



Retrofitting Technology-Enabled Resources in Multicultural Classroom Settings

Shamim Ahmad

Associate Professor, Department of Education, Indira Gandhi National Tribal University, Amarkantak (MP)

Abstract

This write-up examines the teacher education institutions using ICT and its many ramifications and attempts to highlight the issues involved in creating, sharing and managing technology enabled resources required for any increasingly diverse and heterogeneous learning groups. Given the 21st century prospective teachers' aspirations, expectations and needs for quality teacher education, the technology enabled resources are widely getting momentum. Besides, technology enabled resources constitute a significant learning resource and knowledge repository supporting increased accessibility to data, information and knowledge for all. It is observed that various movements of people have throughout history given impetus to the creation of pluralistic societies all over. Due to exponential revolution in ICT and its many ramifications, the institutions of teacher education provide rather enhanced opportunity of interactivity embedded with synchronous and asynchronous learning resources. Post-independence experiences have unequivocally recognized the rationale of technology - driven instructional initiatives and resources resulting in increased accessibility, enhanced productivity and improved quality teacher education in a multicultural setting. The paper aims at developing insights in the process of creating, sharing and managing technology enabled resources and appreciates the amelioration in the existing institutions of teacher education for accommodating multiculturalism in classroom settings. However, the issue of creating, sharing and managing technology enabled resources assumes significance when institutions of teacher education taking into account not only the technological imperatives but also advancing instructional business to respond to cultural diversity effectively, efficiently and expeditiously.

Keywords: ICT; Learning Resources; Multiculturalism; Classroom Setting; Teacher Education.

Background

At the turn of the 21st century, the education system in general and classroom in particular stand at a unique juncture of history with the technological revolution drastically changing the global scenario. Given the current response situation of ICT and its many ramifications, it becomes imperative to ensure its extended opportunities to a vast majority of learners and increasing heterogeneous target learning groups. Looking to the outreach capabilities, it is also discussed how technology - enabled new instructional strategies and pedagogical practices can empower institutions of teacher education towards participatory, outcome – oriented and more importantly

quality teacher education. The understanding of ICT role for target learning groups especially in a democratic set-up is also essential as it helps in perceiving, forming opinion, planning and implementing strategies to respond to cultural diversity in the society.

There is a dire need for promoting and preserving the existence, acceptance and promotion of multiple cultural traditions in the classroom practices through technology based resources learning. Various ICT - based learning resources i.e. web 2.0 technologies, ubiquitous mobile devices and virtual environments usually present varied information often connected with hyperlinks. Thus, in this backdrop, technology enabled learning resources offer the educational provision also through an alternative route, of flexible nature, time / place - independent and education for all those who require it.

Multicultural Classroom

In view of the classroom practices, teachers, instructors and teacher educators usually modify and incorporate lessons and activities to reflect the cultural diversity of the learners in a particular classroom. Multicultural education refers to any form of education or teaching that incorporates the histories, texts, values, beliefs, and perspectives of people from different cultural backgrounds(Glossary of Education Reform, 2016, p.01).

In the context, multiculturalism is a system of maintaining, preserving and sustaining the diverse culture of any geographical region, society or community. Multiculturalism describes the existence, acceptance, or promotion of multiple cultural traditions within a single jurisdiction, usually considered in terms of the culture associated with an ethnic group(Wikipedia, 2016, p.01). Getting diverse learners engaged in classroom activities and practices can be challenging, at times, for teachers. This is where the technological tools, applications and other appliances have an impact in the classroom activities and practices.

"Multiculturalism" is the co-existence of diverse cultures, where culture includes racial, religious, or cultural groups and is manifested in customary behaviours, cultural assumptions and values, patterns of thinking, and communicative styles(IFLA, 2013, p.01). Technology has the potential to transform the socio - educational fabric addressing the prominent issues of education and classroom like access, equity, diversity and more importantly plurality at a wider scale.

Given the importance of global scenario, teacher education needs to be restructured rooted to the technology - enabled delivery infrastructure, quality learning materials and thereby responding to cultural diversity all together. Multiculturalism is a body of thought in political philosophy about the proper way to respond to cultural and religious diversity(Stanford Encyclopedia of Philosophy, 2010, p.01). As information and communication technologies have gained momentum over the past two-three decades, the system of instruction – teaching and learning have also evolved eventually. Multiculturalism may be expressed with a simple implication i.e. a system of addressing issues with regard to cultural diversity.

