

## Technology usage in library for sustainable development of education

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### Abstract

We are rapidly growing in the field of technology. Day by day new innovations are taking place. And each technological innovation is different and creative from the last one. It is making our world more powerful. The field of education is the one of the main area which is totally emerged or changed by these technologies. Now the technology has surpassed the old traditional educational system. New technical advancement becomes very essential part of the education. Education system is using new techniques to make educational system more effective so that the learning can be interesting and long lasting. One of the new innovations that have become the part of education is the use of technology in libraries. There are so many technologies have developed for the library like E-books, E- newspapers, E-learning and mobile library. All these technology not only giving adequate learning material to our learners but also a wide area to explore them. It is also improving the quality of teachers to be more creative to improve their skills. The paper deeply explains the need and advantages of using technology in the field of education and its usage in library. It also giving examples of some of the technologies which become part of library and proving best for the students. The widely increasing use of technology in education provides the opportunities to develop progressively for both the teachers and for the learners.

**Keywords:** technology, digital library, e-learning

### Introduction

Every field is booming with new innovations and technologies. But education sector has not seen many changes since a long time. It has been continued as almost similar as it was hundreds of years ago. But the time has changed a lot. Nowadays it is almost inevitable to escape from the scope of internet. It is highly essential to use the technological advancements in field of communication technology for the betterment in our current educational system.

**Carol A. Pope and Jeffrey N. Golubsay said:** "Teachers using technology in their classrooms are not only improving their instruction for their students; they are changing the very nature of that instruction" (cite journal vol.1 p.1).

The growth of new technologies has transformed the teaching and learning of subjects. The doors have been opened to innovative and stimulating ways of working with ICTs (Information and Communications Technologies) to make teaching and learning more varied and engaging today.

The problem of education is far beyond technology. As per the researches done earlier Indian schools are focusing more on K-12 learning and creating a collaborative knowledge creation culture of learning. With internet facility being enjoyed in each sector, education industry is no behind. E-learning plays an important role in handling the issues and problem of teaching today. With hi-tech network and multimedia, the education sector has emerged to be one of the fast emerging fields. Technological advancement has enabled our Indian classroom to be tech savvy. With the use of technology in education sector, there is a major change in the teaching and learning methods, styles, and content across many schools in India. Today, cloud technology is being investigated by students, wherein they can easily give in and review their assignment regularly. With the inclusion of these facilities in a digital learning environment, the classroom becomes much more comfortable and welcoming to students. The Y-Generation

of today is much smart in using all the technological gadgets like computers, laptops, iPads and mobiles, so by adopting technology into the classrooms makes them feel easy and conversant.

Now it's necessary for a teacher to have knowledge about all the latest technology which can be used in classroom instructions. Moreover this only having the knowledge of technologies is not sufficient. A teacher need to know, How to operate & integrate the tools effectively and when to use a particular tool/technology in teaching learning process to increase the outcomes of learning. Effective teachers can widen the potential of the technology to develop student's understanding and encourage their interest to improve subject proficiency. Technology can be used in such a ways to provide better access for learning and concept. To ensure the good technologies knowledge of a teacher it is necessary to provide them a good quality teacher education in all the teacher education institutions.

### Need of Technology

The educational system is changing and improving its quality. Technology has become an essential part of education. Not only the Government but also the educationists have also felt the need of technology to improve the level of educational system. There have been many policies, financial funds have been provided by the Government to make educational system technology friendly so that we can create something more appropriate and fruitful for the society. So the technology has become the major part of the educational system. With the development of technology such as computer, laptop, internet, tablets, mobiles phones, modern devises, making world more and more digitalized. There are some of the other learning materials that can be provided with the help of technology like E- learning, E- library, E- journals, and E- books etc.

### E- Learning

In the era of digitalization E-Learning is the wonderful

invention. It is very much helpful to use the technology according to people to learn anytime and anywhere. E-Learning can include training, the delivery of just-in-time information and guidance from experts. This is a kind of online studies where anybody can learn according to his/her need. The E-Learning course is a flexible, web-based learn-on-demand system that allows learner to complete the course in a way that suits their individual schedules. E-learning provides anytime anywhere easy access to knowledge and skills.

### Digital Library

The library community has used several different phrases over the years to denote this concept-electronic library, virtual library, library without walls-and it never was quite clear what each of these different phrases meant. "Digital library" is simply the most current and most widely accepted term and is now used almost exclusively at conferences, online, and in the literature.

Another factor adding to the confusion is that digital libraries are at the focal point of many different areas of research, and what constitutes a digital library differs depending upon the research community that is describing it (Nurnberg, *et al.* 1995). For example:

- From an information retrieval point of view, it is a large database
- For people who work on hypertext technology, it is one particular application of hypertext methods
- For those working in wide-area information delivery, it is an application of the Web and for library science; it is another step in the continuing automation of libraries that began over 25 years ago

Digital libraries was first popularized by the NSF/DARPA/NASA Digital Libraries Initiative in 1994. These draw heavily on Vannevar Bush's essay *As We May Think* (1945), which set out a vision not in terms of technology, but user experience. The term virtual library was initially used interchangeably with digital library, but is now primarily used for libraries that are virtual in other senses (such as libraries which aggregate distributed content). In the early days of digital libraries, there was discussion of the similarities and differences among the terms digital, virtual, and electronic.

In the context of the DELOS, a Network of Excellence on Digital Libraries, and DL.org, Coordination Action on Digital Library Interoperability, Best Practices and Modelling Foundations, Digital Library researchers and practitioners and software developer produced a Digital Library Reference Model which defines a digital library as: "A potentially virtual organization, that comprehensively collects, manages and preserves for the long depth of time rich digital content, and offers to its targeted user communities specialized functionality on that content, of defined quality and according to comprehensive codified policies." A distinction is often made between content that was created in a digital format, known as born digital, and information that has been converted from a physical medium, e.g. paper, through digitization. It should also be noted that not all electronic content is in digital data format. The term hybrid library is sometimes used for libraries that have both physical collections and electronic collections.

