

## IMPACT OF MODERN TECHNOLOGY IN IMPROVING THE QUALITY OF EDUCATION

**Surabhi Aggarwal\***

### ABSTRACT

*In the last 50 years the technology influence has grown exponentially with the advancement of science. But now internet has played significant role in making world a global village and to reduce the communication gaps. It has played significant role in strengthening the society. At present, the multi-media technology, network technology and satellite transmission technology, as the representatives of the information technology are developing very quickly. Modern educational technology based on information technology play a significant role in promoting the modernization of education. In the era of knowledge & economy, people pay more and more focus on life-long education with the fast updating speed of knowledge and continuing emerging of new technologies. As one principal means of life-long study, qualitative education is becoming an important indicator of country's technological development and social progress. Along with the rapid development of modern educational technology, qualitative education innovates constantly and gains tremendous progress on educational concept, process, forms, methods and management. There is a close relation between the application and development of modern educational technology in qualitative education.*

### INTRODUCTION

It is evident that information technology has affected changes to the methods, purpose and perceived potential of education. This essay describes the benefits of utilizing technology in education by examining research from around the world which demonstrates that there is ample evidence for supporting the usage of technology in educational environments. It include the use of computer technology, image analysis, computer-aided training athletes, sports training system and related data entry systems, decision support systems. At present, the multi-media technology, network technology and satellite transmission technology, as the representatives of the information technology is developing very quickly. Modern educational technology, are based on information technology plays a significant role in promoting the modernization of education. To conclude we can say that with the inclusion of technology, the concept of education is undergoing a modification, for the betterment of the students as well as the teachers.

1. Modern educational technology changed people's traditional style of teaching and learning.

2. Modern educational technology changed the relationship of students and teachers, teachers and teachers, students and teaching resources. The change of education elements became a positive contributing factor to the development of education itself.
3. Modern educational technology made learning personalized and improved the quality of education.
4. It expanded the connotation of life- long education.
5. Modern technology improved the efficiency and effectiveness of teaching and learning.
6. Modern education techniques provided more resource to diversification of educational method.
7. Modern education techniques helped the process of liberalization of continuing education.

### NEW TECHNOLOGIES SET TO CHANGE EDUCATION

**1. The continuing rise of cloud computing:** Cloud computing has been around for a while, but it's only recently started to have an impact on

\*Research Scholar, H.P.U. Shimla (Himachal Pradesh)

education. It will affect teaching and learning. Cloud computing removes the restrictive licensing, high costs and high maintenance associated with traditional software. As a result, schools and universities now have quick and easy access to ready-made teaching and learning applications directly over the internet vastly increasing the variety of digital tools available in education.

**2. Extending the curriculum with mobile devices:** Mobile devices already give students the ability to study where and when they want. As Android tablet devices begin to battle Apple's iPad for the mobile computing market, more educational programs will be developed and refined such as electronic book readers, annotation tools and applications for creation and composition further increasing students anytime/anywhere access to the curriculum.

**3. Engaging through game-based learning:** Game-based learning has made great strides in secondary education, but it still suffers from a scarcity of decent educational games. Educational developers are struggling to keep up with the technology used in consumer games, but as more schools look to incorporate games in the classroom the educational developers will begin to catch up.

**4. Open digital content free for all:** Open textbooks offer numerous benefits, including reduced costs and quick adaption to new information. (One example is Free High School Science Texts, written by volunteer experts for disadvantaged schools in South Africa). As the books are offered online, educators will soon be able to pick and choose from new content on an almost daily basis.

**5. Personal learning environments:** Personal learning environments (PLEs) give students control over the pace, style and direction of how they learn. Students using PLEs will be able to develop their own 'resource libraries', incorporating materials that suit their learning style.

**6. Individual teaching with learning analytics:** Learning analytics may sound boring, but the power to monitor and respond to students' academic performance offers great advantages to educators and learners. Until now, learning analytics has focused on identifying at-risk

students who can then be coached to avoid dropping out of a course. But the technology has the potential to help educators determine the most effective pedagogical approaches for specific learning styles and differentiate instruction to suit individual learners

## REASONS FOR INCLUDING TECHNOLOGY IN EDUCATION

These are the ten fundamental reasons why technology is important in education. Hopefully, they can act as the rationale for technology plans in schools.

### Reason 1. Expansion of time and place

In a typical high school a student has access to a teacher 40 minutes per day. That means she has access to that teacher 5% of her waking day, and even that time is shared with 25 classmates. She has access to the Internet 100% of the time. That's 20X better.

Technology is no substitute for an inspiring teacher. However, on-line materials are far more available. Twenty times more.

Using the "textbook plus classroom" approach, the places where learning can occur are limited. On the other hand, a wireless laptop has access to the teacher's course material and the entire Internet almost anywhere. This is also a vastly larger resource than can be practically carried on paper in a backpack. Information technology allows learning anywhere, anytime; not just in one particular classroom for forty minutes a day.

### Reason 2. Depth of Understanding

Interactive simulations and illustrations can produce a much greater depth of understanding of a concept. When virtual manipulative are used in a classroom setting they can go far beyond chalk and talk. Using a projector, the teacher can conduct onscreen investigations and demonstrate concepts far more easily than with just words and arm-waving. Because the students have access to the same tools over the web, they can reinforce the ideas by experimenting with the simulations themselves, anytime, anywhere.

