Implications of Online Learning for the Conceptual Development and Practice of Distance Education

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Abstract

The purpose of this article is to examine the foundational principles and practices of distance education in the context of recent developments in the areas of online learning. The point is made that online learning had its genesis apart from mainstream distance education. As a result, it is argued that distance education has not fully embraced the collaborative potential of online learning. The paper concludes with the question of whether or not the concepts and practices of distance education can be reformulated and aligned to incorporate the potential and possibilities of online learning.

Résumé

Le but de cet article est d'examiner les principes et les pratiques fondamentaux de l'éducation à distance dans le contexte des récents développements dans les domaines de l'apprentissage en ligne. On fait la démonstration que l'apprentissage en ligne a pris naissance en-dehors de l'éducation à distance ordinaire. Il en découle donc que l'éducation à distance n'aurait pas entièrement intégré le potentiel de collaboration de l'apprentissage en ligne. L'étude conclut avec la question à savoir si les concepts et pratiques de l'éducation à distance peuvent être reformulés et enlignés de manière à incorporer le potentiel et les possibilités qu'offre l'apprentissage en ligne.

Introduction

The investment in communications technology in society generally, and higher education in particular, has created the potential for an unprecedented range of teaching and learning possibilities. Many of these technological investments have been used to support online learning (Allen & Seaman, 2007). Online learning approaches are often associated with collaborative constructivist views of learning. These initiatives have capitalized on the potential to connect people and rethink passive pedagogical methods common to higher education. Online learning has been the catalyst for instructional designs where learners are able to remain engaged over time and space. It has been my experience in higher education that online learning approaches have been less about bridging

distances and more about engaging learners in discourse and collaborative learning activities.

The purpose of this article is to examine the foundational principles and practices of distance education and contrast this with recent developments in online learning. Through an exploration of the theory and practice of distance education and online learning, I hope to clarify the principles and practices of online learning and distance education. The central theme of this article is whether the conceptual foundation of distance education is consistent with collaborative constructivist approaches adopted in online learning environments.

This quest begins with a review of the theoretical developments in distance education. Similarly, the properties and theoretical drivers of online learning are reviewed. Next, the states of theoretical development in both fields are assessed to see if there is sufficient commonality for convergence. We conclude with a challenge to merge the conceptual developments in online learning with those of mainstream distance education.

Distance Education

Distance education originated as an independent form of study that relied on the self-instructional course package produced through industrial approaches that addressed issues of access, efficiency and scale (see, for example, Peters, 1994). The theory and practice of distance education appears to continue to hold to the assumptions and challenges that defined the field in the 20th century; that is, independent study to cope with the structural constraints that restricted access to education (Annand, 2007).

Although Charles Wedemeyer (1971) identified independence as the distinguishing feature of distance education, it was Otto Peters who provided the unique theoretical framework that described the administrative and pedagogical practices of distance education. Peters (1994) described how correspondence study evolved into what could be described as an industrialized process. Peters' industrial model of distance education presented a conceptualization seized upon by some as a means for distinguishing distance education from conventional higher education. Other scholars such as Holmberg and Moore have raised important issues such as conversation and dialogue and attempted to integrate consideration of these within the core assumption of independence. However, the basic paradigm of independent study was never seriously questioned by these scholars. Even with the emerging capabilities of new communication technologies and the Internet, theoreticians such as Peters hold to the premise of independence. For

example, online learning is seen by Peters (2003) as an opportunity to develop self-directed learners. From his perspective, the individual learner would control the pace of study and interaction would be at the discretion and control of the learner. In essence, online communication with the instructor and fellow students was seen as an option provided to the learner. The autonomy of the individual remains inviolate.

The emergence of audio conferencing in the late 1970s caused some to challenge the validity of the independence assumption. For example, Garrison (1989) and Garrison and Shale (1990) argued that the ideal of any educational experience was two-way communication, not independence. Separation of teacher and learner should not concede the necessity of sustained and purposeful communication. In traditional distance education, control is imposed on the learner a priori without consideration of other factors such as learner ability and the nature of the subject being studied. On the other hand, some argued that two-way communication afforded by audio conferencing provided an opportunity to negotiate goals and activities and, through discourse, to construct and validate meaningful learning (Garrison, 1989). The argument was that the compromise on independence was a worthwhile concession and that distance education did not always have to be isolated independent study.

