Web 2.0 Technologies: Disruptive or Liberating for Adult Education?

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Abstract: Adult educators have been reluctant to engage with the latest second generation Internet technologies. New ideas on how these technologies could reform the structure and processes of adult education are examined in relation to Illich's educational vision from the 1970s.

Introduction

Over the past decade Information and Communication Technology (ICT) has changed dramatically. Ten years ago most computers were used to create efficiency in the office, but ICT development has now moved very much into the realm of the home. We used to use technology for writing letters, creating spreadsheets or databases and perhaps emails, but now technology facilitates communication and the sharing of information, documents and images with a multitude of people in a host of new ways. The move away from connecting via dial-up telephony to the Internet, to the widespread availability and use of broadband has been one important factor in this development; the other has been the playfulness and imagination of especially young people when using the technology, which has led to a creative boom and the development of more inventive applications.

Who could have foreseen ten years ago the inception of online places to share photographs, video and music, or social bookmark/information sharing sites, such as del.icio.us? Moreover, the explosion of mobile phone photography, blogs and wikis and their fast distribution and linkage via RSS (Really Simple Syndication) feeds to networks of people in the blogosphere has already had its influence on the traditional media, even disrupted them and pushed their development into new directions (Huffington 2006).

Adult educators have been very reluctant to engage with these technological developments and have more likely than not seen such developments as undermining the traditions of adult education (Martin 2006). Technology has been too widely used by politicians to push for an economic discourse with an agenda of upskilling of the workforce (Blair, 2000; Leitch, 2006) exemplified in a vocationalisation of the curriculum. Moreover, the naïve enthusiasm of learning technologists and the failure of initial high-profile and high-funding e-learning programmes (Bacsich and Bristow 2004) also contributed to a scepticism of what ICT could offer adult education.

The discourses of adult education, such as the social purpose tradition and liberal adult education have been marginalised in favour of one promoting economic competitiveness and globalization in recent years; lifelong learning in a learning society, rather than adult education for social change. Learning opportunities are being created away from institutions, in community centres, the work place, at home. And yes, technology has accelerated this development and the effect of the latest Internet technologies and the possibilities they offer for personalization, community and network forming are seen as drivers for further change in adult education as well (Rudd et al., 2006). This paper will analyse the opportunities and challenges that second generation technologies offer for critically engaging learners, by moving on from opposing technological

development within adult education to closely following and influencing the developments in order to enhance rather than disrupt adult education.

Adult Education and New Technologies

The rise of technology has, apart from its perceived influence on the economic competitiveness of nations, also pressurised society in a different way. It has lead to the increasing bureaucratisation of institutions. Foucault mentioned the stifling influence of technological systems on hospitals, prisons and education, while Illich discussed the restriction on freedom, the 'enclosure of the commons', the increased policing and surveillance of everyday life (Foucault,1977; Illich, 1992, p.51). Owen et al. explored several models of knowledge building in which the new Internet developments could be used to create a more open and less 'stifling' learning environment. They drew on work by Nonaka, Ashby and Bereiter & Scardamalia, to link their findings to the 'crit', which is the 'central feature in the teaching of creative practice in art, design and architecture schools as he could see similarities between the 'crit' and Internet-based learning using the latest technologies. 'It consists of a critical dialogue between peers where work-in-progress is exposed for developmental discussion.' They identify five qualities for the 'crit' to function well:

'Intention/aspiration to create knowledge: a passion which needs encouragement to flourish; autonomy of workers: the students should have freedom to create; fluctuation and creative chaos: there should be few boundaries to the resources and the timescales across which students work (creativity is very difficult to fit into a room with bounded resources and a 50-minute period); redundancy: working on only one idea is counter-productive. Learners should not accept their first idea as the only idea; requisite variety: in this context we might mean sources of inspiration, cultural and physical tools, and sources of knowledge and so on. This implies access to a lot of resources. Thus a good writer's workshop or art and design studio is not limited in thought, or by the walls, and should draw on all the world's knowledge' (Owen et al., 2006, p36).