### Reason 3. Learning vs. Teaching

Technology allows the tables to be turned. Instead of teaching (push), students can be given projects that require them to learn (pull) the necessary material themselves. Key to this is the

ability to get the information they need any time anywhere, without being in the physical presence of a teacher. This project-based pull approach makes learning far more interesting for the student. It has been seen firsthand how students cannot wait to get out of regular classes to go to the after-school robotics project.

**Reason 4. New media for self-expression**

In the old days, students could write in a notebook, and what they wrote was seen only by the teacher. Using modern technology they can: Make a PowerPoint presentation, record/edit spoken word, do digital photography, make a video, run a class newspaper, run a web based school radio or TV station, do Claymation, compose digital music on a synthesizer, make a website, create a blog.

**Reason 5. Collaboration**

A vital skill in the new digital world is the ability to work collaboratively on projects with others who may not be physically close. This can best be done using modern computer tools such as the web, email, instant messaging and cell phone. Rather than laboring alone on homework, students can work in small groups wherever they happen to be and at any time. They are doing this already it can now be formalized and taught as a vital skill. Many university projects are undertaken by teams spread around the world. Students need to be prepared for this.

**Reason 6. Going Global**

The world view of the student can be expanded because of the zero cost of communicating with other people around the globe. The Internet permits free video conferencing which permits interaction in real time with sister schools in other countries.

**Reason 7. Individual pacing and sequence**

Students are, of course, all different. Information technologies can permit them to break step with the class and go at a pace and order that suits that student better. Without disrupting the class, they can repeat difficult lessons and explore what they find interesting. With time, it will become more like having a private tutor rather than being lost in a large class.

**Reason 8. Weight**

Three textbooks and three binders easily weigh over 25lb. A laptop computer weighs about 5lb and provides access to infinitely more material

via its own storage and the Internet. A 40Gb hard drive can hold 2 million pages with illustrations; the web is unfathomably large. And it's just static, boring text.

**Reason 9. Personal Productivity**

Students need productivity tools. They need to write, read, communicate, organize and schedule. A student's life is not much different from any knowledge worker, and they need similar tools. Even if they are never used in the classroom, portable personal computers will make a student's (and teacher's) life more effective. To cash in this benefit, schools need to go paperless.

**Reason 10. Lower Cost**

Through the use of open, free educational tools on the web, the dependence on expensive paper textbooks can be reduced. There is a growing movement to create and publish this type of material through organizations such as OER Commons. OER stands for Open Educational Resources and the idea is to follow the open source model made popular by software projects such as Linux. Material is created by the educational community itself then freely shared. In summary, if education is about knowledge and intellectual skills, then information technology lies at the heart of it all. We have only just begun this transition. School will eventually look very different.

**ADVANTAGES OF MODERN TECHNOLOGY IN EDUCATION**

There are a number of benefits of introducing technology in the field of education. There has been a positive impact of technology on education. Here are some of the benefits of educational technology.

**1. Technology develops learning capabilities:**

One of the benefits of educational technology for students is that it helps them improve their learning capabilities. Since it is one field which is constantly changing, new updates can be easily introduced to the students and class plans can be prepared with the help of the software.

**2. Use of Technology in Classes:**

In the Classes teachers use technological tools like Video, audio programs, graphics, images, CD and power point presentations to impart education to the students, which increase

students' learning efficiency and quality of physical education.

**3. Technology improves motivation of students:** When students are given meaningful interaction with computers, software and the internet, they are more motivated, engaged, and involved in their own learning.

**4. Technology improves creativity, problem-solving skills and self-image:** The latest digital tools can therefore serve as a vehicle to help students learn content of knowledge as well as problem-solving and higher level thinking skills.

**5. Technology Improves the Quality of Student Work:** With the introduction of the software it becomes easy to teach students with special needs, the appropriate study materials are so designed that learner becomes comfortable and effective. The students overcome their deficiencies by the use of modern devices and techniques.

**6. Technology Improves Student Achievement on Tests:** There is mounting evidence that technology improves student achievement on tests. Brain eating problems of mathematics and statistics can be easily calculated through calculators.

**7. Technology Benefits Students with Special Needs:** Technology can improve capabilities of learning, understanding and expression of the children with special needs. They can play games and enjoy the support competitions can use software to write essay significantly better than fellow students. They can be interact all sound physically flexible with the help of teaching and learning materials.

**8. Technology Benefits:** Drawing a play fields, knowledge of support materials is given to the players by technical methods, video cameras, recording of sports competitions help the players to pick up the sport skills.

**9. Technology Acts as a Catalyst for Change:** Technology plays a role as a catalyst for change in educational activities. Teaching methods are made effective. Learning becomes enjoyable transmission of information is easily. Teaching learning process is simplified. Time is saved which can be utilized for other pursuits.

**10. Technology Prepares Students for the Future:** By having and working with technology in schools, students gain the skills that they will

need to be marketable in the future workplace and to operate in a high-tech world.

**11. Technology increases Knowledge and Opportunities:** Through the use of various digital tools, teachers and librarians can also offer students increased access to knowledge and innovative opportunities.

**12. Technology reflects our current lifestyle and the working world:** By incorporating meaningful use of technology into a curriculum, educators ensure that students will begin to learn these critical thinking skills such as creativity, collaboration and flexibility.

## CONCLUSION

With the inclusion of technology, the concept of education is undergoing a modification, for the betterment of the students as well as the teachers. Hence, the introduction of technology is important in education. Now learning and teaching have become an enjoyable experience. We can say that technology has changed the era and the time in which we are living. It gives us information on any subject and anywhere at any place. It increases the knowledge and experiences in our existing knowledge.

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