BEYOND THE GLASS CEILING LAYS A PRECARIOUS GLASS CLIFF EMANATING FROM E-LEARNING: A CASE STUDY

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ABSTRACT

Hopes for access and success in ODL were raised as the glass ceiling disappeared. However, this qualitative research with a phenomenological strategy, using a purposive sample of 89 rural based ODL students uncovers the robustness of the glass cliff phenomenon beyond the equalizing slogan of ODL. The study unpacks an additional, and equally invisible, barrier beyond the glass ceiling emanating from e-learning. While the debate regarding the regeneration of ODL through technology rages on, new thinking emerged from this study that questioned the role of e-learning in equalizing opportunities. The divisive vectors of race and inequality appear to re-emerge via technology throwing into doubt equality of educational opportunities since technology was seen at best as stagnating and at worst putting minorities at the margins. The study argues that the emergence of a potential barrier above the glass ceiling could be a potential challenge to access and success in ODL.
Background

Distance education is the information transfer process of delivering instructional-resource sharing opportunities to learners away from conventional learning institutions or cities (Wang and Liu, 2003). In the process, instruction and learning are conducted interactively with the aid of media ranging from e-mail, telephone, fax, audio, video, computer, mail to Web-based multimedia. With the advent of information technologies, the past decades have witnessed an enormous growth of distance education programmes (Wang and Liu (2003). This brought a lot of excitement to all those concerned with education for all and those tasked with meeting the Jomtien agreement on Education for All. In recent years, more and more books and internet resources have been produced and made available. It is because e-learning offers the beguiling prospect to redress the imbalance without a sacrifice in the quality of teaching (Roffe, 2002).

According to Roffe (2002), e-learning, e-education or on line learning refers to the way people communicate and learn electronically which has only recently emerged as a key source of competitive advantage to the information society. Its greatest advantage is the ability to deliver flexible learning. The term e-learning thus applies to the provision of learning through computer-based processes or multimedia (Roffe, 2002). He went on to say the medium presents many possibilities for educationists for enhanced access, more flexible learning, for extending the range of influence, as well as deepening the penetration for learning.

Recent developments in information and networking technologies have resulted in the creation of useful learning resources and mechanisms, both in multimedia formats and on the internet (Wang, 2003). According to Ehlers (2009) the term “e-learning” comprises the use of online tools such as blogs, wikis or podcasts for learning and teaching. Learners can create their own content and exchange information in networks like the video platform (YouTube – www.youtube.co This kind of learning has been seen to be giving students all kinds of advantages such as the fact that it fosters interaction and stimulates understanding, fosters self-paced learning and is convenient for students to access ant time from any place (Broadbent, 2000).

Teaching and learning is changing. This is true but the question remains that are institutions also changing with times? Kerres (cited in Ehlers, 2009) talks of such learning platforms as “islands on the Internet”, which could become “gates” through the use of e-learning 2.0. These gates have to benefit all students engaged in e-learning, if we fail to do this, then we are placing further obstacles in the way of students. Ehlers (2009) says these gates could help the whole world use the internet as a world of learning where content can be found, changed and shared with others. Viewed like this, the internet itself would be the learning platform. Downes (2007), who coined the term “e-learning 2.0,” describes it with words such as “learner centered,” “immersive learning,” “connected learning,” “game-based learning,” “workflow (informal) learning,” and “mobile learning”. On top of that, he sees a development from standardized learning environments to “personal learning environments”.

These developments, where institutions move away from standardised learning environments to personal learning environments are what everyone interested in education for all is clamoring for. However, this research will argue
that participation of some students in the personal learning environments continues to be disproportional relative to that of others. This participation imbalance is often attributed to:

- the relatively invisible barrier of the “glass ceiling” that prevents rural students from enjoying the benefits of e-learning 2.0 owing to a number of challenges; and
- the corresponding phenomenon of the “glass escalator” which accelerates those ‘high class’ students at the expense of the ‘lower class’ students.

These questions are the beginning of many debates around the term “e-learning 2.0”. Even though the topic of equity in e-learning was controversial in the time of e-learning 1.0, it is even more controversial in the era of e-learning 2.0. According to Ehlers (2009), e-learning 2.0 refers to a number of developments, trends and points of view, which require change from teaching to learning. The new point of view essentially connects e-learning with five characteristics:

1) Learning takes places always and everywhere (i.e. is ubiquitous) and therefore in many different contexts, not only in the classroom.
2) Learners take on the role of organizers.
3) Learning is a lifelong process, has many episodes and is not (only) linked to educational institutions.
4) Learning takes place in communities of learning. These are so called communities of practice where learners participate in formal, as well as informal communities.
5) Learning is informal and non-formal takes place at home, at the work place and during leisure time and is no longer centered on teachers or institutions (Ehlers, 2009:297).

