New media and self-directed learning: Enhancing pedagogical transformation in an open distance learning landscape

by

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DEDICATION

This study is first and foremost dedicated to the Almighty God. "Thank you Lord that you have shown me favour. The appointed time has come" Psalm 102:13. I also dedicate this study to all Unisa academics who participated in the interviews, for their time, and complete understanding of the ODeL principles by making sure that they constantly adopt technology such as new media in the quest for collapsing the transactional distance between them and their students. New media approaches have started pervading Unisa because some academics have realised their potential in narrowing the transactional distance. Subsequently, Unisa is obliged to review its instructional and policy frameworks to keep pace with these developments and to stay on par with global markets. This better expresses how Unisa, as the leading African ODL University in the service of humanity, has embarked on the journey to become a centre of excellence using cutting edge technology.

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DECLARATION

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ABSTRACT

NEW MEDIA AND SELF-DIRECTED LEARNING: ENHANCING PEDAGOGICAL TRANSFORMATION IN AN OPEN DISTANCE LEARNING LANDSCAPE

Modern technological innovations are constantly seen throughout every aspect of life, and higher education is no exception. To this end, this article sheds some light on the types of and pedagogical value of new media adopted by academics to promote self-directed learning at the University of South Africa. The study answers the following questions: Which new media approaches have been adopted by academics to enhance self-directed learning? What is the pedagogical value of new media in an ODL environment? A qualitative approach was employed and data was collected through face-to-face interviews with 30 purposively selected Unisa academics. The Unified Theory of Acceptance and Use of Technology model was found relevant to this study. Thematic categorisation was employed for data analysis. The findings depict that a variety of new media have been adopted to promote self-directed learning at Unisa. The study also found that new media are playing a pivotal role in promoting self-directed learning in an ODL landscape. It is therefore important to note that new media have emerged as strong catalysts in fostering pedagogical transformation.

Keywords: Disruptive innovations; distance education; open distance learning; Web 2.0; new media; electronic learning; distributed learning; self-directed learning; transformation

1.1 INTRODUCTION AND BACKGROUND

It is axiomatic that new media approaches are fundamentally transforming the education sector by supplanting costly, intricate and faraway products or services with much cheaper, simpler and more convenient options such as Web 2.0 approaches (Towner, 2013; Halpern & Gibbs, 2013; Huang, Hood & Yoo, 2014; Balakrishnan, 2014). There is no doubt that these tools have played and are constantly playing an essential role in augmenting how teaching and learning are conducted. The diffusion and adoption of technology in higher education is fostered by the global transition that is presently occurring in higher education. This transition is made possible by the adoption of technology to enhance teaching and learning. Also of note is that this transformation in education has been highly visible in distance education, where Information and Communication Technologies (ICTs) have been adopted to bridge the transactional distance between students and institutions (Logan, 2010; Mbatha, 2015).

It is true that over and above massive online open courses, new media, electronic learning, and distributed learning expedite and create possibilities for operative teaching and learning. Some other methods comprise social networks such as Facebook, Twitter, YouTube, to name but a few. It is correct to mention that these tools have been bolstered by copious scholars acting as reagents in improving teaching and learning, particularly in distance education (Maclean & Wilson, 2009; Bruns, 2008). This transition in education is presently being observed all over the world and the University of South Africa (Unisa) is no exception. Whereas, on the one hand, Fang and Li (2013) assert that "new media has developed into a hot subject in the research of new generation network-related development and application", Paily (2013), further notes that new advances in the space of ICTs in general and new media in particular have provided an assortment of tools and resources for planning and delivering instruction based on constructivist ideologies. Therefore, it is important for academics in the open and distance learning environment to maximise gains beyond the number-crunching of high throughput rates.

1.2 Research problem

The problem explored in this study relates to the resistance of many University of South Africa (Unisa) academics to adopt technology. This hinders the smooth evolution that is presently happening in the institution. Unisa is currently in transition moving from being an open distance learning institution (ODL) to an open distance and electronic learning (ODeL) university. This transformation implies that the institution must adopt more technologies to narrow the transactional distance. Previous studies show that there is inadequate use of technology by some Unisa academics to augment teaching and learning (Liebenberg & Chetty, 2011; Mbatha & Naidoo, 2010; Liebenberg, Chetty & Prinsloo, 2012).

Some Unisa academics argue that they are unaware of such innovations and whether there are any benefits that can be reaped from adopting them (Liebenberg & Chetty, 2011; Mbatha & Naidoo, 2010; Liebenberg, Chetty & Prinsloo, 2012). In addition, some of the academics have vehemently and constantly argued that due to a lack of digital means many Unisa students face, it is pointless to adopt technology for teaching and learning purposes (Liebenberg & Chetty, 2011; Mbatha & Naidoo, 2010; Liebenberg, Chetty & Prinsloo, 2012). It is true that students at Unisa experience a plethora of topographical circumstances, stretching from rural, urban and peri-urban environs and also students from outside the country. These topographical variances influence the university's service delivery, which has a decree to register an enormous and assorted student body. Scholars such as Mbatha, Naidoo and Ngwenya (2010) point out that "not only is the infrastructure in these regions immeasurably dissimilar, but so is the level of experience with and accessibility of contemporary technology". This, in turn, impacts on the level of technical support that can be delivered through a student support structure.

1.3 Aim of the study

The resistance towards and inadequate use of technology to facilitate teaching and learning by some Unisa academics is a serious cause for concern. It is also important to note that academics' resistance towards and inadequate use of technology exist because they claim to be unaware of the types of technology that can be used to

augment teaching and learning in an ODL context. Therefore, having identified the research problem above, this article seeks to explore the types of new media tools and their pedagogical value in promoting self-directed learning in an ODL environment. This is an effort to create awareness of technology that can be adopted to improve teaching and learning at Unisa. To realise the aim of the study, the following questions were addressed: Which new media approaches have been adopted by academics to enhance self-directed learning? What is the educational value of new media in an ODL environment? After outlining the relevant literature on the pedagogical value of new media in higher education, the author goes on to discuss the theoretical framework on which this article is based. Findings are then reported and discussed in detail, and the author ends with his concluding remarks and recommendations thereof.

2. LITERATURE REVIEW

The literature reviewed in this article was taken from journal articles and academic books. The literature shows that voluminous studies have been carried out to discover the pedagogical value of new media in an ODL environment (Fang & Li, 2013; Huang, Jeng & Huang, 2009). These studies have confirmed that indeed new media command the power to democratise how teaching and learning are conducted, and this has been more evident in an ODL environment (Fang & Li, 2013; Huang, Jeng & Huang, 2009). It is important to note that at present in higher education, web-based learning is starting to change the long standing custom of doing things (Flecknoe, 2002; Garrison & Anderson, 2003; Fang & Li, 2013). Virtual teaching and learning is not bound by location or the same time constrictions, thus previously unserved persons have taken benefit of educational practices. One can safely say that by presenting subjects strictly online rather than in classrooms, universities have atracted more students, and saved money (Huang, Jeng, & Huang, 2009; Mbatha, 2014).

As technology and courses have been enhanced, additional learners have started to study web-based subjects together with normal face-to-face lectures. Some web-based lectures even permit learners to experience related engaging class activities, and sometimes previously unmanageable activities (Huang, et al., 2014;

Balakrishnan, 2014). Different studies have confirmed that disruptive learning innovations are catalysts when it comes to information sharing in higher education (Huang, et al., 2009; Stanciu, Mihai & Aleca, 2012). In concurrence with these views, Huang, et al. (2010) contend that numerous intellectuals attempt to use the development of Web 2.0 to uphold a new learning model, for example adopting blogs in learning and conducting knowledge-sharing by way of such blogs (Jacobs, 2003; Bruns & Jacobs, 2006).

