

ICT IN EDUCATION MANAGEMENT – NEW NORMAL

¹Mallika Nair, ²Vijaya Deshmukh

Institute of Management & ResearchMGM University, Aurangabad, India^{1,2}
mallikanair31@gmail.com¹, director@mgmiom.org²

ABSTRACT

The process of education is immensely replacing the way it is designed and expressed as information and communication technologies are making their way and penetrating in our daily chores of life. The crucial role in this revision process is led by the teachers. They are consistently confronted with their own perspective, scholastic learning and coaching expertise.

To handle information, its implementation and its alliance with social, economic and cultural affairs, Information and Communication Technology (ICT), a scientific, technological and engineering subject and management technique is utilised (UNESCO, 2002). ICT is the abbreviation for Information and Communication Technologies. The last few years witnessed, ICT contributing its share in our daily chores which demonstrated an effect on community as well as personal life. The educational sector exercises and applies ICT in great lengths. All the stake holders in educational sector such as teacher, student, administrator and every individual associated with education are in favour of availing ICT. To indulge in smooth, uncomplicated and interesting learning process, teachers make use of ICT.

ICT made its name and became a well-known technique in a recordable time. Most of the nations recognised the significance of ICT and introduced the basic skills and concepts to specialise it, as a section of the root of education.

The education system involving institutions, educational experts and teaching staff highly recommended and emphasised the significance of ICT to facilitate enhancement and up gradation of education sector. The present paper analyses the role of ICT in Education Management.

Keywords: ICT, Education management, ICT and teacher, ICT architecture.

INTRODUCTION

The present-day structure of the classroom is witnessing an alteration. A discontinuity in technology usage is observed in between the growth of the community and the teaching techniques of the instructor in the classroom. It has been noticed that the technology upgradation in our community has made a radical change while the education system is still deprived of it. The classroom teaching is conducted in an old style with a teacher centric approach and most of the times failing to make an impact on the learner's part. This scenario gradually disappeared giving a way to the student centric approach. Students gain knowledge and information from the different sources available and this makes the use of ICT and Multimedia a very essential tool in the educational sector and at the same time, the teacher should be well experienced and trained to utilise the same [2, 1]

In the 21st century, ICT gained international attention for the role it can play in economic, social and educational reforms. World's developed countries saw dominant change where the use of technology penetrated every business, school and house creating a new and innovative way to work, learn and play. The multinational policy mirrors the significance and impact of ICT on the developed countries and the potential it stores to bring about more essential changes [6, 4].

IMPORTANCE OF ICT IN EDUCATION

The teachers give in their best efforts in the learning process but there will be a percentage of students dissatisfied with the pace of the teachers as they may vary between a fast learner, an average learner and slow learner. The

classroom sessions do not allow satisfaction of the different strata of students with their specific styles. The above picture makes the teacher incapable in traditional teaching and learning environment. The solution for this complex situation can be generated by taking the aid of interactive multimedia based instructional materials which will give learner the control to progress the subject at their own pace and in line with their individual interests, needs and reasoning processes. Thus, multimedia program can assist and provide a helping hand to the teachers to handle such types of difficult situations.

The user-friendly platform with authoring tools can guide and assist teachers to create multimedia courseware, encourage drill and practice software, produce modal to solve complicated situations, create customised instruction with multimedia, components with built-in question bank, its evaluation and scores. These kinds of multimedia programs can modify and upgrade the learning experience when associated with the classroom learning.

Students are in favour of adjustability in terms of time, space, place, content option and deliverance of instructions. These conditions were impractical to compensate during the preceding time, as the appropriate tools were unavailable. The present time gives us an opportunity to use and implement flexible learning techniques with the help of ICT as tools. Distributed learning is a new concept arising from flexible approach to content and learning resources with the aid of network going beyond the boundaries of traditional class rooms, homes, community centres, etc. Able to learn whenever, wherever with synchronous and asynchronous communication beyond space, time and pace is the key facility which comes handy with the web-based instructions.

The ease of access to online devices has led a path to make creative and innovative websites, aid in online education and direction during classroom sessions. The process of communication is the fastest means and also a factor for growth in all sectors for example email, unearthing information, identifying appropriate website are all the significant tools. The development of online and offline learning materials with the help of multimedia tools will be seen as proficiency and expertise of the present-time educators. Flexible learning techniques has opened a new perspective for unearthing, finding, categorising information with the support of computer technology.

