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The use of digital technology in education

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Abstract
The development of ICT makes the process of communication between the communicator and the communicant can be conveys in easy ways. They can communicate through telephone, internet, e-mail, satellite, television, video conference and so on. The process of those communications applies in language learning. In language learning, there is a communication between teacher and student. The process of learning is not always carried out by subjecting teacher and students in the certain room or a certain place directly. As the example, teacher can use internet as the medium to give lessons, assignments, or other information to their students. In India context, formal education was traditionally centered on schools and parvenus at village level while non-formal education was centered in libraries at central places in the form of newspapers and books. Teachers delivered the formal education either following a textbook or notes prepared using books and their experiences. The learners enrolled and visited the places that offered formal education. The libraries offered supplementary reading material to enhance their learning as well as reference facilities. A teacher has to be well educated and knowledgeable to be able to educate others. Also they have to acquire the skills of retaining student's attention and deliver content in an effective way. Thus teaching is an important profession and people respected them as they guided and assisted the learners to be useful citizens of the country. Due to the respect earned by the society teaching was one of the social service activities. Also most activities people then used to do were centered at village level and teaching too was carried out at villages where small populations used to live. With emerge of industrial and commercial cities people have moved out of villages to these cities for various forms of employment.

Keywords: telephone, internet, e-mail, satellite, television, video conference

Introduction
When the population increased the demand for learning also goes up and thus the traditional schools or parvenus could not cope with the demand. Thus new schools had to be created and existing schools had to be expanded, and new teachers were required to deliver education. To meet the demand inexperienced, under qualified and under trained personnel were used and thus the profession has changed from a social service to a commercial business. Business is governed by remuneration and when it is lower the capable people tends to seek other employment offering higher remunerations. Past governments used this sector as an employment creation section thus contributing towards the deterioration of the sector. Era Electronic era commenced with the use of wireless electronic communication over 100 years ago. Transmitting telegraph messages and the radio are among the important applications of this technology. The messages were passed through the air, invisibly, on radio waves. Since then the technology use has moved from radio, to recordings, to movies, to television, to computers, to CDs, CD ROMs & the Internet. This technology was very useful to convey instant urgent messages and well as to make people be aware current local and international news. This has become an informal but effective form of education.

There are a number of technology components available to built knowledge management systems. Local area networks, Internet and Intranets are the backbones. They provide transparent speedy transfer of knowledge among people and applications. Internet applications built using software and tools allow collaborative intelligent access to knowledge. Appropriate access and authentication layers ensure the security aspect of such systems. Data and document bases act as the repositories to generate the knowledge.

One of the most commonly used tools to manage information is a relational database management system (RDBMS). RDBMS have been used by IT applications to manage operational data. The same technology is now been used for knowledge management.

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RDBMS traditionally managed text and primitive data types such as numbers and date. Knowledge has to be represented using beyond the traditional data types such as character strings and numbers. Thus other forms of representations such as images and videos are required. Multimedia databases have immerged to manage such data. Operational data of educational management system are managed using this technology. Student registration data, evaluation results and their performances are recorded using student information systems. In India use of such systems is restricted to a handful and they too do not fully exploit the facilities on offer. In most cases only few ad hock activities involving a handful of employees are performed using technology. Lack of capable and willingness employees at operational level have hampered the use of information systems for daily activities. Also the inability to take necessary actions at the management level has contributed towards this fallback.

Electronic Document Management System (EDMS) is a rapidly developing technology and is considered as the solution for organizations that needs a way to manage the information efficiently. EDMS applications focus on the control of electronic documents throughout their entire life cycle, from creation to eventual archiving. Its functions include document creation, storage and retrieval, management, version control, workflow and multiple-delivery formats. EDMS allows managing the documentation of an entire process. With respect to education this task is achieved through an enhanced and more effective process called e-learning.

Text and graphics are the basic components of multimedia systems. Text without graphics will fail to retain person's attention as well as long-term retention. Bitmaps (paint) graphics and vector (draw) graphics are two basic forms of still graphics. Each type has its own characteristics and satisfies different needs. Bitmaps stores the graphics as seen on screen while vector graphics stores the instructions of how the graphics is created. Color is an important component of a picture. However when producing graphics colors should be chosen carefully to ensure effective and pleasing displays. Human eye react to light intensity and to the three colors red, green and blue. Like in the case of fonts and sizes of text, the choice of color composition has immediate aesthetic impact.

All forms of verbal communication use sound. Technology has been used to transmit sound across the universe. Teacher's voice has been the primary focus in delivering knowledge. Sound could be represented using computers, and MIDI (Musical Instrument Digital Interface) and digital audio are the two basic file types used in multimedia systems. A multimedia system requires the use of speech, music or special sound effects. When used for education, speech should be short, manageable and integrated with other media. It should be used as a complementary to text.

Internet provides a cost effective global network backbone. It connects users from anywhere, as long as they have access to the web. This has allowed users to host information on their computers and make them available for others. Such computers need to be dedicated for that purpose as users will be searching for information at different times. These sites are called web sites and they are connected to the web on 7x24. This technology intends to provide unrestricted access to information. An educational institute will publish all information relevant to the public

through their web sites. This technology has made information accessible as it happens and people access them at any time they want to do so.

One rationale is found in the belief that the linguistic nature of online communication is desirable for promoting language learning. It has been found, for example, that electronic discourse tends to be more lexically and syntactically more complex than oral discourse [1] and features a broad range of linguistic functions beneficial for language learning. Another possible reason for using the Internet is that it creates optimal conditions for learning to write, since it provides an authentic audience for written communication [2]. A third possible reason is that it can increase students' motivation [3]. A fourth possible reason is the belief that learning computer skills is essential to students' future success; this reason suggests that it is not only a matter of using the Internet to learn English but also of learning English to be able to function well on the Internet.