2.1 Pedagogical value of new media

New media normally denote the content obtainable on demand over the internet, which is possible on any digital device, typically comprising collaborating user feedback and creative involvement. Typical examples of new media involve online tools and services such as blogs, online newspapers, wikis, video games and social media, to name but a few. A number of scholars such as Dennis and Melvin (2010); Holmes (2005); Scharl and Tochtermann (2007) have guestioned the "newness" of media. The basis of their argument is on the premise that most of the media that are called new, are actually not new. Some of the media have been around for many decades, yet they are still described as new media. For instance, the internet was first developed in the 1960s, but is still referred to as new media. Also, computers have been around longer than the internet has, but yet they are still regarded as new media. It has been said though that one of the major challenges with this is that the definition of new media needs to be reviewed every few years. As a result, scholars or new media enthusiasts and experts seem to have run out of ideas on how to describe the evolvement of technology. New media nowadays can best be regarded as the mixture of older traditional conventions for data representation, access, and management and innovative conventions of data representation, access and management. Therefore, new media is about new or modern techniques of retrieving and manipulating information.

Mbatha and Manana (2012) supported by Livingstone, Olafsson and Staksrud (2013) argue that an essential distinctive of new media is dialogue. Dennis and Melvin (2010) note that new media convey content over connection and dialogue. As a result, it empowers individuals everywhere in the world to share, remark on, and deliberate on

a wide-ranging assortment of topics (Martin, Jon, Seth, Iain & Kieran, 2003; Scharl & Tochtermann, 2007). On the other hand, Hacker (2011) argues that unlike historical technologies, new media mainly deals with interactive community.

New media have proven to be a force to be reckoned with in so far as pedagogical transformation is concerned. New media permit open source learning instead of manual source learning, hence it encourages learners to independently acquire innovative ideas (Stanciu, Mihai & Aleca, 2012). As innovative tools, new media also bring about active learning and promote collective, innovative, integrative and evaluative aspects in the education sector (Mbatha, 2014). Equally, an earlier study by Jorge (2002) reports that new media offer a prodigious development prospect by contributing to information diffusion, providing a collection of communication abilities and growing access to technology and knowledge.

Recent studies on the diffusion and use of technology in higher education recommend that a vigorous ICT infrastructure be made available to permit all participants taking part in the teaching and learning practice to adopt virtual learning systems meritoriously (Maree, 2011; El-Gilany & Abusaad, 2013; Mbatha, 2014). It was confirmed by Tiene (2002), more than a decade ago, that technology incorporation in higher education is essential for the social and economic evolvement of any state. Similarly, Shaikh (2009) argues that societal and financial evolution can be accomplished through information that can be archived by adopting ICTs for teaching and learning. He also adds that with the help of ICTs, the higher education sector is strategically positioned to be the knowledge creator and hence an information-based society. It is worth mentioning that technology has brought about radical transformation in the facilitation of education and has transfigured the mode in which teaching and learning are carried out. However, it is of the utmost importance to note that for a visible and effective revolution to take place in higher education, changes will have to come about that will disrupt the status quo. These changes may be in the form of transformation that is already occurring in global universities. Mbatha (2015) contends that higher education is currently in the course of evolution, from the outmoded model of teaching and learning to an innovative and socially facilitated

model. In line with these views, in her earlier study, Maree (2011) argues that the innovative and socially facilitated model has been directed by the arrival of ICTs such as new media.

2.2 Self-directed learning

Since this paper focuses on the use of new media to enhance self-directed learning (SDL) in an ODL landscape, it is only fitting to define the self-directed concept. It is worth mentioning that in SDL, the individual takes the initiative and the accountability for what transpires. Individuals choose, and gauge their own learning undertakings, which can be done at any time, in any place, through any means, at any age. Abraham, Upadhya and Ramnarayan (2005) describe SDL as a type of instructional strategy where students take charge of their learning process. In SDL, it is important to note that the role of the lecturer swings from being the 'sage on the stage' to the 'quide on the side' in a SDL context (El-Gilany & Abusaad, 2013; Yuan, Williams, Fang, & Pang, 2012). Similarly, Mbatha and Manana (2012) describe SDL as a process in which students take the initiative to identify their learning necessities, frame learning objectives, ascertain learning resources, choose and implement learning approaches, and assess learning outcomes. On the other hand, Maclean and Wilson (2009) supported by El-Gilany and Abusaad (2013) define SDL as a learning process in which the conceptualisation, strategy, behaviour and assessment of a learning project are guided and determined by the student. However, these scholars further argue that this does not necessarily mean that SDL is a greatly personalised learning process, which is constantly carried out in seclusion. The latter scholars contend that students can study with the use of self-directed techniques whilst involved in group-learning situations, as long as this is an option they have selected trusting it to be favourable to their learning determinations. It is therefore important to note that new media have emerged as catalysts to promote SDL in an ODL context. The author studied a number of theories trying to identify one that is perfectly suitable for this paper. The one that was found suitable is the Unified Theory of Acceptance and Use of Technology model (UTAUT) as discussed below.

2.3 Theoretical framework

This study is informed by the UTAUT model which was coined by Venkatesh, Morris and Davis in 2003. This model is a technology acceptance model and it is shaped by four key elements, namely performance expectancy; effort expectancy; social influence and facilitating conditions. These elements will be briefly discussed next.

Performance expectancy

This element pertains to the degree to which an individual trusts that using a particular information system will enhance job performance. Individuals engage in the use of technology on the assumption that such technology will provide valuable gains (Davis, 1989; Davis, Bagozzi & Warshaw, 1989).

Effort expectancy

Effort expectancy is defined by Venkatesh et al (2003) as the degree of simplicity inherent in the use of technology. When people perceive that using technology will not require too much effort they are most likely to use it.

Social influence

Social influence is defined as the extent to which one sees that important peers trust that he or she should use a new technology. The adoption of any technology should not be laborious to the individual and this can further be defined as the individual believing that adopting the technology will be hassle free (Venkatesh et al, 2003).

Facilitating conditions

This refers to the extent to which an individual believes that organisational or technical infrastructure exists to support his or her use of the technology. Proper infrastructure needs to exist and there should be adequate support to enable people to adopt the technology.

2.3.1 Relevancy of the theory to the study

The UTAUT model is applicable to this article as it explains the user's intentions to use technology and subsequent behaviour. The theory takes into account the factors that result in the diffusion and adoption of technology. Conversely, the theory offers factors that hinder the adoption of technology by individuals. Performance expectancy implies that if academics are of the opinion that the adoption of new media tools will actually enable them to promote self-directed learning, they are most likely to adopt these tools. Effort expectancy pertains to the fact that if academics hold a perception that new media can be used with ease, it is possible that such academics will adopt new media because they are not complex to use. Social influences are dependent on lecturers and students believing that university management believes that they should be using new media and be familiar with them (new media). Facilitating conditions focus on the notion that staff and students should have the idea that the university has the necessary infrastructure and support to facilitate the use of technology.

3. RESEARCH METHODOLOGY

This study falls within the qualitative paradigm, and the case study being adopted as a research design. Face-to-face structured interviews were conducted to summarise the perspectives of the participants, which comprised 30 Unisa academics from the College of Human Sciences. The demographic profile of participants ranged from junior lecturer to full professor in four departments in the College of Human Sciences, and most of them (19/30) were females. The study targeted all colleges at Unisa but this article reports only on the data received from the College of Human Science because much data was received and it would have been impossible to report on all of it in this limited article. The interviews enabled the participants to express their perceptions and experiences regarding the types of and pedagogical value of new media in promoting self-directed learning. These audio-taped interviews lasted between 20 to 30 minutes, and occurred at participants' offices at Unisa. Given the diverse nature and large size of the Unisa community, the focus of this study was narrowed down to Unisa's main campus, which is located in Pretoria in South Africa. A purposive sampling technique was used to select the participants because the

researcher wanted to interview academics who were already using new media in their teaching processes. These participants were selected judgementally as the researcher had an understanding of academics who were using new media to improve teaching and learning. As already stated earlier on in this paper, not all academics were using new media in their teaching processes. Hence it would have been pointless to interview any academic as the idea was to explore and promote educational value of new media in an ODL context. This was only fitting because Unisa is currently in transition from being an ODL to being an ODeL institution. Therefore, the researcher was only interested in the positive aspects and educational value of using new media/ technology in an ODL environment. Data analysis was carried out through thematic categorisation (Strauss & Corbin, 1998). Even though it would have been worthwhile to take account of all Unisa regional offices, this would have required more time, which the researcher simply did not have. Also, the study targeted academics only and therefore it was impossible to involve other Unisa regions because academics are only located at the main campuses in Pretoria and Florida.

