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E-learning – the McDonaldization of education

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E-learning has become one of the biggest phenomena of educational literature in recent years. Although the potential promise of e-learning is often expected within the process of learning, much of the emphasis is in fact on the electronic issues to facilitate learning, with little regard for its consequences on the learning process. Surprisingly, very few studies explore students request for such technologies, which begs the question – what problem is e-learning trying to address and whose problem is it? This article argues that although we continue to develop sophisticated gadgetry to ‘enhance’ learning, technology can in fact distract the learner by allowing technology to become more intrusive in the educational experience. Consequently, this often erodes the human factor in learning – making the learning process a more isolated experience. This article suggests that academics should become more cautious with their acceptance of facilitating learning through e-learning platforms without fully understanding the impact on students learning experiences. The article offers a critical reflection on an extensive study carried out on students’ (total: 475) experience with e-learning at third level education. This article reflects on the findings and raises concerns regarding the contrast in what e-learning literature promises and what students actually experience.

Keywords: e-learning; mass learning; McDonaldization; learning consequences; asynchronous tools; reflection

1. Introduction

The school has been converted into the most dehumanising institution that I have ever laid eyes upon. (Rice, 1893, 31)

Over the past number of years, we have witnessed the intrusion of technological developments which has continuously eroded the human factor in social life and indeed throughout education. Students have become increasingly reliant and often at the mercy of technology to avail of learning content and to remain ‘connected’ to peers. For example, Google is now considered one of the first resources to solve students’ queries across all domains which discourage students to reason or solve problems or engage in higher-order learning. This is also highlighted as a concern considering the increasing demand for anti-plagiarism software to access student work.

Within an e-learning environment students are supposed to benefit from the ‘death of distance’ afforded through technology, but instead, as the author suggests,

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technology can present a sense of isolation within e-learning environments. What is more surprising, on a global scale, is the prompt uptake of e-learning across academia with little insight or regard as to the medium- to long-term consequences of technology on the learning process and its impact on the educational institution reputation itself. The concept of mass education beckons the question of whether educational institutions now adopt the role of the 'organization,' dangling the concept of 'e-learning' to attract greater student enrolments or whether it can 'truly' justify the means to deliver a quality educational experience. This article sets out to highlight concerns which surround our inability to fully understand the consequences of 'rolling-out' e-learning platforms. This article reflects on an extensive study carried out by Carroll (2011a, 2011b). The fast uptake of e-learning methods to compete with other educational institutions positions educational institutions within an organizational context, rather than an academic one, for several reasons which this article labels, the 'McDonaldization of learning.' In addition, this article offers a discussion on the direction of e-learning and its impact on education or learners expectations within the modern learning environments. This article argues that e-learning practitioners may be losing sight of the fundamental role of education and explores some questions on the role of e-learning in education. Consequently, this article highlights the concerns in the route in which our educational system is taking, and raises fears of the marketization and mass distribution of education in doing so. It also explores the changing role of students in discovering, questioning, and seeking knowledge to that of 'consumers of pre-packed education.'

2. Background

Over the last 30 years, more flexible learning methods have been slowly introduced in place of some traditional educational methods. These methods propose that they can enhance learning in many forms (Garrison and Anderson, 2003). As a result, there is increasing investment, research, and development in new learning methods within Higher Education (HE). These new learning methods include the introduction of relatively new concepts into HE such as e-learning. The phenomenal uptake of e-learning is escalating (Kahiigi et al. 2008; Garrison 2011). HE is now exploiting this substantially to port learning content to the Internet. As a result, e-learning is attracting increasing student numbers within HE as they offer an 'alternative' approach to education outside of the institution. However, Alonso et al. (2005) suggests that HE is facing many uncertainties with the implementation of e-learning. One example where uncertainty lies is in their ability to provide sufficient online support (Carroll 2011a, 2011b). This article highlights that there is little research on the impact of e-learning on learning although there is a growing research effort to examine student's experience.

