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Advances in ICT and its application in Technical Institutions and Degree College Libraries in India

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Abstract

Presently Information Communication Technology (ICT) acting as an important role in enhancing the quality of education and research. All types administrative and management activities of ICT are currently being popular in schools, colleges and in research Institute. ICT is an extensive term for Information Technology (IT) that provides information through telecommunication. The different electronic gadgets such as computer system/hand held system, audio video display and internet are being used for proper and smooth function of the system. Records of library system is indicating that searching of general materials such as books (Indian and foreign authors), papers and encyclopedia covered 37% and web page search indicated 33% and rest including journal, website and others through ICT. The result clearly indicating that application of ICT is more intense in technical institute compare to the general degree colleges. Use of ICT in degree colleges are lagging by 20% as compare to technical institute in India. All the students as well as faculties put their opinion in favors that the ICT application in their institute are applicable for collection/sending academic materials when it needs. It also helps to enhance the performance of academic institute when teaching/learning was continued in online pattern. ICT provide its service through CD, DVD, and others storage system to deliver materials from one to another. Basically, all types of online activities and functions are properly maintained through ICT application.

Keywords: Communication Technology, Advancement, Telecommunication, education institute

1. INTRODUCTION

Gradual advancement of technology is the sign of progressive development of nation this concept is applicable each and everywhere in today's world; rather it is woven in our lives in such a way that life cannot be imagined without it. The field of education is one area where innovative developments in technology is linked with the existing process for the betterment of teaching learning. Modern education method is at changeover phase where the traditional practices have been challenged by researchers in favour of adoption of modern information and communication technology in teaching and learning process. Now education process will become more efficient and effective when ICTs- internet, video, audio, graphics, text, images, etc. will be combined in teaching. Governments of most of the developed and developing countries are capitalizing a huge amount of economy for establishing of ICT environment and training work force to perform efficiently with ICT integrated education. When the system is adopted to use appropriately, different ICTs assist in expanding access to education, strengthening the relevance of education to the increasingly digital workplace, and raising teaching learning with quality. Despite the quick expansion of ICT, improvement to different access to ICT-based educational, and the financial investments of educational institutions is essential, by which faculty members and other associated it can always take advantage of modern ICT system. One problem is that teaching practices nowadays have not taken place without the use of advance ICT. Technologies are not always effectively integrated into instruction to enhance teaching and learning. Studies have shown that despite the rapid advancement of ICT, that are not always used effectively in the classroom. [1],[2]. Sometimes, students do not know how to use the Internet effectively, and even teachers do not see the value of integrating the Internet into the curriculum or using it on a daily basis in the classroom [3],[4]. Sahin and Thompson (2006) found, "While technology is used more often in administration and research, its use is less frequent in instruction because the integration of computer technologies into teaching challenges the traditions and practices of faculty members and universities" [5]. Schrum, Skeeel, and Grant (2002) commented that the rapid development of technology has failed to shape teaching in higher education and that many instructors do not systematically integrate technology into their curricula. They stated, "Typically, professors use software tools, like word processors, but rarely use technology for teaching or require students to use it for assessment purposes" [6]. It is found that the effective integration of ICTs into the educational system is a complex, multifaceted process that involves not just technology – indeed, given enough initial capital getting the technology is the easiest part – but also curriculum and pedagogy, institutional readiness, teacher competencies, and long-term financing are the major outlook to implement it.

1.1 Role of ICT in digital India

Information and communication Technology (ICT) is an advance communication tools and this field progresses very fast day by day to communicate, receive and share ideas in numerous ways. This software accomplishes convenient access to the global information system across borders of subject, discipline and organization. As recognition of its role and policy the world has targeted libraries as a community resource that may offer access to and sustain for the informational resources conferred by the webs. (Thompson et al., 2014) Indicate that all data were stored on the server information. Administrator or librarians of different academic institute can manage data information that will be accessed in the library service, lecturers and students can be benefited from this information through their mobile applications. Some examples of such software's that are CDS/ISIS, GLAS, ALICE for Windows, X-Lib and SLAM is

used is this field. Library users of all institute can access information of various types such as online databases, e-journals, e-books, government publications digitally through networked systems through the anyone these above software. The major improvement viewed in last decade in India that academic institute are connected and improve in different way of communication. The institute located in urban areas are developed comparatively in higher ratio than the institute located in the rural zones.

