

# The Importance of ICT in the Higher Education System

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## ABSTRACT

Information and communication technology is the mode of education that use information and communication technology to support, enhance and optimize the knowledge of students on a global level. Increasing the use of ICT in education with integrative technology has found a positive impact on student achievements and knowledge. Information and Communication Technology (ICT) includes computers, the Internet, and Electronic delivery systems such as radios, televisions, and projectors among others, and is widely used in today's education field. Using ICT tools students, faculties can access resources that are available worldwide easily to enhance their quality of education. ICT tools are important for researchers to explore their knowledge. Technology has disrupted all areas of our life and education is no different. Especially after the pandemic, more schools are looking towards online learning as a permanent teaching method along with traditional classroom teaching. But while most of the institutes have used some form of an online systematic approach to virtual learning.

**Keywords:**-ICT; Technology Integration; HEI (Higher Education Institutions) , ICT initiatives

## I. INTRODUCTION

The Indian higher education system is the third largest in the world and offers education and training across almost all disciplines. With over 1,000 universities, 42,000+ colleges and 11,500+ stand-alone institutes, with a majority of them owned by private players, the Indian higher education system has witnessed tremendous growth since its independence.

ICT tends to expand access to education. Through ICT, learning can occur anytime and anywhere. Online course materials, for example, can be accessible 24 hours a day, seven days a week. Teleconferencing classrooms allow both learner and teacher to interact simultaneously with ease and convenience. Based on ICT, learning and teaching no longer depend exclusively on printed materials. Multiple resources are abundant on the Internet, and knowledge can be acquired through video clips, audio sounds, and visual presentations and so on. Applications of ICTs are particularly powerful and uncontroversial in higher education's research function. The paper's main objectives are to evaluate the importance of ICT in higher education and to analyse the government initiatives for the development of ICT in higher education.

"We need technology in every classroom and in every student and teacher's hand, because it is the pen and paper of our time, and it is the lens through which we experience much of our world." – David Warlick

## II. REVIEW OF RELATED LITERATURE

UttamkrPegu studied "Information and communication technology in higher education in India: challenges and opportunities" (2014). The study revealed that ICT enabled education will ultimately lead to the democratization of education and it has the potential for transforming higher education in India. Mahisa, Anju studied "The role of ICT in higher education in India" (2014). The study revealed that ICT play vital role as a strong agent for change among many educational practices. Ozdmemir and Abrevaya (2007) asserted that ICT is reducing the cost per students and expanding the enrolments and makes the provisions for employers and supports enduring learners. Lalitbhushan S Waghmare, et-al (2014) studied "Role of Information and communication technology in Higher education: learners perspective in rural medical schools". They concluded that there is a need to foresee the role of technology in education and take appropriate measures to equip the stakeholders for adequate and optimum application of the same

## III. BENEFITS OF ICT IN HIGHER EDUCATION

### **Motivating Factor:-**

The internet can act as a motivating tool for many students. Young people are very captivated by technology. Educators must capitalize on this interest excitement and enthusiasm about the Internet for the purpose of enhancing learning. For already enthusiastic learners, the internet provides them with additional learning activities not readily available in the classroom.

### **Fast communication:-**

Every student has its own smartphone to access the internet. The internet promotes fast communication across geographical barriers. Students can join collaborative projects that involve students from different states, countries or continents. With the help of ICT tools learner can access the data over the cloud. Using internet connection students can access very fastly.

### **Locating Research materials:-**

In HE (Higher Education) research play very important roles to enhance the quality of education. to access the resources over the internet ICT tools provide Efficiency of access. There are many resources on the internet than the school library can provide. With the help of ICT tools researcher can access the research paper, thesis, articles, news related to their topic.

### **Co-operative learning:-**

The internet facilitates co-operative learning, encourages dialogue and creates a more engaging classroom. For example, a LISTER V for our class will allow students to get involved in class discussions through e-mails in a way not possible within four walls of the classroom.

### **Acquiring varied writing skills:-**

If students are required to publish their work on the internet, they have to develop hypertext skills. These skills help students gain experience in non-sequential writing.

