

Analysis the effect of the ICT in Education Area

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ABSTRACT:-

This paper represented the main challenges and provides an overview of the future of ICTs and their connection with education. ICT have important role in education ,bank ,trade and other fields also. It begins with a description of the so-called knowledge-based society and how its evolution, an offspring of technology, has encompassed different areas, paving the way for innovation in education and prompting generation of new knowledge. It also outlines the importance of each educational agent as teacher-student and their role in transforming the teaching-learning process.

KEYWORDS: ICT, Education, Digital, CTTC

INTRODUCTION-

“ICT (information and communications technology)is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. (ICT) has become an important source of innovation and improvement of efficiency for many sectors across the globe. In the education sector, particularly, the application of ICT has become a critical part of the learning process for university students both outside and inside the classroom setting. The government and other stakeholders in the education sector such as university management and researchers have invested millions of dollars to adopt ICT in the education system during the last two decades. Globalization and technological change—processes that have accelerated in tandem over the past fifteen years—have created a new global economy “powered by technology, fueled by information and driven by knowledge.” The emergence of this new global economy has serious implications for the nature and purpose of educational institutions. As the half-life of information continues to shrink and access to information continues to grow exponentially, schools cannot remain mere venues for the transmission of a prescribed set of information from teacher to student over a fixed period of time. Rather, schools must promote “learning to learn,” : i.e., the acquisition of knowledge and skills that make possible continuous learning over the lifetime. Global changes also put pressure on all groups to constantly acquire and apply new skills.

e-learning

Although most commonly associated with higher education and corporate training, e-learning encompasses learning at all levels, both formal and non-formal, that uses an information network—the Internet, an intranet (LAN) or extranet (WAN)—whether wholly or in part, for course delivery, interaction and/or facilitation. Others prefer the term online learning. Web-based learning is a subset of e learning and refers to learning using an Internet browser (such as Netscape or Internet Explorer).

blended learning

Another term that is gaining currency is blended learning. This refers to learning models that combine traditional classroom practice with e-learning solutions. For example, students in a traditional class can be assigned both print-based and online materials, have online mentoring sessions with their teacher through chat, and are subscribed to a class email list. Or a Web-based training course can be enhanced by periodic face-to-face instruction. “Blending” was prompted by the recognition that not all learning is best achieved in an electronically-mediated environment, particularly one that dispenses with a live instructor altogether. Instead, consideration must be given to the subject matter, the learning objectives and outcomes, the characteristics of the learners, and the learning context in order to arrive at the optimum mix of instructional and delivery methods.

open and distance learning?

Open and distance learning is defined by the Commonwealth of Learning as “a way of providing learning opportunities that is characterized by the separation of teacher and learner in time or place, or both time and place; learning that is certified in some way by an institution or agency; the use of a variety of media, including print and electronic; two-way communications that allow learners and tutors to interact; the possibility of occasional face-to-face meetings; and a specialized division of labour in the production and delivery of courses.”

ICTs have great capacity to facilitate the educational transaction between providers and users. For instance, ICTs can be used to:

- Keep students well informed about the courses that are available to them Enhance teacher-learner contact, an essential part of a good educational environment, through e-mail, chat sessions, etc.
- Encourage active learning. Students do not learn much from memorizing facts and reproducing set answers; they derive greater benefits by being active in their learning.
- Facilitate peer support in learning. Sharing one’s ideas and responding to the ideas of others improves thinking and increases understanding. Learning can improve if it is a team effort rather than a collection of solo performances.
- Provide immediate feedback and encouragement.
- Encourage paced learning through tools such as assignments, tutorials, broadcast programs, computers, conferencing, etc.
- Allow for effective mapping of learning pathways, which facilitate different styles of learning.

The Promise of ICTs in Education

For developing countries ICTs have the potential for increasing access to and improving the relevance and quality of education. It thus represents a potentially equalizing strategy for developing countries. ICTs greatly facilitate the acquisition and absorption of knowledge, offering developing countries unprecedented opportunities to enhance educational systems, improve policy formulation and execution, and widen the range of opportunities for business and the poor. One of the greatest hardships endured by the poor, and by many others who live in the poorest countries, is their sense of isolation. The new communications technologies promise to reduce that sense of isolation, and to open access to knowledge in ways unimaginable not long ago. However, the reality of the Digital Divide—the gap between those who have access to and control of technology and those who do not—means that the introduction and integration of ICTs at different levels and in various types of education will

be a most challenging undertaking. Failure to meet the challenge would mean a further widening of the knowledge gap and the deepening of existing economic and social inequalities.

ICTs help expand access to education

ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underserved constituencies—scattered and rural populations, groups traditionally excluded from education due to cultural or social reasons such as ethnic minorities, girls and women, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enroll on campus.

➤ Anytime, anywhere

One defining feature of ICTs is their ability to transcend time and space. ICTs make possible asynchronous learning, or learning characterized by a time lag between the delivery of instruction and its reception by learners. Online course materials, for example, may be accessed 24 hours a day, 7 days a week. ICT-based educational delivery (e.g., educational programming broadcast over radio or television) also dispenses with the need for all learners and the instructor to be in one physical location. Additionally, certain types of ICTs, such as teleconferencing technologies, enable instruction to be received simultaneously by multiple, geographically dispersed learners (i.e., synchronous learning).

