Revolution in digital learning

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Abstract
Education system creates hope and it should never aim at creating mere hypes. Over a period of time many changes have occurred in different sectors of economy including the education system. Education sector unlike any other sector has seen many stages in its evolution. From Guru-Shishya system of conducting the class in open garden under the trees to closed class room lectures, presentation form of teaching with the aid of LCD touch-screen projector to online notes and now instant Whatsapp messages is the mong the students. Whatsapp has gained the status of being authentic formal means of communication among the students and the academicians. Screenshots have taken off the business of many of the photocopy outlets operating within many school and college premises. Indian subcontinent is comprised of diverse population belonging to various ethnic and cultural groups. Apart from these differences, the most visible difference that makes a direct impact on the Indian education system is the diversity in purchasing power and affordability of the Indians. This article is aimed at analyzing the nature of the modern education process in India where diversity is seen not only in culture and ethnicity but also in purchasing power and affordability of the Indian people.

Keywords: Digitization, Education, Digital Education, Technology, buzzword, etc.

Introduction
Digitalization, understood as ‘the way in which many domains of social life are restructured around digital communication and media infrastructure’ (Brennan & Kreis, 2014) [2], is unmistakably a global megatrend permeating all walks of life. Manuel Castells (2010), views digitalization as one of the – if not the – defining characteristics of contemporary society. ‘Historians of technology would hardly be surprised to find more failures than success stories in this field’ (Flichy, 1999, p. 33) [3]. So, a critical scrutiny of how the new media affect our society in general and (adult) education and learning in particular today is an important matter.

The “digital turn “definitely also affects various educational practices and policies. The technologies that become prevalent at a certain moment and at a certain place decide to a great extent what education is all about” (Vlieghe, 2015, p. 2). Media have been part of educational processes with divergent groups for a long time. The French revolutionaries were inspired by the writings of the enlightened philosophers. In the nineteenth and twentieth century, citizens, workers and farmers achieved emancipation through participation in reading circles, through their membership in libraries, through exposure to radio and television programme and through participation in distance learning institutions. Today, the new media are omnipresent. They do new things. ‘They give us new powers. They create consequences for us as human beings. They bend minds. They transform institutions. They liberate. They oppress’ (Silverstone, 1999, p. 10) [4]. Or, in the prophetic words of Marshall McLuhan (1964) [5], they are ‘the extensions of man’. Knowledge and information are accessible almost at any time and any place. They create opportunities but also risks for educational practices. Social media such as twitter, face book and YouTube are being used in educational activities. Massive open online courses (MOOCS) are welcomed as the new

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instrument to democratize higher education. Much has been written and discussed about these developments in education in general (Wildemeersch, 1991, Losh, 2014; Walsh, 2014) [9]. Contributors are invited to present their research regarding the use of new media in the context of adult education and learning practices and policies. Following assumptions concerning the changes taking place may inspire their contributions.

Learning places and learning spaces
The traditional learning places of adult education are being complemented by the media and the rise of the internet. New communication spaces emerge and the connection between online and off-line spaces increases. This raises questions about new forms of access to adult education provision and the possible redistribution of educational opportunities for varied groups of adults.

New learning formats and new experiments with media education
Currently various new learning formats are being developed, from “game based” learning to “mobile learning”. Experiments with new social media emerge in adult education practices. Different forms of action oriented media education are being implemented. The new media create opportunities for interactive and co-creative processes.

Media literacy in the digital world
The idea of being literate in contemporary society changes dramatically. Vlieghe claims that ‘There is a fundamental difference between traditional and digital literacy, or more precisely between what it means to be a literate person in digital and predigital times’ (2015, p. 10). This may have profound impact on how to organize adult basic education in the future. And, of course the threat of a new great divide between digital literates and digital illiterates (Mok & Leung, 2012) [9] is of major concern also to adult education.

Changing meaning of knowledge and knowledge production and diffusion
Access to the internet with the help of diverse media currently makes knowledge ubiquitously available. The Web 2.0 stands for the creation and exchange of user generated content through Blogs, Wikis, Twitter and other social media. Virtual/networked learning communities may transform practices of adult education. Benkler (2006, in Brennan & Kreiss) argues that ‘peer’ or ‘social’ production can take shape for the first time on a global scale. The rapidly falling costs of the production and distribution of digital information, enables peer production to compete with market mechanisms of producing knowledge and culture. The rise of digital media implies that it costs little to create and disseminate everything from digital movies to political commentary on blogs.

New discourse on education and learning and the role of adult educators
The new technologies strongly impact on the way education and learning are currently conceived of. The presence of digital environments influences the shift in the discourses from education to learning, described by Biesta (2013) [11] as the ‘learnification’ of education. In his view, this process is visible in ‘the tendency to refer to education as “teaching and learning”, to refer to students as “learners” and to adults as “adult learners”, to see teachers as “facilitators of learning” and to conceive of schools as “learning environments” of “places of learning” (…). The shift from “adult education” to “lifelong learning” is another prominent manifestation of the rise of this “new language of learning”’ (Biesta, 2013, p. 62) [11].