However, exploring students experience in e-learning places greater attention on the tools and technology rather than the monitoring or understanding the process of learning. Thus, the digitization of learning places some major concerns on the affects the evolution of learning. It probes us to enquire whether we are promoting a technique which warrants further investigation. As the student population partaking in e-learning mediums continues to increase, it is inevitable that the demand for online support will also increase. In addition, understanding the wider impact of learning technologies on learning populations as they engage in a medium which is so widely

adopted requires significant research attention. For example, the growing influence of social media amongst students has a significant impact on users ability to disseminate information, lack 'social' skills, reinvention of identity, the need to promote ones insignificant events through the uploading of photographic evidence, lack of attention to grammar, and the desire to post irrelevant or useless information places some concerns as to the affects of learning through social media – e-learning tools and technologies. A similar concern was highlighted by Carr (2010) when he describes the impact of online activity to user's ability to concentrate on specific pieces of information. This was also highlighted by Postman (1999) as he suggests, 'but one worries, nonetheless, that a generation of young people may become entangled in an academic fashion that will increase their difficulties in solving real problems – indeed, in facing them' (80). However, e-learning promotes the need to remain online, collaborate, and interact online although students continue to draw their social networking habits into the educational environment. Research indicates that asynchronous support is the predominant method of delivering support to students within e-learning environments (Milliron and Prentice 2004; Carroll 2011a). These include, email, weblog, discussion boards, social media (Facebook, Twitter, etc.), and mobile phone text messaging. Synchronous tools also play an increasing role in learning tools such as live lecturers and chat tools. These 'point, click, listen and learn' tools remove many necessary learning tasks which raises some questions regarding the 'modern' digitized logic of education.

3. The purpose of e-learning within education

The essential purpose of education is to bring the pupil face to face with something great, so that he experiences first awe and then curiosity. (Dante)

Through the author's exploration of e-learning tools and technologies (Carroll 2011a, 2011b), this section considers the purpose of education from a pedagogical viewpoint. This offered a different perspective on e-learning rather than solely focusing on the electronic factors presented throughout literature. In addition, this article adopts Postman's (1999) fundamental questions which examine the benefits of technology by reflecting on the need for e-learning. This article suggests that we need to apply Postman's six questions to the e-learning field and examine:

1. **What is the problem to which this technology is the solution?**
 - Are e-learning tools and technologies the educational solution or a means by which to achieve a solution – what is the problem?
2. **Whose problem is it?**
 - Whose or what interests are addresses through the introduction of e-learning within education?
3. **What new problems might be created by solving the original problem?**
 - What are the unforeseen implications and consequences of e-learning and are not trade-offs inevitable? If so, at what cost to the learner, education, and the educational institution?
4. **Who will be most seriously harmed by this new technology?**

- How does e-learning impact on the student, lecturer, and/or the educational institution at large? Who benefits from the explosive growth of e-learning platforms? Do e-learning developments dilute educational standards?
5. **What changes in language are being forced by these new technologies?**
 - How does the introduction on new policy, technology, change in roles and expectations of technology impact the strategic direction of education through a 'change' in language?
 6. **What sort of people and institutions gain special economic and political power from this new technology?**
 - Inevitably, e-learning presents gains (economic and power) within educational institutions, for example, attracting greater student numbers. From an educational perspective, what is the impact of doing so (e.g. supply vs demand in online support)?

Listed above are the main questions which emerged from extensive research on students' e-learning experience which may be tied back to Postman's (1999) examination of technology on society.

4. The role of technology in education

Technology plays an increasing dominant role in porting educational material, both in the deliverance of and search of learning material. Partially, the focus on technology is considered important to allow both lecturer and student keep abreast of technological developments and extend their technical proficiency. In doing so, students can also determine how e-learning can benefit them, i.e. distance and part-time flexible learning can boost their 'career.' However, MacIntyre (2001) cautions that students should not be concerned with what to expect as a result of undertaking an educational programme and how education will economically benefit them. The literature suggests that this is one of the motivational factors in e-learning, with a 'just-in-time,' 'just-in-case,' 'any-where any-time' approach to learning although the technology often acts as a data repository. As students become more interactive and adaptive to e-learning tools and technologies, they have also adopted a more responsive role to student's needs (i.e. peer support). However, the quality of the learning process also becomes questionable in the social-network learning environment. Moreover, Ally (2004), states that there are some overlaps of concepts between three theories, when applied to an e-learning environment; behaviourism, cognitivism and constructivism, if analysed closely. He explains that the design of online materials should include principles from all three, and that the three schools of thought can be used for developing taxonomy of learning. According to Ally (2004), behaviourists' strategies can be used to teach the 'what' (facts). Cognitive strategies can be used to teach the 'how' (processes and principles). Constructivist strategies can be used to teach the 'why' (higher level thinking that promotes personal meaning). This is a more holistic attempt to integrate learning theories and understand the student learning environment.

