ONLINE EDUCATION AND THE DEATH OF THE TRANSIENT DELIVERY MODE

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ABSTRACT

This paper addresses the need for educators to re-conceptualize the way we teach in an online environment. The call for this stems from a need to recognize the heterogeneous nature of the learners we engage. The online educator faces not just the challenge of meeting the needs of a multi-cultural audience and increasingly an audience of differing ages but further a group of students who are geographically and temporally diverse.

This paper will argue that online learning is both challenged by and uniquely capable of meeting the needs of this heterogeneous learning community, but not if it is simply conceptualized as a repackaging of traditional pedagogic modes of delivery in order that they operate in a virtual environment.

High initial production costs require the development of an enduring educational architecture which calls for the online educator to be both creative and aware of the unique needs of this new heterogeneous community and to develop materials that are tailored specifically to these learners.

The material needs not only to cater to learners who display each of Gardner's (1983) multiple intelligences, but must also be able to adapt to the geographic and temporal differences that obtain in each learner's physical environment.

Keywords: Pedagogical Paradigms, Multiple Intelligences, Online Educator, Heterogeneous Learners, Educational Architecture, Narrative Style, Challenges, Communicative Potential, Decision Management Methodology, Epistemic Respect, Fallibility, Emancipatory Education, Positive Freedom, Negative Freedom, Social Enquiry.

INTRODUCTION

This paper addresses the need for educators to re-conceptualize the way they teach in an online environment. The online educator faces not just the challenge of meeting the needs of a multicultural audience and increasingly an audience of differing ages but further a group of students who are geographically and temporally diverse.

The argument here is that online learning is both challenged by and uniquely capable of meeting the needs of this heterogeneous learning community, but not if it is simply conceptualized as a repackaging of traditional pedagogic modes of delivery in order that they operate in a virtual environment.

Wild et al (1994) maintained that in the creation of online learning materials there is a tendency to take the narrative style of lecturing and simply to recreate it online. They explain that many of the ways of providing information traditionally (for example books, videos and lectures) are narrative in construction: the information is structured in a linear form and tends to be "book-like". They argue that information thus constructed provides limited space for learner engagement and interactivity is all too often added sporadically without adequate thought to its integration within the overall instructional design. Further they explain that a book or a lecturer is in fact better at transmitting knowledge in this manner than online material. Students, they argue, due to prior experience with the medium understand the way a book is structured. The visual cues, such as the shapes of words on a page, or headings, as well as formal the mechanisms for example the contents and bibliography, allow the reader to easily find information. Some of these functions can be programmed into online unit materials but they believe these materials are not as intuitive or useable in the online

medium as they are in a book. Further, because of the immediacy of the interaction a lecture delivery within a traditional format is often better than linear or narrative forms of online materials as they can provide discussion and appropriate feedback, as well as opportunities for adaptation and reflection.

Pedagogic design principles are not the only challenge confronting online educators. When developing online learning materials as indicated above we need to recognize the heterogeneous nature of the learners we engage. This heterogeneous community exists in part because of the opportunities that online learning opens for the tertiary learner, as Moran and Greville explain, that there is growing evidence that distance education methods are becoming a primary model for delivery that helps counteract the personal and financial costs for adults of studying away from home or the workplace (especially for lengthy periods overseas). Distance education is also making feasible access to highly specific training that would otherwise be impossible, either because the expertise does not reside in the local area, or because the demand within a country is too small to warrant mounting an expensive programme, or because the workers simply cannot leave their jobs to take up study. (Moran and Greville 2004, p15).

Both these challenges present the online educator with the question of how best to conceptualise and structure the learning materials. High initial production costs require the development of an enduring educational architecture which calls for the online educator to be both creative and aware of the unique needs of this new heterogeneous community and to develop materials that are tailored specifically to these learners.

One of the problem of online education is that it is often used as a rote learning drill. The learner is required to engage in a linear pedagogic experience with "interaction" in the form of "test your knowledge" style activities located most often at the end of a module. These are usually intended to serve as a private testing regime through drill in order to embed routine skills. Whilst this has the obvious advantage of removing public evaluation stress it remains at the lower end of cognition.

Dominique Sluijsmans and Rob Martens quoted in Jeroen (2003) argues that assessment is the weak link in e-learning systems. E-learning designers have relied predominantly on tools that are directed at the construction of test items. The disadvantage of such items is that they tend to focus on the measurement of low-level retention of isolated facts, rather than on the application of knowledge to solve ill-structured problems.(Dominique Sluijsmans and Rob Martens quoted in Jeroen 2003, p.39).