The community of practice is seen by them as the ideal place to achieve these qualities, as the judgement by a group of trusted people and the place where you can present ideas without fear of rejection are at the heart: 'acquiring knowledge involves an interplay between socially defined knowledge and personal experience which is mediated by membership of a group.' (Owen et al., 2006, p.37). Other educationalists and learning technologists (Arina, 2006; Downes 2006; Siemens 2008) identified how the second wave of Internet technologies (Web 2.0) could be instrumental in moving from a hierarchical teaching approach to a networked approach, which would be wider than a community of practice. Web 2.0 technologies would facilitate the transformation from an educational model that is structured in courses, controlled by the institution using a 'broadcasting' model in an enclosed environment, to becoming a model adaptive to learners' needs, owned by individuals, while using an aggregation model in a personalised open learning environment, and a fluid extension of the wider informal personal space. Communication could be facilitated through the use of social software such as blogs, wikis, while information would be validated by others on the Internet through social bookmarking tools in addition to tutors and experts further a field as members of their network . This resonates with the ideas of Illich, who saw at the heart of the educational revolution in the 1970s the need:

'1. To liberate access to things by abolishing the control which persons and institutions now exercise over their educational values. 2. To liberate the sharing of skills by guaranteeing

freedom to teach or exercise them on request. 3. To liberate the critical and creative resources of people by returning to individual persons the ability to call and hold meetings – an ability now interestingly monopolized by institutions which claim to speak for the people. 4. To liberate the individual from the obligation to shape his expectations to the services offered by any established profession- by providing him with the opportunity to draw on the experience of his peers and to entrust himself to the teacher, guide, adviser or healer of his choice' (Illich, 1971, p.103).

His vision was to see people take ownership of the learning process, rather than institutions controlling their education. In order for agency and participation to return to the learning experience, Illich (1971, p.2) called for 'the possible use of technology to create institutions which serve personal, creative and autonomous interaction and the emergence of values which cannot be substantially controlled by technocrats'. He saw that the alternative to 'scholastic funnels' would be true communication webs. However, moving from an institutionally controlled learning environment towards an Internet based open environment would create several problems and an important question to ask would be if communication facilitated by this type of technology would be effective in knowledge creation? Would communication with global communities of (possibly the same) interest help in knowledge construction? Would it be less contrived than discussion boards that are controlled by the tutor?

Web 2.0 Technology and the Role of the Tutor

The rapid development of technology and exponential growth in the use of the Internet and its Web 2.0 and mobile developments, make new and different structures, educational organisations and settings a possibility. The personal online and face to face networks that people build up throughout their lives would provide expertise and knowledge in addition to the guidance that local tutors would provide. The learner would be at the centre of the learning experience, rather than the tutor and the institution. She would be instrumental in determining the content of the learning in addition to deciding the nature and levels of communication and who would participate.

Developers of e-learning (Siemens,2008) propose that the increasing influence of the Internet and online connectedness of people will have implications for educational practice. The role of the tutor not only changes, but can disappear altogether. People can move from a learning environment controlled by the tutor and the institution, to an environment where they direct their own learning, find their own information and create knowledge by engaging in networks away from the formal setting. They still communicate with others, but their personal interests and preferences, rather than institutional requirements and choices are the main drivers for their engagement with more knowledgeable others in their learning.

The networks in which people communicate can be small or vast, but the main characteristics for networks to support knowledge development would be that they are diverse, open, autonomous and connected (Downes, 2006). There are parallels with how Illich saw his community webs. Online networks also come together as interest groups of autonomous participants, but Illich envisaged his webs in community settings and aimed at bringing local people together, learners and 'people with knowledge'. Networks might be open and facilitate connections, but local culture and values cannot be incorporated very easily as the online networks are global, with diverse participants, each bringing their own ideas and background to the fore. This might stimulate debate, but the local community and its development would be of less importance than the dominant culture on the network. There have also been concerns about the lack of critical engagement online (Norris 2001, Walters and Kop 2008), because of the