While self-directed learning (SDL) may be a legitimate educational goal, it is risky if this assumption automatically limits opportunities to collaboratively negotiate meaning and validate understanding. Self-direction is properly constrained in most formal educational contexts depending on the abilities of the students and the educational goals. Students are generally deficient to some extent in terms of the three dimensions of SDL - management, monitoring and motivation (Garrison, 1997). What happens when students do not have the skills or motivation associated with a high degree of self-direction? In such situations, SDL becomes a sink or swim approach. Without skills and/or motivation, students need support. This is often reflected in distance education completion data that suggest that the more direct contact there is with students and the more support, the greater are the completion rates (Anderson, Annand & Wark, 2005, Garrison, 1987; Poellhuber, Chomienne & Karsenti, 2008). This is also consistent with recent work that shows that greater online teaching presence in terms of facilitation and feedback is associated with higher levels of learner satisfaction and perceived learning (Garrison & Arbaugh, 2007).

Evans and Nation (2003) have challenged the distance education paradigm in terms of alienating students and not recognizing the potential of the Web for interaction and dialogue. They state that "[m]atters such as interaction and dialog, which have had an important place in the theory and practice of distance education, need to be

reconsidered and reformulated in this light" (p. 777). However, they go on to say that the concern is "the old industrial approaches to distance education [be simply] re-jigged into online forms" (p.785) without realizing the potential for interaction and discourse. This raises the challenge of implementing collaborative learning approaches in a distance education paradigm:

> The introduction of collaborative learning in an institution centred on a self-paced, individualized learning model is neither easy nor popular. … there are challenges in using CMCs [computer-mediated communication] for peer interaction in self-paced learning environments. (Poellhuber, Chomienne & Karsenti, 2008, pp. 58-59)

Two developments challenge the assumptions and approaches of distance education. These issues are the increasing focus on collaborative-constructivist approaches to learning combined with new and emerging communications technology. These developments have brought great interest in online learning from conventional higher education institutions and indirectly have raised questions about industrial distance education assumptions and practices.

As noted by Evans and Nation (2003), the term "interaction" has been in use in the distance education literature for a long time (see, for example, Daniel and Marquis, 1979). However, interaction in a distance education context could refer to a variety of kinds of interaction (Anderson & Kuskis, 2007). The difficulty is that the term has been too vague because it encompasses such a wide range of practice. While both distance education and conventional higher education have introduced online learning to enhance some sense of interaction, higher education generally has taken the lead to create a sense of community and to create the possibility for collaborative inquiry online. On the other hand, according to Peters (2003), the primary application of online learning in distance education is in support of continued independence and self-direction - effectively limiting interaction to the supplemental role it has played all along.

We should also recognize that there are limits to how far a student (or anyone, for that matter) can progress on the basis of self-directedness. As in real life, it is inadvisable to go too far on one's own in interpreting and understanding life's phenomena because it is too easy to be wrong or to become fixed and dogmatic in one's views. For most students, achieving a deep level of understanding is greatly aided through critical discourse and a process of constantly monitoring the legitimacy of his or her beliefs and comprehension (Lipman, 1991). A dialectic process dynamically supported through collaborative exchanges with another person who knows more than the student and who has a wider, more balanced view

of what is being learned - in other words a teacher - may be irreplaceable for meaningful and worthwhile learning. It has been argued that we need a qualitatively richer view of interaction that includes collaboration and leadership (i.e., teaching presence) (Garrison & Cleveland-Innes, 2005).

There is also a danger in relying unquestioningly on the received wisdom of a single teaching source (whether a person or, as in most distance education enterprises, the learning package). For anyone who has studied at a university, s/he will likely have had some experience encountering an intransigent professor with an idiosyncratic interpretation of some subject matter. In the traditional academy there are ways and means - first, to know who espouses unconventional views within a given course of study - and second, there is a broad academic community with due process to effect a public balanced assessment of these views. This kind of opportunity is limited by definition in an independent self-study approach inherent in industrialized distance education. We would go so far as to say that this issue is the root of the concern about the evolution of distance education theory and practice expressed here.

Online Learning

A casual review of recent publications in distance education might lead one to believe that online teaching and learning (sometimes referred to as e-learning) are synonymous with or an extension of distance education (see, for example, Annand, 2007). According to Larreamendy-Joerns & Leinhardt (2006), however, the reality is that online learning "is a direct descendant of instructional technology and computer-assisted instruction" (p. 572). This is certainly consistent with the experiences of this author who, in the early 1970s, studied computer applications in education without any knowledge of distance education. More specifically, online learning (OLL) emerged from computer conferencing and converged with the growing interest in constructivist theories of learning in traditional higher education. With the enormous advances of the Internet and communications technologies, OLL research has begun to focus on conventional higher educational contexts. While OLL has been used to more efficiently access and interact with content (i.e., support independent learning), the approach of interest here is on its connective and collaborative properties. That is, the potential to bring students together and engage them collaboratively in purposeful and meaningful discourse through the creation of sustainable communities of learners.