5. E-learning and the cause for concern

E-learning is a relatively new phenomenon within the HE, although Bixler and Spotts (1998) and Carroll (2011a) caution that the underlying pedagogical principles have not

been successfully implemented within the electronic environment. The pedagogical principles applied within a traditional classroom environment are extended within an e-learning environment, although technology has a significant influence on pedagogical principles. The rapid development of new learning technologies and tools has paved the way for e-learning (for example, Internet availability, Web 2.0 collaborative tools, and digital multimedia). Teare (1998) argues that it is generally accepted that the dawning of the 'information age' resulted from the phenomenon growth of personal computer access and ownership during the 1990's. The growth in personal computer access and Internet access has propelled the growth to e-learning which has become a global phenomenon. E-learning continues to experience the resurgence of traditional educational methodologies, as learners take more personal responsibility and control for their own learning needs within the 'modern' educational environment. One prominent theoretical framework to consider elements of this environment is the Community of Inquiry (CI) model established by Garrison and Anderson (2003). The CI model encapsulates the critical factors within a learning environment; social, cognitive and teaching presence (see Figure 1).

As depicted in Figure 1, the student's learning experience is central to the sense of a community of inquiry, yet the focus is on experience rather than the actual process of learning and tends to adopt a need to facilitate the inquiry but rather 'encourage' inquiry through a community (or a collaborative) effort. It is acknowledged that effective learning depends upon the appropriate balance and interaction of all three factors (social, cognitive, and teaching presence). However, there tends to be greater emphasis on social constructivism and a community effort towards learning rather than the raw desire to acquire knowledge on a personal, directed, and individualized basis. It is proposed that this will promote higher-order thinking. Hence, the core problem with this is the acceptability that learners share common or categorized

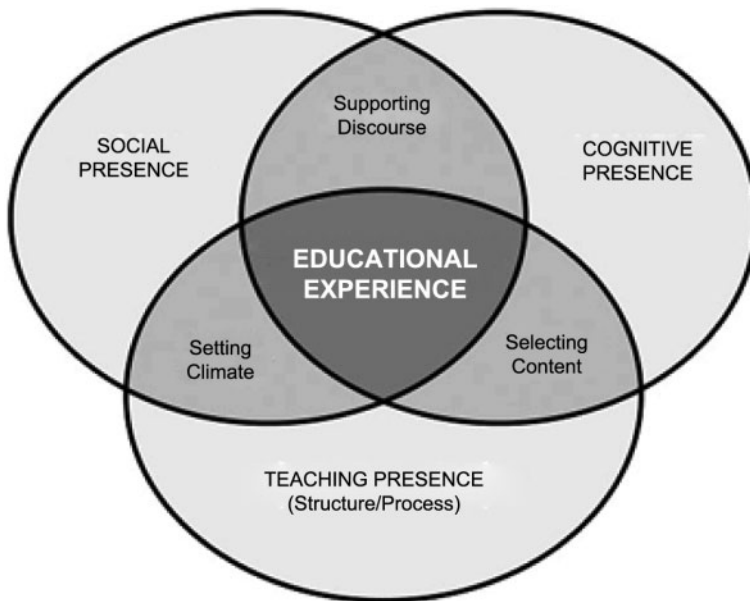


Figure 1. Community of inquiry (Garrison and Anderson 2003).

learning styles ('one size fits all') and we can market education to meet learners consuming needs – i.e. the McDonaldization of education.

The importance of endorsing the evolution of e-learning is reflected through the continued investment in e-learning projects, the increase in e-learning research, publications, and conferences. These developments support the development of e-learning and the exploration of technologies for learning. There was a significant shift around a decade ago, mainly due a number of national and international initiatives and policy drivers. For example, the EU Lisbon European Councils and the Memorandum of Life Long Learning, was brought forward as part of the Lisbon Agenda (*Education and Training 2010 – Diverse Systems, Shared Goals, and Higher Education in the Lisbon Strategy*). In addition, the EU continues to invest in e-learning projects. More information is available through the Education, Audio-visual and Culture Executive Agency (EACEA) on the vast amount of e-learning project developments and proposals. Back in 2005, Bourke of the European e-Learning Industry Group identified e-learning as one of the mechanisms to help Europe become the:

...most *competitive* and dynamic knowledge-driven *economy* in the world, capable of sustainable *economic growth* with more and better *jobs* and greater social cohesion. In a few years time we will have *created a huge database on which most European schools* will be registered, greatly helping us to develop joint *projects* on any theme, in any area of knowledge.