E-learning 2.0 means using social software and learning services, which can be combined according to individual needs. The word “can” is significant here, as technology alone does not determine its use. Institutions have to do this. The question remains: Are all students benefiting from this new development? Ehlers (2009) maintains that e-learning 2.0 emphasizes the metaphor of “participation” – learning is perceived as an interlinked, social process in which Web 2.0 tools are used to develop learning results through collaboration and communication, compile one’s own learning environment and comprehend the entire internet as a learning resource – not only the given material for a class. Against this background, this research seeks to find out the opinions and perceptions of rural based students on the role of e-learning to students living in rural areas in the context of e-learning 2.0.

**Research question**

What are the perceptions of rural based students on the role of e-learning to students living in rural areas in the context of e-learning 2.0?
Sub questions

1) What contributes to success and to failure at the same time?
2) What is being overlooked by those designing the system?
3) Do students see their e-learning as moving from distribution to participation and reflection?
4) Are studies showing that there is movement from planning studies for the learner to planning studies by the learner?
5) Is it true that students are no longer the receiver but the developer of learning materials?
6) How true is that learning progress is not only visible in tests but in the learning process, products and social interactions?

Theoretical underpinnings

This research is grounded in Siemens (2004)’s connectivism theory. Siemens (2004) developed a new theory of learning: connectivism. He states that his design of connectivism goes beyond the former learning-theoretical approaches of behaviorism, cognitivism and constructivism and takes into consideration the growing tendency of learners to use informal, networked and electronically-supported learning. Learning is increasingly viewed as a continuous, lifelong process, which extends into the fields of work and leisure time activities and thus influences the individual as well as the organization and their connections among each other. Siemens goes on to explain that knowing the “who” and “where” of a subject is more important today than the “how” and “why”. According to Ehlers (2009), even though Siemens’s design is not clearly distinct from existing learning theories and describes more of a network-oriented learning philosophy, the approach is valuable as it clearly emphasizes the development of e-learning 2.0 and social processes as the basis for the learning and interaction processes which take place.

Method

Data gathering

To test the effects of e-learning, the researchers used focus groups with students who lived in rural areas of Zimbabwe during their week-end school tutorials. Focus group discussions have been seen to be suitable for gathering data on the perceptions and opinions of both users and non-users of the system (Golding, 1997).

Participants

Participants were 89 purposively selected rural based students of the Zimbabwe Open University who participated in focus group discussions on the. Of those who participated, 36 (40 per cent) were female, 53 (60 per cent) were male. Participants were from a wide age range, (from under 25 to over 50), with 42 per cent between the age of 31-40. About (81) 91 per cent of participants worked full-time in rural areas where they lived. Participants also occupied a range of occupations, with 56 per cent describing their position as teachers, 22 per cent describing their positions as rural development, and 12 per cent as health management.
Procedure

Participants were put into three groups of thirty. Each group was led by one of the three researchers for this paper. They brainstormed on the role of e-learning to students living in rural areas in the context of e-learning 2.0. Some questions asked in this regard are: Do you see e-learning as moving from distribution to participation and reflection? Are your studies showing that there is movement from planning studies for the learner to planning studies by the learner? Is it true that you are no longer a receiver but a developer of learning materials? How true is that your learning progress is not only visible in tests but in the learning process, products and social interactions?

Design

This was basically a qualitative research. It was case study of one university informed by the phenomenological research paradigm.

Results

Users and non users of the e-learning system

The research asked respondents individually to rate themselves as users and non-users in terms of three dimensions of always, sometimes and never. The results of this survey indicated that of the 89 students who took part in the study:

- 21 (24%) were always users
- 49 (55%) were sometimes users and
- 19 (21%) were never users of the system

It appears only 24% of the students in this study are frequent users of the e-learning system.

