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Implications of the University of South Africa's shift to Open Distance e-Learning on Teacher Education

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Abstract: This conceptual and exploratory article seeks to explore the implications of the University of South Africa's (Unisa) shift from open distance learning (ODL) to open distance e-learning (ODeL) on Teacher Education. In addition, the article problematizes the shift as a policy imperative. Unisa's mandate to provide teacher education opportunities to previously disadvantaged African students who were excluded from higher education opportunities by apartheid policies and legislation is considered. With this in mind, the blind spot is that the intended shift from ODL to ODeL presumes existence of a culture of use, and reliance on modern electronic technologies. Put simply, the shift has unintended consequences of perpetuating socio-economic inequalities. In this paper, I shall argue that the promise of global e-learning can only be realized if Unisa was to strive for a better understanding of teaching and learning in the context of previously disadvantaged space(s).

Introduction

In South Africa, open distance learning (ODL) plays a critical role in teacher educational development. Most teachers were previously excluded from opportunities to higher education by the apartheid policies and legislation. Different ODL institutions in South Africa and on the African continent use a wide variety of modern and/or affordable technologies to facilitate the sharing of learning content with, and among their geographically distant students. ODL is characterized by use of new Web 2.0 tools (Mbatha, 2014). The latter allow for more interaction between the lecturer and the students, the students and the learning environment, the student and fellow students, and the students and the institutions with which they are affiliated. This is different from the previous First, Second and Third Correspondence models where the lecturer was the only constant link between the student and the learning environment (Anderson & Dron, 2011; Taylor, 1995, 2001; Fozdar & Kumar, 2007).

The paper, which is both conceptual and exploratory, considers the University of South Africa (Unisa)'s imminent transition from ODL to open distance e-learning (ODeL). I ask and attempt to answer pertinent questions with respect to the envisaged transition. For instance, in the context of South Africa in particular, what is the implication of the *shift* to ODeL for teacher educational development? How plausible is it for an institution that has marketed itself as open, flexible, and affordable to the poor masses of previously disadvantaged African people to

suddenly embrace e-learning? Is not this shift likely to exclude the previously marginalized groups that the university purports to include? The paper is divided into five sections. I start with a clarification of the key concepts that are used in the paper, and how I understand them. In the second section, I provide a brief exploration of the ODL framework under which Unisa is currently operating. The exploration shall be brief given that a more detailed ODL framework has been done elsewhere (Letseka & Pitsoe, 2013; 2012). Therefore, here I only make cursory remarks and observations. I also consider the ODeL framework. The notion of ODeL is a contested terrain. While Unisa strives to move toward the ODeL mode, others have expressed concern that a clear and unambiguous distinction between, on the one hand, ‘distance education’, and on the other hand, ‘e-learning’, is necessary given that the two are “not the same thing” (Guri-Rosenblit, 2005). E-learning presumes the ubiquity of, and establishes the culture of the use of various modern electronic technologies to facilitate communication and to share information between the lecturers and the students. I question the viability of such a presumption. In the third section, I unpack teacher education and the importance of employing the appropriate pedagogical principles in teaching the teachers how to teach. In the fourth section, I sketch some of the initiatives being rolled out at Unisa to ensure that teacher educational development benefits from ODeL. In the fourth section, I reflect on the perceived gains of shifting to ODeL and the plausibility of the envisaged shift to ODeL. In the last section, I offer some concluding remarks. I now turn to a clarification of concepts.

Clarification of Concepts **Open Distance Learning (ODL)**

By their very nature, ODL institutions provide educational opportunities to mature non-traditional, working students who are often unable to access higher education in full-time, contact, and campus-based institutions. Former Vice Chancellor and Principal of Unisa, Barney Pityana (2009) postulates that ODL is a form of education delivery model that promises to solve the ongoing challenge of limited access to higher education. It is his contention that ODL has the potential to widen access and facilitate increased participation in higher education. In Pityana’s view, ODL is cost-effective in comparison to face-to-face contact mode of delivery. He warns though of the imperative to guarantee quality of delivery of teaching and learning in ODL. Unisa (2008) defines ODL as a learning model that endeavours to bridge the time, geographical, economic, social, educational, and communication distance between the institutions and the students, the academics and the students, the learning materials and the students and among the students themselves. There is consensus among ODL practitioners that the common ODL feature is that it is not defined by the distance between the academic (the teacher) and the student (Commonwealth of Learning 2004; Perraton, Robinson & Creed, 2001; Perraton, 2000; Unesco, 2002; Peters 1998; Rowntree, 1996; Moore & Kearsley, 1996; Holmberg, 1995).