2.Result and Discussion

Study have conducted taking twelve thousand (12000) students in different institute in the zone of Allahabad, Kolkata West Bengal, Bhilai Chhattisgarh and Mumbai Maharashtra and the most cases the feedback collected from 200-250 students of each institute and the result has been plotted.

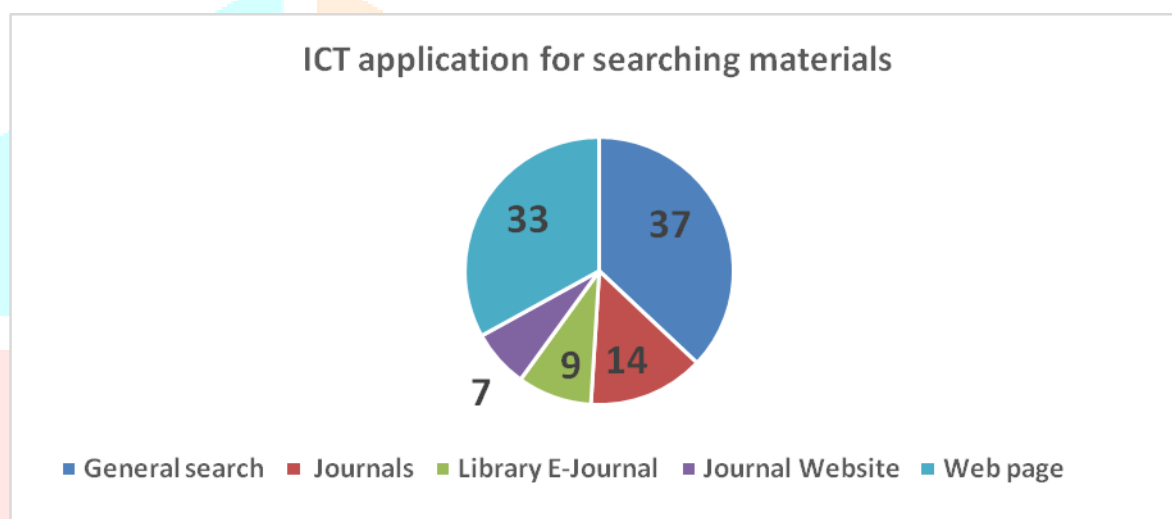


Fig.2.1 Clearly indicating that percentage of different material is searched in a library.

Presently ICT application in the library system is applicable within the libraries under studies. In fig. Fig.2.1 clearly indicating that percentage of different material is searched in a library through its software is shown above. Records of average materials searched in one month indicating that searching of general materials such as books (Indian and foreign authors), papers and encyclopedia covered 37% and web page search indicated 33% and rest including journal, website and others.