Basically, data analysis was grouped into two stages. In the first stage, the open coding was done to identify thematic categories, thus decreasing huge passages of text to principal concepts. Strauss and Corbin (2008) note that "open coding includes labelling concepts, defining and developing categories based on their properties and dimensions". The second stage of analysis focused on axial coding to form actual codes for analysis. Basically, the study sought to generate detailed and useful findings from fewer participants, rather than less detailed information from a bigger group. Despite the fact that the findings of the study are not representative or generalisable, they nonetheless signpost expanses for further investigation and contribute to the development of strategies that can be implemented to improve the diffusion and adoption of new media by academics and students at Unisa and other tertiary institutions in a similar situation. The validity of the interview guide was enriched by the questions being based on the objectives of the study. Each question was checked to establish whether it added value to the research objectives. It is also worth noting that with regard to internal validity, the investigator examined the work thoroughly to guarantee that the research assistants stick to the topic and consequently the study measured what it was anticipated to measure. With regard to reliability, the interview

guide was pre-tested in a pilot study for lucidity, completeness, significance and inadequacies. The pilot study was conducted with three academics from the College of Human Science who were not included in the main study. The findings of the pilot study showed that although the questions were clear and relevant there were too many and therefore had to be cut. The permission to conduct the study and ethical clearance were obtained from the University of South Africa's Ethics Committee.

Informed consent was obtained from each participant in the study in order to ensure that they understood what they were doing and to verify their willingness to participate. Participants were informed of their rights, including the right of informed consent, protection from disclosure of information, and respect for their privacy. All the research participants voluntarily participated in the study. With regard to protection from harm, the researcher ensured that the participants were not at any risk by answering questions and would not be exposed to embarrassment, unusual stress, or any demeaning treatment. Anonymity and confidentiality were promised and maintained. The information they provided was not made available to anyone else who was not directly involved in the study and cannot be traced back to the participants. In terms of professional standards, the researcher ensured that the findings were gathered in a professional manner without misrepresenting anyone and/or intentionally misleading the participants about the nature of the study. The researcher ensured that all the findings were presented honestly without fabricating any data to support any particular finding. The section below presents the findings of the study as they emanated from the interviews.

4. FINDINGS AND DISCUSSIONS

The findings below are reported under the following headings: types of new media adopted by academics to enhance self-directed learning; and the benefits of using new media in an ODL institution. It is important to note that although there are plenty of challenges that prohibit the use of technology in an ODL environment, this paper specifically focuses on the pedagogical value of new media, exploring how and which types of new media can be adopted to enhance self-directed learning in an ODL

institution. Also of note is that there are many studies that have been conducted to explore obstacles to the adoption of technology in an ODL environment, and more specifically new media approaches (Barnes, 2015; Paliktzoglou, & Suhonen, 2014; Powers, & Musgrove, 2016; Robbins, & Singer, 2014; Skiba, 2014). Conversely, not many studies have been conducted to explore the pedagogical value of new media in an ODL context. Most studies in this area have focussed on the educational value of social media in higher education (Mbatha & Manana, 2012; Barnes, 2015; Powers, & Musgrove, 2016).

4.1 New media tools adopted by academics and their benefits

One of the themes that emerged during the interviews relates to the type of new media tools that have been adopted by academics to enhance teaching and learning at Unisa and their benefits to promote self-directed learning. The adoption of technology in higher education is informed by the global transition and transformation that are currently taking place in higher education. A number of new media approaches are already playing a significant role in narrowing the transactional distance in an ODL landscape. This came out strongly during the interviews where all participants noted that they were using social media to enhance teaching and learning. For example, one of the participants, shared the following: "Well for me, I mostly use social media, YouTube videos, and Camtasia video tutorials". The findings above confirm that new media tools are constantly playing a significant role when it comes to enhancing teaching and learning in an ODL institution.

Voluminous studies have been carried out to establish the pedagogical value of new media in higher education and more so in an ODL context. These studies have confirmed that indeed new media approaches have emerged as strong catalysts in so far as bridging the transactional distance is concerned (Huang, Hood & Yoo, 2014; Balakrishnan, 2014; Fang and Li, 2013: 458; Paily; 2013; Stanciu, Mihai & Aleca, 2012; Huang, Jeng & Huang, 2009). As already indicated in the literature review section, the UTAUT model takes into account the factors that result in the diffusion and adoption of technology. One of the key elements of this model is the Performance

Expectancy, which implies that if academics believe that the adoption of new media will enable them to promote self-directed learning, they are most likely to adopt them in their teaching processes (Venkatesh et al, 2003). The findings above visibly depict that academics are fully aware of and conversant in the pedagogical value of new media, hence they have adopted them in their teaching processes. It was self-evident during the interviews that for self-directed learning to be realised, academics need to adopt a number of new media tools. It is worth noting that some academics in higher education constantly argue that it is not only new media that promote SDL. Having said that, it should be noted though that new media are playing a critical role in an ODL context and also in supporting the current transition that is presently occurring at Unisa. It is unclear what mechanisms can be adopted to transform Unisa from being an ODL to an ODeL institution other than adopting new media. Some of the tools adopted include common ones that every academic at Unisa is familiar with. For example, one of the participants, in her own words, expressed the following: "In addition to social media, I mainly make use of tools that are available on the myUnisa platform for online modules, the tools that I use allow interaction and collaboration among the students". Another area where new media approaches are playing a fundamental role is in the facilitation of communication in many organisations, including higher education. Since the advent of new media the facilitation of communication and collaborations has immensely improved (Fang & Li, 2013; Mbatha, 2013). It was clear among the research participants that pedagogical transformation requires a change of attitude amongst academics if Unisa is serious about becoming an open distance and electronic learning university. This simply means that more technologies need to be adopted to drive and fast-track the transformation agenda. Notably, this was evident during the interviews because participants were aware that for pedagogical transformation to be successful in an ODL institution, more technologies, other than the ones the university adopted long ago, need to be introduced and this is the future of higher education. This was shared by one of the professors who participated in the study: "There are plenty new media tools that I use in my teaching, one of these tools is the discussion tool which is directly linked to the Gradebook". It is important to note that all academics who were interviewed were chosen purposefully because the researcher wanted to create awareness about types of new media that can be used to promote self-directed learning at Unisa, and in other ODL universities.

There has been a strong resilience among many academics to adopt technology to enhance teaching and learning (Mbatha & Naidoo, 2010). One of the reasons towards this resilience is the fact that it remains indistinct to some academics as to which technology other than the one that the institution adopted long ago (myUnisa) can be used to advance teaching and learning. Hence it was critical for this study to purposefully target academics who were already using different kinds of technology to augment teaching and learning. This is crucial in an ODL university that is striving to be the leading ODeL institution in Africa in the service of humanity using the cutting edge of technology. The sub-sections below provide a variety of new media approaches adopted by some academics to improve teaching and learning. The subsections below also present the pedagogical value of new media, exploring how new media are used to transform Unisa from being an ODL to an ODeL institution. Also of note is that the section below discusses how new media can be used to promote selfdirected learning. A number of new media tools and their educational value are discussed and they include: blogs, InfoGraphics, Gradebook, Powtoon, Diigo, Edmodo, Google Forms, Google Hangouts, podcasts, and Camstasia.