Therefore, it can be argued that the success of ODL depends on functional and optimal student support systems, a point that is well argued by Dunpath and Dunpath (2015). Before the advent of modern electronic technologies student support was provided through detailed and sometimes laborious written feedback on hardcopy assignments; lengthy landline telephone conversations, or scheduled face-to-face contact either individually or in groups (Perraton, et al., 2001; Perraton, 2000; Unesco, 2002; Peters, 1998; Rowntree, 1996). Moore and Kearsley (1996) postulate that ODL is an organized learning activity designed to afford learning opportunity to everyone, everywhere they are located. The students would be required to study and complete

their degrees without physically attending classes. According to Letseka and Pitsoe (2013), ODL has been marketed through the use of fancy descriptors such as open, accessible, flexible, supportive, and affordable. They argue that these descriptors are premised on the assumption that distance learners are responsible adults who can self-regulate their own learning; and that the mere provision of learning materials like tutorial letters, audio-visual media and ongoing self-assessment would result in the acquisition of knowledge and requisite skills. Given that ODL students are expected to learn on their own, they tend to form their own peer support groups where they support one another to reach their goals. ODL has two distinct characteristics that make it different from full-time campus-based contact learning. First, it is never synchronous in nature. This is attributable to the distance element that requires learning to be correspondence-based (Keegan, 1996). Second, it is guided by educational theories that put emphasis on the teacher being the centre of knowledge, termed “teaching by telling” (Dede, 1996).

But how should distance learning be managed in the era of increasingly proliferating modern electronic technologies such as the internet; internet-linked computers; Wi-Fi; DVDs; videos and video links, tablets; smartphones, and associate satellite technologies? These technologies have lifted the lid off the generation and dissemination of ‘knowledge’ on conception, dissemination and control of ‘knowledge’ or ‘what’s knowable’. As a result, the position of the teacher as the ‘centre of knowledge’ has either taken a new form or gradually ‘withered away’. Conceptions of ‘knowledge’ have become negotiated, porous and decentred terrains. In the next section, I briefly explore the ODeL framework. My aim is to reflect on its implications for conceptions of knowledge and the place of a conventional teacher in the era of modern electronic technologies.

Open Distance e-Learning (ODeL)

The ODeL framework is premised on the assumption that every student learning can be supported by modern electronic technologies and other digital facilities. The operating term here is ‘assumption’. Furthermore, ODeL students are assumed to have the ability to make optimal use of modern electronic technologies to access their study material and to interact with their lecturers without necessarily being required to make physical contact. Carswell, Thomas, Petre and Price (2000) argue that increased interaction in ODeL leads to reduction in transactional distance between the lecturers and the students. Therefore, modern electronic technologies result in e-learning, online learning or digital learning through the use of remote electronic communication.

A further assumption of ODeL is that it is guided by learner-centred educational theories. Benson and Samarawickrema (2009) contend that learning designers in ODeL should consider the impact of context on the student’s learning journey. In the same vein, Laurillard (2002) posits that technology-based learning would be more effective if its design is based on the conversational framework. There are specific technologies that can be used to facilitate the conversational framework of teaching and learning. For instance, video conferencing can be used to facilitate dialogue and discussions between the lecturers and the students, and among students at different locations. Such dialogue and discussions provide spaces for students to analyse each other’s views (peer-to-peer assessment) and to develop critical thinking skills. In some instances, lecturers might make use of electronic discussion forums to promote collaboration, synthesis and reflection. The three activities bridge the spatial distance that might exist between the lecturers and the students, the students and the learning content, and among the students themselves. Some

lecturers use blogs to facilitate learning in an online environment. Blogs get the students, the lecturers and/or e-tutors to reflect on the processes of teaching and learning. They provide a form of support that enables students to have an asynchronous communication while also enabling support during learning. Podcast is another tool that is used quite often to facilitate ODeL. Anderson (2010) argues that the benefits of podcast are that it augments the clarification of specific details in the learning content and enhances understanding. Generally though, podcasts facilitate the consolidation of knowledge acquired during learning. They could also be instrumental in providing students with illustrations or demonstrations of the element of the learning content.

In the next section I discuss some of the initiatives that Unisa is putting in place in order to facilitate the roll out of student support in the ODeL mode of delivery. These include, but are not limited to e-tutoring, learning design approaches and digital literacy.