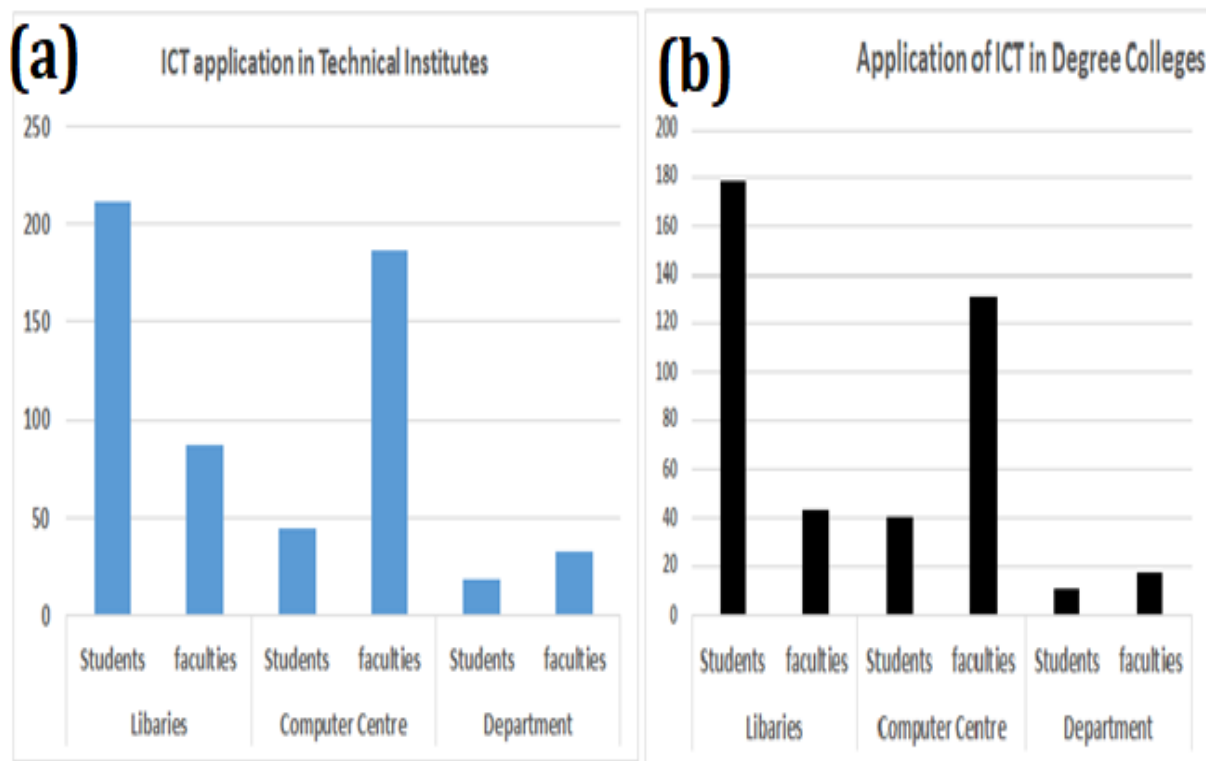


Fig.2.2 clearly demonstrating that the students and faculties are using ICT in libraries, in computer center as well as in their department.

The participation of student and teacher in ICT application is demonstrated based on the feedback collected from the varying Institutes. In fig. (a) and (b) separately mentioned that ICT application in Technical Institute and in Degree colleges are used in different way. Students and faculties in different places in the institute are using ICT whenever they are getting their leisure of their classes. The histogram in fig.2.2 clearly viewed that the application of ICT is more intense in technical institute compare to the general degree colleges. Use of ICT in degree colleges are lagging by 20% as compare to technical institute in India. Based on the feedback it is observed that both the Institutes either it is degree colleges or technical institute, students and faculties are highly motivated and ready to apply with the application of ICT in their academic work.

Table:-1

Different issues to adopt ICT in academic Institute				
In availability of System	Lack of Knowledge of library personal	Lack of Time	Non availability of Software	Less Technical knowledge
1	2	3	4	5

There are varying difficulties are faced by the user associated with ICT are shown in table-1. All these difficulties are serial as 1,2,3,4 and 5 respectively. These issues are plotted on fig. 2.3. The plot clearly viewed that the major problem is the non-availability of proper software to run the ICT in academic institute and near about 50% institutes accord to support the same. The second major problem facing by the user in their institute is the nonavailability of system by which they can avail ICT in their institute. Near about 24% of the total issues with the lack of system for the use of ICT application.