Taylor & Maor (2000) believe that for many online educators material is developed because it is technically possible not because it offers anything that is of value or provides the solution to a particular problem. They are concerned therefore that too much material has been developed because it is possible to do so and too little attention has been paid to producing educationally sound material which takes account of the unique new capabilities offered by online delivery. In part, Taylor & Maor argue that the reason for this is that it is extremely difficult to break from old pedagogical paradigms.

One method of achieving the breakdown of existing pedagogic paradigms is to utilise the communicative potential embedded within the online context. To this end Karabenick (1994) argues that class discussion, compared to lectures, increases motivation and facilitates critical thinking. Discussions afford students the opportunity to evaluate their comprehension of course content and apply concepts. Even instructors of large classes are urged to encourage student comments and questions. (Karabenick 1994, p. 189).

Another requirement would be to adapt to the geographic and temporal differences that obtain in each learner's physical environment. Morrison (2003) believes that Internet-based learning experiences hold revolutionary potential the chance to provide global audiences with critical information and skills, to open the myriad pathways that reach experts and tap their knowledge, simulate experience and allow collaboration in ways never before imagined. E-learning has the potential to be the engine that harnesses the combined power of classrooms, chat

rooms, video games, knowledge management, XML, artificial intelligence, the world's largest resource library and what some are calling the new semantic Web. (Morrison 2003, p 41)

It is not just the pedagogic paradigms or the geographic differences in the online learning environment that must be taken into account but the social and temporal differences that impact on the delivery of online materials. Moran and Rumble (2004) argue that the state of flux in the nature of an individual's employment in contemporary societies leads to the reality that the "half life" of knowledge and skills is extremely short. They argue that this impetus calls for a strategic approach to life long learning. Vince (2004) maintains that learning is always situated in social power relations, cultural practices, contexts and artefacts. That is to say learning is situated within the social realm and exists in the liminal interface between teacher and learner. Piskurich (2004) explains an edge is a linear surface where something begins (or ends). For e-learning it is that fragile interface between the e-learning and the e-learner.

Vince, moreover, maintains learning occurs in 'here and now' experience within learning groups or 'learning spaces' that have been deliberately created to entertain the possibilities of learning. Jochems, Merriënboer and Koper (2003) also stress the collaborative construction of knowledge through active learning and they emphasise the importance of higher-order skills such as problem solving, learning strategies and self-regulation. They argue, further, that e-learning is characterized by its independence of place and time, its integrated presentation and communication facilities, and its opportunities for the reuse of instructional materials in the form of learning objects.

Schutz as quoted in Brown, Weinstein and McKeachie (1994) raises a point that needs to be addressed. The relationship between cognition and motivation is a issue that is receiving increased attention in both education and psychology knowledge of learning strategies does not necessarily lead to better academic performance; students must also develop the motivation to use those strategies. Therefore, if we are going to understand and be

able to facilitate the self-directed behavior that is needed to reach academic as well as other life goals, we must understand the combined influences of motivation and cognition on those processes. (Brown, Weinstein and McKeachie 1994, p 113)

The proposition presented here is that we must reposition online learning higher on the cognitive curve and to this end a decision management methodology offers a rich palette of cognitive (pedagogically enhancing) possibilities. Such a methodology operating through elaborate case studies that present challenges at the strategic resource allocation level and which restructure cognitive levels in the participant, allows the possibility for an intellectual platform where multi-attribute decision making skills can be honed within an architecture of enabling procedures. These procedures assist in developing and familiarising in e-learners their higher level intelligences.

Sternberg (1985) and Gardner (1983) have developed a theory of intelligence that departs from the standard view of intelligence as a single immutable factor and argued instead that what we assumed was one single intelligence was in fact a multitude of different intelligences that exist in different quantities in each learner. Sternberg (1985) views intelligence as a singular construct composed of multiple sub-theories or components, while Gardner (1983, p60) claims that human intellectual competence entails a set of problem solving skills which enable the individual to resolve genuine problems that he or she encounters and to create when appropriate an effective product that also entails the potential for finding or creating new problems and thereby laying the groundwork for the acquisition of new knowledge.

Goleman (1997) explains that Gardner's theory of multiple intelligences does not include emotional intelligence as such, the intelligences he described as inter-personal intelligence (the capacity to recognise the intention of others) and intra-personal intelligence (the ability to understand one's own feelings and motivations) appear according to Perry and Ball, (2005) to display some commonality with emotional intelligence. Nardi goes further to explain that Goleman's concept of emotional

intelligence and Gardner's multiple intelligences are different but compatible theories (Nardi, 2001, p.122). He posits that emotional intelligence includes inter-personal and intra-personal intelligence.