Teacher Education

My understanding of teacher education is that it is a programme of teacher education institutions such as colleges, faculties and institutes of education. Essentially, teacher education aims to socialise teacher education students or prospective teachers into the educational purposes and how to respond to particular dilemmas. As Tatto (1998:67) argues, “teacher education programmes require norms of discourse within teaching which teaching and learning occurs theoretically, promoting teacher educators and student-teachers’ dialogue about teaching and learning”. Teacher education programmes provide the space for education student-teachers to learn ‘how to teach’. They create “educative experiences intended to progress teachers’ thinking over long periods of time...consistent with teachers developing as adaptive experts who evolve their core competencies and expand the depth and breadth of their expertise” (Bransford, Derry, Berliner, Hammerness & Bercket, 2005).

Therefore, a successful teacher education programme is one that develops “the capacity to inquire sensitively and systematically into the nature of learning and the effects of teaching” (Darling-Hammond, 2000:170). It equips teacher education students or prospective teachers to “learn to draw upon and use their understanding of the subject matter, learning, development, culture, language, pedagogy, and assessment in addressing concrete problems of practice” (Hammerness, Darling-Hammond, & Bransford, 2012: 358). Darling-Hammond (2010:223) concurs by arguing that “teachers should know and be able to do in their work a spectacular array of things, such as understanding how people learn and how to teach effectively, including aspects of pedagogical content knowledge that incorporates language, culture, and community contexts for learning”. What this requires, Hammerness et al (2012:360) argue, is for teacher education programmes to strive to turn teachers into ‘adaptive experts’, that is, practitioners with the ability “to efficiently and effectively use a specific classroom technique – such as reciprocal teaching conducted in small groups”. Hammerness et al. (2012:360) argue that expert teachers are able to:

- Perform a variety of activities without having to stop to think about how to do them;
- Give directions and hand out materials while keeping everyone’s attention; and
- To notice patterns of classroom activities, that to the novice, often seem like disorganised chaos.

A successful teacher education programme is one that equips teacher education students or prospective teachers with “teaching skills, professional conduct, and the appropriateness of their

interactions with children” (Darling-Hammond & Youngs, 2002: 16). Loughran and Hamilton (2016:18) argue that “in pursuing scholarship of teacher education, theory and practice need to be viewed as complementary and informing”. They further argue that teacher education “is about opening up for scrutiny the teaching and learning experiences in teacher education programmes. It is about making explicit the pedagogical purposes of teacher educators” (Loughran & Hamilton, 2016:17).

Teacher Education through ODeL

Dyment, Downing and Budd (2013) assert that institutions that offer teacher education should ensure that their online provision is rich with pedagogical engagement. Online teaching is being used widely in order to reach more teachers and allow them to enhance their teaching skills. Some of the benefits include increase in accessibility for part-time students and those that live in isolated areas (Chau, 2010; Robina & Anderson, 2010), develop digital fluency (Bonk, 2009) and enhance student engagement (Anderson, 2008).

As in most non-contact teaching contexts, teaching through ODeL brings concerns like inappropriate learning design approaches and lack of consensus on ODeL approaches. I briefly tease out each of these challenges.

Inappropriate Learning Design Approaches

As alluded to earlier, there are challenges with respect to the ODeL approach. One of these is the common mistake of using the learning approaches that were initially meant for the correspondence model. For instance, there is a tendency among some lecturers to simply upload the pdf versions of old learning materials onto the *MyUnisa* (Learning Management System branded myUnisa) online portal without providing any pedagogical support. Oliver and Herrington (2001) propose a conceptual framework that is an important element of e-learning design. This framework, which is constructivist, emphasizes the design of learning tasks that are parallel to specific outcomes and assessment. The tasks should inform the kind of support that is to be given to the students. Shifting to ODeL poses learning and instructional design concerns (Mashile & Matoane, 2012; Muirhead, 2007). These revolve around ensuring that all learning material is accessible to Unisa’s diverse groups of learners. Twigg (2003) presents five different approaches to redesigning courses which can be incorporated into the *shift* to ODeL. The first is the Supplemental model, which keeps the course structure unchanged but adds online activities to supplement learning delivery. The second is the Replacement model, which reduces the paper-based tutorial activities with technology-enhanced activities. The third is the Emporium model, which allows the students to make their own choices on what learning materials would best enable them to learn. The students decide on the pace at which they want to learn. The Emporium model is characterized by individual learner support. The fourth is the Fully Online model. This is resource laden, student-focused and interactive. The fifth is the Buffet model, which provides a variety of learning activities through different media with courses that use different instructional strategies to facilitate learning. The success of this approach depends on ongoing learner support and use of different collaboration styles. Incorporating Twigg’s approach of a Buffet model would enrich Unisa’s teacher educational development programmes.