➤ Access to remote learning resources.

Teachers and learners no longer have to rely solely on printed books and other materials in physical media housed in libraries (and available in limited quantities) for their educational needs. With the Internet and the World Wide Web, a wealth of learning materials in almost every subject and in a variety of media can now be accessed from anywhere at anytime of the day and by an unlimited number of people. This is particularly significant for many schools in developing countries, and even some in developed countries, that have limited and outdated library resources. ICTs also facilitate access to resource persons—mentors, experts, researchers, professionals, business leaders, and peers—all over the world.

ICTs help improve the quality of education

Improving the quality of education and training is a critical issue, particularly at a time of educational expansion. ICTs can enhance the quality of education in several ways: by increasing learner motivation and engagement, by facilitating the acquisition of basic skills, and by enhancing teacher training. ICTs are also transformational tools which, when used appropriately, can promote the shift to a learner-centered environment.

Motivating to learn

ICTs such as videos, television and multimedia computer software that combine text, sound, and colorful, moving images can be used to provide challenging and authentic content that will engage the student in the learning process. Interactive radio likewise makes use of sound effects, songs, dramatizations, comic skits, and other performance conventions to compel the students to listen and become involved in the lessons being delivered. More so than any other type of ICT, networked computers with Internet connectivity can increase learner

motivation as it combines the media richness and interactivity of other ICTs with the opportunity to connect with real people and to participate in real world events.

Enhancing teacher training

ICTs have also been used to improve access to and the quality of teacher training. For example, institutions like the Cyber Teacher Training Center (CTTC) in South Korea are taking advantage of the Internet to provide better teacher professional development opportunities to in service teachers. The government-funded CTTC, established in 1997, offers self-directed, self-paced Web-based courses for primary and secondary school teachers. Courses include “Computers in the Information Society,” “Education Reform,” and “Future Society and Education.” Online tutorials are also offered, with some courses requiring occasional face-to-face meetings. In China, large-scale radio and television-based teacher education has for many years been conducted by the China Central Radio and TV University,¹⁶ the Shanghai Radio and TV University and many other RTVUs in the country. At Indira Gandhi National Open University, satellite-based one-way video- and two-way audio-conferencing was held in 1996, supplemented by print-materials and recorded video, to train 910 primary school teachers and facilitators from 20 district training institutes in Karnataka State. The teachers interacted with remote lecturers by telephone and fax.

Key Challenges of ICTs in Education

Although valuable lessons may be learned from best practices around the world, there is no one formula for determining the optimal level of ICT integration in the educational system. Significant challenges that policymakers and planners, educators, education administrators, and other stakeholders need to consider include educational policy and planning, infrastructure, language and content, capacity building, and financing.

ICT-enhanced education for educational policy and planning

Attempts to enhance and reform education through ICTs require clear and specific objectives, guidelines and time-bound targets, the mobilization of required resources, and the political commitment at all levels to see the initiative through. Some essential elements of planning for ICT are listed below.

- a. A rigorous analysis of the present state of the educational system. ICT-based interventions must take into account current institutional practices and arrangements. Specifically, drivers and barriers to ICT use need to be identified, including those related to curriculum and pedagogy, infrastructure, capacity-building, language and content, and financing.
- b. The specification of educational goals at different education and training levels as well as the different modalities of use of ICTs that can best be employed in pursuit of these goals. This requires of the policymaker an understanding of the potentials of different ICTs when applied in different contexts for different purposes, and an awareness of priority education needs and financial and human resource capacity and constraints within the country or locality, as well as best practices around the world and how these practices can be adapted for specific country requirements.
- c. The identification of stakeholders and the harmonizing of efforts across different interest groups.
- d. The piloting of the chosen ICT-based model. Even the best designed models or those that have already been proven to work in other contexts need to be tested on a small

- scale. Such pilots are essential to identify, and correct, potential glitches in instructional design, implement ability, effectiveness, and the like.
- e. The specification of existing sources of financing and the development of strategies for generating financial resources to support ICT use over the long term .

CONCLUSION-

This chapter began by examining the context within which policies and strategies for applying digital technologies to education and training must be considered. While there are enormous benefits to be gained in terms of quality, enrichment, and flexibility in using ICTs throughout formal educational systems, there is even greater value to be gained in using the technologies to increase access to millions of individuals who are currently outside the educational footprints

of nations. A combination of the newer and older technologies has the potential to overcome the barriers of time, distance, and inadequate prior learning facing all those who wish to be informed, educated, and trained. It is clear that ICTs offer opportunities not available previously

to educators. Using tools such as e-mail; the Web; audio-, video-, computer-conferencing, both synchronously and asynchronously, a very rich interactive and individualized learning environment can be created that allows learners to dictate their pace of learning, place of learning, and the company they wish to keep (or not keep) while learning. While the ICT tools empower the learner, they need not take away from the role of the instructor. Instead, communities of learners and instructors come together for a common purpose and on a shared platform. Only skills, knowledge, telecommunication infrastructure, fiscal resources, and policy support inhibit exploitation of this potential. Global experience already is beginning to demonstrate what is possible, how it is done, and what tools can be applied to the task. It is an exciting new world of learning and training.

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