4.1.1 Blogs

With the above as reference, more new media approaches kept on emerging during the interviews. For example, one participant shared the following: "Other than social media, I have adopted a blog because it allows students to have debates on prominent topics. Both the discussion and blog tools allow peer-to-peer assessment among the students". A number of studies on the pedagogical value of new media have been conducted, for example, Huang, Jeng and Huang (2009) contend that several scholars attempt to use the development of new media to foster a new learning model by adopting blogs in learning and by conducting knowledge-sharing using blogs. In line with the views above, Huang et al. (2014) note that collaborative learning can be supported by blogs. It is therefore important to note that blogs are playing a critical role in promoting self-directed learning.

(a) Benefits of using blogs in education

The study found that Unisa academics have adopted an assortment of new media tools in their quest for narrowing the transactional distance. For example, one of the professors from the Department of Communication Science has adopted blogs and she shared the following: "I have adopted blogs in my teaching because they allow students to have debates on prominent topics. I also like the fact that both the discussion and blog tools allow peer-to-peer assessment among the students". In concurrence with the findings above, Huang et al. (2014) opine that a number of academics in many universities have begun to use the trend of Web 2.0 to foster a self-directed learning and new learning model.

4.1.2 InfoGraphics

Other than the blogs and other new media tools that have been mentioned above, Google Drive was also reported by some of the participants as one of the catalyst tools for collapsing the transactional distance and promoting self-directed learning. To this end, one of the participants expressed the following: "Well I am using quite a number of new media tools, and they include streaming vodcasts via the myUnisa platform from Google Drive". A variety of new media tools were reported by participants as crucial for facilitating teaching and learning which result in self-directed learning. Some of these tools include InfoGraphics. In her own words, one professor who participated in the study said the following: "Since 2012 I have been using InfoGraphics because of their educational value". An InfoGraphic can best be described as a conception of data or notions that attempts to transfer multifaceted information to an audience in a manner that can be speedily consumed and effortlessly understood (Smiciklas, 2012). Basically, Infographics is a term that was coined using a combination of two words, namely information and graphics (Mbatha, 2015). A number of researchers have defined InfoGraphics and they all seem to concur that put rather simply, infoGraphics can best be described as a visual representation of data (Eilam, 2012; Smiciklas, 2012). In strengthening the views above, Lankow, Ritchie and Crooks (2012) observe

that InfoGraphics are innovative techniques to convey a message and more so in higher education, which may include school lessons, homework or essays. It is quite axiomatic that InfoGraphics have entered the education space in new and thrilling ways and they promise to be catalysts when it comes to promoting self-directed learning. As already mentioned somewhere in this article, the UTAUT model in which this study is based takes into account the factors that result in the diffusion and adoption of technology. Therefore, one of the elements of UTAUT is Performance Expectancy which suggests that if academics believe that the adoption of technology in their teaching will promote throughput and self-directed learning, they are most likely to adopt technology. Hence some academics were using tools such as InfoGraphics to foster self-directed learning.

(a) Educational value of InfoGraphics

One of the new media tools that were used by some of the academics to improve teaching and learning by promoting self-directed learning were InfoGraphics. Although this tool was used by very few academics, it was clear during the interviews that when used properly, this is one of the tools that are capable of enhancing self-directed learning, more so in an ODeL landscape. When probed to remark on the advantages of using InfoGraphics in education, one of the professors who participated in the study commented as follows: "You see, obviously, a decent graphic ensures that information is effortlessly reachable, as it feeds into numerous students' natural tendency to study by seeing and cooperating". In concurrence with the findings above, Kondratenko (2014) outlines a number of benefits for using InfoGraphics in education. He mentions that InfoGraphics have improved in popularity owing to their visual appeal and capability to meritoriously present information. In his earlier study, Smiciklas (2012) contends that because InfoGraphics are regarded as effective visual communication tools, they possess a high potential to be used as highly influential and useful pedagogical tools simply because visualising information can undoubtedly enhance self-directed learning. On the other, Lankow, et al., (2012) are of the view that InfoGraphics provide a format using visuals that not only appeal to students that are in need of pedagogical information but also assist in the comprehension and retention of that material. It is also important to note that other learning benefits linked to the use of InfoGraphics in education include: improved comprehension of information,

enriched capability to contemplate critically and to develop organised philosophies and value-added preservation and recall of information (Eilam, 2012; Islamoglu, Ay, Ilic, Mercimek, Donmez, Kuzu, & Odabasi, 2015). It is therefore only fitting to note that based on the findings of the study presented above and the literature reviewed here, it is palpable that InfoGraphics are capable of promoting self-directed learning which then triggers pedagogical transformation. Also, if used effectively, InfoGraphics can actually improve the quality of learning through its power of visual communication and learning, and that way pedagogy is transformed.

4.1.3 Gradebook

It emerged during the interviews that Unisa academics were using new media for a variety of educational reasons and one of the tools that they use is Gradebook. The study found that Gradebook has plenty of benefits in the teaching and learning processes and more so in an ODL environment. For example, one of the participants commented as follows: "Honestly, there are many benefits of using new media, but looking at a tool such as the Gradebook, I have decided to use it to easily manage students' grades and assignments online. In addition, the Gradebook is helping me easily input and distribute grades for my students". In support of the findings above, Simonson and Schlosser (2009) note that Gradebook is playing a pivotal role in managing students' grades.

(a) Educational value of the Gradebook

The Gradebook is one of the tools that are regarded as disruptive innovations due to its versatility (Barnes, 2015). Gradebook differs from most of the new media that were adopted by academics in the sense that it is not a teaching and learning tool, but is administrative in nature. Bulger, Mohr and Rairigh (2007) describe Gradebook as an electronic tool that allows lecturers to manage student grades. On the other, Barnes (2015) describes an electronic Gradebook as a teacher's online record of their students' lessons, assignments, progress and grades. It is important to note that a decent Gradebook allows instructors to enter numerous grading rubrics using diverse performance standards and assessment scales (Barnes, 2015). Likewise, a number

of authors have confirmed that Gradebook is very effective in managing students' grades and assignments online (Bulger, et al., 2007; Simonson & Schlosser, 2009; Barnes, 2015). This is one of the tools that can be used by instructors to easily input and distribute grades to students. Simonson and Schlosser (2009) further argue that one of the advantages of using Gradebook is that grades for each task can be considered as points, thorough or partial, pass or fail, letter grades, and tasks can be prearranged into groups for weighting as well.

4.1.4 PowToon

Another new media tool that has proved to be quite effective in promoting self-directed learning is PowToon. This was revealed by one of the professors who participated in the study who had the following to say: "Another tool that I am currently using is a Google Drive application called PowToon". According to Turner, Zahid, Allison, Syed and Farmer (2014: 1) a PowToon refers to "an application that can be used to create animated cartoon-like clips that is a creative and visual way to engage students with concepts and theory". It is important to note that a PowToon is an example of a new media tool that is pervading higher education and has been buttressed by numerous researchers as change agents in pedagogical transformation (Davis, 2005). Likewise, Powers and Musgrove (2016) describe a PowToon as a demonstration tool that integrates an instinctive user interface.

(a) Educational value of PowToon

PowToon is an application that is used to create animated videos and is free of charge. This type of new media application can be created in a few minutes. In education a PowToon can be used by lecturers to flip a classroom, inspire, engage and delight students (Powers & Musgrove, 2016). On the other hand, a PowToon can be used by students to present their assignments in a funnier and creative way (Turner, et al., 2014).

4.1.5 Diigo

Another new media tool that was adopted by some participants was Diigo. This was shared by one of the participants: "I have adopted a number of new media tools and one of them is Diigo". Diigo stands for digest of internet information, groups and other stuff (Estelles, Del Moral & Gonzalez, 2010). Clearly, promoting self-directed learning requires academics to improvise the way they interact with their students. Put rather simply, Wankel and Blessinger (2013) describe Diigo as an influential research instrument and a knowledge-sharing community. Similarly, Hung and Yuen (2010: 704) define Diigo as "a social bookmarking website that permits signed-up users to bookmark and tag webpages". Likewise, Beach (2012: 448) is of the view that "Diigo permits users to highlight any part of a webpage and attach sticky notes to specific highlights or to a whole page".