Retrofitting Technology Enabled Resources

Multiculturalism that promotes maintaining the distinctiveness of multiple cultures is often contrasted to other settlement policies such as social integration, cultural

assimilation and racial segregation(Wikipedia, 2018, p.01). The use of technology based teaching learning resources in multicultural classroom settings provides opportunities for diverse learners to learn, reflect and practice in a variety of ways. Technology in multicultural classrooms allows more students to be involved, enhance the leaning experience, support curriculum, meet diversity needs and communication(Cynthia Dume, 2012, p.01).

Through technology, learners are now increasingly able to access high quality learning materials at any time and any place. The emergence of Web 2.0 technologies, ubiquitous mobile devices and virtual environments is encouraging and supporting interactions(ALTC, 2010, pp.10). It offers enormous learning resources i.e. e-learning, telephone tutoring, audio-video-conferencing, SLMs, CD-ROMs, CAI, CBL, CML, computer - conferencing, video and multimedia conferencing, social networking, mobile learning, web - based learning, virtual learning environment etc.

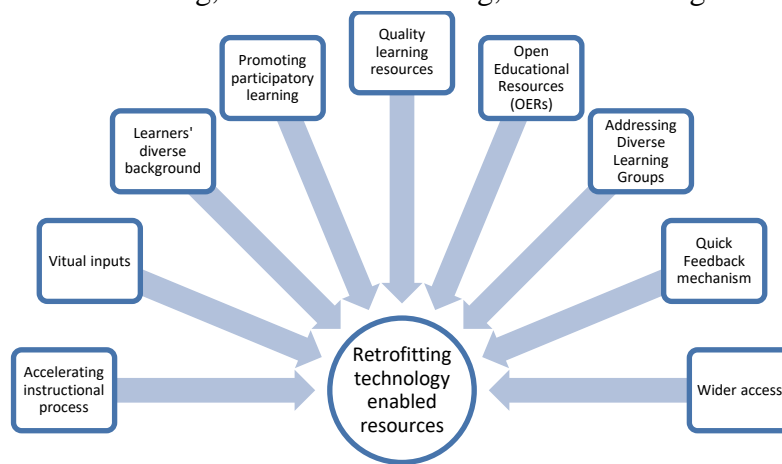


Figure 1: Retrofitting Technology Enabled Resources

As the figure -1 suggests, retrofitting technology - enabled resources that accelerate instructional processes, participatory learning, open resources, addressing diverse learning groups and widening accessibility etc. The institutions of teacher education need to integrate technological tools, devices, applications and other appliances in order to upgrade the quality of, and enhance the access to, education in culturally diverse classroom situations. One of the most effective ways of achieving this would be to stimulate the development and dissemination of quality Open Access (OA) materials and Open Educational Resources (OER) through broadband Internet connectivity(NKC, 2007, 51).

ICT tools, devices and applications strengthen participatory learning at greater affordability resulting in relatively lasting experiences. At the turn of 21st century, the user / learner-friendly technologies, various ICT - tools, devices and applications have brought many instances of flexible initiatives to suit more pluralistic and heterogeneous learning groups. However, Walcot (1996) maintains establishing rapport and collaboration among class members and between class members and instructor. Technological advancements have empowered the academia, researchers and other personnel and thereby new technology has much more to offer irrespective of various constraints and challenges. The significant point to underline here is that the new breed of hardware and software technologies provides a novel platform to interact in new ways through enhanced computer capabilities, www, search engines,

instant messages, social networking, video conferencing, virtual inputs, online collaboration etc.

Potential Advantages

In today's digital learning environment, the role of technology based learning resources has become central in the business of instructional transactions. Modern higher education system requires extension facilities, sophisticated equipment and highly specialized knowledge and competent teachers(CARRHE, 2009, 65). To reach the masses we need to use the mass media and other technologies, because face-to-face communication cannot be scaled up to meet the challenge(Daniel, John *et al*, 2007, 24). In the context, role of the teacher will have to change to that of a mentor, facilitator and manager at large. ICT integration in teacher education is said to be totally unique in a way that it offers a room of hopes for increased access to learning, resource sharing and more importantly heightened plurality in society in a culturally diverse classroom.



Figure 2: Technology Enabled Resources: Potential Advantages

As in the figure, the idea of retrofitting technology in teacher education revolves through an increased learner control over learning / pace, enhanced stimulation, adequate response to cultural diversity, wider scope of interactivity and more importantly heightened plurality in society. Video presentations as an effective lecture-substitute are particularly useful if the content has a high visual impact, where a variety of techniques such as animation, time-lapse photography and close-up work can be used to good effect(Ellington, H. *et al*, 2005, 67).

Catering to the large and growing number of learners, technology offers customized learning, need based curricular and co-curricular activities, animated and video annotation expression and a relatively wider scope for virtual inputs leading to plurality of approaches. Besides above, there are many more possible advantages of retrofitting technology in teacher education resulting in enhanced interactivity for varied learning groups.