temptation of connecting with like-minded people, rather than in more challenging transactions, with experts such as the teacher in a class room, whose role it is to make people aware of alternative points of view. Critical educators such as Freire (Freire and Macedo,1999, p48) thought it to be essential that teachers have a directive role. In this capacity, teachers would enter into a dialogue 'as a process of learning and knowing' with learners, rather than the dialogue being a 'conversation' that would remain at the level of 'the individual's lived experience. 'I engage in dialogue because I recognise the social and not merely the individualistic character of knowing.' He feels that this capacity for critical engagement is not present if educators are reduced to facilitators, which is the role of the tutor that has been widely accepted in e-learning (Salmon, 2004). Moreover, in a connectivist online environment, with an emphasis on informal learning and the possible individual's choice of engaging with experts outside the class room, this critical, localized influence could be lost completely. The lack of critical engagement by a tutor, on top of the diminishing level of control by the institution would also implicate a high level of learner autonomy.

Learner Autonomy and Learner Control

Bouchard (2002) and Dron (2007) both indicate that learner autonomy is not a particular quality or level of independence in learning that people have, but a relational interplay between contextual and personal factors. Adult learners make choices about the level of control imposed by others on their learning and Bouchard (2002, p.6) identified several factors that are significant. He clustered them in four groups, the first one related to motivation, confidence and initiative; the second to control over the learning activity and the third one related to issues of language and communication used in the learning and teaching process. The importance of aspects of economy in learner autonomy was recognized as a fourth category; the choice to learn for personal gain such as for future employment, and the possible cost of other study options. In short, learners will conduct a breakdown of costs and benefits that the particular learning option would bring and make choices accordingly. The choice to study through an institution and tutor, independently, or mediated through technology will mean a different level of control being imposed on the learning process by different actors and on different aspects of the learning itself. Dron (2007) emphasised the fine balance between control by an institution and a tutor on the one hand, and the making of independent choices by the learner on the other. He referred to Knowles, Moore, Boud, Schwartz and Laurillard when he argued that the learning process breaks down if learners have more choice than they can handle, or likewise if the tutor imposes too much control on the learning process. Clearly, an understanding of how people learn is imperative in order to create a good educational experience, and implicit in a sound teaching strategy. This knowledge will allow teachers to relinquish control if and when appropriate and provide learners with additional choices, without them feeling overwhelmed by uncertainty about the new unknown that there is to be learned. It is of course in the nature of new learning to make people feel insecure and uncomfortable, struggling to understand new concepts, with others knowing more, and possibly vast amounts of information available to choose from. The guidance of a more knowledgeable other would help in making choices, be it through direct contact, or mediated through books or technology.

Where does this leave us if we also listen to learning technologists who can see the opportunities that the latest technology offers for more personalized and autonomous learning journeys? Rudd et al (2006) for instance would like educationalists to think outside the box and challenge the assumptions that all expertise and knowledge resides within educational institutions. They also challenge the traditional approaches to teaching and learning, which

evolved over the past two hundred years in educational institutions with the book as main tool for instruction, at a time when the Internet offers quite different and possibly more engaging resources to support the learning process.

A body of research is starting to emerge on the use of information and communication technologies in adult education. These mainly deal with technologically mediated approaches that are still firmly controlled by the institution, for instance communication between tutor and learners on discussion boards in VLEs. Not much research is available yet on informal learning through online networks, and the use of online networks and social software in adult educational practice. A year long study in South Wales is currently being undertaken. Its main aim is to establish if the use of particular technologies on a programme of study could help to move from a model where the teacher is in control, to a more open model where the teacher slowly relinquishes control to the learners, while in the process encouraging the students to venture out more and more on networks on the Internet to find information and to make contact with others to aid their learning. Built into the learning programme are the characteristics of the 'crit'. It is also based on Illich's ideas, of working towards autonomous learning by using online networks with the tutor in the role of a critical participant in the learning process. Consequently, a second aim of the research is to uncover the learner and tutor experiences during this development. The initial findings show that the level of confidence and learner autonomy, in addition to discipline, are of crucial importance to the level of engagement by the learner in a personalized learning environment. The research shows that lack of these in the majority of participants hampered their learning online. Nearly all students preferred the help and support of the local tutor to guide them through resources and activities, and to validate information. They also indicated in a module on 'critical thinking' that more likely than not they would have found out about critical thinking online or through experience, but that without the critical activities and input of the tutor they would not have reached the level and depth of awareness and understanding of the topic that they now have. Even though all participants indicated that they preferred the online mode of study, which is flexible and available at the time and place to suit them and fitting in with their lifestyles better than face to face teaching, they required a lot more nurturing than anticipated. The tutors and project team acknowledged that only a slow process of 'letting go' by the tutor would work in practice. This led to the decision to include a steady increase of more autonomous tasks over the course of the year long programme of study, and a decrease of 'hand-holding' with a continuation of the critical activities to ensure a level of 'higher order thinking' in line with the level of study and relevance to the development of local communities.

