The New Era of Education: Education Technology

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Abstract— **the paper covers a brief introduction to the Education technology, the technology used as a tool in teaching and learning, how this technology is used in the education, today's education style, benefits of the education technology and e-learning. The term Education technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources. Sometimes it is associated with instructional theory and learning theory.**

Those who employ educational technologies to explore ideas and communicate meaning are learners or teachers. According to some, an Educational Technologist is someone who transforms basic educational and psychological research into an evidence-based applied science or a technology of learning or instruction. Educational Technologists typically have a graduate degree, Master's, Doctorate, Ph.D., or D.Phil., in a field related to educational psychology, educational media, experimental psychology, cognitive psychology or, more purely, in the fields of Educational, Instructional or Human Performance Technology or Instructional Systems Design.

However, few of those listed below as theorists would ever use the term "educational technologist" as a term to describe themselves, preferring terms like "educator". Now, the term education technology has very broadly entered in the classrooms. The paper spreads some lights on the area where and how the technology has entered in the classrooms. There are many kinds of computer and non-computer technologies currently in use in traditional classrooms. Among these are computer in the classroom, class website, mobile devices, online media, smartboards etc.

Index Terms— **Education Technology, E-Learning, and Knowledge Management, Knowledge .**

I. INTRODUCTION

How technology will shape learning, this is very interesting thing to be blown into the minds of the all who are learning with the technology, and those too, who wants to learn through technology. Education technology is made up of two word: first, education, and the second, technology. The future of higher education is here. Knowledge has long ago been recognized as an important asset for sustaining competitive advantage. All generation are more at ease with online, collaborative technologies. Here a notebook and pen may have formed the tool kit of prior generations, today's students come to class armed with smart phones, laptops and iPods. Online degree programmes and distance learning have gained a firm foothold in universities around the world.

Although there is general consensus that the field exist, its nascent state is evident in the lack of agreement about its name Depending on context, community and related factors, it may be called by such variants as E-learning, Networked Learning, Telelearning, Instructional Design.

But, An umbrella term, educational technology –one increasingly common- is most widely used, which encompasses the activities and knowledge domain where education and technology intersect.

Most organisations realise that "knowledge" is a strategic resource that gives them sustainable competitive advantage and helps them achieve long-term organisational goals. With the realization that knowledge is a core resource, organisations are now attempting to manage knowledge in a more systematic and more effective way.

The term E-Learning is very much related to the Education Technology. E-learning is commonly referred to the intentional use of networked information and communications technology in teaching and learning. A number of other terms are also used to describe this mode of teaching and learning. They include online learning, virtual learning, distributed learning, network and webbased learning. Fundamentally, they all refer to educational processes that utilize information and communications technology.

II. TECHNOLOGY AS A TOOL FOR ADDRESSING CHALLENGES IN TEACHING AND LEARNING

Policy documents repeatedly describe matches between specific capabilities of various technologies and persistent challenges to the delivery, management, and support of effective teaching and learning experiences. Many reports present strong assertions that technology can catalyze various other changes in the content, methods, and overall quality of the teaching and learning process, most frequently, triggering changes away from lecture-driven instruction and toward constructivist, inquiry-oriented classrooms. The degree of emphasis placed on these expectations varies considerably across these reports, but this image of technology as a catalyst for change is almost universally shared.

James Kulik(1994), used a research technique called meta-analysis to aggregate the findings from more than 500 individual research study of computer-based instruction. Computer-based instruction individualizes the educational process to accommodate the needs, interests' current knowledge and learning style of the students. He found that on average, the students who used the Computer-based instruction scored at the 64th percentile on tests and others without computer-based scored 50th percentile.

One more advantage is also there that the students learn more in lesser time when they receive computer based instructions. Students like their classes more and develop more positive attitude towards when their classes include computer-based learning.

III. TRANSFORMING EDUCATION THROUGH TECHNOLOGY

In 1995, the tone of policy reports say as a response to the emergence of the Internet as a major force driving changes in business, civic life and, to much extent, education. During this period, policy reports begin to present education technology as a driver of school reform, rather than as a class of tools and resources that, to varying extents, could be matched to educational challenges already recognized by educators. In these reports technology becomes a tool of transformation, which promised, simply by its presence and capabilities, to cause changes in how teachers teach, how schools are organized, and how students work together and learn.

Now a day, educational priorities have shifted at the national level, the policy voice of the education technology community has shifted as well. A host of influences, both internal and external, have prodded the research and development community to reconsider its relationship to practice and to revisit the accomplishments of and continued challenges facing practitioners. In part,
this reconsideration is a response to evidence suggesting that technology in and of itself does little to drive fundamental improvements in teaching and learning. Even with the comprehensive wiring and build-out of the telecommunications infrastructure in education, teachers continue to work incrementally to appropriate technology, building links step by step between their existing practices and the technological tools available to them.

