Effect of Information and Communication Technology on Changing Educational Paradigm in Modernity

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Abstract- Education and information and communication technology are two important pillars of modern educational enterprisers. In this dynamic social world Advent of information technologies have tremendously changed the content and execution of educational practices and dissemination of knowledge. Modern analytical meaning of education is very much related to information and communication technology and its different manifestations. ICT has mediated the   alternation of the nature and style of educational content and teaching learning process. Its effect is very visible in the areas of interpersonal linkages, organizational connectivity for knowledge, collaboration, productivity   and accessibility of knowledge etc. The effect of technology is very visible in early phase of socialization of the child. It is a major source of adult socialization and mental development o0f students. The religious bounded traditional education system of India has been converted in to technologically catalyzed and synchronized dynamic educational system due to the advent of information and communication technology. The social and cultural heritage of modern education is intrinsically linked with the impact of information and communication technology. This study is sociologically assessing the role of technology in the educational practices and its effect on intellectual productivity and transforming the role of educational institution and formation of subsequent transformation in organizational structure of education in the hyper real world of modernity.   Index Terms – Information and Communication Technology, Paradigm shift, Education Productivity, Accessibility, connectivity, Organizational Structure

Introduction

Education and teaching learning process of ancient India was revolved around the 'Gurukala system of education .This system had been residential and authoritarian model wherein the students were educated under the tutorship of a teacher in different areas of religion, philosophy and science. This model of education was teacher centered in its content and execution .Modern concept of University style of education were established around 6 BC at Nalanda and Takshila .The concept of centralized learning centers with multiple streams continued till the arrival of Europeans to the Indian subcontinent. They initially reconstructed the Indian style of education on European basis. Education system in the middle Ages were spiritually oriented, during this time, higher learning centers were established throughout the Indian peninsula. These learning centers attracted students from various corners of the world. The major change in the traditional style of higher education was brought by the European style of learning centers existed across India. The main focus such education was the

development of European language and formation of spurious middle classes of administrators and clerks for establishing and enriching the European rule. The British style University was established in Calcutta, Mumbai and Chennai in the year 1857 based on the model of University of London which has been the foundation of the modern higher education system in India. These Universities focused on languages, literature, history and philosophy. By 1903 the Indian Institute of Science was established by Tata with focus on research in science and engineering which is the first higher technical learning system in modern India. The British model of University system continued to expand across India leading to growing number of higher learning centers by 1947. Later Indian system of education underwent subsequent transformations as a result of internal and external forces .The effect of modern technologies had resulted the sudden transformation of religious based educational systems to more practical oriented dynamic and non- institutionalized productive systems .During the course of time a lot of transformation had ben occurred in the education, and dissemination of knowledge and nature of teaching learning process etc. In educational practices of modern world has an unprecedented changes occurred due to the advent of new technology and educational strategies. In postmodern era the introduction and propagation of information and communication technology has tremendously altered the organizational structure and accessibility, connectivity and productivity of Process of education. This study is sociologically evaluating the process of transformation of education due the interplay of information and communication technology and its subsequent effects in educational practices in modern society.

Analytical Meaning of Education – A Paradigm Shift

The meaning and content of education may differs from context to context. In its broader sense e, education is self-actualization process and a liberating force and enriching force of democratization which extends across the barriers of caste class and creed and other type of inequalities imposed by birth and other circumstances(Indira G andhi1980) Sociologically Durkheim stated that the aim of education is the maintenance of societal equilibrium by maintaining social values and moral value , More than a century ago, Emile Durkheim rejected the idea that education could be the force to transform society and resolve social ills, Instead, Durkheim concluded that education "can be reformed only if society itself is reformed." He argued that education "is only the image and reflection of society. It imitates and reproduces the latter, it does not create it" (Durkheim, 1897/1951: 372-373). According to Gandhi education is the overall development of human personality or drawing out best from human body mind and spirit. Or optimum utilization of human potential for the betterment of human life. It is the process of unfolding human potential. In nutshell it is the process of transformation of biological animal in to social being . It is a pivotal force of social change . According to MacIver social change takes place as a response to many types of changes that take place in the social and nonsocial environment. Education can initiate social changes by bringing about a change in outlook and attitude of man. It can bring about a change in the pattern of social relationships and thereby it may cause social changes. Earlier educational institutions and teachers used to show a specific way of life to the students and education was more a means of social

