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Exploring New Learning Paradigms

A Reflection on Barber, Donnelly, and Rizvi (2013): *“An Avalanche is Coming: Higher Education and the Revolution Ahead.”*

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Abstract

Barber, Donnelly & Rizvi (2013): “An avalanche is coming: Higher education and the revolution ahead” addresses some significant issues in higher education and poses some challenging questions to open and distance learning (ODL) administrators, policy makers, and of course to ODL faculty in general. Barber et al.’s paper does not specifically address the area of teaching and learning theories, strategies, and methodologies. In this paper I reflect on the impact that contemporary changes and challenges that Barber et al. describe have on teaching and learning. I draw on earlier work about future learning paradigms and navigationism (Brown, 2006). This provides a fresh approach to survive the revolution ahead with new perspectives and strategies about teaching and learning, strategies which provide meaningful learning opportunities in the future.

Introduction

Michael Barber, Katelyn Donnelly and Saad Rizvi (2013): “An avalanche is coming: Higher education and the revolution ahead” has appeared at the right time with the right focus, addressing some significant challenges that educational institutions have to face or are already facing. It poses some challenging questions to ODL administrators, policy makers and, of course, to ODL faculty in general. We are all trying to survive with all the contemporary challenges that technological developments have brought to the ODL landscape. So much so that we are forgetting to - and lacking strategic vision to - (re)position ourselves for what lies ahead.

The overwhelming progress made in the field of information and communication technologies (ICT) and technology-enhanced learning (TEL) is changing our educational practice - the way in which we teach, learn, and do research. The traditional model of education is losing its previously binding character, not only in the case of residential face-to-face institutions, but very much so also for distance learning institutions. Time, place, and pace do not play a dominating role as they did in the past. Those who have always interpreted teaching as the transfer of content/ knowledge will realize that such teaching will disappear in the new world where the communication of information rules, where information is available to all and in abundance. Those who realize that education, in reference to this information, requires facilitating and optimizing learning will bloom in this ever-developing digital world.

As our educational practice changes, so too do our approaches to teaching and learning. Barber et al.'s paper does not specifically address the areas of teaching and learning theories, strategies, and methodologies per se. I would therefore like to reflect on the impact that all the contemporary changes and challenges that Barber et al. describes have on teaching and learning approaches and paradigms. In doing so I draw on earlier work about future learning paradigms and navigationism (Brown, 2006). We need a fresh approach to survive the revolution ahead. We need to rethink our teaching and learning strategies to be able to provide meaningful learning opportunities in the future that lies ahead.

Technology as a Disruptive Force

The Internet, Massive Open Online Courses (MOOCs), Open Educational Resources (OERs), social networking technologies, and numerous information-driven applications are dramatically transforming access to information and education. They are indeed changing the learning and research process - how we search, discover, teach and learn. The future existence of an ODL institution depends on its capability to adopt new technologies and to adapt its strategies and methodologies to overcome these challenges and to embrace the opportunities it provides.

The relevance of Barber, Donnelly and Rizvi's (2013) paper is more pertinent than we may think. It is clear that ICT offers important challenges for educational institutions. Besides these challenges, it is also clear that ICT offers many new opportunities which universities and students could not even dream about just a few years ago. The generating, storing and re-use of content is but one example. ICT and the Internet (including MOOCs and OER as examples) offer students potential access to unthinkable amounts of information. Students can participate so much easier in independent and self-directed learning.

Andersen and Ponti (2014) point out that: "Opportunities for informal and open learning have grown exponentially in connection to the rise of online communities - the focus is on how people can use the Internet to educate themselves and continuously learn" (p. 234). There has been a shift from the traditional classroom, where teachers decide what students will learn, towards a more learner- centered or anticipatory approach in which students can decide what and how to learn (Sfard, 1998).

Barber et al. (2013) emphasize that students are now able to, regardless of where they are in the world, be in contact with the best experts, the best lecturers, and the best learning resources. Mobile and wireless technologies makes it even possible anywhere, anytime.

The Impact of the “Avalanche” On Education Institutions and Administrators

Lawrence Summers (as cited in Barber et al., 2013) refers to the “unbundling” of universities: “Potential unbundling is certainly a threat, but those who rebundle well will find they have reinvented higher education for the 21st century” (p. 2). Providers in the market will more and more specialize in specific niche areas of educational provision.

Barber et al. (2013) continue by emphasizing that the challenge for educational institutions lies in finding their niche in the market. This niche may be, amongst many other possibilities, in one or more of the following key areas:

- the provision of (course) content; and/or
- the provision of learning facilitation or tutoring services; and/or
- the assessment of learning outcomes and the accompanying certification.

We need to position and reposition ourselves to be able to remain competitive in an “unbundled” education environment. This is especially important for open and distance learning institutions as more and more traditional residential institutions will operate in the open and distance learning environment as they unbundle and reposition themselves. We need to seize opportunities through technology (e.g. MOOCs, OER, social media, etc.) to provide educational services that are appealing to the market and of high quality at the same time.