Whilst these theories have more value than the singular construct referred to above they are, nevertheless, not expansive enough to cover the intelligences that need to be developed in tertiary and post tertiary education. For, as VanderStoep and Seifert as quoted in Brown, Weinstein and McKeachie (1994) argue The essence of a critical thinker is not simply the acquisition of knowledge, but the application of knowledge across time and circumstance. Many studies have shown that students often have difficulty abstracting a principle from examples, encoding information into flexible memory representations, and accessing the appropriate principle in new problem contexts. How can we help learners maximize potential use of what they have learned? (Brown, Weinstein and McKeachie 1994, p 27)

In order to fully meet the educational needs of learners we should not be restricted to standard models of intelligence but we should be prepared to explore the introduction of critical intelligences, moral intelligences, empathetic intelligences communicative intelligences and decision management intelligences. The content of learning materials becomes less important in the tertiary and post tertiary environment for as VanderStoep and Seifert (1994) explain many cognitive skills are domain-general and can therefore be applied in many different contexts.

The suggestion here is that routinised rote learning and the private acquisition of intellectual medium-level skills must be enhanced if online learning is to deliver on its earlier potential. Such enhancement would at least involve the learner in an intellectual developmental process which allows him/her to achieve a socialised form of rationality, where group work drives the progressive mastery of the higher level generic skills within the enabling cognitive environment of advanced online learning. Deploying a decision management methodology, this paper argues, meets the criteria for such progressive mastery and will be outlined below. What this paper stresses is that an environment that informs and conditions the best tertiary performance may involve a virtual world reconstruction of social/intellectual intercourse between avatars which transcends the temporal, gendered, spatially discreet limitations of an internationalised community of learners. This is one way to accommodate the requirement that online learning address a heterogeneous community of learners at the highest cognitive level.

In order to achieve this, this paper draws on the work of de Reuck *et al* (2000) and their theories in relation to the essential role that moral theory has to perform in any adequate decision management methodology. De Reuck *et al*, in formulating a Group Decision Assurance Methodology (GDAM), offer an analysis of modes of decision making that optimizes the interaction of all the parties in an essentially Habermasian mode of inquiry that, though it has several facets, ultimately allows for the 'force of the better argument' to take precedence, while acknowledging that under conditions of risk and uncertainty convergence of opinion is highly unlikely. Hence they postulate a majority vote mechanism in order to reach decisions while allowing those members of the decision team with reservations to constitute a Humean 'Cabinet of Dissenters'. These latter play an essential role in driving the proceedings toward the better argument as well as providing the pool of candidates who would constitute the majority in any subsequent monitoring of the relevant Key Performance Indicators that function as an audit control of the commitments undertaken.

There is a clear need for such a re-conceptualisation of the roles of both teacher and learner in any online education program that has as its goal the development of the highest cognitive intelligences as outlined above. As Biggs and Moore (1993) explain, The teacher interacts with the learner in line with the assumption that learning involves active construction of meaning by the student and is not something that is imparted by the teacher. (Biggs and Moore 1993, p. 25).

In order to achieve the above what is required is epistemic respect and an acknowledgement of fallibility on the part of all participants in the learning interaction. To hold someone in epistemic respect allows them to maximize

their creativity and knowledge acquisition. Epistemic respect need be distinguished from human respect insofar as it acknowledges the potential cognitive value of individuals' creativity and intelligence, while reciprocally affirming the epistemically respectful subject's acknowledgement of his/her fallibility. Thus, the fundamental role of epistemic respect is to minimize the emergence of dogmatic patterns of thought and control.

The same processes of epistemic leadership (De Reuck, *et al* 2008, pp 2-13) with their focus on facilitation and the development of strategic approaches to the enhancement of positive freedom provide the on-line course designer with the architecture that would facilitate the potential for on-line learning to function as an educational technology, capable of delivering high level cognitive skills of the kind described above by the community of e-learners.

This communicative rationality requires that people moved out of the heteronomous field of behaviour into autonomous fields of predicated human endeavour. Thus the possibility of human emancipation must be explained to reintroduce a critical communicative framework where, ideally, the concept of positive freedom can find genuine application.