Here one can see the emphasis on education being to attain a job, rather than to better oneself through the acquisition of knowledge through a uniformed approach to e-learning. The image one is presented with is that e-learning acts as a conveyor belt within education moving student through a system, especially third level education. This suggests that HE can now mass assemble learning modules and port them through the medium of the Internet to attract greater student numbers. Moreover, students may graduate from 'anywhere, at anytime' through the affordance of 'learning' tools and technologies. Learning technologies and tools have supposedly undergone many evolutionary changes over recent years (Maeroff 2003; Garrison 2011). According to Monari (2005), e-learning platforms allow students to interact with each other in a synchronous and asynchronous ways, and can therefore constitute as a good method to support collaborative learning activities. The evolution of e-learning is supported by the development of what are considered innovative tools, technologies, e-learning initiatives and policy developments to guide the continued growth of e-learning. The growth in e-learning was complemented by two significant technological developments – the Internet and multimedia developments. Through the integration of both, this brought about the development of hypermedia (Rogerson-Revell 2007). However, there is no evidence to suggest that the tools and technologies are used to their capabilities (Carroll 2011b).

According to Nichols (2003) the selection of educational approaches or philosophies are more important than the selection of the technology itself. However, e-learning is not very advanced and it supports a 'one size fits all' approach, regardless of what most of the literature promises. The poor implementation of technology can reflect poorly implemented pedagogy, or an over-estimation in the learning technology's potential. This is evident throughout the literature, with reports of the unfulfilled

promise of technology in learning as highlighted previously (for example, Kock et al. 2002; Valentine 2002; Jenkins 2004; Carroll 2011a). According to Åkerlind (2007), self-directed learning is emerging as an important conceptual model towards understanding issues raised by technology and has the potential to transfer increased control to the students. This may suggest a shift in responsibility for learning/teaching without any 'real' evidence to suggest that this enhances the learning process. This begs the question, 'are we merely experimenting with learning tools and technologies for learning, and at what cost to the participant learners?' This leads from the view of learning 'consumption' towards education 'production', or what this article labels as the *McDonaldization of education*.

6. McDonaldization of education

As the promise and sophistication of e-learning is unrealized, one is reminded of Ritzer's (1993) view of society as the 'McDonaldization of Society.' He presents an interesting argument to support the notion that society adopting a McDonalds organizational (fast-food) approach across several sectors in society in which the fundamental principles may be applied to many factors in social life. The evidence suggest that people have become less able or paralysed in the paradox of choice as services, products, and processes become increasingly more 'packaged' or 'bundled' in more opportune forms. In a learning context, this often removes the necessity to research alternative options or in the case of e-learning, to question the material being presented as they are 'packaged' in learning modules and ported across the Web. Of course the pro-McDonaldization argument will be defended by the call for greater 'efficiency', i.e. to target higher number of students without the need for greater resources (e-learning data repository) and facilitating many busy lifestyles through the accommodating nature of e-learning. In addition, calculability is considered an important factor of 'McDonaldization' where we may attempt to measure learning or the 'production of graduates' and figure out ways to restructure (cut resources/expense) to deliver a more 'lean' educational practice or a 'virtual practice.' In addition, quality practices is now borrowed from organizational environments and applied to educational practice. Another factor which is interesting in a world which promotes the need for greater innovation, individuality, talent, and leadership – that is, uniformity. This is evident as we look at the concept of e-learning and the deliverance of e-learning packaged programmes. E-learning has become a relatively standardized platform as it is obvious that there is a rather mundane learning-support-collaborate-feedback model in place for all e-learning platforms. For example, Moodle is one of the most widely adopted platforms in e-learning and provides a sense of uniformity and predictability for learning. Students are often guided on what to learn and when to learn while technology (e-learning) often restricts students from divulging in additional learning activities. Moreover, Ritzer (1993) draws our attention to technological innovation which often results in:

...increased control and the replacement of human with non-human technology. In fact, the replacement of human with non-human technology is very often motivated by a desire for greater control, which of course is motivated by the need for profit-maximisation. The great sources of uncertainty and unpredictability in any rationalising

system are people...McDonaldisation involves the search for the means to exert increasing control over both employees and customers. (1993, 100)

This brings us to the notion of automated controls and assessing 'learning behaviour.' Online assessments often test students progress in an automated manner, removing the human element from the learning process and incorporates the need to 'Google it' to support students inquiry.