Recent Developments, Trends and Paradigm Shifts in Education

As discussed in the preceding paragraphs, our educational practices have changed over the years due to the influence of technological and societal changes. There are numerous contemporary developments and trends in education in terms of electronic and online learning due to technological developments – MOOCs and OER to name just two recent examples. I would like to focus here on the developments and trends relating to learning theories and learning paradigms.

Well known developments over a couple of decades include, amongst other, the following:

- reproductive vs productive learning
- behaviorism vs constructivism

- teaching-centered vs learning-centered
- teaching vs learning facilitation
- content-based vs outcomes-based

Constructivist approaches are more and more making way for social constructivism. Communities of Practice (COPs) have evolved and are playing a significant role in research, teaching and learning environments. The focus is on the effective and productive use of existing, social and natural resources for learning. The real expert is not the teacher, or any other person for that matter, but the community of practice.

Terms such as “crowd-sourcing” have emerged and are finding their place within teaching and learning. Some practitioners such as Gleb Tsipursky (2014) call it “class-sourcing” when “students conduct independent research on a specific topic, and then analyze, organize, and communicate this information. Doing so strengthens their research, writing, and critical thinking abilities as well as their understanding of class content” (p. 6).

Because of the development in the field of ICT, increasing amounts of information are accessible on a daily basis for millions of people across the globe. Knowledge and information are no longer limited to libraries, books, professors and experts. Knowledge production is making room for what we can call knowledge configuration.

Educational institutions should equip and empower their teaching and support staff to conduct and manage knowledge configuration effectively. Although educational institutions greatly emphasized the generation of content for learning programmes in the past, the storage and re-use of content are becoming as important as their production. The generation of content might possibly not even happen at or through the institution itself, but elsewhere. The educational institution could possibly, in such a case, give attention to the configuration: the evaluation, processing, and packaging of the content.

An emerging paradigm shift within management and information sciences suggests that the focus is shifting from knowledge management to sense-making (Brown, 2006). Snowden (2005) describes sense making as:

the way that humans choose between multiple possible explanations of sensory and other input as they seek to conform the phenomenological with the real in order to act in such a way as to determine or respond to the world around them. (p. 46)

He then continues to say that sense-making ensures cognitive effectiveness in information processing in order to gain a cognitive edge or advantage. This trend makes a lot of sense when we think about the difficulties we all experience in our daily work and life due to the abundance of information and interaction that requires us to apply new skills in order to manage our environments meaningfully.

These paradigm shifts in education are contributing to the growing need to adapt and innovate our educational practice and to explore new learning paradigms. We need to acknowledge that ICT developments are impacting social interaction and educational practice and that we will experience shifts in learning paradigms.

The “Revolution Ahead” - Anticipating Future Learning Paradigms

Learning paradigms continuously evolve as our understanding of our teaching and learning practice develops. For example, during the last few decades of the previous century, the role of the teacher first shifted from teaching to learning facilitation. More recently this role shifted towards “facilitated and supported enquiry.”

The knowledge economy and the accompanying commoditization of knowledge and available information have prompted a further step in the process. Therefore contemporary educational paradigms focus not only on the production of knowledge but are beginning to focus more and more on the effective application, integration, and manipulation of existing information and knowledge.

Restak (2003) posits that, within the modern age, we must be able to process information rapidly, function amidst chaotic surroundings, always remain prepared to shift quickly from one activity to another and redirect attention between competing tasks without losing time. A new type of literacy emerged during the turn of the century, namely information navigation. Brown (1999) described this as follows:

I believe that the real literacy of tomorrow will have more to do with being able to be your own private, personal reference librarian, one that knows how to navigate through the incredible, confusing, complex information spaces and feel comfortable and located in doing that. So navigation will be a new form of literacy if not the main form of literacy for the 21st century. (p. 6)

We have already experienced significant challenges in coping with the abundance of available information. Simultaneously, our social lives and social interaction have been powered up a few gears through the rapid developments in social media and social networks. It is difficult to imagine what it will be like when the knowledge era and digital age is in its prime. The future scenario will have a serious impact on information processing and most definitely on our learning processes and learning paradigms that are currently still very much founded in a content and knowledge production paradigm.

Over the past few decades, most of our teaching and learning activities were, and still are, based on a constructivist learning paradigm. So what will future learning paradigms then look like?

Figure 1 below summarizes the paradigm shifts we have experienced in the past and proposes a possible paradigm shift envisaged for the future.