These are the real successes of technology in this country's classrooms, and they are not trivial accomplishments. Education technology experts, who have largely been responsible for guiding and informing policymakers' understandings of the potential role of technology in education over the past twenty years, have provided energizing, exciting visions of how technology could potentially "change everything." Recently, however, educational technologists have begun to understand with more nuance that technology needs to work in concert with other factors like effective leadership, instructional priorities, and the day-to-day demands of classroom practice. The most recent policy reports begin to address these needs, and are once again placing technology in the
context of broader educational challenges that are of immediate concern to educators and which technology may be well positioned to address, such as the need to make productive use of assessment data; to provide increasingly individualized and flexible but sustained and substantive professional development; and to create administrative efficiencies that support educators in day-to-day work with Students and colleagues. These are some of the most promising links between education and technology being recognized and described in the most recent reports.

Educational technology has evolved steadily, from the stand-alone computers of the 1980s, to the networked, multimedia workstations of the 1990s, to the highly portable and wireless devices that are beginning to proliferate today. Necessarily, educators' visions of how technology can and should be used have changed as well, in response both to the growing capacities of the technologies and to shifting priorities and needs within the education community. Researchers, in turn, have also gradually evolved their perspective on how to best understand the process of using technological tools to change teaching practices and improve learning outcomes.

IV. TECHNOLOGY CHANGING TODAYS CLASSROOMS

Technology is enabling multi-modal teaching, changing curricula and spawning rich forms of online research and collaboration. Nearly 60% of survey respondents say that professors will soon teach in more than one medium.

When asked to compare different communications technologies, 52% of survey respondents state that online collaboration tools would make the greatest contribution in terms of improving educational quality over the next five years—the top response—while 48% point to the dynamic delivery of content and software that supports individually paced learning. Sophisticated learning-management systems and enhanced video and presentation tools are among other

innovations that respondents say are likely to have a profound effect on the academic experience.

It is interesting to note that despite the growing array of technology-enabled teaching tools available, nearly three-quarters of participants say that the greatest potential benefit of technology is something far more straightforward—namely, the expanded access to educational and reference resources that it provides.

Looking beyond the five-year horizon, more than two-thirds of all respondents say that students will be able to create individualized degree programmers, either within their own university or by bundling coursework from different institutions. In addition, more than one-half see the publishing world evolving because of all these developments, with textbooks and printed documents eventually being replaced by online materials. "The rise of online peer review may mean that some texts exist exclusively in virtual form, where they can be updated and refined in real time," says Linda O'Brien, CIO of the University of Melbourne in Australia.

V. CONCLUSION

The means sometimes *is* the end, The statement could well be applied to technology and its impact on higher education. As an agent of immense change, technology has heralded our present knowledge economy and given rise to a generation of students who have never known life without a computer.

- Imagine an software engineer without google.
- online classes available on tata sky etc.
- Video games available in the market.
- Online text available for study.
- Means of globalisation using e-learning.

Benefits of Educational Technology:

After more than two decades of research on the benefits of educational technology we now have decisive evidence that technology use can lead to positive effects on student achievement. Specifically,

- In studies of large-scale statewide technology implementations, these efforts have been correlated with increases in students' performance on standardized tests.
- Scientific simulations, microcomputer-based laboratories, and scientific visualization tools have all been shown to result in students' increased understanding of core science concepts.
- Mathematics software – programs like Carnegie Learning's Algebra Tutor, for example, that supports experimentation and problem solving – enables students to embrace key mathematical concepts that are otherwise difficult for many students to grasp.
- Now a days, the search engines play a very important role in the field of research and the development like engineering etc.

From above all points, its is concluded that, Within this decade it will be possible to develop the technologies and to expand the capacity of the educational system, such that every day of school – from kindergarten through college – will be an intellectual adventure tailored to each student's particular learning needs.

It is important to highlight, however, these new costumers have new demands on the educational products. It is not about doing the same things as always, but now on the Web. Technology communications now allow the use of computer conferencing for submission of homework. The discussion of issues and providing help is also done. Online materials that include syllabus, assignments, reading, problems and interactive learning modules; course management via homework submission, instant grading, and roll-ups of student progress; interaction with students through e-mails; audio clips of lectures via real-time audio and downloadable audio; and video clips of lectures via real-time video and downloadable video. According to some researchers, however, review of most courses currently on the Web reveal that few offer most of these features. The authors point out that many courses online consists of little more than a syllabus and a list of assignments.

It will be possible for our teachers to see clearly how each child is progressing, and it will be possible to activate all of the resources in school, at home, and in our communities to ensure that no child is left behind. The real success is that the education technology has entered in the class rooms. There are many computer and non computer tecnologies into the learning and teaching process. Among these are like Class Blogs and Wikis, class website, mobile devices, smartboards, online media etc.

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