control than an instrument of social change. Education has been chiefly instrumental in preparing the way for the development of science and technology. Education has brought about phenomenal changes in every aspect of men's life. Francis J.Brown remarks that education is a process which brings about changes in the behavior of society. It is a process which enables every individual to effectively participate in the activities of society and to make positive contribution to the progress of society. John Dewey (1939) saw himself within this intellectual tradition. He believed that democratic movements for human liberation were necessary to achieve a fair distribution of political power and an "equitable system of human liberties." However, criticisms have been raised about limitations in Deweyan approaches to education, especially the way they are practiced in many elite private schools. Frequently, these schools are racially, ethnically, and economically segregated, and therefore efforts to develop classroom community ignore the spectrum of human difference and the continuing impact of society's attitudes about race, class, ethnicity, gender, social conflict, and inequality on both teachers and students. In addition, because of pressure on students to achieve high academic productivity. Both of these issues are addressed by Paulo Freire, who calls on educators to aggressively challenge both injustice and unequal power arrangements in the classroom and society. Paulo Freire was born in Recife in northeastern Brazil, where his ideas about education developed in response to military dictatorship, enormous social inequality, and widespread adult illiteracy. As a result, his primary pedagogical goal was to provide the world's poor and oppressed with educational experiences that make it possible for them to take control over their own lives. Freire (1970; 1995) shared Dewey's desire to stimulate students to become "agents of curiosity" in a "quest for...the 'why' of things," and his belief that education provides possibility and hope for the future of society. But he believes that these can only be achieved when students are engaged in explicitly critiquing social injustice and actively organizing to challenge oppression. In modern society methods of education enables the students to acquire technical skills and knowledge rather than equipping them to adjust with dynamic social world. Technically mediated education system is continuously reconstructing the education system by providing most modern from of information in the form of virtual realties and instill the components of competitions and new horizons of social world.

Emergence of Information and Communication Technology as a New Social Reality in Education

Information technologies have multidimensional effect on human life today. It reshapes almost all walks of human life. The emergence and growth of information and communication technologies (ICTs) have a multifaceted role in the reconstruction of our educational system favorably and unfavorably. Internet, a means of information and communication technology, creates a revolution in production, composition and dissemination of knowledge in modern society. Information technology has re-defined the nature of work, functioning of organizations, and nature of leadership, managerial roles, and professional careers of people overall in teaching learning process. It has a strong effect on the nature of technological utilization among students in the modern world. The twenty-first century is an era of informational capitalism, which brings new areas of social realities and interactions. Information is considered to be one of the important commodities of contemporary capitalism(Roldan 2005).Modern capitalism is directly or indirectly influencing the information and communication technology and channelizing new packages for the development of a nation and national outlooks.

Information technology is considered as one of the important mechanisms for the production of material as well as non-material components of social life. Information is a valuable commodity in modern economic and educational enterprises. Internet technology is a strong impetus for social and national development. Post modernity contributes new forms of social realities and events with the help of information super flow. They have become an integral element of education, research, economy and commerce and have been playing a pivotal role in driving the growth of modern economy. It provides new forms, new events and new happenings in our society. Modernity is providing synthetic excitements and enjoyments, which liberate people from the harsh realities of social life (Baudrillard1998). The bondage of traditionalism and the feeling of collectivity have been liquidated due to the emergence of information revolution.

In the modern research field the research centers and researchers are very much influenced by the information and communication technology. The scientific scholars are developed on the basis of private point of view (McLuhan 2001). The information-crazy world has moved into the highly sophisticated electronic age. In this virtual community, messages and information travel across the globe within a short period of time. Internet revolution opens up new possibilities in the exchange of ideas and information.

The modern intercontinental communication network has made the world really small and easily approachable. Developments in internet technology stimulate the growth of informatics, telematics, video technology and optical communication. Increase in collaboration between researches institutes provide new interlinking of organizations. Inter-institutional dissemination of knowledge becomes so easy as a result of the emergence of internet technology. It can work as a sophisticated version of overhead projector and an electronic animator and a tool for solving problems and an important intercontinental connecting agent. Stereotypes of information technology have pivotal role in solving number of burning social problems today. Emergence of internet and related technology has totally changed the concepts of information storage and retrieval mechanism. Internet technology in that sense has been influencing the overall aspects of human life. It touches the social, cultural and other aspects of human life in our society.