They cited factors not related to e-learning at all such as lack of electricity, technical challenges, unavailability of computers etc. In their study of drop-outs from a Hellenic Open University course in education studies, Vergidis and Panagiotakopoulos (2002) found that the main problems stemmed from family or work obligations, rather than from factors intrinsic to the course or its delivery. It has long been known that such external factors were extremely important. Knox’s (1977) developmental-stage orientation of adult life stresses the importance of understanding the context within which a person carries out their everyday activities, i.e. their family, work, health, condition, personality etc. These all affect adults’ ability and willingness to participate in adult education. No single factor appears to cause non-participation; however, individual student characteristics and life circumstances appear to have the greatest impact on participation (Williams, Nicholas and Gunter, 2005).
Pressed further in focus group discussions, the respondents came up with challenges that have been grouped into content factors, technological factors, pedagogical factors and human factors that place a glass cliff beyond the glass ceiling for e-learning students. These are presented below though not in an order.

Robustness of broadband

It was the content of respondents in this study that internet in rural areas of Zimbabwe may not be robust enough to carry multimedia. This issue was extracted from the respondents:

In my area, internet is so slow that you end up giving up on what you want to do. At times you encounter challenges when downloading materials.

The robustness of the internet has been seen as a cliff beyond the ceiling in that while internet is good, it is not always available in similar quantities in all situations. To support this, Broadbent (2000) point out that Internet bandwidth may not be robust enough to support the desired level of multi-media. According to Wagner (2006), in the context of e-learning 2.0, this is tantamount to placing a glass cliff in front of students who had broken the glass-cliff in e-learning. Wagner (2006) argues that In the long run, a “personal learning environment” can develop in the form of an “interactive portal with all kinds of access to the personal digital world” of the individual person. In a “permanent process of producing knowledge where each person aggregates their data and contents according to personal interest, reflects and mixes them individually and shares them in the desired social context” (Wagner, 2006). This cannot happen if the internet is not even robust enough to download a document.

Digital collections falling short of the users’ needs

The students in this study complained that the digital collections were in most cases short of their requirements. A respondent put it this way:

The digital collections fall far short of our requirements. You will need to travel to urban areas to access further information. Do you contact digital needs assessments with students?

The students in this study appeared to complain the digital collections did not meet their felt needs. This takes place at a time when Connor cited in Wang (2003) maintains that the materials collection is the heart of the digital library. What this means is that while the digital library is a very good e-learning support mechanism that helps students break the glass ceiling, the failure of this collection to meet student needs become s a cliff in their way. What should be obtaining is that e-learning 2.0 comprises the creation of a new kind of learning platform with the help of the available social software: no longer is one learning management system (LMS) used as a material island in the ocean that is the internet, but a LMS needs to be understood as a gate leading into the web (Kerres, 2006).
Culture of knowledge sharing not yet in place

The students in this study further opined that while they are getting challenges in some areas, there are some of their colleagues who:

*Easily get materials but fail to share this with others.*

It appears from this study that in some instances, the information might be there with some students but the culture of knowledge sharing, trust and willing collaboration must be built up or allowed to emerge gradually Stern cited in Wang (2003). In another sense, the students in this study want to be supplied with content. In the new learning platforms, this is no longer the case. Kerres (2006) points at the fact that existing e-learning (1.0) approaches often have the disadvantage of being learning programs or modern learning platforms which have to be supplied with content and a lot of time and money by the teachers, but then often degenerate to a “data grave” while real life continues “next door, online”.

Failing in independent production

The respondents in this study pointed out to a plethora of challenges ranging from power cuts, non availability of electricity, and lack of neither computers nor computer skills if these are available to internet connectivity challenges. This to one of them meant that:

*I cannot manage my own learning as is the pedagogical requirements.*

The finding that students in this study are failing in managing their own learning appears to be a slap in the face of the “personal learning environment” which is the hallmark of e-learning 2.0. Ehlers (2009) is of the opinion that the learning environment no longer consists of single applications but is made up of different individually-compiled and cooperative tools. In this context, the term “personal learning environment” (PLE) has come to be used. In a PLE, the individual learner’s reflection takes place in weblogs or podcasts, as well as collaborative work in wikis (Kerres, 2006, p. 6 cited in Ehlers, 2009). What this means to e-learning students in the context of e-learning 2.0 using Web 2.0 tools, learning is no longer the transfer and consumption of content and knowledge but also independent production (Ehlers, 2009). van Harmelen (2006) summarized the characteristics of a PLE as follows:

*Personal Learning Environments are systems that help learners take control of and manage their own learning. This includes providing support for learners to set their own learning goals, manage their learning; managing both content and process, communicate with others in the process of learning and thereby achieve learning goals.*
Tutor lack of capacity to fully engage students

An interesting finding from this study was that the students suspected their tutors’ capacity to fully engage them in online learning. They thought they are not qualified enough to participate fully and at the same time engage students. A respondent opined that:

*I would say I am more isolated now with this internet business. I am not sure if our e-tutors have the capacity to fully engage us.*

Full engagement of students should be the hallmark of e-learning 2.0. According to Ehlers (2009), in e-learning 2.0 learning scenarios, the learner has an important role as active constructor of learning materials (co-creator), of personal learning environments (PLEs) and the initiator of his or her own learning processes. Interestingly, this is a characteristic which is often felt to be a barrier to integrating e-learning 2.0 into formal educational processes. The educator can choose a variety of technologies to effect the delivery of learning. What may be missing is that in terms of the actual learning, the “e” term has less to do with electronics and much more to do with the other “es” such as engagement of the learner, enhancement of the learning, experience of exploration, ease of use, empowerment of the learner to control the learning schedule and execution of the learning programme (Roffe, 2002). Sadly this appears missing from this research where e-tutors were not skilled enough to empower their students.

Gulf between tutor and students

It was interesting to note that the students in this study noted a gulf between them and their tutors. They claimed;

*I there appears to be a gulf between us and the tutors*

The gulf between tutors and students is a sad development for e-learning especially if we consider Moore (1990)’s Transactional distance Theory. This concept of “transactional distance” was advanced by Michael Moore (1990). Here, “distance” is determined by the amount of communication or interaction which occurs between learner and instructor, and the amount of structure which exists in the design of the course (Williams, Nicholas and Gunter, 2005). According to Moore (1990), greater transactional distance occurs when a course has more structure and less communication (or interaction). A continuum of transactions might exist in this model, from less distant, where there is greater interaction and less structure, to more distant where there may be less interaction and more structure. There is, these days, the problem of conflating of distance learning with e-learning. It could be argued that e-learning provides such a high level of interaction that the “distance” is necessarily smaller (Williams, Nicholas and Gunter, 2005). This was not the case in this research where the glass cliff was laying in ambush for some ODL students. E-learning 2.0 is about learners learning in a self-directed way in social networks. From a (constructivist) learning-theoretical perspective, advocates of e-learning 2.0 fundamentally question the “possibility of indoctrination”. This is argued for by saying that a self-directed system (learner) cannot be determined by its environment but only perturbed and stimulated by it. Moreover, it is argued that learning does not function solely
by putting forth external requirements – learning, as it is understood – cannot be planned without the learner (Holzkamp, 1993, p. 184 cited in Ehlers, 2009).

**Limited use of media**

An important finding in this study was that the media used to deliver was limited. The students complained that:

*A host of challenges get into our way such that we have limited media to use owing to non-availability, costs, skills challenges and others.*

Open and distance teaching thrives on the use of a variety of media. This was not the case in this study n which students mentioned a host of challenges yet literature has it that using a variety of media, both to deliver pedagogic material and to allow effective communication between learners and tutors does seem to enhance learning to the extent that distance learners can out-perform face-to-face colleagues (Navarro and Shoemaker, 2000).

**Conclusions**

This research elicited and examined the perceptions and opinions of rural based students on the effects of e-learning in their studies. In a way they felt e-learning was promising to bring in new vitality and momentum for instructions and learning. However, owing to the glass cliff beyond the glass ceiling, they encountered challenges that result in disappointing teaching and learning outcomes. A new culture of teaching and learning, that offers the beguiling prospect to redress the imbalance without a sacrifice in the quality of teaching through personal learning environments (PLEs), independent production and “interactive portal with all kinds of access to the personal digital world”. However, the research further reveals that amidst this pomp and funfair, the majority of students face an additional, and equally invisible, barrier beyond the glass ceiling. The research argues that lower class and/ rural based students, compared to their well to do counterparts are more likely to find themselves on a glass cliff, such that their chances of succeeding in an e-learning 2.0 context are associated with greater risk and an increased possibility of failure, and can thus be seen as more precarious.
Recommendations

The following recommendations were given:

- Educational organisations that embark on e-learning should under-pin their education strategy and plan their infrastructure proactively rather than being driven by the political and technological imperatives.
- Socio-economic factors must not be ignored when planning and implementing e-learning programmes.
- Institutionally, new basic conditions need to be adopted which, for example, enable the less privileged members of society to enjoy the benefits of e-learning 2.0.
- On the level of the program, it is important to construct learning methods and curricula in a manner that leaves room for the influence of learners’ feedback.
- On the level of learner activities, learners need to be familiarized more with reflection and peer-review processes, making it possible for them to give feedback on the quality of their learning processes.
References