(a) Educational value of Diigo

There is no refuting the fact that Diigo is a powerful tool to be used in education. According to Estelles, et al. (2010) teachers across the globe are using the social bookmarking tool to engage students in collaborative learning projects. In support of the views above, Wankel and Blessinger (2013) note that with Diigo students can search for online content relevant to their studies, bookmark the websites they find and add them to class group. In addition, students can use Diigo to add comments on their peers' notes, initiate discussions, edit sticky notes and share with others. Beach (2012) argues that the best thing of all, students can use Diigo to access their bookmarks and annotations at school, home or anywhere with internet connection, and this resonates better with an ODL system where there is a transactional distance to be collapsed.

4.1.6 Edmodo

Other than Diigo mentioned above, some academics who participated in the study were using Edmodo to promote self-directed learning. One professor commented as

follows: "I use a lot of social media applications such as social bookmarking sites including Edmodo". Balasubramanian, Jaykumar and Fukey (2014) define Edmodo as "a global education network that supports the connection of all students with the people and resources needed to reach their full potential". In line with the views above, Paliktzoglou and Suhonen (2014) define Edmodo as a leading global platform that has made it easier to bring everyone together in one place.

(a) Educational value of Edmodo

Cruz and Cruz (2013) note that with intuitive features and unlimited storage, Edmodo can be used to swiftly form groups, allocate homework, plan quizzes, and be able to manage students' progress. On the other hand, Balasubramanian, Jaykumar and Fukey (2014: 417) argue that with everything on one platform, Edmodo can be used by lecturers to take complete control of their online teaching. Basically, Edmodo was designed to share resources across the world. In a similar vein, Paliktzoglou and Suhonen (2014) observe that this new media tool can be used in academia to find the best educational content such as open education resources or paid for from all over the web. Also of note is that Edmodo has surfaced as a valuable new media tool when it comes to searching applications and conception of collections of preferred instructive resources (Balasubramanian, et al., 2014).

4.1.7 Google Forms

Google Forms have also emerged as catalysts in bridging the transactional distance, and more so in an ODL institution. This was mentioned by one of the participants: "Well for me Google Forms is very effective in an ODL context because I use it to quiz students and for self-reflection". In line with the findings above, Hodgkinson (2002) notes that Google Forms can be used by lecturers to quiz their students on a specific topic. Also in support of the findings above, Rowe, Bozalek and Frantz (2013) observe that Google Forms can be used to create and analyse surveys in a web browser. It is important to note that one of the advantages of using Google Forms is that there is no special software required to use them (Skiba, 2014).

(a) Educational value of Google Forms

In support of the findings above, Robbins and Singer (2014) observe that one of the advantages of using these forms in education is that multiple people can work at the same time in one document and every change is saved automatically. Similarly, Roseth, Akcaoglu and Zellner (2013) are of the view that with Google Forms lecturers can use them for a quick way to collect and share information with their students. In addition, Google Forms can be used by lecturers to create assessments for students (Schmitt, Sims-Giddens & Booth, 2012). These forms can also be used to build easy-to-use rubrics that can be shared with students. They can also be used by lecturers to collect web-based assignments. Another benefit of using this tool is that it has proven to be a catalyst when it comes to soliciting feedback from parents or students (Erkollar & Oberer, 2011).

4.1.8 Google Hangouts

Another type of new media that lecturers adopted in support of pedagogical transformation is Google Hangouts. This was shared by a professor when asked to comment on the new media she was using to promote self-directed learning and collapse the transactional distance. She had the following to say: "I am using a lot of these tools but not so long ago I have been using Google Hangouts. In addition, the Google platform is very useful because it brings together various tools that you can use together and also share via the myUnisa platform". In a nutshell, Roseth, et al. (2013: 26) observe that "Google Hangouts is a communication platform established by Google which comprises prompt messaging, video chat, SMS, and VOIP features". Similarly, Schmitt, Sims-Giddens and Booth (2012: 27) describe Google Hangouts as "a video-conferencing tool that is accessible for teachers to use as part of Google Apps for education". In addition, Roseth, et al. (2013) are of the view that up to ten participants can join a Google Hangout at a time. There is no doubt that this is one of the emerging technologies that are playing a pivotal role to enhance teaching and learning. Also of note is that for the fact that a Google Hangout can be used to connect classrooms anywhere on the globe, this is the direction of innovation beyond learning confines.

(a) Educational value of Google Hangout

Hangouts can be used to keep in contact, send a message to associates, access free video or voice calls, and join a conversation with one person or a group. Roseth, et al. (2015: 28) is of the view that "hangouts bring conversation to life with photos and even group video calls for free". This innovative tool can be used by lecturers to connect with their students across computers. On the other hand, Schmitt, et al. (2014: 27) notes that "Google Hangouts can be used by lecturers to broadcast and archive live sessions, share screens and create collaborative demonstrations, create live shows and talks for broadcast, create two-way conversations in a digital format, and develop rich online portfolios".

4.1.9 Podcasts

It was good and served the purpose of the study when research participants were constantly revealing different types of new media tools they were using to foster self-directed learning and to transform pedagogy. One of these tools includes podcasts and a participant had the following to say: "I use podcasts to collapse the transactional distance". A number of researchers have written about the pedagogical value of a podcast in higher education. Some of these scholars include Scutter, Stupans, Sawyer and King (2010) who define a podcast as "a digital recording of a radio broadcast or similar program, made available on the internet for downloading to a personal audio player". Put rather simply, a podcast can best be defined as a digital audio file that is created, shared and heard (Kay, 2012). Basically, the term "podcasting" is a combination of "iPod" and "Broadcasting". Simply put, Banister (2010) describes podcasting as "a type of radio show which permits entree to periodic information through downloads on portable devices".

(a) Educational value of a Podcast

As indicated in 4.1 above, podcasts are one of the new media tools that are being used by academics to transform pedagogy. There are a number of benefits that emanate from using podcasts in higher education and more so in an ODL environment. This was shared by one professor who was supported by participants

who had the following to say: "Well for me podcasts are good replacements for conveying research content or lessons to learners who require corrective or extended backing". Many scholars have explored the benefits of using podcasts in education, for example, Herreid and Schiller (2013: 70) posit, "podcasts can be used by lecturers to record audio podcasts in order to provide additional and revision material to students to download and review at a time that fits them the best". In support of the views above, Kay (2012: 825) notes, "more academics are opting to use podcasting in their teaching to stimulate learning through creative means and open lines of communication". It is important to note that podcasts allow learners to access the information any time they want. Kay (2012: 826) further notes, "students can download the information to the device of their choice and listen or watch whenever they are free". These views are also shared by Scutter, et al. (2010) who asserts that podcasts enable academics to record their classes and post them online. As a result, students are able to access previous lectures for reference and to stimulate learning, while transactional distance is being collapsed. It is axiomatic that this is the direction of innovation beyond learning confines. Also, this is what pedagogical transformation is all about.

4.1.10 Camtasia Studio

One of the Professors who participated in the study had adopted a variety of new media tools in the quest of promoting self-directed learning. One of the innovative tools she was using in her teaching is Camtasia Studio, which is widely known as a video-based screen capturing software program. In her own words she had the following to say: "Well, I have adopted quite a number of innovative new media tools, other than social media, I use Camtasia to create vodcasts for my students". In concurrence with the findings above, Charningo (2009) opines that Camtasia is analogous to using a video camera to record a screen. However, Ray and Kletskin (2012: 619) are of the view that "unlike using a video camera, the software is installed on a computer, so the screen captures are directly recorded to a digital video format with higher quality audio". Similarly, in their earlier study, Smith-Stoner and Willer (2003) describe Camtasia as a software programme that lecturers can use to record their desktop

screen while recording their voices – thereby creating vodcasts. It can further be regarded as a typical PowerPoint presentation with visuals and text and can be used in conjunction with the lecturer explaining with voice and video (webcam) various concepts they want students to understand.