Information Technology and Organizational Structure

Assimilating technology into the classroom requires a double innovation , the process involve, first learn how to use the equipment and then decide whether or not it supports the class objectives and curriculum Technology also makes it easier to spend more overall time on learning. Technology is a crude determine of social change today. The inventions and discoveries influence the life of the individuals in society and thus paves way for social change. The form of society is undergoing changes as a result of the inventions of various machines and instruments. Information technology in modern education institutions are bounded in the areas of information connectivity , accessibility and productivity, in connectivity most of our education institutions are well connected with information and communication technology, it is good source of abundant information from one source to another , in production of knowledge information technology provided new horizons of knowledge in the field of interpersonal and personal linkages a subsequent collaboration

knowledge in the modern technologically equipped systems are well connected to most modern   and information   for building personal and professional relationships .

Consider these three tips when you consider your child's daily interaction with technology

- **Look for Connections**. When students use technology, it should be within the context of larger learning goals rather than in isolation.
- **Don't Assume**. There are a lot of facts floating out there, and everyone has an opinion. Base your understanding of education technology on reliable sources.
- **It's All in the Application**. The success of any tool depends on how it's used. Ask how a gadget or program furthers higher thinking, basic skills, or the child's ability to evaluate, analyze, and synthesize ideas. This way, you'll ensure that it's being used for more than its novelty.

Internet diffusion and organizational competence depends on the desire of host countries to achieve specific goals. It can stimulate national and organizational background of the country and to develop a new opportunity for socio-economic developments. It means, Internet application directly influences national and organizational needs, information needs of the local people and traditional cultural framework of the country. Internet superhighway can stimulate the social and economic conditions through organizational development. Internet accessibility and organizational needs can be identified in to two dimensions; one is accessibility of host organization to adapt to new technology for the utilization of local resources and second implementation of acquired technology for the better benefit of the country. In this regards scientists in developing nations are acting as a carriers of the technology to the local populace.

 In technological dimensions, home and personal computer accessibility increased the utilization of computer technology throughout the world. The integration of communication technology resulted global and national communication networks, which creates a strong infrastructure for social and economic systems. These new possibilities encouraged new horizons of opportunities for Kerala, especially in the field research and teaching. Information and communication technology in Kerala are acting as tools for fighting poverty and underdevelopment. Effects of Internet technology can be can be seen in two   dimensions, first its capacity to provide information resources to citizens to participate in development programs and second, it helped the public and private organizations to work more efficiently   with the help of   optimum utilization of resources. The tremendous application of internet technology increased beneficiary's including government organizations, politicians, scientific organization, academic institutions etc. The capital resources are also a crude determinant of information and communication technology .The capital resource is necessary for the implementation of the internet. The installation and maintenance of internet determines access to resource of host countries and   depending on the type of connections.

Adoption and diffusion of internet determines successful implementations of technology in a country. Lange (2005) is of the opinion that internet technology is a driven phenomenon. Widespread use of internet

in a country should meet business requirements and new opportunity for organization using this technology. In modern developing world internet factors are generally culture specific, that determines the perceptions and visions of stake holders and thus cause significant differences in the diffusion and use of internet across the range of developing countries examined .The pace of internet growth largely depends on number of factors within as well as outside the country, the research results reveal some common pattern in introduction and diffusion of internet in various countries. Internet diffusion depends on various factors such as governmental policies and political leadership and objectives of networking organizations in the country. For example, many Asian countries are promoting the internet by establishing schemes to encourage educational and businesses to connect and by allowing competition among service providers. In contrast, in many African countries, government exercises strict control over telecommunications industry thereby obstructing the diffusion of the internet within the country.

Conclusion

Technology is reconstructing the experience and practice of education ,"However technology is used in class, it has the opportunity to be a game changer." .Education and technologically are deeply contributed in modernization of social life , technologically mediated education has effective role in the process of social transformation today , it has contributed the tremendous changes in the magnitude and dimension of educational practices ,. In modern society, the information capitalism has improved the accessibility of technology in modern world. Information and communication technology has a mediating the process of dissemination of knowledge today, it constantly act as catalyst for the formation, propagation and implementation of knowledge. Technology has a pivotal factor for inter -organizational exchange of information and collaboration and accessibility of information , technologically mediated Education is now a paramount force for overall development of human personality and intellectual development technology and education are intrinsically related to each other, adoption of new information and communication technology has brought about tremendous changes in the education sector by providing latest information , modalities and new virtual realties in the class rooms. technologically , mediated education is a crucial factor of technological diffusion from one region to another through cross cultural flows , educational society can choose the most appropriate and productive technology for the betterment of current educational sector

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