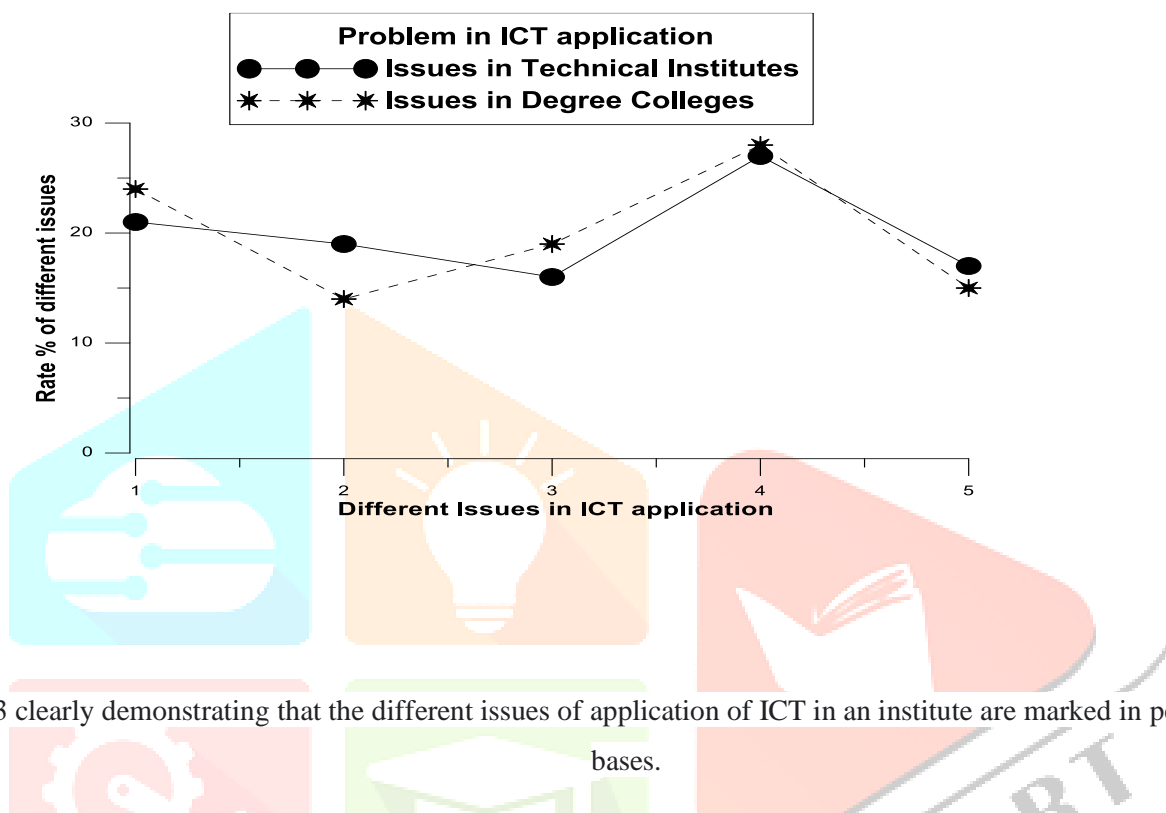


Fig.2.3 clearly demonstrating that the different issues of application of ICT in an institute are marked in percentage (%) bases.

In the fig.2.4 it is depicted that the opinion of students and faculties of the institute about the service by ICT application in their academic program. All the students as well as faculties put their opinion in favors that the ICT application in their institute are applicable for collection/sending academic materials when it needs. It also helps to enhance the performance of academic process when teaching/learning was continued in online pattern of all the institute. Most of the user provided their feedback that the system is very vital to get information of reference system, helps in Counselling/guidance when the user needs/ user in distances. This ICT provide its service by sending different materials through CD, DVD, and others storage system to deliver materials from one to another. Basically, all types of online activities and functions are properly maintained through ICT application. In fig. 2.4 clearly demonstrated that the information of varying works can be done by the direct application of ICT. The result also viewed that the negative ness in this process is close to zero in all cases.