Online learning is capable of supporting a range of educational practices that utilizes the Web and communications technology to support individual and group communication. Collaborative

constructivist frameworks have taken root in higher education generally. The main reason is the fundamental principles of conventional higher education are founded in critical communities of inquiry (Lipman, 1991). The focus in higher education is on developing higher-order learning outcomes and it is believed that the best means to achieve this is through critical discourse in a collaborative community of learners. Notwithstanding the obvious shortcomings of higher education in relying on the lecture, collaborative online learning is seen to be congruent with the ideals and ethos of higher education.

Those in online learning have made the case for collaborative learning processes, activities and assignments that go beyond content access and interaction. Garrison and Cleveland-Innes (2005) argued that interaction is not enough for students to take a deep and meaningful approach to learning online. The nature of the interaction must be more structured and systematic if a collaborative process of critical inquiry is to be initiated and sustained. Various interactions must be integrated in a coherent and purposeful manner that initiates and facilitates critical discourse and which purposefully moves toward meaning and understanding. This represents a qualitative and transformative shift in how we approach teaching and learning.

From this we conclude that there are two fundamental approaches to OLL. The first is to provide the tools and techniques for individuals to access and organize information to sustain existing distance education practices that maximize learner independence. The second is to use the full capabilities of OLL to create purposeful communities of inquiry that is currently transforming higher education based on collaborative constructivist principles. In essence, the first approach is to sustain current practices, while the second is to transform teaching and learning at a distance by fundamentally rethinking the collaborative nature of higher education.

Online discussion boards are difficult to reconcile with continuous enrolment and self-paced instruction. Sammons (2007) has identified this dilemma in distance education in pointing out the conceptual problems of collaboration in a distance education context. In addition to the anomaly of adopting collaborative learning activities in an independent study context, the practical difficulty is the lack of sustained teaching presence necessary for collaboration (Sammons, 2007). To adopt collaborative approaches in distance education requires a radical shift in the core assumptions, goals and practice of distance education. (In passing it is noted that this conclusion is the exact converse of Annand's conclusion that conventional universities will be compelled to become more like distance education operations in their commitment to the independent study view of higher education through the adoption of online

technologies, effectively attenuating the active participation of the teacher in the educative process).

Squaring the Circle

The differences in values, assumptions and goals are becoming increasingly clear in terms of the ways that campus-based and distance higher education have adopted OLL practices. One of the primary reasons campus-based higher education institutions are adopting OLL is because of the pedagogical advantages it offers in terms of addressing the limitations of conventional classroom instruction (i.e., lectures) (Twigg, 2003). Notwithstanding the increases in class sizes over the last 50 years and the contradiction between ideals and practice, higher education has not abandoned its commitment to the ideal of collaborative communities of inquiry. Collaborative OLL practices in traditional face-to-face higher education are increasingly being adopted to support sustained collaborative learning opportunities and address quality assurance concerns associated with the lecture. On the other hand, in single mode distance education institutions, with the exception of specialized graduate programs, interaction and collaboration are limited by organizational parameters such as self-pacing and the perceived value of self-direction.

These differences raise the question of whether or not this conceptual divide can be bridged and we can work towards a synthesis of perspectives. In recent years there appears to have been a distinct lack of theoretical development in distance education to accommodate technological advancements and pedagogical innovations. Moreover, it has been suggested that distance education is at a "theoretical impasse" (Gokool-Ramdoo, 2008). The early desire to distinguish distance education from conventional higher education was served well by the development of the industrial paradigm. However, it is argued here that the downside of this position has been an inability to integrate the unique possibilities of online learning into the theory of distance education in a way that challenges the self-paced independent study assumptions of the industrial paradigm.

In the current culture of connectivity, the relevance of distance education may well be dependent upon developing and communicating a coherent theory that can accommodate transformational developments reflected in OLL innovations. Unfortunately, in recent years, theory development has been the exception in both distance and online learning research. Rourke and Szabo (2001) in a content analysis of articles in the Journal of Distance Education found a "dearth" of theoretical articles and noted that this is a "common criticism of distance education publishing".

If we are to resolve discordant practices in distance and online learning, we need to make a concerted effort to explore theory that can unify these principles and practices.

As noted, collaborative constructivist approaches to teaching and learning are central to developments in OLL in higher education. However, such approaches are problematic in industrial distance education. It is very difficult to introduce constructivist approaches when constrained by economic realities that necessitate relying on self-instructional materials. It is argued here that the self-direction idealized by Peters is what might be referred to as " 'naïve constructivism' where educators have blind faith in the ability of students to construct meaningful knowledge on their own" (Garrison, 1995, p. 138). The views of constructivism made possible by OLL emphasize the need for a collaborative and transactional environment.

