Crossing the Digital Divide - Can Teachers Bridge it?

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The digital divide refers to the space between people with efficient access to digital and information technology and those with inadequate or no access at all. It includes the imbalance both in physical access to technology and the resources and skills needed to effectively participate as digital citizen. This gap arises due to the fact that some sections of the society due to advantages in income or social standing can make better use of the internet and computers to further their interests in work and education. The digital divide may be also seen as an asymmetry in information access and awareness.

The digital divide has to be minimized to ensure that every individual irrespective of his antecedents be at the same starting line in life. Most of the new jobs being created now and in the future involve some interaction with computers. Teachers preparing PowerPoint slides for the class, accountants completing budgets, engineers using programmes for complex calculations, sales clerks printing receipts or airlines booking tickets and accepting payments online are just some examples. Organizations will naturally more readily hire those candidates who do not have to be trained and can start working from the joining date itself. This is assuming that computer skills are the only differentiating factors between the candidates in contention. But in fact lack of ease with computers leads to differences in educational attainments between students due to unequal access to online resources such as lectures, animations and academic news.

The role of the teacher according to Carl Rogers is to teach things that will actually help the student in his life. Since knowledge through lectures and article is freely available on the web, the teacher should strive to make students capable of using these resources to further his own learning. Technology in education is the need of the time. This paper focuses on the efforts that have to be taken in order to democratize access to digital technology. Exploring digital divide issues in academic institutions requires educators to inspect the physical access students have to technology as well as the equity in the educational experiences students have with technology.

The first hurdle that has to be crossed is the sourcing of computers for schools and colleges. Indian colleges currently cannot depend on the government to provide resources for a computer for every student. In such cases to increase the computer to student ratio funding may be acquired from the alumni association, by purchasing special student editions and by buying hardware and software in bulk. It is of course essential that the software installed must be update at timely intervals so that it can continue to be compatible with all the content on the web. Funds set aside for that purpose by the university grants commission must be availed of.

Once the computers have been obtained thought must be given to how they can be deployed to become an integral part of the learning process. In case it is not possible to provide a device in every classroom which is the case in most rural and some urban colleges the computer lab should be centrally located and hence easily accessible. But placing computers exclusively in labs has been a major obstacle in improving equity and access. Labs often reinforce the idea that computers are extra or special instead of an integral part of the learning process. Allowing students to have access to computers throughout the day can help to promote the use of technology becoming a seamless part of the learning process.

Providing access to technology is only one step in creating an equitable learning environment. Right to use and equity are not the

same thing. Students must be introduced to the various softwares related to their field of study. In our college which has a large proportion of first generation learners an optional course was introduced to acquaint students with the fundamentals of computers. The course includes ms office, tally and brought about a remarkable change in the confidence of the students.

A paradigm shift in the attitude of teachers is required if these measures are to be implemented. They must let go of the notion that now that they have finished their education, they have nothing left to learn. In this context a Chinese proverb is apt, "To teach is to learn", which implies that teaching and learning go hand in hand. Today's students are no longer the people our educational system was designed to teach. Teachers who speak an outdated language are struggling to teach a generation that speaks an entirely new language. Teachers should not only learn how to operate various softwares but also how to incorporate technology into the daily curriculum.

Professional courses already involve the use of a large number of softwares such as Ansys and Nastran (engineering). However there has not been much pressure on traditional courses like the Bachelor of Science to do the same thing because of the assumption that they will probably not have to use the softwares immediately in their work such as teaching and research. However today when a growing proportion of companies recruit from traditional course this cannot continue. Assignments which involve the searching of data on the internet or problems which cannot be solved without the help of a computer program would be useful.

A teacher training programme can be developed to bring teachers up to date on present technology and its various applications.

The following results should be obtained from teacher training programmes.

- Change in attitude - It is necessary to convince teachers that it is indeed beneficial and in their interest for them to introduce technology in their classrooms.
- Knowledge about various educational computer programmes
- Expertise in selecting the program that best fits their and their students' needs.
- Greater variety of instructional methods to introduce software and integrate computers in the classroom.

We can conclude by saying that adaptation of the following strategies will minimize the digital divide.

- Better coordination of their out-side educational Internet activities with their classroom activities;
- A significant increase in the quality of access to the Internet in schools and colleges.
- Professional development and technical assistances for teachers, so they can better integrate the Internet into the classroom;
- A priority placed on developing programmes to teach keyboarding, computer and Internet literacy skills;
- A continued effort to ensure that high-quality online information to finish assignments be made available in the institute environment -- without undue limitations on students' freedoms;
- Policy makers to take seriously the "digital divide" between students who do and don't have Internet access outside the institutes. Students want administrators to understand the subtle inequities among teens who have varying qualities of Internet access outside schools and colleges.

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