



Role of ICT in Education

Varsha Mahesh Mane.

Assistant Professor,
Azad College of Education, Satara.



Abstract

ICT is an exciting subject: it is one which offers a huge range of possibilities to pupils. It is also an area with many pupils naturally engage on a day-to-day basis-via social networking, mobile phones, podcasts, music downloads, gaming, digital photography – integrating the technology seamlessly into their world. The average computer suite has 20-30 computers, printers, a scanner, some digital cameras and a curriculum and school rules which can limit pupils' use of technology. How, then, can we create opportunities for pupils to engage with some of the more innovative approaches to ICT and to learn about how ICT is now embedded in and shapes the world around us?

Educational visits provide good opportunities for pupils to learn and develop. In figure 9.1, we have divided these benefits into two main areas to show that the learning is not only connected with the subject area, but also is about the broader development of individual pupils.

In addition to the benefits in Figure 9.1, for some disadvantaged pupils this may be their only opportunity to visit a foreign country, to go to a top tourist attraction or to visit a slating rink: all trips which dedicated teachers organize and take their pupils on every year. They can help to foster good relationships between pupils and staff which can be continued into the classroom.

The world has entered into an information age. Developments in ICT will open new and cost effective approaches for expanding the reach of education to children as well as to those who need continuing education to meet the demands of fast changing nature of occupations and life-long education. Technological revolution has brought change in the teaching learning dimensions. For making these change happen we will have to prepare our students, teachers well versed with the knowhow of technology. ITC has brought revolution in all fields. The teaching methodologies, management techniques, human resource development have been changed drastically. It has potential to draw out teachers from isolation of classroom. The circumstances such as lack of time, lack of opportunities, sources have wiped off with the help of ICT.

What is ICT integration?

For integrating ICT in curriculum the educational institutions need to carry out experiment in terms of pilot study, then carrying out necessary modifications to overcome shortcomings it requires lot of perseverance and commitment of the person and team work.

What and how of ICT in education.

In knowledge base economy ICT has a major role to play in enhancing education.

- **To develop traits among students to sustain in knowledgebase society** i.e. development of higher order thinking skills , life-long learning habits and the ability to think critically, communicate and collaborate, access , evaluate and synthesize information.
- **To develop ICT skills and competencies** for operating in ICT-rich workplace and society wherein they learn to communicate electronically.
- **To address problems and issues in existing educational systems.** Such as equality issue, resources expertise and quality in education.

Integration of ICT in education system should fulfill the following objectives:

- To prepare students for the competitive environment
- To support active methods of education and learning with the use of ICT.
- To make effective use of these technologies.

Because of the wide-range potential of ICT it is used for bringing radical rather than incremental transformation processes. ICT in education programs will move us towards decentralization, school based management and learner-centered education. For ICT to deliver meaningful results in an educational context, a number of related elements like infrastructural facility, curricular input, developing media culture all these need to be in place, i.e.

- To prepare schools to accept the technology.
- To procure and install the technology.
- To train teachers to use ICT.
- To develop the managing digital content.
- To provide ongoing technical support.
- To undertake continuous evaluation and research.
- To involve non-government organizations.
- To follow a systematic approach to integrate ICT in education.

ICT enable new learning models that can significantly change the traditional role of teachers and students.

- Shared learning resources (using video and internet-based materials shared across schools)
- Shared learning spaces (provided by networked computers)
- The promotion of collaborative learning (enabled by computer-mediated communication)
- A move towards autonomous learning (with students able to direct their own studies to a greater extent)

Wheeler suggests that teacher's role will change as a result of these benefits:

- ICT's will make certain teaching resources redundant (such as overhead projectors and chalkboards)
- ICT's will make certain assessment methods redundant (such as content tests)
- Instead of imparting knowledge, teachers will need to “encourage critical thinking skills, promote information literacy and nurture collaborative working practices”.
- Teachers will need to “reappraise the methods by which they meet students learning needs and match curricula to the requirements of human thought”.

Teachers should be aware of technological innovation and its consequences in education. They should have a pro-active attitude towards technological innovation, be committed to use ICT and be able to integrate it in the learning process.

Teachers should:

- Critically view the use of technology in education instead of remaining a mere passive consumer of technology and must promote this critical view in their teaching.
- Establishing educational networks to support the adoption of technology innovation by teachers.
- Consider the learner at the center of the learning process and change from a teaching to a learning perspective.
- Guide students work as an agent of the change and not the unique source of knowledge and adopt a role as mediators/facilitator of the learning process.
- Identify resources and construct strategies and choose among the different media related to the general context of learning.
- Collaborate with other teachers producing teaching learning materials and to develop a team of different teachers.
- Promote research through joint school projects, involving students, establishing partnerships with other institutions, participation in web educational communities.

In the context of ITC usage in school the teachers becomes often mediator for students activities promoting team work, stimulating students self control, promoting project work and independent learning and acting as a resource facilitator mediating collaborative learning. The teachers should learn about the potential role change towards advanced students and how to cope up with a situation where the teacher is not the most advanced person in the class

anymore. Teachers should be able to decide which methodology is best suited to the objectives of learning, how to use ICT and to identify the adequate methodologies to integrate ICT in teaching. The choice for a particular methodology should be based on co-participation of students. Thus, these pedagogical functions of ICT for teaching and learning should be given due considerations while planning a lesson and activities for the students. These objectives could be achieved by placing emphasis on presenting information through innovative methods an exchange of experience. This includes presenting instructive examples with ICT integration. Helping students for lawful an ethical use of ITC. This can be done by bringing effective change in the curricular practices and changing the focus of instructional objective. This would help strengthen the communication among students, teachers locally, nationally and internationally with the help of e-mail, www, multimedia technologies etc. Publication of lectures, manuals and practical exercises, student projects and other educational and research publication through internet would help in the exchange of ideas.

As per Margaret Riel and Kathleen Fulton, 1998 computer technology can be viewed as an effective vehicle “ to transform classroom learning into learning communities with students , teachers and community members all playing a vital role in directing the course of education. The view exemplifies learning model with its emphasis on collaborative group based learning. Electronic communication, peer tutoring etc. have contributed to the development of a community of learners in which learning flourishes in a non-threatening, supportive environment. The new technologies offer constructivist way of engaging students in the learning process due to the advantage of multiple perspectives and representation of concepts which would help in achieving higher level of objectives. The real world complexities are presented virtually and students constructs knowledge through social interaction, collaboration. This would promote interdisciplinary learning, but here caution needs to be taken by the teacher to see that students construct knowledge instead of reproducing the Same concept.