It would make ODeL accessible to more teachers who otherwise could not enhance their teaching skills owing to the challenge of distance.

Lack of Consensus on the ODeL Approach

The principle of Change Management requires that research is conducted to determine the attitudes of different stakeholders towards any planned changes. In this regard, two commissioned studies led by Roger Mills of Cambridge University in the United Kingdom, and the South African Institute for Distance Education (SAIDE) are worthy of mention. On the one hand, Mills (2011) cautions that Unisa might not be ready for e-learning or ODeL. He is doubtful that Unisa is ready to function as an ODeL university such as Athabasca in Canada or Phoenix in Arizona, United States of America (USA). On the other hand, the SAIDE (2012) study expresses a hopeful view for Unisa to facilitate interactions with students through digital approaches. While the two studies convey different messages, it stands to reason that Unisa needs to pay careful attention to the development of robust ICT infrastructure and other emerging digital technologies if it hopes to hit the ground running in its roll out of the ODeL mode of teaching and learning. It is crucial at this stage to mention that there is a tendency at Unisa to think that the use of modern electronic technologies implies a form of panacea to our modern day challenges to teaching and learning. This tendency is predicated on the belief that traditional distance education methods like correspondence through hardcopy material, telephonic discussions with distance students, and traditional library holdings in the form of hardcopy textbooks and scholarly journals are outdated and should therefore be done away with. I have a contrary view by contending that the two approaches to teaching and learning can be optimized by viewing, and using them as complementary to one another. Print media still has many miles to go, and much to live for. For teachers to benefit from the programmes, Unisa has to ensure that it teaches and supports students in ways that enrich their learning experiences.

Unisa ODeL Initiatives

This section presents the different initiatives that the Department of Tuition and Facilitation of Learning at Unisa has introduced as part of facilitating support for online learning or e-learning. A number of these initiatives aim at making use of technological tools to facilitate an interactive student support system (Mbatha, 2014).

E-tutoring

E-tutoring is part of the Integrated Tutor System (ITS). The aim of the ITS is to enable the Information and Communication Technology (ICT) system to facilitate positive learning experiences for Unisa students. Matoane and Mashile (2012) define e-tutoring as a tool that can be used to facilitate learning, steer students towards successful completion of their course and effectively manage a conducive learning environment. E-tutoring offers four main roles, namely, pedagogical, managerial, technical, and social support.

- The pedagogical role enhances collaboration, knowledge construction and critical thinking.
- The managerial role augments the practical and administrative element of learning.
- The technical role ensures that the ICT system and the software provided adequately support students' digital and pedagogical competence.
- The social role provides an environment for the students to freely collaborate and learn from each other in a relaxed manner.

As part of Unisa's intended *shift* to the ODeL mode, three tutoring programmes were introduced. These are the Science Foundation Programme (SFP), the Face-to-Face (F2F) programme, and the E-tutoring programme. Besides the F2F programme, which is based on the student and the tutor interacting face-to-face, both the SFP and the e-tutoring, programmes are presented electronically.

Perceived Benefits of ODeL

In a country such as South Africa, which is characterized by routine service delivery and trade union protests, there is a pressing need for the realization of the promise of learning 'anywhere, anytime' factor that is offered by e-learning (Marimo, Mashingaidze & Nyoni, 2013; Cooper, 2009; Aydin & Tasci, 2005). For instance, the fact that students can access their study environment and material wherever they are, it would no longer be necessary to wait for study guides to be delivered by postal services when they can be downloaded from the internet as this expedites e-teaching and e-learning. E-learning is said to provide opportunities for lecturers to offer 'just-in-time training' (So & Swatman, 2006). I would like to see this as 'just-in-time learning facilitation'. Lecturers are able to provide feedback on students' assignments through a click of a button from any location in the world through 'on-screen-marking'. The students benefit by receiving their feedback on time, having a chance to engage with their lecturers and peers, which potentially improves understanding of the learning concepts. With well-functioning e-learning programmes in place, the students need not complain about late feedback on assignments, which compromises preparation for examinations. It has been argued that e-learning opens opportunities for e-student support where the student can have access to cognitive, affective and systemic support at a click of a button (Tait, 2000).