Conclusion

Over the past decades technological change has instigated a debate about the future of adult education. A dichotomy has appeared between the position of adult educators and that of learning technologists on the need for and nature of change under the influence of technology. Both parties are unhappy with the bureaucratization of adult education and technologists can see how a more flexible model of adult education can be created to minimise this. The way in which global networks and communities of interest are currently being formed through emerging technologies is encouraging young people in particular to develop new, creative and different forms of communication and knowledge creation outside formal education. Of course the number of adult learners who have been immersed in these technologies all their lives will grow, as the young are more predisposed to use the latest technologies (National Statistics, 2007) and will displace the learners who have grown up with books, pen and paper as resource for learning.

This will undoubtedly cause friction in institutions and class rooms, particularly as adult educators themselves don't always feel comfortable with the new developments as they haven't been shown adequately or explored for themselves how the new and emerging technologies could enhance their working practice. However, if learners' worlds inside and outside education become too disparate, new learners who are familiar with the opportunities for learning on the Internet will be able to find their experts elsewhere. There is a need for adult educators to closely follow and influence the developments and the debates, and seriously research how their institutions can evolve using the emerging technologies to their and their learners' advantage. In doing so, they would ensure that adult education can secure its role of critical engager and at the same time make the best use of technology: in making connections with information and knowledgeable others all over the world to enrich learners lives and the communities in which they live.

References

Arina, T (2006). *Social web in support of e-learning*, EU eLearning 2006 conference, Espoo, Finland, 4-5 July 2006.

Bacsich, P and Bristow, S. (2004). *The E-University Compendium: Volume one*, Higher Education Academy, York.

Blair , T. (2000). *The knowledge economy*, speech UK prime minister, Knowledge 2000 conference, *London*, 7 March 2000.

Bouchard, P. (2002). *Dimensions of learner autonomy in mediated learning environments*, Proceedings International Conference on Information Communication Technology in Education, Samos, Greece, July 17-19, 2002.

Downes, S. (2006). *Learning Networks and Connective Knowledge*, available at http://it.coe.uga.edu/itforum/paper92/paper92.html (accessed 15/3/08).

Dron, J. (2007). *Control and Constraint in E-Learning: Choosing When to Choose*, Idea Group Publishing, Hershey, London, Melbourne, Singapore.

Foucault, M. (1977). *Discipline and Punish: The Birth of the Prison*, Peregrine Press, London.

Illich, I. (1971). *Deschooling society*, Reprinted in 1978 by Marion Boyars, London.

Illich I. (1992). In the Mirror of the Past, Marion Boyars Publishers, New York, London.

Freire, P. & Macedo, D. (1999). *Pedagogy, Culture, Language and Race: a Dialogue*, in Leach, J and Moon, B (Eds) Learners and Pedagogy, PCP in association with Open University, London.

Kop. (2007). *Blogs and Wikis as disruptive technologies: is it time for a new pedagogy?* In Osborne et al (Eds) The Pedagogy of Lifelong Learning : Understanding effective teaching and learning in diverse contexts, Routledge, London and New York.

Leitch. (2006). Review of Skills, Prosperity for all in the global economy-world class skills, UK Stationery office, London.

Martin, I. (2006). *In whose interests? Interrogating the metamorphosis of adult education*, in Antikainen et al (Eds), in From the Margins: Adult Education, Work and Civil Society, Sense Publishers, Rotterdam, The Netherlands.

National Statistics. (2007). *Internet Access 2007, Households and individuals*, N.S. London.

The remainder of references are available upon request.