Informal learning processes and formal educational systems
New media affect the relationship between informal, non-formal and formal learning/education in many respects. There is an intensified policy to formally recognize self-directed learning experiences in the informal contexts of the internet, but also an increased blurring of the borders between non-formal forms of adult and continuing education and formal educational systems. This is clearly the case for the proliferation of MOOCS (Massive Open Online Courses) provided by universities resulting into (chargeable) certificates. This may also apply to the recent establishment of the Electronic Platform for Adult Learning in Europe (EPALE, 2015) by the European Commission.

New resources: MOOCS and new learning industries
In spite of the fact that the initial enthusiasm for these MOOCS has decreased, the recent dynamics demonstrates an impressive transformation (Schulmeister, 2013) [7]. Two to three years ago, the initiative resulted from a reaction against expensive fees for university courses. Today 16 million students study at the online college Cousera, which delivers a provision across 130 institutes. This process shows, as well as the videos of the Khan Academy that have been downloaded half a billion times from YouTube, that new free provisions presented on the internet reach big numbers of target groups. This development will not be limited to the level of higher education. The immense popularity of the TED-conferences on YouTube demonstrates the power of digital provision that opens new opportunities for marketization, as the commercialization of the TED-books demonstrates. Increasingly new societal models are being experimented, which raises questions about the balance between private and public provision (Weiland, 2015). Simultaneously the digital users are becoming increasingly transparent. Their data and profiles resulting from ‘data mining’ generate automatic learning profiles that are valuable for big IT companies/learning industries and publishers.

Open educational resources (OER) for development purposes
Open Educational Resources are freely accessible documents and media that are used for educational and research goals. The development and promotion of open educational resources is often motivated by a desire to counter the commoditization of knowledge and provide an alternate educational paradigm (OER, 2015). Stimulated by supranational organizations like UNESCO and the OECD, varied materials and resources are made available online. In their case, this provision is primarily directed at developing countries rather than at industrialized countries. The ambition of these initiatives is to facilitate the access to knowledge. Related to this, new questions arise. How will this provision be financed? And is there a danger of a new kind of ‘banking education’ (Freire, 1972), since this
provision could install new vertical relationships between producers and receivers of knowledge and between nations?

**SWAYAM for development purposes**

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

This is done through an indigenous developed IT platform that facilitates hosting of all the courses, taught in classrooms from 9th class till post-graduation to be accessed by anyone, anywhere at any time. All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to the residents in India. More than 1,000 specially chosen faculty and teachers from across the Country have participated in preparing these courses. The courses hosted on SWAYAM are in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology. In order to ensure best quality content are produced and delivered, nine National Coordinators have been appointed: They are AICTE for self-paced and international courses, NPTEL for engineering, UGC for non technical post-graduation education, CEC for under-graduate education, NCERT & NIOS for school education, IGNOU for out of the school students, IIMB for management studies and NITTTR for Teacher Training programme.

Courses delivered through SWAYAM are available free of cost to the learners, however students wanting certifications shall be registered, shall be offered a certificate on successful completion of the course, with a little fee. At the end of each course, there will be an assessment of the student through proctored examination and the marks/grades secured in this exam could be transferred to the academic record of the students. UGC has already issued the UGC (Credit Framework for online learning courses through SWAYAM) Regulation 2016 advising the Universities to identify courses where credits can be transferred on to the academic record of the students for courses done on SWAYAM.

SWAYAM platform is indigenously developed by Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE) with the help of Microsoft and would be ultimately capable of hosting 2000 courses and 80000 hours of learning: covering school, under-graduate, post-graduate, engineering, law and other professional courses.

**Conclusion**

The proponents of technology have not gone far enough. Education cannot change by getting individual instructors to adopt any technology. Individual instructors are frozen by curriculum, work load and regulatory agencies. They must always balance the equation of deeper learning versus time consumed. The rationale for the impact of digital technology on teaching and learning needs to be clear:

1. Will learners work more efficiently, more effectively, more intensively? Will the technology help them to learn for longer, in more depth, more productively? Or will the teacher be able to support learners more efficiently or more effectively?
2. The role of technology in learning should be identified: Will it help learners gain access to learning content, to teachers or to peers? Will the technology itself provide feedback or will it support more effective feedback from others, or better self-management by learners themselves?
3. Technology should support collaboration and effective interaction for learning: The use of computer and digital technologies is usually more productive when it supports collaboration and interaction, particularly collaborative use by learners or when teachers use it to support discussion, interaction and feedback.
4. Teachers and/or learners should be supported in developing their use of digital technology to ensure it improves learning. Training for teachers (and for learners), when it is offered, usually focuses on technology skills in using the equipment. This is not usually sufficient to support teachers and pupils in
getting the best from technology in terms of their learning. On-going professional development and support to evaluate the impact on learning is likely to be required.

5. Identify what learners and teachers will stop doing: The use of digital technology is usually more successful as a supplement rather than as a replacement for usual teaching. Technology is not introduced into a vacuum. It is therefore important to identify carefully what it will replace or how the technology activities will be additional to what learners would normally experience.

To make online education successful in India we need to modify the entire education sector and the mind-set of the employers as it has not gained their favor yet. We are yet to travel miles before we reach the stage where we can proudly say certificates and degrees are just piece of papers for us we value knowledge of the person. Hence to meet the requirements of Indian students we propose hybrid model where there should be a combination of physical presence of the teacher and technology.

References