Student-centred learning (Abu-Hassan-Assari, 2005) and student-centred support (Sewart, 1993) are two crucial elements for nurturing students' critical thinking skills and positive learning experiences. Student-centred learning is premised on the assumption that the students should be the core element in the design of learning material, the learning environment, assessment, and support services (Beheler, 2009). Moreover, student-centred support implies that the students' needs are the determining factors for how support is structured and provided (Sewart, 1993). Tait (2000) postulates that learner support services should comprise of a functional technological platform, authentic student characteristics, course demands, effective management system, and scalability. Regarding scalability, Hülsman (2004) suggests that learner support models should be based on economies of scale. He argues that the increased cost of learner support should be justified by positive learning experience and progressive retention rates. To assist in understanding the cost involved in learner support, Simpson (2008) designed a cost versus benefit of learner support formula. This formula can be used with different learner

support interventions, for instance, interaction between lecturers and students, students and the learning material, students and students and students and learner support specialists (De Villiers, 2005; Yun, 2008; Ryan, 2004). In the case of one ODL university in Africa, practitioners like Hülsman (2004) question the use of the tutor-student ratio of one e-tutor to 200 students (1:200 ratio). Although this argument is based on the idea that e-tutor/student interaction is more effective when the e-tutor has less number of students to support, Hülsman (2004) argues that there should be evidence of the impact of learner support on the learner performance. According to Lentell and O'Rourke (2004), the desired norm for European ODL institutions is one tutor to 20 to 30 students (1:20-30 ratio). To counteract the high costs involved in learner support, Brindley (2014) suggests effective use of peer-to-peer support in order to cater for large numbers. Peer-to-peer support would also lead to students forming collaborative learning networks which Kretovics (2003) calls the student Communities of Practice (CoP).

Collaborative learning goes beyond geographical locations (Aydin & Tasci, 2005; Cooper, 2009; Marimo, Mashingaidze & Nyoni, 2013). It can occur in two forms, namely, on a face-to-face or virtual mode. Face-to-face collaboration would be in the form of study groups formed among peers with the aim of supporting each other. In undergraduate studies, peers are united by common causes like the same module content, same level of study and the need for peer support. Similarly, in postgraduate level, students' collaboration could be based on academic and motivation needs. Virtual collaboration can be facilitated through Web 2.0 tools like social networks, vodcasts, podcasts, blogs, wikis, shared docs, YouTube, bookmarks, multimedia sharing, and tagging (Mbatha, 2014). The benefits of virtual collaborative learning include among others; being able to collaborate online, having access to evolving content, limitless and safe data sharing and storage through cloud computing, increased user participation and rich user experience. These are indeed laudable prospects for institutions intending to adopt the ODeL mode of learning to consider. The presumption driving such considerations would necessarily be advancement in, and ubiquity of modern electronic technologies. In the next section, I mull over the plausibility of ODeL at Unisa given South Africa's level of modern electronic technologies' penetration, especially in the vast rural areas where the majority of Unisa's student clientele resides.

Implications of the Shift to ODeL on Teacher Education

The introduction of new teaching approaches and tools will undoubtedly be met with "resistance" by less technologically competent lecturers. This is because modern electronic technologies force traditionally-inclined lecturers out of the comfort zone of their customary and familiar techniques and pedagogies. As Ncube, Dube and Ngulube (2014) aptly put it, "lecturers become apprehensive when they are expected to change the way they have always been designing and facilitating teaching and learning". Furthermore, Ncube et al. (2014) are acutely aware that adoption of ODeL will mean lecturers will not only have to change the way they teach, but they will also need to change the way they design their learning programs and respond to their respective learning environments. They will be required to design learning materials that are easily accessible to the diverse online students; are intended for collaborative learning; for student-centred engagement; for authentic and transformative learning, and for critical engagement. Teaching and learning would need to radically shift from assessing students through once-off summative assessments to more bite size formative assessment activities that encourage creativity and originality.