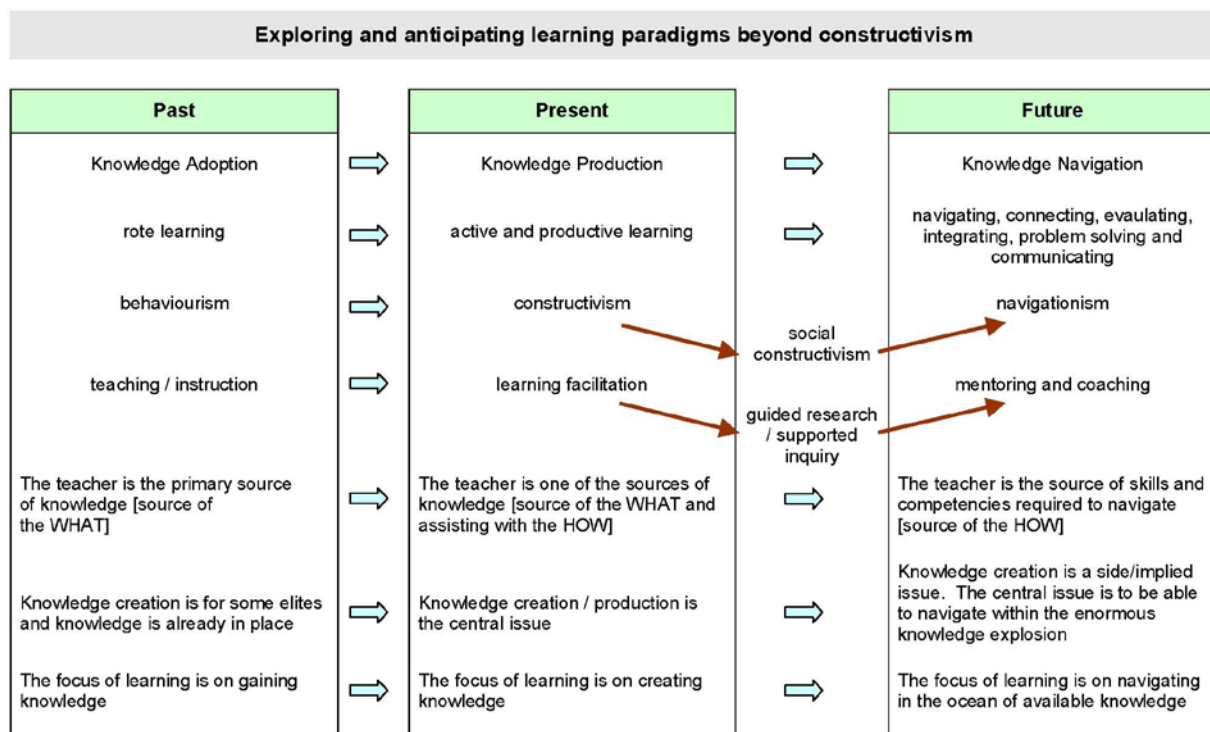


Figure 1: Exploring and anticipating learning paradigms beyond constructivism (Brown 2006)

It is as sad as it is worrying to observe that many institutions are still operating within a “content-driven” paradigm. We provide our learners with preselected, carefully designed, and developed content. It seems as if the purpose of our teaching and learning activities are still rooted in the mastery of selected content instead of the achievement of learning outcomes. This occurs without mentioning the importance of empowering our learners to be able to function successfully in their demanding world of work and life, underpinned with information and knowledge navigation.

In this regard, I fully support Barber et al. (2013) that “an avalanche is coming” and I echo that there also lies a “revolution ahead.”

I argue that navigationism might be the new learning paradigm that lies ahead, beyond constructivism. In fact, I would argue that it is already here and it is maturing quickly. In a navigationist learning paradigm, learners should be able to find, identify, manipulate, and evaluate information and knowledge, integrate this knowledge into their world of work and life, solve problems, and communicate this knowledge to others.

Conclusion

Barber et al. (2013) believe that deep, radical and urgent transformation is required in higher education. “Our fear is that, perhaps as a result of complacency, caution or anxiety, or a combination of all three, the pace of change is too slow and the nature of change too incremental”

(p. 3). Their paper sparked a renewed reflection on the impact that technological and social changes have on teaching and learning approaches and paradigms. We need a fresh approach to survive the revolution ahead that Barber et al. warn us about. Faculty need to rethink their teaching and learning strategies to be able to provide meaningful learning opportunities in the future that lies ahead. Administrators and policy makers should rethink their institution's positioning in an unbundled education environment, not only to survive, but also to grow and flourish in an ever increasing competitive market.

According to Barber et al. (2013) students should seek to learn and practice the skills associated with being innovative. "They should seek to be on innovative teams, in innovative organizations and part of an innovative society as these are the places where they will grow and develop the skills needed to be globally competitive" (p.65). I argue that navigationist skills will provide the essential foundation for innovation in the knowledge era.

The essence of existence of an open and distance learning institution is no longer underpinned by the provision of content to learners. The focus should rather be on coaching learners to find, identify, manipulate, and evaluate information and knowledge, to integrate this knowledge in their world of work and life, to solve problems, and to communicate this knowledge to others. Learners should be connected and networked in various ways in the digital age.

Teachers, lecturers, and educators should become the source of how to navigate in the ocean of available information and knowledge. We should become coaches and mentors within the knowledge era. Learning designers should design coaching and navigating activities instead of designing learning facilitation and learning activities, configuring navigation tools instead of the re-/configuration of content. This is the path to the future.

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