(a) Educational value of Camtasia Studio

New media approaches are designed with the intention to improve the way things are done, such as business operations and the way people communicate to improve work productivity and creativity in organisations, to name but a few. The education sector has not been left behind to enjoy the benefits of new media. Camtasia, for instance, has emerged as one of the useful tools for improving teaching and learning. According to Cox (2005) Camtasia can be used to engage students with video recordings. To this end, lecturers can record what is on their computer screens to create powerful video lessons. In line with the views above, Ray and Kletskin (2012) observe that a narrative can be done and thereafter videos can be edited by adding effects, green screen or quizzes. Subsequently these videos can be securely shared with students to watch anytime and anywhere on their own devices. Another glaring advantage of using Camtasia is that lecturers can assess learning on the spot (Cox, 2005). This can be done by adding quizzes and comprehension questions to the lessons to determine how students have mastered the subject. One major advantage of using Camtasia Studio in an ODL institution is the fact that students can take guizzes on their own devices, such as desktop computers, laptops, iPads, android tablets, and most android smart phones (Ray & Kletskin, 2012).

6. CONCLUSION AND RECOMMENDATIONS

The study sought to explore the types and benefits of new media adopted by academics to enhance self-directed learning. This was done by looking at patterns of and major motives for the adoption of new media by Unisa academics to foster pedagogical transformation. To realise the aim of the study, the following two questions had to be answered: Which new media have academics adopted to enhance self-directed learning? And also, what is the pedagogical value of the adopted new media in an ODL environment? The study found that a number of new

media approaches are already playing a significant role in promoting self-directed learning at Unisa. In addition, the findings show that academics are conversant with the pedagogical value of new media tools, hence they have adopted them to foster pedagogical transformation. Apart from myUnisa, an assortment of new media tools have been adopted and they include: blogs, Camtasia Studio, Google Docs, Google Forms, Google Hangouts, Infographics, PowToon, podcast, vodcasts, Diigo and Edmodo. It is important to note that after understanding the types of new media that were adopted by Unisa academics to promote self-directed learning as aforementioned, the study sought to explore the pedagogical value of new media. The findings depict that new media approaches are playing a pivotal role in promoting self-directed learning with the intention to foster pedagogical transformation.

Increasingly, tertiary institutions all over the world are adopting new media in order to carry out their activities and operations, resulting in what is widely known as selfdirected learning and pedagogical transformation. Ultimately, for academics to manage the delivery of services timeously and competently, they must have adequate access to the relevant technology. With regard to the motives of Unisa academics who adopt disruptive learning innovations in their teaching, the study found that they do this for a number of educational reasons. This is good for an ODL system where different kinds of technology continue to play a pivotal role in helping academics to facilitate teaching and learning. Technology is fundamentally transforming the education sector by substituting costly, complex and unreachable products or services with much cheaper, and more appropriate replacements, such as new media. There is no doubt that ICTs, more especially new media, have played and are continuing to play a pivotal role in augmenting the way teaching and learning are conducted. This transformation in education has been highly visible in distance education, where ICTs have been adopted to narrow the transactional distance between students and institutions. The ODL multi-dimensional system permits prospective and/or current Unisa students to circumvent the barricades of time, geographic positioning and the transactional divide between the institution and its stakeholders, chiefly the students.

Notwithstanding the fact that not all Unisa academics have adopted these tools for teaching and learning purposes, those who have done so seem to understand the pedagogical value these tools have in an ODL context. The literature concurs that these tools have been bolstered by many scholars acting as facilitators in endorsing self-directed learning in an ODL landscape. It is worth mentioning that the advent of technology, and more especially new media, has a growing impact on daily-life actions and the information-processing customs of persons, and this has been more rampant in higher education. Another point worth mentioning is that as ICT applications and devices continue evolving to bring wealthier content speedily, irrespective of time and place, universities, more especially ODL institutions, should keep on exploring these developments if they need to be relevant in the information society. It is also correct to say new media approaches are pervading higher education. Subsequently, higher education institutions are obliged to review their instructional and policy frameworks to keep up with these developments and to stay on par with global markets. New media approaches democratise how teaching and learning are conducted, more so in an ODL environment. With the advent of new media approaches, it is only fitting that institutions of higher learning have to harness all available disruptive learning innovations to leverage self-directed learning with the intention to transform pedagogy. This better expresses how Unisa as the leading African ODL University in the service of humanity has embarked on the journey to becoming a centre of excellence at the cutting edge of technology.

LIST OF REFERENCES

- Abraham, R.R., Upadhya, S., & Ramnarayan, K. (2005). Self-directed learning. Advances in Physiology Education, 29(2), 135-136.
- Balakrishnan, V. (2014). Using social networks to enhance teaching and learning experiences in higher learning institutions. *Innovations in Education and Teaching International*, 51(1), 595–606.
- Balasubramanian, K., Jaykumar, V., & Fukey, L.N. (2014). A study on student preference towards the use of Edmodo as a learning platform to create

- responsible learning environment. *Procedia-Social and behavioural Sciences*, 144(1), 416-422.
- Banister, S. (2010). Integrating the iPod touch in K-12 education: visions and vices. *Computers in the Schools*, 27(2), 121-131.
- Barnes, M. (2015). Assessment 3.0: Throw out your grade book and inspire learning. New York, NY: Corwin Publishers.
- Beach, R. (2012). Constructing digital learning commons in the literacy classroom. *Journal of Adolescent & Adult Literacy*, 55(5), 448-451.
- Bruns, A. (2008). *Blogs, Wikipedia, Second Life, and beyond: From production to produsage*. New York, NY: Lang Publishers.
- Bruns, A., & Jacobs, J. (2006). *Uses of Blogs: Volume 38 of Digital formations.* New York, NY: Peter Lang.
- Bulger, S.M., Mohr, D.J. & Rairigh, R.M. (2007). *Sport Education Seasons: Featuring basketball, soccer, and fitness education.* Leeds, UK: Human Kinetics.
- Charningo, L. (2009). Lights! camera! action! production library instruction video tutorials using Camtasia Studio. *Journal of Library & Information Services in Distance Learning*, 3(1), 23-30.
- Cox, C. (2005). From cameras to Camtasia: Streaming media without the tress. Internet reference services. *Quarterly*, 9(3-4), 193-200.
- Cruz, M.B. & Cruz, S.B.B. (2013). The use of internet-based social media as a tool in enhancing student's learning experiences in biological sciences. *Higher learning research communications*, 3(4), 68-80.
- Davis, F. (1989). "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology." *MIS Quarterly*, 13(3), 319 339.
- Davis, D.A.M. (2005). The use of cartoons in teaching mathematics online. In D. Ruthledge & D. Slykhuis (eds.), proceedings of Society for Information

- Technology and Teacher Education International Conference, pp. 277-281. Chesapeake, VA: Association for the Advancement of Computing in Education.
- Davis, F.D., Bagozzi, R.P., & Warshaw, P.R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982 -1003.
- Dennis, M.L. & Melvin, L. (2010). *Understanding media in the digital age: connections for communication, society, and culture.* New York, NY: Allyn & Bacon.
- Eilam, B. (2012). *Teaching, Learning, and Visual Literacy: The Dual Role of Visual Representation*. New York, NY: Cambridge University Press.
- El-Gilany, A.H. & Abusaad, F.E.S. (2013). Self-directed learning readiness and learning styles among Saudi undergraduate nursing students. *Nurse Education Today*, 33(9), 1040-1044.
- Erkollar, A. & Oberer, B. (2011). *Trends in social media application: the potential of Google+ for education shown in the example of a bachelor's degree course on marketing.* In international conference on advanced software engineering and its application, pp. 569-578. Springer Berlin Heidelberg.
- Estelles, E., Del Moral, E., & Gonzalez, F. (2010). Social bookmarking tools as facilitators of learning and research collaborative processes: the Diigo case. *Interdisciplinary Journal of E-learning and Learning Objects*, 6(1), 175-191.
- Fang, H., & Li, X. (2013). Web 2.0 application in subject services of high school libraries. *Information Technology Journal*, 2(2), 458–461.
- Flecknoe, M. (2002). How can ICT help us to improve education? *Innovations in Education & Teaching International*, 39(4), 271-280.
- Garrison, R. & Anderson, T. (2003). *E-Learning in the 21st Century: A Framework for Research and Practice*. London UK: Routledge Falmer.
- Hacker, V. (2011). Building Media's industry while promoting community of values in the globalisation, Politicke Vedy. *Journal of International Affairs, Policy and Security*, 2(2), 33-49.

