ICT in Education: Its Relevance in the Digital Age

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ICT in Education Reveals that…

- It has emerged as an effective means in inculcating a practical mindset among the learners with updated knowledge and information.
- Using ICTs, people can easily access global learning even at their doorstep.
- In this digital era, the concept of blended learning (using both online and offline technologies or devices) has transformed the educational scenario completely (from primary to higher level).
- Flexibility and innovation are the two components that have helped the learners to learn in their own ways or space with minimum cost and lesser time.

Use of ICT in Education:

- Democratisation of education is possible only when the applications of ICT is ensured to its optimum level.

- Diverse set of technological tools and resources used to communicate, create, disseminate, store, and manage information.

- In fact, the use of ICTs has broken the trends of the conventional or traditional system by providing the learners and experts comfortable spaces to discuss, share, and exchange knowledge and information on various topics through a global network.

Traditional classroom to Modern Global online learning

NKC and NKN...

- Using ICTs in Education, the National Knowledge Commission (NKC, 2005) stated: "The biggest challenge in higher education, therefore, is the provision of quality higher education to the greatest number, at the lowest possible cost to the learner."
- National Knowledge Network (NKN) also aims at establishing a strong and robust Indian network which will be capable of providing secure and reliable connectivity to all participating educational institutes.
- Print media, Audio media, Audio-Visual media, Telecommunication, Multimedia Communication and online learning are the different stages of the use of ICTs in India, which are being experienced in educational transaction mostly in all higher educational institutes throughout India.

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- Teleconferencing, Audio conferencing and Video conferencing, have made the application of ICTs much more productive and efficient.

- There emerged various other technologies to suit the requirements of the content being used for teaching. Using Electronic mail or E-mail, face book, whatsapp have become the order of the day.

- Of late, 4G and Artificial Intelligence (AI) technologies have greatly transformed the educational environment along with various tools like Blogs, Wikis and Rich Site Summary (RSS) as student support services irrespective of the mode in which one is conducting the teaching.

- Other than these, E-portals and Social Networking Sites within the educational institutions are gaining tremendous popularity in bringing together all those concerned with a meaningful educational interaction.

Use of ICT for Higher Level of Learning and Training:

- National Program on Technology Enhanced Learning (NPTEL), National Mission for Education through Information and Communication Technology (NMEICT), SIRD linked with Satellite hub for with SITs (Satellite Interactive Terminal)—are some of the online programmes, which can bring in a marked difference in the functioning of the educational institutes of this country.

- The main objective has been to bring together all the stakeholders in the field of Science and Technology, Higher Education, Research & Development, Governance and so on.

Use of ICT for Higher Level of Learning and Training:

- SWAYAM or Study Webs of Active Learning for Young Aspiring Minds, has been introduced by the Ministry of HRD, GOI, where teachers from institutions like the IITs, IIMs, and central universities have been offering online courses to the citizens of India.
- Under SWAYAM, there are seven coordinatros: NPTEL for engineering, UGC for post-graduation education, CEC (Consortium for Educational Communication) for under-graduate education, NCERT & NIOS for school education, IGNOU for out of the school students, and IIMB for management studies.
- Again, at least 20% materials from the total number of courses by an Indian University should be released in the form of MOOCs for the fast mobilisation and dissemination of knowledge and information among the masses in the SWAYAM platform for making education more vibrant and sustainable.

Use of ICT for Higher Level of Learning and Training:

- OERs in the blended form plays a significant role for upgrading and disseminating the knowledge and information among the masses of the world.
- The Wikipedia, Wikimedia, MIT Open Courseware, Internet Archive, OER Commons, Khan Academy, Slideshare, e-PG Pathsala, Inflibnet, are some OERs sources that serve the academic purposes for the people in society.
- Of late in India, following the National Knowledge Network Project, various courses have been launched in the form of OERs and MOOCs, which became instrumental in training the people mostly in the field of Agriculture and Small-scale industries for a better socio-economic growth of India.

Challenges of ICT in Education:

- Use of ICTs may create digital division among the people in a society, a state, and a country.

- India consists of heterogeneous groups of people with different beliefs and culture and varied economic classes.

- Some learners are so much techno-friendly, using the smart phones and other online devices to access education and information, whereas some people in rural and remote areas do not know how to use technology for accessing information and knowledge gathering, due to problems of electricity and internet connectivity.

Measures to be Taken:

- All universities and higher educational institutions of the states of India are well connected with NKN and NPTEL networks. Through such networks, all the institutes can share knowledge and expertise on a mutual basis.

- Although this mission of NPTEL is intended to enhance the quality of Engineering education in the country providing free online course ware, local higher educational institutions say GU can very well tie up with the premiere institute like the IITG (Indian Institute of Technology, Guwahati), the provider of resources through NPTEL, so that students can utilize those resources.

Measures to be Taken

- Content development is another crucial area that has often been overlooked. Most of the ICT-based educational material are likely to be in English. Apart from English, there is a need to develop original educational contents in the vernacular languages too.

- It is observed that in India, at present, there is a dire need to develop and rejuvenate the manpower through training for those who are mostly engaged in agriculture sectors, small-scale industries, electricity, construction, servicing in motor vehicles and other services. By using ICTs and digital devices, training can be held through the both conventional and distance.

- Therefore, research should be conducted (before using ICTs) on the availability and quality of the physical and human resources for enhancing and accelerating the manpower in the society.

Conclusion:

Education being an interdisciplinary subject in the field of social sciences, the use if ICTs in education has enabled more participation as well as research. Quick accessing of information and ideas has transformed the ways of education in the 21st century.

Therefore, ICT has significant relevance in the 21st century digital age.

Thank You for your kind attention