Probable Challenges

Integrated with ICT and its many ramifications, teacher education promotes heightened learning which combines improved learning outcomes, computer capabilities, attitude formation and other skills' development. Ostensibly, information and communication technology has become a major driving force in the global era that offers enormous opportunities in creation, dissemination and application of knowledge in an increasingly diverse classroom setting and, of course, it poses a few challenges as well and the current teacher education system is also said to be afflicted with the syndrome of:

- | |
|---------------------------------------------------------------------------------|
| ✚ Largely theory bound practices pertaining to multiculturalism prevailed, |
| ✚ Negligible number of learners' participation in tech – enabled resources, |
| ✚ Insufficient technology - trained human resources, |
| ✚ Less emphasis on access, adequacy and equity, |
| ✚ Inadequate funding arrangement for technology enabled resources, |
| ✚ Ignorance of learners' profile, preferences and aspiration level, |
| ✚ Less equipped technical assistants, |
| ✚ Programmes & courses less responsive to multiculturalism, |
| ✚ Lack of comprehensive curricula commensurate with the global standards, and |
| ✚ Preparing multimedia/interactive packages to induce plurality in the society. |

There are many more challenges in the pursuit of retrofitting technology in teacher education for inducing heightened plurality in society that need to be addressed on priority basis.

Concluding Remarks

The issue of retrofitting technology assumes significance when institutions of teacher education take into account not only the technological imperatives but learning perspective to advance instruction, commensurate with the reflective action on multiculturalism and pluralism in society. In this backdrop, these teacher education institutions have to reach the diverse learning groups and at the same time addressing heterogeneity and multiculturalism in the context shall be praiseworthy and commendable. This means, for instance, that while educating the young, ICT integration could determine learners' outcome and skill-oriented learning, attitude and experiences in a multicultural and pluralistic classroom. The paradigm shift, collaborative engagement, digitally matured learning groups and more importantly new breed of technologies call for proactive roles from all quarters to work together in multicultural classroom settings.

Works Cited:

- Wikipedia (2018): Multiculturalism. Wikipedia: The Free Encyclopedia. <https://en.wikipedia.org/wiki/Multiculturalism> (Accessed and Retrieved on 22.03.2018).
- Glossary of Education Reform (2017): Multicultural Education. The Glossary of Education Reform. <http://edglossary.org/multicultural-education/> (Accessed and Retrieved on 08.05.2017).
- IFLA (2013): Defining Multiculturalism. International Federation of Library Associations and Institutions (IFLA). <http://www.ifla.org/publications/defining-multiculturalism> (Accessed and Retrieved on 25.01.2016).
- Cynthia Dume (2012): Using Technology in the Multicultural Classroom. <https://prezi.com/rlie4-zvhb3q/using-technology-in-the-multicultural-classroom/> (Accessed and Retrieved on 12.02.2016).
- ALTC (2010): Retrofitting University Learning Spaces: Design Principles for the Cost-effective Redevelopment of Existing Spaces, Australian Learning & Teaching Council, <http://learnline.cdu.edu.au/retrofittingunispaces/resources/content/25%20Principles%20Brochure.pdf> (Accessed and Retrieved on 12.02.2015).
- Stanford Encyclopedia of Philosophy (2010): Multiculturalism. Stanford Encyclopedia of Philosophy. <http://plato.stanford.edu/entries/multiculturalism/> (Accessed and Retrieved on 14.11.2015).
- GoI (2009): Report of the Committee to Advise on Renovation and Rejuvenation of Higher Education, Government of India. <http://www.academics-india.com/Yashpal-committee-report.pdf> (Accessed and Retrieved on 18.12.2013).
- Daniel, John *et al* (2007): Education for Sustainable Development: Reaching the Masses, Open and Distance Learning in a Changing World, COL. <http://www.col.org/resources/speeches/2007presentations/Pages/2007-11-26.aspx> (Accessed and Retrieved on 03.07.2014).
- GoI(2007): National Knowledge Commission, Government of India. <http://knowledgecommission.gov.in/downloads/report2009/eng/report09.pdf> (Accessed and Retrieved on 08.09.2015).
- Ellington, H. et al, (2005): Handbook of Educational Technology, Third Edition, New Delhi, Kogan page India Private Limited.
- Bates, A.W. (2000): Managing Technological Change, Strategies for College and University Leaders, San Francisco, California, Jossey-Bass Publishers.
- Walcot, L.(1996): Distant, but not distanced: A Learner centered Approach to Distance Education, TechTrends, 41 (5).