6.1. McDonaldization of pedagogy

One may notice that the factors discussed in the previous section, efficiency, calculability and automated controls root from the *business* or *organizational management* domain. They are often used to describe the management of e-learning – modern learning, and in doing so, it has received much interest, research, investment, and so on, without being fully aware of the consequences of this evolutionary learning change. For example, the social factor of face-to-face discussion and debate appears to becoming less important or the need to become more creative or individual in a world that craves more creativity. Other factors include; the displacement of a criteria of justification by a criteria of performance or effectiveness (performativity); the divorce of knowledge from the personal qualities nurtured by learning; the commercialization of knowledge as a specialist and power-related commodity. Thus, one of the greatest fears here is that as the world becomes more connected through technology and social media, the more disconnected society seems to become and the more inadequate e-learning education becomes as a pedagogy environment. Pedagogy not only struggles to hold open a space for non-instrumental thinking that might otherwise be filled with the concerns of economics, science and technology, but is also attuned to the fact that this involves a new approach to the student's own conception of self (O'Byrne, 2005) and education. Although the learning process is considered complex, nowadays educationalists are increasingly concerned with the importance placed on technology within the field of e-learning rather than the learning or social aspects in the acquisition of knowledge as they continue to embrace digitized formats of learning. Here one may begin to appreciate an understanding of how the social-Darwinism meta-narrative enables the metaphorical description (i.e. survival of the fittest) may predispose students to become survival of the 'clickers' (point and clicks) within an e-learning environment. This produces what Young (1990) has described as the 'crisis of modernity' and, concurrently, the 'crisis of education.' Flexibility, adaptability, competitiveness and so on are presented as the argument to support e-learning developments. Thus, it almost becomes a 'trait' which affords the individual, the educational institution and the social system as a whole the ability to respond and adapt to unpredictable changes within the environment, in particular the demands of the globalized economy or 'flattened' world (Friedman, 2006). These attributes then are required or promoted for survival. Within educational policy the common narrative logic is this social-Darwinistic metaphor which emphasizes that without flexibility, adaptability, and competitive instincts and so on, institutions and individuals will not be able to respond to the uncertain future environment. Having adopted such a business-orientated view, it reinforces our concerns for the evolution of the McDonaldization of education. To further explore this concept, the next section presents a brief background and discusses some of the main findings of the research

which examines students learning experiences in an e-learning environment (Carroll 2011a, 2011b).

6.2. *E-learning study*

A recent piece of research produced some interesting themes which cause some concern as we continue to focus on technology in e-learning literature rather than the process of learning (Carroll 2011a). The study comprised 475 students who were surveyed on their participation within e-learning courses at third level institutes across Ireland. The main findings include:

1. The rising tide in expectations of students and lecturers
2. The need to introduce increased social support factors for student engagement
3. Lack of encouragement for students to publish quality learner content
4. Variance in students IT skills
5. 24/7 demand of online support
6. Mobility of online support
7. Accessibility of online content

The findings of this research indicate that e-learning is not as sophisticated as one might expect considering the significant impact it has on education, the process of learning and the educational institution (Carroll 2011a). This is further discussed in the following sub-sections.

6.2.1. *Experimenting with e-learning*

The findings do not suggest that innovative uses or best practices of technologies are in place within the third level institutions. The findings indicate that although e-learning is considered the most prominent method to extend the reach of education, it under-exploits the opportunities afforded by the technologies. This begs the question – ‘why do we continue to embrace e-learning as it ‘evolves’ although it is clear that we must get the fundamental principles of e-learning correct first?’ At present, the third level institutions appear to be ‘experimenting’ with learning tools possibilities. The findings report that communication and interactivity are minimal, with little effort from students to participate in group learning tasks.

6.2.2. *Need for face-to-face contact*

E-learning platforms within the study appear to act as data repositories which allow students to log-on and view course content. This is supported by the significant finding which suggests that online learning needs to be augmented by face-to-face communication. This has a major impact on students learning experience, giving them a feeling of isolation, or ‘online silence’ if they cannot meet the lecturer face-to-face. The students responses indicate that many of the promised learning functionalities and features documented throughout the literature are not as sophisticated as one would anticipate within HE.

