % | | | | | |

|     |                                          |        |      |      |      |      |      |
| --- | ---------------------------------------- | ------ | ---- | ---- | ---- | ---- | ---- |
|     | themselves against spam and junk mail    |        | 12.0 | 15.7 | 33.7 | 24.7 | 14.0 |
| 23  | Making new friends                       | F      | 42   | 42   | 79   | 91   | 46   |
|     |                                          | %      | 14.0 | 14.0 | 26.3 | 30.3 | 15.3 |
| 24  | Playing online and offline games         | F      | 40   | 35   | 86   | 65   | 74   |
|     |                                          | %      | 13.3 | 11.7 | 28.7 | 21.7 | 24.7 |

The calculation in the table shows the frequency distribution for ICT being used for different purposes. Therefore the frequency distribution regarding the statement "searching data for making assignments" was Never 23(7.7%) , Rarely 56(18.7%) , Sometimes 112(37.3%), often 52(17.3%), Very Often57(19.0 %). Frequency distribution regarding the statement "For making presentations" was Never 5(1.7%), Rarely 46(15.3%), Sometimes 112(37.3%), Often 91(30.3%), and Very Often 46 (15.3%).

From a total number of 300 respondents, frequency distribution for the purpose "Searching online for information and learning about a particular topic you're interested in" was Never 9(3.0%), Rarely 42(14.0%), Sometimes 110(36.7%), often 89(29.7%) and Very Often 50(16.7%). Frequency distribution regarding the statement "communities or forums related to the subjects you study" was Never 15(5.0%), Rarely 74(24.7%), Sometimes 110(36.7%), often 63(21.0%) and Very Often 38(12.7%). Frequency distribution regarding the statement "Participating in online learning programs" was Never 39(13.0%), Rarely 75(25.0%), Sometimes 95(31.7%), often 63(21.0%) and Very Often 28(9.3%).

Frequency distribution regarding the statement "Coordinating with other fellows regarding assignments and presentations" was Never 11(3.7%), Rarely 51(17.0%), Sometimes 111(37.0%), often 84(28.0%)  and Very Often 43(14.3%). Frequency distribution regarding the statement "Using other online tools (Instant Messenger, Facebook, etc.) to contact other students about university work" was Never 16(5.3%), Rarely 45(15.0%), Sometimes 108(36.0%), often 82(27.3%) and Very Often 49(16.3%).

Frequency distribution regarding the statement "Checking the university website for announcements, dates, etc." was Never 19(6.3%), Rarely 58(19.3%), Sometimes 107(35.7%), often 83(27.7%) and Very Often 33(11.0%). Frequency distribution regarding the statement "Downloading, uploading or browsing learning material on your university's website" was Never 32(10.7%), Rarely 69(23.0%), Sometimes 98(32.7%), often 68(22.7%) and Very Often 33(11.0%).

Frequency distribution regarding the statement "Emailing teachers" Never 37(12.3%), Rarely 64(21.3%), Sometimes 102(34.0%), often 80(26.7%) and Very Often 17(5.7%).  Frequency distribution regarding the statement "Collecting information online and organizing it in files" was Never 21(7.0%), Rarely 74(24.7%), Sometimes 109(36.3%), often 63(21.0%) and Very Often 33(11.0%). Frequency distribution regarding the statement "Sending or reading email messages" was Never 12(4.0%), Rarely 62(20.7%), Sometimes 101(33.7%), often 90(30.0%) and Very Often 35(11.7%).

Frequency distribution regarding the statement "Searching the internet to collect information" was Never 7(2.3%), Rarely 43(14.3%), Sometimes 113(37.7%), often 89(29.7%) and Very Often 48(16.0%). Frequency distribution regarding the statement "Watching movies and TV serials" Never 12(4.0%), Rarely 62(20.7%), Sometimes 96(32.0%), often 78(26.0) and Very Often 52(17.3%). Frequency distribution regarding the statement " Using computers when working in groups" was Never 27(9.0%), Rarely 60(20.0%), Sometimes 96(32.0%), often 78(26.0%) and Very Often 39(13.0%). Frequency distribution regarding the statement "Contributing in creating blogs or discussion forums for university work " was Never 41(13.7%), Rarely 69(23.0%), Sometimes 100(33.3%), often 64(21.3%) and Very Often 26(8.7%) .