Innumerable applications for various purposes starting from productivity software to specially designed educational software is developed with the support of ICT techniques in the field of education. The groundwork of the teachers is a necessity to make use of the teaching and learning tools in an ICT enriched environment and overcome difficulties. The first step to get acquainted with the fundamentals of ICT techniques and making relevant use of these techniques in teaching and learning process. The second one is to suitably adapt to the change in outlook and taking efforts to improve in applying ICT techniques in teaching and learning process. The prime factor for the effective application of pedagogy-technology integration for teacher development is to realise the modifying part of the teachers from tutors to facilitators and teacher centred advise to learner centred lessons. The value principles of teaching are to be considered during the preparation of the outline of learning materials with the assistance of ICT tools. The only use of ICT tools in the teaching and learning process does not make it more effective and creative. Therefore, the question arises as what should be the necessary elements included to frame the structure of the learning environment using ICT as technique. Which learning principles will get more benefit of the best practice and distinctive surroundings from the new ICT tools? These queries are to be answered.

The ICT tools should cater to the divergent needs of all different users distinguished by all kinds of socio-cultural conditions and comprising the variance of multiple intelligences. Teachers need to update their skills of using technology for the growth and progress of their learners and the education system as a whole. The crucial

question that comes to light is -in what measures ICT can improve learning and teaching practices. Overall ICT techniques assist in opening of new avenues for education by using four key processes.

A] Retrieve/ Reclaim: Able to unearth ideas and information from divergent resources with the services provided like find, pinpoint, choose and an undisputed data in broad radius of multimedia structure;

B] Enlarge: Expand design and data with the help of computing, handling, inspecting and printing the same in various multimedia structure;

C] Alteration: Alteration of design and data into innovative structure with the help of harmonizing, illustrating, reproducing and generating data in different multimedia methods and pattern; and

D] Contribution: Allocating design and data around region, nations and worldwide chains by electronic communication with others in present and/or delayed period of time.

The prime exercises like access, extend, transform and share will make the students learn and help them do the things on their own to become self-starters. These exercises will aid them in expressing their innovative and creative ideas. The above exercises could be implemented in all the discipline of learning and also uniformly at all the levels. The three, wide classification of educational software are identified as **Generic tools for learning, Content-based resources and Interactive instructional courseware.**

The different generic tools which begin with utility tools to simulation & modelling tools allow the learners to access, extend, transform and share information. The information-based resources will guide the learners to acquire vast amount of educational information that can be assimilated with the curriculum goal. Interactive instructional course study are primarily self-paced learning materials. These programs allow the learners to control the learning process to match their own speed and convenience.

The interactive instructional course adds in positive gains in learner's knowledge, skills and characteristics by providing the following key advantages:

- Access and represent information energetically and in many different ways.
- Create social awareness and confidence in one's abilities.
- Increase inspiration and encouragement.
- Handling and communicating effectively during complicated procedure.
- Generate better understanding and broader perspective for processes and systems
- Increase in Troubleshooting skills and analytical thinking. [3]

ASSIMILATING ICT IN EDUCATION

Anticipating the openings available with ICT upgraded education, it can be stated that ICT upgraded education is better than an ordinary education. But it also faces many challenges that sometimes restricts the exploration and taking advantage of its openings. To assimilate ICT's in education, some challenges could be faced and they are as follows:

A. ICT Architecture:

The foremost challenge to implement ICT-upgraded education is the obtainability of data and communication technologies infrastructure. The function of policymakers and planners is to make certain the accessibility of the following: suitable rooms or buildings to accommodate the technology, computers and economical internet service providers for online teaching and learning as well as availability of electricity and telephone connectivity. Sizeable areas in developing countries are still deprived of electricity and telephone services.

B. Speech and Gratification:

English is the presiding language used in the multimedia structure. Around 80% of the data found on the internet is in English language [7]. A considerable portion of the educational software manufactured globally uses English as their language of communication. The developing countries in the Asia-Pacific, usually in the country side, English language is not used dominantly, creating a language barrier and obstructing the maximum educational welfare from the multimedia structure. The countries like Philippines, Malaysia, Singapore, and India prefer using their own local languages as the language of medium in learning and teaching process. These countries use English language as their second language.

