

DIGITAL DIVIDE: AWIDENING ISSUE IN THE LEARNING ENVIRONMENT

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Abstract

The present era is characterized by rapid development in the information and communication technologies. As a result every facet of human life is influenced by these technologies. It is believed that this digital revolution will bring everything at the finger tips of the people. But the fact is that only a very few percentage of the population is getting the advantages of technological development. This led to a new type of disparity among the people termed as digital divide. It can be defined as the gap between those who have access to digital technologies and those who do not. Thus the whole world has been separated as information rich and poor. This digital divide has various dimensions. It may exist between the rich and the poor within a country or among people with different cultural and linguistic background or between developed and developing nations or between the elite groups of people educated in technology related subjects and those who are not. Its reverberations are felt in the educational context also. How much prepared the schools and the teachers to handle these situations are a question to ponder over. Teachers as social engineers, it is their duty to be capable of handling such inequalities in the classrooms. This gap can be bridged only by an information literate society.

Introduction

The watchword of the present era is information and communication technologies. When the industrial revolution is over the world witnessed another revolution called information revolution. And as result of that the information age has begun. It is believed that in this age technology can bring everything at the fingertips of the people and thereby enhancing their quality of life. But it can be seen that the expected improvement has not been come into effect. The main reason behind the underutilization of technology by the masses is the digital divide existing between them. It has its effect on all aspects of social life starting from home to administrative level. Educational sector is no exception. And hence this situation demands that teachers and educational administrators have an answer to curb this issue.

The Issue of Digital Divide

The term digital divide has been defined as (OECD, 2001) “the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard both to their opportunities to access information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities”(p.5). Department of Commerce (1999) also defines it almost in the same way. According to them digital divide exist between the groups of people who have most powerful computers, best telephone service and fastest Internet service, as well as a wealth of content and training relevant to their lives and those who do not have any of these. These definitions show that digital divide arise due to the differences in access and use of hardware, software and information technologies. Another aspect of digital divide is disparity in the access of services offered with the help of these technologies. There may be many factors that contribute to the widening of this gap in technology use and access. The factors include gender, race, socio economic status, social and geographical isolation, education, disability etc. There are many other inequalities exist in the society, yet this particular digital divide has got more attention. The reason for this is that if there is no digital divide it ensures that other differences or gaps can be dealt with easily.

Education and Digital Divide

Though digital divide exist in all spheres of social life, its impact in the educational context is of greater concern. It is because of the changing perspectives in education. The notion of completing education at a particular age is a thing of past now. The concept of lifelong learning has gained much potency and people started to learn new things at any age, place and time. The barriers to access educational opportunities are overcome with the help of technologies. And hence it is important that people are digitally literate and no digital divide exist between them in order to take advantage of the situation.

The role of education in the case of digital divide is dual in nature. In the first place educational performance of students is affected by this difference in opportunity of using ICT. Even though many researches have found out that ICT as an educational tool is effective, studies are very limited in the area of identifying the factors that inhibit the proper ICT use. Identification of these factors is very important in dealing with digital divide in the educational setting. The problem of digital divide is evident in the case of students whose have technology friendly home atmosphere and those who have not. This is one of the main reasons that contribute to the inequality in performance. Another reason is lack of training given to the teachers and their attitude towards technology inclusion in the classrooms.

It is to be noted that this divide exist not only between those who are familiar and not familiar with technologies but it exist in the case of people with varying degree of ability to use these things. In the educational context this is also a matter to be concerned with. Because in a classroom there may be students who come from the lower strata of the society who are obviously information poor, students who have limited access to these technologies and less able to handle them and students who are well versed in the use of technologies and have full access to them. It is the duty of teachers and administrators to handle all these types of students when ICT is used as a tool in the teaching learning situation. Otherwise the digital divide already exists will get even wider. Then only the achievement gap between high and low performing students can be reduced. Poor implementation of ICT tools is another factor that affects the achievement of students which eventually widen the digital divide. The policy makers and administrative personnel in the education sector should ensure the proper implementation of ICT in education. It is remarked (Noll, Aguilar, Rosston & Ross, 1999) that as per the history of education research the main factor influencing educational performance is a student's socioeconomic background, and that external inputs have relatively little influence on children's achievement. Considering this, it is very important that digital inclusion in the classrooms must be implemented only by caring about the socio economic status of the students. Otherwise all these digital inclusion and curricular reforms will be futile.

The second role of education in the case of digital divide is that it is the panacea of curbing this issue. The reason is that only through education people can be taught about the use of technology in their lives. There is drastic difference in the people who are educated and not less educated in getting the advantages of technology. Yu (2006) supported this view by finding that lower levels of education are associated with digital divides concerning access to and use of a range of ICTs. Also in the OECD (2001) report it is mentioned that at the same income level, higher rates of access is seen with those with higher educational attainment. And there exists differences in PC penetration and Internet access between those with tertiary education and those at the lowest education levels. Thus it is important that the masses must be educated to decrease this digital divide.

The Remedies

The following ideas and actions are a necessary to control and eventually wipe out this issue of digital divide.

- Digital information literacy

Digital information literacy is defined asit “involves recognizing the need for, and being able to access and evaluate electronic information. The digitally literate can confidently use, manage, create, quote, and share sources of digital information in an effective way that demonstrates an understanding and acknowledgement of the cultural, ethical, economic, legal, and social aspects of information.” (Jeffrey, Hegarty, Kelly, Penman, Coburn, & McDonald, 2011, p. 385). Though the basic literacy is fundamental to eradicate any social issue in the case of digital divide a higher level of knowledge and skills regarding electronic information are needed. Thus one of the goals of education should be to produce information literate students.

- An understanding of digital exclusion

It is to be bear in mind that there can be digitally excluded people in all strata of the society. Just focusing the attention to the underprivileged or socially and economically backward people will not reduce the divide. There may be people who are not adept at using these technologies even in the higher classes. This is applicable in the classroom situation also. Hence steps must be taken to level these different types of disparity and there by tackle the problem of digital divide.

- Role of teachers

Any tool of learning can be effective if it is properly used by the teachers. This is same with the case of ICT use. Teacher training and the philosophy of teachers affect the effective use of tools by the students (Becker, 2000; Wenglinsky, 1998). Hence it is the teacher who should ensure that his or her students are digitally well versed.

- Policy making

Educational and other policy makers must consider this problem of digital divide seriously. Policy decisions are important to tackle this. In the OECD (2001) report the following policies related to education are proposed for reducing the digital divide.

- 1) Diffusion to individuals and households

- Access in schools
- Access in other public institutions

- 2) Education and training

- Training in schools
- Vocational training
- Other general measures

Increasing the access and use of internet is very important to provide digitally enabled services to the people equally. Educational services can also be provided through internet. Access and usage of internet can be increased using television as a medium rather than a computer, because it is already popular among the public. Also mobile phones can be used for reaching more people through internet and thereby making them digitally included. If the common people are digitally included that will be helpful in making their children digitally literate.

Conclusion

This is a world where only a very few percentage of the population is having all the benefits of the developments so far. The technological advancement, if used properly will be a boon to implement equality of opportunities. But contrary to this expectation, it is resulted in the creation of the issue of digital divide. The educational sector is largely affected by this and at the same time it has the impetus to solve this problem. Considering the social and technological nature of this digital divide and as Selwyn and Facer(2007) opined a collaborative effort is needed from technical and social research, education and social policy, industry, community and public sector in order to find fruitful solutions to bridge this gap permanently.

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