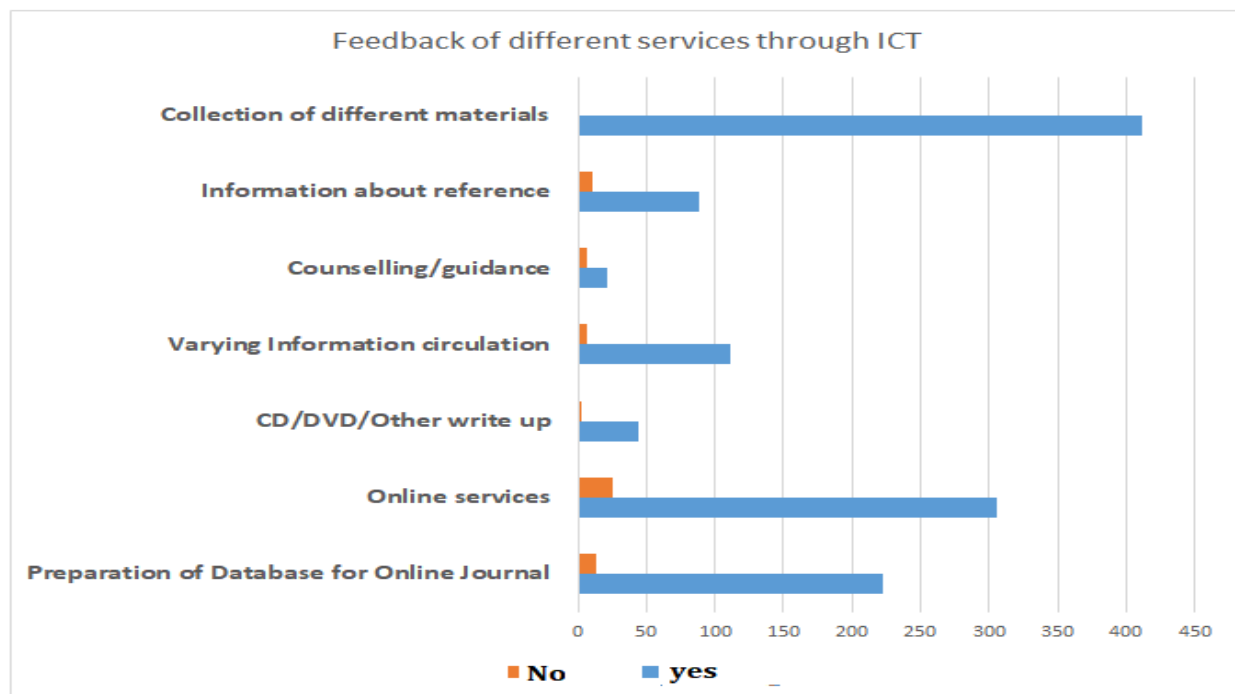


Fig.2.4 The figure demonstrated that the opinion of students and faculties of the institute about the service by ICT application.

3. Conclusion and Future Scope of work

ICT is a unique inevitable tool for information communication that is very essential for today's life. The practice of this technology is being done for different library services by the users to fulfill their requirements. The distribution of information to all users is a major issue in a cultured society. Libraries particularly use many tools and techniques to flow into the data to the user community. The modern libraries ought to be publicized the latest trends and techniques. Based on the work of author make the following conclusions on the study of ICT application in their academic institute, these are as follows:

- Records of average feedback of one month indicating that searching of general materials such as books (Indian and foreign authors), papers and encyclopedia covered 37% and web page search indicated 33% and rest including journal, website and others through ICT.
- Students and faculties are using ICT whenever they are getting their leisure of their classes.
- The result clearly viewed that Application of ICT is more intense in technical institutes compare to the general degree colleges. Use of ICT in degree colleges are lagging by 20% as compare to technical institute in India.
- All the students as well as faculties put their opinion in favors that the ICT application in their institute are very essential for the collection/sending academic materials when it needs. It also helps to enhance the performance of academic institute when teaching/learning was continued in online pattern.
- Most of the user provided their feedback that the system is very vital to get information of reference system, helps in Counselling/guidance when the user needs.

- This ICT provide its services through CD, DVD, and others storage system to deliver materials from one to another. Basically, all types of online activities and functions are properly maintained through ICT application.
- The studyhas been made taking only sixteen different Institutes in different places in India but it can be done in details by considering some more institutes to get better results.
- Institute visit is very essential to make such study, some cases it was not possible due to pandemic so information in few cases it not justified properly but it can be done by direct visit of all institute under studies.

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