When a language teacher introduces blogging activities within the language classroom, the opportunities for student interaction and the horizons of that "learning space" [4] are expanded exponentially, providing student writers with a far greater audience both within and outside the classroom. In his academic blog, Stanley [5] notes that "(Blogs are) a way of opening up the classroom walls and showing the wider world what is happening... thus creating a small language learning community." Similarly, while relating the findings of a series of interviews with bloggers in the Stanford University area, Nardi, Schiano, Gumbrecht, & Swartz [6] relate how a rhetoric instructor/researcher using blogs explained that for students "blogging created a sense of community that would be less likely to emerge in a conventional classroom setting". Murray [7] notes that a key feature of a "blog community" is the fact that all community members have easy access to each others' blogs. This can be accomplished with module, a class wiki page, or the blog community's homepage (which might also be called a 'blog magazine').

One of the ways to move the students learning English progress in a powerful way is through the use of blogs. Learning English using blogs is a way to enhance every major English skill the students need to learn. A trait of learning and teaching listening is to use professionally produced newscasts, radio, and/or TV programs. With new computer technologies and Internet resources such as podcasts, audio blogs, I-pods, and two-way synchronous video recording, English language learners are now able to learn and control language through the creation of their own video-and audio-casting projects. English language learners should look for podcasts as such materials provide students with plenty of meaningful language, real-world communication, and access to new information.

Research studies on podcasts in language learning have identified its potentiality in developing learners' language skills [8]. Podcast can accelerate language students' learning not just in listening but also in other language areas such as pronunciation, vocabulary, grammar, speaking and related learning activities. Ashton-Hay and Brookes [9] state that podcasting facilitates self-paced learning as well as gives slower learners a platform for remediation. Kaplan-Leiserson points out that podcasting can provide another medium for material review and can assist students to develop their language skills. Ducate and Lomicka state that

podcasting can function as a tool for developing students' pronunciation.

Telephone allowed voice communication among distant personnel. This has evolved not only to view a live video of the person but also to connect to a number of people. Although the technology is costly it is been used for scheduled meetings involving people internationally. Universities having campuses spread over a larger geographical locations have their staff meetings through such technology. This saves travel time of individual. If the time saved and it is used effectively the organization and society will benefit in the long run. Some universities use this technology for teaching as well. Students ask questions by posting them to the teacher using the technology. Such systems require each student to have their individual computer with the ability receive and interact with the system.

Virtual meetings allow people from different locations connect with each other to conduct meetings and share knowledge as if everyone were in the same room. Applications such as presentation graphics, spreadsheets and word processing can be shared in real time.

Mobile handheld devices have been improved to function as miniature computers utilized by teachers and students for personal use. In recent years, the technical advancements of mobile devices have garnered educators' attention for the unique affordances they can offer in a classroom setting. This technology provides a combination of flexibility, accessibility, and interactivity with online resources unlike other typical classroom technologies such as desktop computers. With the accelerated development of mobile technology and its growing popularity, as well as the potential benefits of mobile devices for learning, empirical research his much needed.

Use of technology at classroom level was not possible until the teachers delivery mechanisms were aided with technology. Originally delivery mechanism was through verbal communication and then through the introduction of written media such as blackboards. Later through overhead projectors teachers were able to do the writing in advance and project them directly. Use of overhead transparencies allowed them to reuse written material but without improving them. With the invention of projection through a computer, a teacher can easily update his material as well. The same material can also be printed and the students are able to obtain it without having to copy them. This technology has now evolved not only to project text and figures, but also animations, video clips etc. Thus the teachers are now equipped with tools to teach effectively. Method Teacher Student Verbal explanations Dictate Listen and copy Writing during class Blackboard / whiteboard & Chalk / Pen Copy notes Pre-written transparencies Overhead Projector Copy notes Pre-prepared slides Multimedia projector & computer Printed material e-learning Provide learning material Learn.

Some classrooms are equipped with computer access to all students. In such cases students interactively participate in the learning process. Now the student's focus is totally on the learning process than on copying note as the learning material can be accessed at a future time. Teachers should ensure that knowledge and skills are not presented to students directly, but are constructed by them in response to information and learning tasks. Teachers need to consider how these learning experiences could be encouraging to students who are performing this type of mental work. Thus student who used to learn facts and skills by absorbing the content presented by teachers and media resources should move towards creating personal knowledge by acting on content provided by teachers, media resources, and personal experiences. The focus should be on acquiring higher order skills like problem solving and critical thinking.

Conclusion
In order to change the teacher's and student's role the curriculum also needs to be revised. Traditional curriculum would focus on fragmented knowledge and disciplinary separation. However now we should focus on multidisciplinary themes as future generation will need the ability to move through several different jobs. Thus establishment of basic literacy and focusing heavily on job specific skills is pointless, as one has to change jobs or manage many jobs by themselves. Therefore it is important to emphasize on thinking skills, knowledge integration and application. Depth of understanding will be required than breath of knowledge.

Most India learner's first language is not English. Hence some find it difficult grasp the concepts through reading. Hence there is a need for supplementary material in native languages. This could be supported through Unicode. Learning computing has now been introduced at schools as well. Currently it is targeted only at advanced level students. However with time this facility should be available for students at the ordinary level like in the western countries.

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