### Advantages of Technology in Education

Technology has proved us that there are more scope in it. We can not only make changes in our day to day life but

also make a better lifestyle. If we talk about education system it has an immense impact on education. This has created awareness, broaden the conservative mindset even it has made the thinking more creative and innovative. There are some of the advantages of technology for all aspect in education i.e. as follows:

#### Helpful For Organization,

- The technical setup of education will prove to be favorable not only for the organization, but also for teachers, learners as well as parents.
- It will help in admission process and record keeping of the students.
- Scheduling of class lectures.
- Managing library activities and lectures.
- Managing teachers as well as student's notes, fee submission process and all other activities.
- All the information will be available to the students, employees and parents inside as well as outside the school campus through web facility.

#### Helpful for Students

- Students will be able to get all the contents taught in the class and view class history online from home.
- Student will be able to attend extra-curricular classes and tutorial classes available in school itself through tutorial modules with very low cost.
- Students not only get educational contents easily, they can also buy learning accessories, books, CDs, etc. from the school as well as online.
- It will make student more technology friendly.
- It will develop their scientific and technological attitude towards digitalization.
- Technical equipment's will make their learning more creative and effective.

#### Helpful for Teachers

- This system will make teaching very effective.
- They will also retain or maintain the student strength with these digital technology
- The teaching contents will be easily manageable without carrying any paperwork.
- Become advocates for technology integration
- It helps teachers to interact with students.
- It also helps in effective use of ICT software and hardware for teaching- learning process.
- It prepares teachers to use their skills in the real classroom situation.
- It helps in improving professional development and educational management.
- There will be no need for a teacher to remember all the teaching contents, the sequence of contents and time to teach the contents. Teacher just has to click and drag any multimedia contents, real-time 3d contents and interactive applications related to syllabus which can be shown in the class which will help the students to remember many concepts more than through the traditional way of teaching.

#### Effective learning

- This is one of the best ways to make classroom teaching learning process effective. With the use of technology teacher can make class environment more smooth and flexible according to the need. Learning will be permanent with the use of technology.

### Technological advancement

- Technology will be very much helpful in making the each and every person technology friendly that they can make it more excess able.
- Teacher will use technology in their classroom without any fear and make their class more interesting.
- New techniques and new machines can easily be used in the classroom if a teachers and students have proper knowledge of technology.

### Challenges in Adopting Technology in Education

The technologies are creating changes in what students learn due to high uptake, as a result of the change in how they learn. They afford new opportunities and provide different learning experiences resulting in high quality learning outcomes. Much has been written about what makes a difference to student learning outcomes. It is clear that there is no single factor, but rather a system that influences quality learning outcomes.

- **Less Social Acceptability in Classroom Learning-** In the traditional educational system the acceptability of technology in educational is very less. Organisations are not showing interest in setting digital, technical facilities.
- **Technology phobic-** Due to limited exposure to latest technologies, teachers working in remote areas of our country or teachers in their older age are found to be prone to use new technology.
- **Not willing to experiment in the traditional teaching setup-**
- **Irrational concepts for the technology**
- **Lack of facilities in the rural area**
- **No proper training of using technology**
- **Time consuming**
- **Technological Skills of Learners:** The technological Learning implementation will be dependent upon the computer literacy of the teachers using it. The ability of the learner's to access and interact with the course material dictates the utility he will get out of the program.
- **Negative aspects of digital components-** There are also some concepts with digital technology that it is the reason for distraction or unethical behaviour; physical health concerns; and data privacy issues.
- **Smarter Content Designing**
- **Frequent changes-** Due to changes and advancement in the device models/technologies/functionality etc. teachers endure uncomfortable.
- **Expensive-** It is very expensive. That is why we see that most International schools and schools that have digital education are far more expensive than the regular schools.
- It's quite problematic at times for individual to express their correct motive or demonstrate the set of skills they have got in a digital medium rather than orally.
- The overarching challenge is to maintain momentum and ensure that digital technologies are used more systematically to improve the quality of education provision and learning outcomes for all students.
- **Evaluating effectiveness:** Yet another important challenge of Digital Learning is the task of determining whether the course is having the intended effect. In the absence of pop quizzes and report cards, how can an employer tell whether the eLearning implementation is achieving its goals?

- Many of us have this irrational fear of towards technology and are not able to accept technology in education. But if we mitigate these challenges we can make our education system more interesting.

### Suggestions

In the growing era of cut throat of competition where we are continuously striving for our bread and butter, we should be regularizing the use technology in the curriculum including library too. It is certain that technology usage can lead us to pass on useful information and data to the upcoming generations. The preservation of contact digitally could be an asset for a longtime and can be effective in utilization by others globally. A hand in hand collaboration is also enhanced by the web application when user gets face to face with the information. E-book, E- library, E-newspapers and also mobile library are gaining momentum throughout the generations. With the advent of these above there is quick access of information books, magazines, journals to all present anywhere everywhere. There is also one more terminology that can be added here i.e. security technology open up the new ways of saving and researching the data. Digitalization have paved the way to virtual interaction with enriched culture, values, ethics all embedded in our epics, novels etc. at one platform. There are proliferating facts digital library in all fields of education. Government has taken many initiatives of broaden the horizons. A boom of seminars, workshop, conference, lectures are intriguing and highlighting the importance of access digital library and will also be helpful in sustainable development of education.

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