- Halpern, D. & Gibbs, J. (2013). Social media as a catalyst for online deliberation? Exploring the affordances of Facebook and YouTube for political expression. *Computers in Human Behavior*, 33(2), 1159-1168.
- Herreid, C.F. & Schiller, N.A. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching*, 42(5), 62-66.
- Hodgkinson, H. (2002). Demographics and teacher education: an overview. *Journal of Teacher Education*, 53(2), 102-106.
- Holmes, B. (2005). "Telecommunity" in *Communication Theory: Media, Technology* and *Society*, Cambridge, UK: Polity.
- Hung, H.T & Yuen, S.C.Y. (2010). Educational use of social networking technology in higher education. *Teaching in Higher Education*, 15(6), 703-714.
- Huang, W.D., Hood, D.W., & Yoo, S.J. (2014). Motivational support in Web 2.0 learning environments: a regression analysis based on the integrative theory of motivation, volition and performance. *Innovations in Education and Teaching International*, 51(3), 631–641.
- Huang, Y.M., Jeng, Y.L. & Huang, T.C. (2009). An educational mobile blogging system for supporting collaborative learning. *Educational Technology & Society*, 12(2), 163–175.
- Islamoglu, H., Ay, O., Ilic, U., Mercimek, B., Donmez, P., Kuzu, A., & Odabasi, F. (2015). Infographics: A new competency area for teacher candidates. *Journal of Educational Sciences*, 10(1), 34-45.
- Jacobs, J. (2003). Communication over exposure: The rise of blogs as a product of cyber-voyeurism. In C. J. Hatcher, J. Jacobs & T. Flew (Eds), *Australian and New Zealand Communication Association Conference Proceedings*, pp. 23–35. Brisbane.
- Jorge, S. N. (2002). The economics of ICT: challenges and practical strategies of ICT use for Women's economic empowerment. Seoul: United Nations Division for the Advancement of Women (DAW).

- Kay, R.H. (2012). Exploring the use of video podcasts in education: a comprehensive review of the literature. *Computer in Human Behaviour*, 28(3), 820-831.
- Kondratenko, O.A. (2014). Infographics in the University: generated visual competence. *Perspectives of Science & Education*, 8(2), 110-115.
- Lankow, J., Ritchie, J., & Crooks, R. (2012). *The Power of Infographics: Visual Storytelling.* New Jersey, NJ: John Wiley & Sons, Inc.
- Liebenberg, H. & Chetty, Y. (2011). *Report: Student ICT Survey Results: Collaboration between DISA and ICT.* Unisa: Department of Information & Strategic Analysis.
- Liebenberg, H., Chetty, Y. & Prinsloo, P. (2012). Student access to and skills in using technology in an Open and Distance Learning context. *The International Review of Research in Open and Distance Learning*, 13(4), 249–268.
- Livingstone, S., Olafsson, K., & Staksrud, E. (2013). Risky Social Networking Practices Among" Underage" users: Lessons for evidence-based policy. *Journal of Computer-Mediated Communication*, 18(3), 303-315.
- Logan, R.K. (2010). *Understanding New Media: Extending Marshall McLuhan*. New York, NY: Peter Lang Publishing.
- Maclean, R & Wilson, D. (2009). *International Handbook of Education for the Changing World of Work.* Dordrecht, Netherlands: Springer.
- Maree, C. (2011). Exploring the implications, challenges and potential of new media and learning. *On the Horizon*, 19(1), 245–252.
- Martin, L., Jon, D., Seth, G., Iain, G., & Kieran, K. (2003). *New media: a critical introduction.* London, UK: Routledge.
- Mbatha, B.T. (2013). Facebook: the power source of transforming the learning experience. *International Journal for e-Learning Security*, 3(1), 23–39.
- Mbatha, B.T. (2014). Global transition in higher education: from the traditional model of learning to a new socially mediated model, the case of the University of South Africa. *International Review of Research in Open and Distance Learning*, 12(2), 25–36.

- Mbatha, B.T. (2015). "A Paradigm Shift: Adoption of Disruptive Learning Innovations in an ODL environment: The case of the University of South Africa", in *International Review of Research in Open and Distributed Learning*, 6(3), 218-232.
- Mbatha, B.T. & Manana, K.P.P. (2012). Students' perceptions on the use of *Facebook* in an ODL landscape. *Progressio*, 34(1), 13–26.
- Mbatha, B.T. & Naidoo, L. (2010). Problems hampering the collapse of distance in ODL. *Progressio*, 32(1), 170–184.
- Mbatha, B.T., Naidoo, L., & Ngwenya, B. (2011). Complexities of e-learning in an ODL environment: The experience of students at the University of South Africa. In Ocholla, DN. & Britz, J. (eds) Research issues in information studies in a changing local and global environment. Some African perspective. Dudweiler Landstr: LAP LAMBERT Academic Publishing AG& Co. KG., pp 138-147.
- Paily, M.U. (2013). Creating constructivist learning environment: role of "Web 2.0" technology. *International Forum of Teaching and Studies*, 9(1), 39–50.
- Paliktzoglou, V. & Suhonen, J. (2014). Microblogging in higher education: the Edmodo case study among computer science learners in Finland. *Journal of Cases on Information Technology*, 16(2), 39-57.
- Powers, J. & Musgrove, A. (2016). Putting the "P" into TPACK: Using digital tools to design 21st century lessons. *Society for information Technology & Teacher education International conference*, 2016(1), 3042-3049.
- Ray, R. & Kletskin, I. (2012). Evaluating the use of problem-based video podcasts to teach mathematics in higher education. *Computers & Education*, 59(2), 619-627.
- Robbins, S.P. & Singer, J.B. (2014). From the editor the medium is the message: integrated social media and social work education. *Journal of Social Work Education*, 50(3), 387-390.
- Roseth, C., Akcaoglu, M., & Zellner, A. (2013). Blending synchronous face-to-face and computer-supported cooperative learning in a hybrid doctoral seminar. *TechTrends*, 57(3), 54-59.

- Rowe, M., Bozalek, V., & Frantz, J. (2013). Using Google drive to facilitate a blended approach to authentic learning. *British Journal of Educational Technology*, 44(4), 594-606.
- Scharl, A. & Tochtermann, K. (2007). *The Geospatial Web How Geobrowsers,*Social Software and the Web 2.0 are shaping the Network Society, (eds).

 London, UK: Springer.
- Schmitt, T.L., Sims-Giddens, S.S. & Booth, R.G. (2012). Social media use in nursing education. *The Online Journal of Issues in Nursing*, 17(3), 23-34.
- Scutter, S., Stupans, I., Sawyer, T., & King, S. (2010). How do students use podcasts to support learning? *Australasian Journal of Educational Technology*, 26(2), 180-191.
- Shaikh, Z.A. (2009). Usage, acceptance, adoption, and diffusion of Information & Communication Technologies in higher education: a measurement of critical factors. *Journal of Information Technology Impact*, 9(2), 63–80.
- Simonson, M. & Schlosser, C. (2009). *The Quarterly Review of Distance Education:* Research that guides practice (eds). Charlotte, NC: Information Age Publishing.
- Skiba, D.J. (2014). The connected age and wearable technology. *Nursing Education Perspectives*, 35(5), 346-358.
- Smiciklas, M. (2012). *The Power of Infographics. Using Pictures to Communicate and Connect with Your Audiences.* New Jersey, NJ: Pearson Education Inc.
- Smith-Stoner, M. & Willer, A. (2003). Video streaming in nursing education: Bringing life to Online Education. *Nurse Educator*, 28(2), 66-70.
- Stanciu, A., Mihai, F., & Aleca, O. (2012). Social networking as an alternative environment for education. *Accounting and Management Information Systems*, 11(1), 56–75.
- Strauss, A. & Corbin, J. (2008). *Basics of Qualitative Research Techniques and Procedures for Developing Grounded Theory* (2nd Edition). London, UK: Sage Publications.