Advocates of e-learning perceive it as a necessary and long overdue educational paradigm shift that should make obsolete all forms of distance/correspondence education that preceded it. However, Bates (2005:14-25) cautions that this is fundamentally mistaken given that “distance learning can exist without online learning, and online learning is not necessarily distance learning”. In the same vein, Guri-Rosenblit (2005:468) argues that on the one hand ‘distance education’ and ‘e-learning’ do overlap in some cases, but are by no means identical. Distance learning reaches out to students wherever they live or wish to study. On the other hand, e-learning relates to the use of electronic media for a variety of learning purposes that range from add-on functions in conventional classrooms to full substitution for the face-to-face meetings by online encounters (Guri-Rosenblit, 2005:469).

What do these views highlight? My view is that e-learning provides a window of opportunities for Unisa to approach ODeL with caution, cognizant that while modern electronic technologies do indeed optimize the work done, it would indeed be imprudent to treat them as panacea to our teaching and learning challenges.

How Plausible is ODeL?

A proportion of Unisa lecturers are reported to “resist” ODeL because they are not fond of modern electronic technologies (Ncube, Dube & Ngulube, 2014). The greatest concern is that Unisa will lose out on the opportunities to use technological offerings like the Massive Open Online Courses (MOOCs), the Open Educational Resources (OERs) and so on which support constructivist student-centred approaches to teaching and learning. Not being supportive of the use of modern electronic technologies can only deprive Unisa students of an opportunity to engage in the digital world. Makoe (2012) highlights the importance of the need for academics to embrace the digital learning habits of their students. She uses the term ‘digital natives’ to describe modern technology users who have ‘hypertext minds...leap around...function best when they are networked...thrive on instant gratification and frequent rewards’ (Prensky, 2001:2). Makoe (2012) argues that at Unisa, as in other higher education institutions, the lecturers tend to be digital immigrants who are not socialized into learning through different tools but only through engagement with structured courseware.

Research shows that most of Unisa students are comfortable with the use of social media tools like *Facebook*, *Instagram*, *Twitter*, *Mxit*, and other synchronous platforms (Makoe, 2012). Not embracing these tools would deny Unisa lecturers and students the opportunity for interaction and instant feedback through easily accessible mobile technologies like cell phones, smartphones, MP3 players, Tablets, iPads and others (Rao, 2011; Prensky, 2004). Global learning trends are such that lecturers have to change from being knowledge banks to being a learning process design experts (Makoe, 2012). This approach to teaching and learning is not only becoming universal, but it also encourages authentic learning (Reeves, Herrington & Oliver, 2004; Ralabate, 2011), promotes higher order thinking skills and active learning (Laurillard, 2004) and cultivates a sense of responsibility to learn and self-development (Seymour & Fourie, 2004:5). Another consequence of not embracing the ODeL model through the use of modern electronic technologies is that Unisa might not benefit from the uses of emerging technologies such as cloud computing, mobile technologies, gaming and simulation software, open content, learning analytics, personal learning environments (Johnson, Adams Becker, Cummins, Estrada, Freeman & Ludgate, 2013). The use of different electronic technologies provides lecturers and

students with a variety of means for interaction. It positions the students to access different learning approaches, mediation and engagement.

Conclusion

The literature on teaching and learning at Unisa shows that the students are at home with modern electronic technologies and social media tools. It would therefore be a terrible disservice should the university not embrace the ODeL model. It is the author's submission in this paper that the ODeL model holds the key to huge benefits for Unisa's lecturers and students to be key role players in accessible, open, inclusive and interactive learning practices. In order for this to happen, Unisa needs to prepare its lecturers for the transition from ODL to ODeL in order to enable them to impart appropriate teaching skills. It needs to ensure that academics and support staff, as well as the students receive appropriate and sufficient training, retraining and continuous support to deal with the envisaged *shift* to ODeL. There is also the imperative to strengthen the provision of the ICT infrastructure in order to avoid costly glitches such as the slow uptake when logging into the system because of poor bandwidth.

Given that Unisa's estimated student headcount is currently in excess of 400 000, the number of technical and learning technologies support staff would have to be increased and availed on a 24/7 basis in order to meet the demand created by this astronomical growth in student headcount. There is no doubt therefore that one of Unisa's glaring priorities is to provide adequate bandwidth infrastructure to ensure fast and reliable internet connectivity. The greatest challenge though is going to be how well Unisa reaches out to the vast majority of students that reside in rural, communal, invariably poor parts of the country and who might be excluded from the broader benefits of modern electronic technologies through the 'digital divide'. Designing ODeL programme that are able to transcend the 'digital divide' would be a measure of Unisa's successful provision of the ODeL mode of teaching and learning.

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