Technically, email could replace the VLE, considering it is used for the majority of students learning activities and to distribute material. Lecturers appear to make

very little use of discussion boards and weblogs. Email could replace VLEs to deliver learning content and to facilitate communication activities through attachments and group email lists. E-learning content may be delivered to students on a prescheduled basis, which could allow students to focus on one tool and thoroughly exploit its functionalities.

6.2.3. *Marketing e-learning*

The marketing campaigns within HE attract e-learning students, incorporates terms such as good accessibility of the course content, innovative usage of multimedia, and its capability of meeting the increasing demands for education in a more flexible manner, were initially very much rehashed across all colleges. This made e-learning appear to be very attractive as a method of learning, thus explaining its explosive growth and interest in recent years and in a state of constant change.

6.2.4. *Course content management*

Lecturers need to gain experience in exploiting VLEs, i.e. course content management, multimedia, interaction online, and project a stronger sense of leadership to enhance student motivation and student engagement. Mature students appear to be the most vulnerable group as they feel that their additional needs are neglected in relation to additional technical support. One of the problems recurring throughout the findings is possibly the emphasis on the technologies themselves, and not on learning styles. Students are adopting a more supportive role within an e-learning environment and the use of mobile phones emerged as an effective tool to provide students with support. This suggests that students are seeking alternative tools to communicate with peers and possibly lecturers.

6.2.5. *E-learning development lifecycle*

HE must begin to incorporate students into the VLE development life cycle, determine what their needs are, and attempt to exploit supportive tools to enhance their learning experience. They must temporarily divert some of their attention from discovering what technologies exist, and towards evaluating methods to meet student's needs. Lecturers need to determine students' learning needs and discover what technologies exist to meet those needs more effectively and efficiently.

6.2.6. *Students adopt new role*

The findings support that currently students do 'assume greater control' of monitoring and managing the cognitive and contextual aspects of their learning. The significance of this research emphasizes the need for e-learning developers and lecturers to take more responsibility in providing structure and guidance which encourages and supports students on a three main areas: educational, social, and technological. This supports Sims, Dobbs, and Hand (2002) argument that uses understandings of the technologies determines the effectiveness of e-learning. Although it is desirable and often encouraged that students take greater control of their learning, support should be provided to reduce student learning frustrations in a new learning environment. The

results also indicate that there is a significant lack of a social environment within e-learning. The research findings suggest that lecturers should introduce more innovative methods to introduce student to the concept of e-learning and explore interactive methods to deliver e-learning modules. This is necessary for the following reasons:

1. To compensate for the scarce resources of lecturers time.
2. To provide sufficient support and meet students learning requirements.
3. To promote a 'just-in-time,' rather than a 'just-in-case' learning environment which overburdens students with learning content.
4. To promote group learning and social learning activities.
5. To encourage students to exploit tools within an e-learning environment and enhance their learning experience.

Many of the learning theories, styles, and practices reported throughout the literature are not as apparent as one would expect within an e-learning environment (Carroll 2011a). Clarke (2003) reports e-learning attempts to extend educational sources in ways that other traditional teaching methods cannot equal.

6.2.7. *E-Learning reinvention and innovation*

The findings suggest that lecturers are reliant on traditional methods to extend educational resources via electronic sources. This suggests that lecturers need to change their mindsets and adapt methods towards a more socially interactive community of learners. E-learning platforms appear to act as data repositories which do not cater for individual learning styles, nor does it effectively meet students' supportive demands. For example, students state that face-to-face contact with a lecturer is necessary to succeed in the e-learning course. This is a significant finding as it suggests that online learning needs to be augmented by face-to-face communication. It also highlights the inability of e-learning technologies to sustain interaction between student and lecturer. Another significant finding includes the method in which student's access learning content. The findings suggest that lecturers remain heavily dependent on textbooks (53% of course content) which indicate the under-exploitation of innovative technologies and methods to deliver content (Carroll 2011a, 2011b).