Frequency distribution regarding the statement "Installing software" was Never 39(13.0%), Rarely 52(17.3%), Sometimes 107(35.7%), often 73(24.3%) and Very Often 29(9.7%). Frequency distribution regarding the statement "Judging the reliability of information found on the Internet " was Never 24(8.0%), Rarely 75(25.0%), Sometimes 105(35.0%), often 64(21.3%) and Very Often 32(10.7%). Frequency distribution regarding the statement "Using information found on the internet without plagiarizing (e.g. copy/paste in home work)" was Never 22(7.3%), Rarely 57(19.0%), Sometimes 122(40.7%), often 73(24.3%)and Very Often 26(8.7%).

Frequency distribution regarding the statement "Protecting yourself against spam and junk mail" was Never 36(12.0%), Rarely 47(15.7%), Sometimes 101(33.7%), often 74(24.7%) and Very Often 42(14.0%). Frequency distribution regarding the statement "Making new friends" was Never 42(14.0%), Rarely 42(14.0%), Sometimes 79(26.3%), often 91(30.3%) and Very Often 46(15.3%).  Frequency distribution regarding the statement "Playing online and offline games" was Never 40(13.3%), Rarely 35(11.7%), Sometimes 86(28.7%), often 65(21.7%) and Very Often 74(24.7%).

## DISCUSSIONS

ICT is playing a vital role in the daily lives of the students. It has converted the old methods of getting education into the modern ones like in the past students used to refer to a number of books to get the required data but now this thing has totally been changed. It has brought advancement in all fields. Nowadays students gather online data through visiting different websites and use ICT for different purposes to gratify their needs such as education, entertainment, communication and information.

The results show that students were satisfied by using ICT gadgets and their level of confidence in their studies enhanced. Hence, the results prove the H3.

The results of the present research work were matched with the results of the studies conducted earlier.

## CONCLUSION

This research also tried to find out the significant association between the respondents of different universities and ICT being used for different purposes. Results showed that respondents felt themselves gratified with the ICT usage for various purposes varying from preparation of assignments and presentations to making new friends. The gratification of social needs also boosted the level of confidence among the university students and their motivation was increased.

On the other hand, the findings showed that there were some purposes which were not having significant association with respect to the university respondent such as students were not satisfied by gratifying their social needs while watching movies and Tv serials, visiting university website for announcements and updates as well as judging the reliability of material found on the internet. Overall, it was concluded that students were gratifying their social needs that were related to education and communication, information and entertainment.

The present study suggests that further research could be conducted regarding this topic in different dimensions by including more ICT devices like printers, scanners, iPads etc. Furthermore to ensure the flourishment and better nurturing of educational sector, in-depth studies are imperative on ICT gadgets usage trends. Additionally, such researchers can indicate what cultural trends students espouse through ICT consumption.

**REFERENCES**

Bass, F.M. (1969). "A New Production Growth Model for Consumer Durables," Management Science, 15(5), 215-241.

Berelson, B. (1959). The state of communication research. Public Opinion Quarterly, 23(1), 1-2.

Bryant, J. (1988). From Reactivity to Activity and Action: An Evolving Concept and Weltanschauung in Mass and Interpersonal Communication

Blumler, J. G., &McQuail, D. (1969). Television in politics: Its uses and influence. University of Chicago Press.

Chai, C. S. (2011). Modeling primary school pre-service teachers' Technological Pedagogical Content Knowledge (TPACK) for meaningful learning with information and communication technology (ICT). Computers & Education.

Don Passey, C. R. (2003, December). The Motivational Effect of ICT on Pupils. United Kingdom.

Daniel, J. (2005). Towards Education for All: The Critical Role of Open and Distance

Ezziane, Z. (2007). Information Technology Literacy: Implications on Teaching and Learning. Education, Technology & Society, 10(3), 175-191.