C. Educators with ICT Expertise

The teachers involved in the teaching process are not acquainted with the ICT skills, create a difficulty for the use of ICT in education field. The institutes assimilating ICT in the teaching and learning process must train the teachers about the ICT tools on priority basis. Knowledge and ground work of the ICT tools is necessary to maximise the benefits and accomplish goals.

D. Change Management:

Managing the change is one of the biggest problems, as teachers don't want to accept change easily. Change management issues must be addressed as new work practices, new ways of processing and performing tasks are introduced. In general a large number of teachers in educational institutes are non ICT proficient, and resistance to change. Research has shown that the strategy of adding technology to the already existing activities in institutes and in the classroom, without changing habitual teaching practices, does not produce good results in student learning [8]. The reason for this is due to the fact that the vast majority of teachers are not proficient users of technology, especially computer technology. A number of studies have shown that most teachers consider the two main obstacles to using technology in pedagogical practices to be a lack of resources and training [9].

The traditional way of work when altered to a new way, the change occurred is not readily accepted and becomes a complication. These issues are to be handled and managed in an appropriate way, when an organisation goes through any modifications and upgradation. Generally, most of the teachers are not familiar with the ICT techniques and are also reluctant to change. Study has proved that adding new techniques into the traditional curriculum without altering the teaching practices does not yield beneficial results [8]. The reason stated to this problem is that, larger part of the teacher's population is enable to make use of computer technology. Absence of resources and training programmes are the concern areas to overcome the obstacle of making use of the computer skills [9].

D. Leadership Role:

The inclusion of ICT in education requires special efforts from both the higher management and the teachers. To make it an uncomplicated process, the management and the teachers should be provided with proper guidance to convince them for the task. A Leader can play a major role, before and after the project application. Leadership is essential to illustrate the modal, concept and create awareness during the start of the project; to handle alteration and support during the project; to guarantee the required adaptability and flexibility of the initiative after the project [5].

CONCLUSIONS:

ICT techniques combined with the traditional curriculum has changed the teaching and learning process in a positive way. The maximum use of creative and innovative openings due to the addition of technologies will make a path of progress to attain the goals and objectives. The aim of the present paper is to get familiar with the role

of ICT in teaching and learning process. The paper deals with different perspectives of combining ICT in the education process. Acquiring new skills is not passing on information but is an active learning process. ICT assimilating with education, upgrades classroom experience as well as incorporates e-learning. E-learning has contributed to worldwide learners who miss the opportunity of securing higher education due to various reasons like, time, cost, geographical location, age, etc. ICT has enriched distance learning. The education department has achieved success in reaching the remote areas and learners at a distant location can reap the fruit of acquiring qualitative learning environment from any part of the world and at their suitable time.

REFERENCES

- [1] Sarkar, Sukanta. "The role of information and communication technology (ICT) in higher education for the 21st century." *Science* 1.1 (2012): 30-41.
- [2] Bhattacharjee, Baishakhi, and Kamal Deb. "Role of ICT in 21st century's teacher education." *International Journal of Education and Information Studies* 6.1 (2016): 1-6.
- [3] Majumdar, Shyamal. "Emerging trends in ICT for education & training." *Gen. Asia Pacific Reg. IVETA* (2015).
- [4] Assar, Saïd. "Information and Communications Technology (ICT) and Education." (2015): 66-71.
- [5] Kumar, Raju. "Convergence of ICT and Education." *World Academy of Science, Engineering and Technology* 40.2008 (2008): 556-559.
- [6] Kozma, Robert B. "Comparative analysis of policies for ICT in education." *International handbook of information technology in primary and secondary education*. Springer, Boston, MA, 2008. 1083-1096.
- [7] Anzalone, Stephen, "ICTs to Support Learning in Classrooms in SEAMEO Countries: At What Costs?", Paper prepared for SEAMEO conference in Bangkok, March, 2001.
- [8] Thompson, A. D.; Simonson M. R. & Hargrave, C. P. (1996). *Educational Technology: A review of the research* (2nd ed.). Washington, D. C: Association for Educational Communications and Technology (AECT).
- [9] Pelgrum, W. (2001). *Obstacles to the integration of ICT in education: results from a worldwide educational assessment* *Computers & Education*.