



## ICT and the Changing Educational Landscape

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### ABSTRACT

Information and Communication Technologies have brought such a revolution that rarely a man can deny its impact on society. The consequence of its integration in education can be seen by the rapid changing in today's educational landscape. In present day information society we often talk about digital competence and many other terms referring to digital competence like e-competence, e-skills, e-literacy, information literacy, digital literacy, new literacies and MIL. According to Calvani, Cartelli, Fini and Ranieri, digital competence involves "being able to explore and face new technological situations in a flexible way, to analyze, select and critically evaluate data and information, to exploit technological potentials in order to represent and solve problems and build shared and collaborative knowledge, while fostering awareness of one's own personal responsibilities and the respect of reciprocal rights/obligations". The present paper would attend to focus on ICT and the changing educational landscape.

### KEYWORDS

ICT, Educational Landscape, Knowledge Society.

### Introduction:

The survival in present day knowledge society is genuinely for those who prove himself as a fittest one. In present day information society we often talk about digital competence and many other terms referring to digital competence like e-competence, e-skills, e-literacy, information literacy, digital literacy, new literacies and MIL. According to Calvani, Cartelli, Fini and Ranieri, digital competence involves "being able to explore and face new technological situations in a flexible way, to analyze, select and critically evaluate data and information, to exploit technological potentials in order to represent and solve problems and build shared and collaborative knowledge, while fostering awareness of one's own personal responsibilities and the respect of reciprocal rights/obligations". In 1993, David Buckingham used the term "new literacies" and later the term 'e-literacy' was coined in 2003 by Allan Martin (Martin & Grudziecki, 2006) which is defined by him as "the assumption that there are skills, awareness and understandings which will enable individuals firstly to survive and secondly to be more effective, in their e-encounters" and various other terms used in this sequence can be taken as its wide influence on our educational, social and cultural life. Truly Information and communication technologies have revolutionised our society in such a way that rarely a man without technology can be seen. Without these new technologies it is tough to imagine how to sustain in present day information society. According to UNESCO the term ICT is plural, referring to a great many technologies and it is an all-encompassing term that includes the full gamut of electronic tools by means of which we gather, record and store information, and by means of which we exchange and distribute information to others. It has made access to information easier for a learner and playing a key role to gain knowledge from every nook and corner in an innovative way. The consequence of its integration in education can be seen by the rapid change in today's educational landscape.

### ICT and positive Learning Consequence:

ICTs have been playing a major role in establishing new learning culture by making various changes for the last two and half decade. ICT integrated educational set up goes with active, collaborative, creative and integrative, learning which provides a good learning environment to the learners. By major research reports around the world, it can be seen that developing countries are making their sweating endeavours on skill based training of teachers and incessantly trying to intro-

duce innovative pedagogies into the classrooms. Their efforts done for smart school with objectives to foster self-paced, self assessed, and self-directed learning by using information and communication technologies and its applications resulted in positive consequence in learning. Further ICT and its uses in education has brought a positive learning consequence because it influences performance, learning motivation, teaching learning process and also on quality education.

### ICT as a means for instruction:

In present days ICT has become one of the most effective tools to enhance learning in various ways. Three major categories of instructional use for computer-based technologies can be discussed in this regard. These are 'Learning from the Technology', 'Learning about the Technology' and 'Learning with the Technology':

**Learning from the technology:** The use of technology to convey certain information or skills is covered in this category. In this context Maddux, Johnson, and Willis (1997) put it as "designed to make it easier, quicker, or otherwise more efficient to continue teaching the same things in the same ways we have always taught them". Obviously the use of technology in this case reflects the classroom practice in traditional style which includes computer assisted instruction, integrated learning systems, computer-based tutoring systems etc.

**Learning about the technology:** In this category learning about the technology itself comes by which a learner is taught how computers work and learn specific skills related to using the computer.

**Learning with the technology:** In today's world Learning with technology is most dominant because of covering the support in learning by the use of technology. This perspective covers the technology as an integral part of the classroom learning environment and provides a tool for both teachers and students that can facilitate new roles and new instructional strategies.

### Changing Learning Paradigm:

In present information society and in the age of the digital competence, the terms 'multiliteracies', 'new literacies', 'multimodal texts', 'multimodal discourse' and 'multimodality' represent attempts to describe the textual shift that has oc-

curred and to conceptualize the changed learning paradigm that is fundamental to literacy and learning (Walsh, 2009). Present scenario of education and learning process is something different from the yester time, there is shift of curricula from "content-centered" to "competence-based" as well as the delivery mode of curricula is also shifted from "teacher centered" to "student-centered". Hence with this changing learning paradigm the new approaches to teaching as well as learning and assessment along with the changing roles of teacher and learner can be seen.

ICT has shifted the Role of teacher as from Knowledge transmitter, primary source of information, content expert, and source of all answers to The Learning facilitator, collaborator, coach, mentor, knowledge navigator, and co-learner.

ICT has shifted the Role of student as from Passive recipient of information to Active participant in the learning process and as well from Reproducing knowledge to Producing and sharing knowledge.

### Suggestions:

ICT and its integration in educational set up have made such a new learning culture that it has made access to information easier and faster for an individual learner. Thus it is the demand of time that learning culture should be further strengthened with further more efforts in various aspects. Some of the suggestions in this regard are given below

- There is a need to provide proper ICT training among the teachers to make them comfort in using ICT at all the levels of educational set up.
- There is a need to lay emphasis on proper integration of ICT with all the segments of educational set up for creating a techno-friendly environment within institution.
- There is a need to provide well furnished ICT labs in all types of educational set up without any discrimination
- There is a need to lay emphasis on practice driven approach more efficiently to provide ICT culture at all types of educational set up.
- There is a need to provide user guideline at all the levels of educational set up for a constructive use of new technologies
- There is a need to improve infrastructural development for ICT in educational institutions of remote area
- There is a need to follow UNESCO's Training Guide on ICT Multimedia Integration for Teaching and Learning.

### Conclusion:

Information and communication technologies are influencing all the aspects of life including education in present time. Evenly without these new technologies it is tough to imagine how to sustain in present day information society. But the new learning culture which has come into existence with the integration of technologies in education can travel on straight and healthy track only with doing the infrastructural developments in rural areas, fulfilling of others needed resources and the professional development of teachers accordingly. There is need to follow the Training design of UNESCO in which training programme was designed using the Technological, Pedagogical and Content (TPACK) Framework (Mishra and Koehler, 2006) derived from Pedagogical Content Knowledge (Shulman, 1986). UNESCO Training Guide on ICT Multimedia Integration for Teaching and Learning in its 'Pre- Training Requirements (page 2)' says regarding this design as "The framework emphasizes that effective teachers should not only possess mastery of their subject areas (content knowledge) nor teaching strategies and techniques (pedagogical knowledge), but also of appropriate technological tools and resources (technological knowledge). These three aspects are integrated and work in synergy to create a multi-faceted type of knowledge. It is as important to contextualise TPACK; that is, to understand its implications and applications in one's immediate environment. This is the kind of layered understanding that must be cultivated in teachers and learners, which is what this Guide aims to do." At the end these technologies have

brought such a revolution in our society that no one can deny its impact on learning process.

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