Fame. (2010). "Forecasting the Futureof Multimedia to the Year 2010 and beyond". Retrieved November 15, 2012, from http://www.rcss.ed.ac.uk/fame/WP/entertainment.pdf

Gonzales, R. S. (2015, March 21). Importance of Information and Communications Technology (ICT) In Our Daily Life.

Ghulam Shabir, B. H. (2017). Exploring ICT Usage Among AIOU Students and Gratification of Their Academic Needs . International Research Journal of Arts & Humanities (IRJAH) .

Hijzen, D. B. (2007). Exploring the links between students' engagement in cooperative learning, their goal preferences and appraisals of instructional conditions in the classroom. Learning and Instruction.

Howell, K. E. (2013) Introduction to the Philosophy of Methodology. London: Sage Publications

Khan, M. H. (2012). Barriers to the introduction of ICT into education in developing countries: The example of Bangladesh. Online Submission.

Katz, E., Haas, H., &Gurevitch, M. (1973). On the use of the mass media for important things. American sociological review, 164-181.

Katz, E. (1959). Mass communications research and the study of popular culture: An editorial note on a possible future for this journal. Studies in public communication, 2, 1.

Kalusopa, T. (2005). The challenges of utilizing information communication technology ICTs for the small scale farmers in Zambia. 414-424.

Kerlinger, F. (1973). The structure of scientific revolution. Chicago: University of Chicago Press

Leedy, P. D. (1993). Practical research: planning and design. New Jersey: Prentice-Hall.

Livingstone, S. (2012). Critical reflections on the benefits of ICT in education. Oxford review of education.

Lovitts, B. (2005). How to grade the dissertation. Academe, 91(6), 18-23

Lyytinen, K. &. (2001). What's wrong with the diffusion of innovation theory?. In Working Conference on Diffusing Software Product and Process Innovations.

Magyar, B. (2003). PROMOTING EQUITY THROUGH ICT IN EDUCATION:PROJECTS, PROBLEMS, PROSPECTS. (A. Kárpáti, Ed.) Budapest, Hungary.

MARSHALL SCOTT POOLE, M. H. (1993, 4 1). Group Decision Support Systems and Group Communication: A Comparison of Decision Making in Computer-Supported and Nonsupported Groups. Communication Research, 20(2), 176 - 213.

McBurney, D.H. (1994). Research methods. (3 rd ed.). USA: Brooks/Cole Publishing Company.

Mbwesa. (2002). A Survey of students' Perception and utilization of the Web as a learning resource: A case study of the department of Extra Mural studies , University of Nairobi , Kenya. East African Journal of Humanities and sciences, 6(1).

Moore, G. (1995), Crossing the Chasm, New York: Harper Business.

Osanloo, C. G. (2014). Understanding, Selecting, and Integrating, A Theoretical Framework In Dissertation Research: Creating The Blueprint For Your "House". Administrative Issues Journal:Connecting Education, Practice, and Research, 12-14.

Pelgrum, W. J. (2001). Obstacles to the integration of ICT in education: results from a worldwide educational assessment. . Computers & education.

Robertson. (2005). Re-imagining and rescripting the future of education: Global knowledge economy discourses and the challenge to education systems. Comparative education.

Rogers,E.(1995). Diffusion of Innovation. Retrieved from https://web.stanford.edu/class/symbsys205/Diffusion%20of%20Innovations.htm

Stephen A. Rains, S. R. (2016, September 29). Computer-mediated communication (CMC) and social support: Testing the effects of using CMC on support outcomes. Journal of Social and Personal Relationships, 34(8), 1186 - 1205.

Sroufe, R., Curcovic, S., Montabon, F., & Melnyk, S.A. (2000). "The New Product Design Process and Design for Environment. Crossing the Chasm," Innternational Journal of Operation & Production Management, 20(2), 270-278.

Van der Merwe, H. 1996. The research process: Problem statement and research design. In Garbers, J.G. (Ed.). Effective research in the human sciences: Research management for researchers, supervisors and masters and doctoral candidates. Pretoria: Van Schaik:277-291.

Voogt, J. (2003). Consequences of ICT for Aims, Contents, Processes, and Environments of Learning. Kluwer Academic .

Vygotsky, L. S. (1978). Interaction between learning and development. New York.