7. Research questions – present and future

Taking these findings into consideration (Carroll 2011a, 2011b), while addressing Postman's (1999) questions, one can briefly examine the implications of e-learning on education. These questions should also be the basis for future research developments:

1. **What is the problem to which this technology is the solution?**
 - One of the main problems appears to be students' expectations for greater accessibility and flexibility. As HE make e-learning more available, students are presented with more options on methods to avail of educational qualifications. Perhaps there is no 'real' problem to which e-learning addresses, but instead is considered an 'option' for students to pursue.

2. **Whose problem is it?**
 - Although not considered a problem per se, the obstacle may be the educational institutions inability to accommodate growing student population numbers and therefore consider e-learning as a more 'flexible learning' option.
3. **What new problems might be created by solving the original problem?**
 - This is an interesting question and research indicates that it warrants further investigation in the field of e-learning. From this research initial findings, there appears to be unforeseen implications and consequences of e-learning especially in relation to student online support which suggests that some trade-offs are inevitable. If so, at what is the cost to the learner, education, the intuition? In addition, this places some concerns over educational quality from a learning process perspective, for example, peer support is often encouraged in an e-learning environment.
4. **Which people and what institutions will be most seriously harmed by this new technology?**
 - Again, this question remains to be fully explored in e-learning. There are some indications from this research that the student is most at risk from technological inadequacies. As a result, this has significant consequences on the institutions reputation which facilitates e-learning programmes without fully understanding the impact on the learning process which impact educational standards. The question remains, who really benefits from e-learning technology – the e-learner or the e-teacher?
5. **What changes in language are being forced by these new technologies?**
 - With the introduction e-learning, new policy, technological developments, change in roles (student, lecturer, institution), and strategic direction of education must be supported through a 'change' in language. This is also the case in the marketization of education through a prospective student audience.
6. **What sort of people and institutions gain special economic and political power from this new technology?**
 - From an economic viewpoint, it appears that e-learning is a significant source of revenue for educational institutions as they recruit greater numbers of students without additional resource and overhead expenses. In addition, considering the continued growth in e-learning, developers are expected to gain economic benefits. Political power gains is an interesting area for consideration, for example, what, if any, are the political gains for the increase in research expenditure on e-learning, although the focus is predominately on the 'electronic' rather than the 'learning' developments.

The questions above will be further addressed to build on this initial research which acts as a platform upon which the research community can explore. The next section concludes by offering a discussion on some of the main concerns of this research and expresses concern for what has been described as the McDonaldization of e-learning.

8. Conclusion

Students' representatives must become more involved in the system development of online learning and support techniques. From a student supportive perspective,

collaborative peer learning activities should be encouraged or enforced. A system may be implemented where students are awarded with additional marks for contributing to other students queries. The findings from Carroll (2011a) study conclusively indicates that the current state of online support within the colleges is unsatisfactory, and in need of significant attention, redevelopment, or reinvention. It has also identifies the need to introduce methods to enhance the availability of innovative and mobile online support.

On a final note, it is evident that the concept of '*McDonaldization*' of education is facilitated through e-learning. There is little evidence to indicate that e-learning improves education in any way except for the 'logistics' or distribution of educational material to a wider student population. There is some concern here as we continue to encourage the evolution of e-learning and we are witness to the change in student behaviour towards connectivism within a virtual world and less reliant to partake in face-to-face debate and discussion. Although e-learning practitioners can exploit the availability of web of knowledge resources and innovative technological developments which emphasizes that e-learning may in fact be the McDonaldization of education, this article conclude by citing Dante; 'the essential purpose of education is to bring the pupil face to face with something great, so that he experiences first awe and then curiosity.' Does e-learning achieve this? Perhaps this should be the focus of 'modern' education, and not technology. This article provides some necessary neutrality in the debate regarding our seemingly acceptance that technology improves the learning process. It also raises some concerns regarding the nature of knowledge being 'out there' rather than 'within' which is problematic for the social constructivist and cultural view of learning. E-learning lacks holisticity and endorses a modernist dichotomy of mind and body within a virtual environment. This article encourages the need for additional debate on the social epistemology of e-learning which is more about pragmatics rather than truth and raises some concerns as how should education respond. In an e-learning world, there may be additional concerns regarding knowledge as truth being less important as locating it quickly. While social media continues to play a role in e-learning and may have innovative roles to engage students in the future, we must be cautious. We need to promote improved methods of higher-order learning rather than being fixated on the promise of technology to engage students. E-learning is after all concerned with learning and not e-teaching

Notes on contributor

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