While there has been considerable discussion of various forms of interaction (Anderson & Kuskis), these have not been well developed in distance education theory. Annand (2007) notes the divide among distance education theorists with regard to independence and sustained interaction. In an attempt to bridge this theoretical divide/impasse, Gokool-Ramdoo (2008) states "that a transactional approach seems to be … adopted by theorists and practitioners alike …" (Abstract, lines 3-4). From this position Gokool-Ramdoo argues that Moore's (2007) transactional distance theory provides a global theory for a wide range of applications "that can explicate and ensure the sustainability of distance education in a technology-driven world" (pp. 1-2). The challenge and question is to assess whether such a theory concerned with independent study can accommodate the theory and practice of OLL with its collaborative constructivist orientation (Garrison & Anderson, 2003). This and similar theoretical perspectives in distance education need to be considered from the perspective of their potential to provide a comprehensive theory that can include the collaborative approaches of OLL.

One promising theoretical framework that has emerged from the OLL research is the Community of Inquiry (CoI) framework (Garrison, Anderson & Archer, 2000). The CoI framework has been used in hundreds of studies since its publication and factor analyses have provided empirical evidence of its validity (Arbaugh, Cleveland-Innes, Diaz, Garrison, Ice, Richardson, Shea & Swan, 2008). The CoI framework has as its goal deep and meaningful learning approaches and is taking hold in online and blended learning contexts (Garrison & Anderson, 2003; Garrison & Vaughan, 2007). The framework was originally conceived to guide online research and practice. However, the generic nature of this framework makes it applicable to most educational contexts premised on

collaborative-constructivist approaches to education. The question that theorists should consider is whether or not there is potential for synthesis between the transactional distance education theory and the CoI framework? Is there potential between these two theoretical perspectives for synthesis and a global theory? Or are there other theoretical models that can provide the unifying framework?

The issue this question raises is the possibility of convergence in distance and online learning. While this may be a worthy goal and interesting challenge, the foundations of distance and conventional higher education with their historically distinct assumptions and ideals would certainly raise skepticism with regard to the possibility of convergence. The point has been made that interaction - as the term has generally been understood in distance education - is not the same qualitatively as the coherent nature of interaction needed to create and sustain a community of inquiry. If distance and OLL remain loyal to their core assumptions (independence versus collaboration), then it is difficult to imagine how these two fields of distance study and practice might converge. It remains to be seen whether practical realities will shift core values and provide a path for convergence. Certainly, it would be hard to imagine conventional higher education becoming more like distance education. Contrary to the views of Annand (2007), cohort-based higher education is adopting online and blended learning designs, that include collaboration, to address both quality and efficiency concerns (Garrison & Vaughan, 2008; Twigg, 2003).

It is not entirely surprising that there would be resistance in distance education to approaches that threaten the existing paradigm. The large distance education institutions based on industrial methods that provide the scale required for massification, present enormous conceptual and practical inertia. At least in the developed world (which has grown rapidly) distance education institutions need to appreciate that access and even efficiencies of scale are not necessarily seriously compromised by adopting collaborative OLL approaches that value the development of communities of learners. Higher education institutions that have adopted online approaches are being transformed through the convergence of face-to-face and OLL. True convergence between distance and OLL in higher education will require some fundamental rethinking of the theory and practice of both fields. Certainly, it would be hard to imagine traditional higher education adopting the industrial distance education paradigm as suggested by Annand (2007).

Conclusion

It is interesting to note the absence of references to distance education theorists in the online learning literature. Observing the proliferation of

online learning publications, the question is whether mainstream distance education research and terminology is losing prominence? Has industrial distance education reached a theoretical cul-de-sac? Many educators in higher education are reluctant to use the term distance education because of its rigid commitment to autonomy and self-pacing. Is there a risk that the term "distance education" will fade from usage in the educational mainstream in favor of online or e-learning? Regardless of terminology, it is the position here that the unnecessarily restrictive paradigm of industrial distance education limits its expansion, theoretical development, and integration with online learning developments.

That said, industrial distance education will continue to exist - and in many cases for good reason. However, this does not preclude the need for distance education to address issues of collaboration and community. For the continued theoretical and practical development of the field it needs to be clear as to the values and assumptions that should shape the direction of the field. Will distance education remain true to its core values of autonomy and self-pacing? Will it come to grips with the pedagogical possibilities that are exhibited in online learning? The fact that it is more than conceivable to have independence of time and place with collaboration, severely undermines the fundamental assumptions and practices historically associated with distance education.

Acknowledgement

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