**Improve Quality of Education:**

- A reliable grading system to measure and assign rank to Students, Teachers, Schools and Universities
- All round development of students
- Promote educational ideas
- Continuous improvement by feedback
- Support collaboration among students, teachers and institutions

**Improve Accessibility:**

- Accessible anytime from anywhere to everyone
- Bring the books & another resource within reach of students
- Promote education in rural areas
- Provide online courses to students.
- 24x7 schooling system for those students who cannot attend regular schools during daytime

**Reduce the cost of education**

- Provide services at lower cost through online solutions
- Promote —learn yourself and —community learning via online systems, etc.
- Assist teachers in conducting the exam and offering courses material
- ICT opens the doors for girls to get education from home for e.g. online learning if social & cultural reasons are preventing them.
- ICT promotes vocational courses as well as self-paced learning for the adults
- ICT brings culturally diverse India on a common learning platform that is offered in all languages

#### IV. THE MOST POPULAR ICT TOOLS FOR TEACHERS AND LEARNERS

**Google Form:**

A Google Form is used to collect information in the form of quizzes and surveys. Using this one can conduct tests and surveys. That's why it is very useful for teachers and students. The information we fill in Google Forms is collected and automatically connected with a spreadsheet. We can also provide an e- certificate when students qualify for a quiz.

**Google Classroom:**

Google Classroom is a type of virtual classroom where teachers can provide video lectures, study Material and can assign quizzes, assignments, and projects to students. We can assign time limits for assignments and quizzes. Google Classroom integrates features like Google Documents, Google slides, and Google Sheets in order to make teacher-student communication more effective. Google classroom has been used for uploading the study materials. Google Classroom helps the students to find the material related to their subjects easily and study it at home

**• Google Meet:**

The Google Meet will allow you to conduct HD video conferencing with up to 30 students. Now, Google Meet is fully integrated with our WIU Gmail accounts, so you can join meetings directly from the Calendar event or email invite. You also have the ability to allow for non-WIU participants. Google Meet is also the better

program if you have participants that need to call in rather than join via video because Google doesn't charge an additional call-in fee. Overall, Google is more cost-effective.

- **Any Meeting:**

Any Meeting is free with ads. It allows for meetings of up to 200 people and has essential functionality like screen sharing, VoIP and phone conferencing, and meeting recording, and it even has a follow-up functionality

- **Open Broadcaster Software (OBS):**

It is free and open-source software for recording a video lecture. This software is also useful for the live streaming of lectures. This software is also termed OBS studio. We can stream a lecture on some websites like YouTube, Facebook, and Instagram. It gives different options to record videos like face recording, recording involving PPT, etc.

## V. CHALLENGES OF EDUCATION IN INDIA

Education in India faces many challenges which involve the following:

1. **ICT Infrastructure:** The major challenge before ICT is the availability of ICT infrastructure i.e. non-availability of buildings, electricity & Communication infrastructure.
2. **Quality:** Maintaining a standard of education is a big challenge. Access Due to infrastructural constraints and social issues, it becomes very harder to make education accessible to all parts of society.
3. **Cost:** The cost of education is very high for people (who belong to the lower class) and places where it is accessible. **Social & Cultural Issues:** due to Cultural diversity it is very difficult to offer education tailored to specific social segments. For example,educating the children who belong to poor families because they are forced to work and miss out on learning opportunities

## VI. RECOMMENDATIONS

The quality of programs as measured by fitness for purpose should continue to grow, if the stakeholders perceive the various educational programs as meeting their needs and expectations. ICTs serve to provide the means for activities to realize the potential in human resources. Furthermore, adequate funds must be provided to initiate, develop, promote, review and implement ICT policies in the educational sector to bring about an improvement on ICT utilization, through computer apprentices courses taught in vigerian tertiary institutions. In this period of economic recession, the price of ICT equipment and materials will continue to the astronomical. It becomes highly imperative for all stakeholders of education to entice industrial establishments, politicians, big businessman and entrepreneurs, non-governmental organizations and the community at large to assist the institutions in the provision of ICT equipment and materials and well finished computer laboratories.

## VII. CONCLUSION

ICT playsa vital role as a strong agent for change in many educational practices, conducting online exams, paying online fees, and accessing online books and journals. Thus ICT in Higher education improves the teaching-learning process and provides the facility of online learning to thousands to thousands of learners who

cannot avail of the benefits of higher education due to several checks, such as time, cost, geographical location, etc.

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