At this point it is necessary to explore the concept of emancipation if it is our intention to create through our online endeavor an emancipatory education. Isaiah Berlin (1958) advances two types of freedom: 'Freedom from' and 'freedom for'. 'Freedom from' is a negative freedom as it defines itself by what it denies (i.e. freedom from prejudice, freedom from oppression etc) 'Freedom for' on the other hand relates to positive freedom the freedom to be that which you desire to be (i.e. freedom to select your role in society or your purpose for existence).

One solution to the dilemma of the question of morality development is to develop a system that ensures a substantive set of negative freedoms (freedom from oppression etc) on the one hand and a *procedural* set of positive freedoms on the other aimed at maximizing the cognitive quality of the e-learning community's decision outcomes.

It is to this end that this paper argues for a need for online learning to function autonomously rather than heteronomously. In order for online education to develop the higher cognitive skills in its e-learners, a commitment must be taken to autonomy: a requirement for the positive conception of freedom to flourish among e-learners. The recognition that social rationality - as embodied in group learning makes available dimensions of intelligence (toleration, fallibility, engagement, diversity management, moral negotiation and so on) unavailable when rationality is conceptualized around the isolated learning subject as pure Cartesian ego must remain central if e-learning is to release its capacity to instill in its e-learners the higher cognitive skills that have been limned in above. To do so, online learning must deliver (GDAM) processes that bring people to their full potential for social enquiry.

Ethics, for example, communicated within the online medium, is procedurally indicated through intensifying the level of human understanding and interaction and processes of social inquiry participating fundamentally in human understanding, triadically understood. If this is done well, it can afford people an insight into the complex dynamics of intra-subjective strategic communication that support the Enlightenment's programs of human emancipation.

Epistemic leadership, de Reuck *et al* argue, comes from concerns about the relationship between leaders and their followers. It is important to acknowledge that that relationship is social. Further, no matter how transformative or supportive a leadership style, its import still positions the members of the e-learner heteronomously. This is problematic because the followers' beliefs change as a result of the social influence not 'the force of the better argument'. Any factor other than the force of the better argument, however well intended, degrades the epistemic dynamic of the relationship between the leader and follower (online educator/student) as a team and this diminishes the legitimacy of the followers' decisions, foreclosing on the social capital available to the decision making of the team.

In relation to online education, if we aim to create an

environment in which individuals -understood in their roles as both students and learners - can develop fuller, 'truer' identities, one needs to be careful that the shifts in value are driven by an expansion of awareness of the individual's world view and a deeper empathetic engagement through the online environs, not an indoctrination in the values held by the online educator. The 'force of the better argument' as de Reuck, *et al* argue should be the starting point from which any shifts in beliefs or identity formation are developed. In other words, the online learning environment needs to provide a space which will allow for the social/intellectual aspects of identity and social values to be explored. However this exploration needs to be conducted in the spirit of a community of equals where ideas are raised and the identity maps held by others are explored through empathetic links to them rather than the acceptance of an indoctrination of values on the part of the online educators.

The question then remains: if online learning should not dictate a framework of values in the learners, how then can the development of an emancipatory ethic so crucial to the enhancement of higher cognitive skills be grounded? The future direction of online learning should be to provide a learning architecture, along the lines outlined above, that explicitly takes as its educational goals the imparting of transferable high-level cognitive skills. This can be achieved through the development of an imaginative capacity in the individual to empathize with another individual. This moral intelligence will allow us to deal with other minds at their best and provides a starting point for a secular ethic, which is ultimately enabling.

This paper has addressed the need for educators to re-conceptualize the way teaching in an online environment is understood. The heterogeneous nature of the learners engaged is recognized and the conclusion is drawn that this heterogeneity is due to the multiculturally, geographically, generationally and temporally diverse nature of tertiary online learners. Despite the challenges such a heterogeneous student group presents, this paper argues that online learning is capable of meeting the needs of tertiary learners at the highest cognitive level by developing tertiary intelligences. However, this is not the case if online learning is simply conceptualized as a repackaging of traditional pedagogic modes of delivery. The key is to harness the communicative capabilities of online technologies in order to utilise the decision management methodology, developed by De Reuck *et al.* This methodology of communicative rationality requires that people be moved out of the heteronomous field of behaviour into autonomous fields of predicated human endeavour. Thus, through the deployment of Berlin's theories of human emancipation, online learning can create a space within a critical communicative framework where the concept of positive freedom can find application. What therefore can be concluded is that, through an expansion of the students' identity, online education - if properly conceived- delivers a far stronger methodology for tertiary knowledge acquisition. Such a methodology, augmenting and enhancing the technologies currently available to the online learner, supersedes traditional "talk and chalk" and leaves unmourned the death of the transient delivery mode.

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