- Towner, T.L. (2013). All political participation is socially Networked? New Media and the 2012 Election. *Social Science Computer Review*, 00(0), 1-15.
- Turner, S.T., Zahid, Allison, M., Syed, Z., Farmer, M. (2014). Towards a flipped cyber classroom to facilitate active learning strategies. *Frontiers in Education Conference*, 2(1), 1-4.
- Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D. (2003). User acceptance of Information Technology: Toward a unified view. *MIS quarterly*, 21(2), 425-478.
- Wankel, C. & Blessinger, P. (2013). *Increasing student engagement and retention in e-learning environments: Web2.0 and blended learning technologies.* Bingley: Emerald Group Publishing.
- Yuan, H.B., Williams, B.A., Fang, J.B. & Pang, D. (2012). Chinese baccalaureate nursing students' readiness for self-directed learning. *Nurse education today*, 32(4), 427-431.

ANNEXTURE A: **ETHICAL CLEARENCE**



PROF L LABUSCHAGNE EXECUTIVE DIRECTOR: RESEARCH DEPARTMENT Tel: +27 12 429 6368 / 2446 Fax: +27 12 429 6960
Email: <u>llabus@unisa.ac.za</u>
Address: Theo van Wijk Building, 10th Floor, Office no. 50 (TvW 10-50)

25 February 2014

Ms B Sibango Department of Communication Science College of Human Sciences

Dear Ms Sibango

PERMISSION TO DO RESEARCH INVOLVING UNISA STAFF, STUDENTS OR DATA

A study into New media as pedagogical tools in an ODL environment: the case of Unisa

Your application regarding permission to conduct research involving Unisa staff, students or data in respect of the above study has been received and was considered by the Unisa Senate Research and Innovation and Higher Degrees Committee (SRIHDC) on 13 February 2014.

It is my pleasure to inform you that permission has been granted for this study as set out in your application.

We would like to wish you well in your research undertaking.

Kind regards

PROF L LABUSCHAGNE

EXECUTIVE DIRECTOR: RESEARCH

University of South Africa Preller Street, Muckleneuk Ridge, City of Tahwane PO Box 582 UNISA, 2003 South Africa Talephone: 127 12 428 3111 Facamile: 127 428 12 429 4150 www.unisa.ac.za



College of Human Sciences 6 February 2014

Reference number: 2014_CHS_Staff_USSD_001

Proposed title: New media as pedagogical tools in an ODL environment: the case of UNISA

Principal Investigator: Ms B. Sibango, Department of Communication Science

Approval status recommended by reviewers: Approved

The Ethics Review Committee of the College of Human Sciences at the University of South Africa has reviewed the proposal and considers the methodological, technical and othical aspects of the proposal to be appropriate to the tasks proposed.

Ms Sibango is requested to maintain the confidentiality of all data collected from or about research participants, and maintain security procedures for the protection of privacy. The committee needs to be informed should any part of the research methodology as outlined in the Ethics application (Ref. Nr.2014_CH5_Staff_USSD_001) change in any way.

This certificate is valid for two years.

Sincerely

Prof Tilman Dedering

Chair: CERC

College of Human Sciences



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ANNEXTURE B: CONSENT FORM

INFORMED CONSENT FORM TO PARTICIPATE IN THE INVESTIGATION OF NEW MEDIA AS PEDAGOGICAL TOOLS IN AN ODL ENVIRONMENT: THE CASE OF UNISA

Please read and sign this informed consent form before you participate in the research study.

The title of the study is "NEW MEDIA AS PEDAGOGICAL TOOLS IN AN ODL ENVIRONMENT"

I fully understand the aim of the study as outlined below:

The study seeks to determine the new media technologies that Unisa employs as ODL pedagogical tools from the perspective of students and lecturers in order to enhance teaching and learning and to improve throughput.

I hereby conform that:

- There are no physical, mental and compensation benefits I will receive after participating in the study.
- No other person except the researcher shall have access to the contents of the interview/questionnaire.
- No other person including the researcher shall identify me by my personal identification except by means of the codes attached to me.
- . My participation in the study shall not be revealed in the findings.
- The researcher has not misled me into participating in the study without adequate information regarding the research processes.
- I have the freedom to withdraw from participating in the study at any time I feel necessary.
- I fully understand my rights as a research subject and I voluntarily consent to participate in this study.
- I agree that the research interview can be audiotaped/videotaped.
- . I agree that the results can be used by the researcher.

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ANNEXTURE C: AUTHOUR GUIDELINES

Manuscript Submissions

The aim of The International Review of Research in Open and Distributed Learning (IRRODL) is to disseminate scholarly information to scholars and practitioners of open and distance learning and teaching worldwide.

Authors submit their manuscripts online by registering with this journal then logging in and following an automated, five-step submission process. Topics must relate to open or distance learning and may be placed in the Research Articles section or the Notes section. There are no article submission or access charges for publication in this open journal.

Manuscripts, including all references, tables, and figures, should be approximately 3,500-5,000 words and should not exceed 7,000 words. Submissions that significantly exceed this limit will not be accepted for review. Tables and figures are encouraged, and they should be placed within the text, not at the end.

IRRODL Sections

Research Articles

Blind, peer-reviewed scholarly articles that feature theory, research, and/or best practice in open and distance learning.

Notes

Shorter articles or abstracts, which are reviewed by the editors, associate editors, or other scholars, but are not peer-reviewed; they may be featured as one of the following:

Research Notes - reports of ongoing and recently completed research projects;

Field Notes - shorter pieces describing innovative projects, applications, or interventions in distance education programs;

Book Notes - opinion pieces and reviews of recently published scholarly books on topics relevant to open and distance learning;

Conference Notes - reviews of recent open and distance learning conferences.

Originality

Manuscripts submitted for review and possible publication in IRRODL must be original material that has not been published nor submitted for review/publication elsewhere. Unpublished material that has been presented at a scholarly conference but not edited or formally published may be submitted.

Full Paper

A publishable paper should contain the following:

- 1. Abstract (150-250 words);
- 2. Keywords;
- 3. Introduction (what is the problem?);
- 4. Research method and/or theory used;
- 5. If an application or experiment, a description of pool of subjects and how they were chosen:
- 6. Analysis of research and how results impact theory and practice;
- 7. Conclusion;
- 8. References.

Preparing Manuscripts

Documentation

Manuscripts must conform to APA standard. Consult the Publication Manual of the American Psychological Association (6th ed., 2010).

Follow the author-date method of citation in text. Ensure you provide page numbers for all direct quotes. Prepare an unnumbered reference list in alphabetical order by author. When there is more than one article by the same author(s), list the most recent paper first. References should include the names of all contributing authors. Ensure that all references are accurate and that any references cited in the text also appear in the reference section. Notes, if necessary, must appear at the end of the article (before the reference list) as end notes. Use the end note feature provided by your word processor.

Below are some examples of basic reference formats.

Citing an article in a paper periodical

Surname, A. A. (year). Article title. *Title of Periodical, volume number* (issue number), inclusive page numbers.

Example Grow, G. O. (1994). In defense of the staged self-directed learning model. *Adult Education Quarterly*, *44*(2), 109-115.

Citing a book

Surname, A. A. (year). *Title of book*. Publisher location: Publisher Name.

Example Rogers, E. (1962). *Diffusion of innovations*. New York: Free Press.

Citing online sources

Surname, A. A., Surname, B. B., & Surname, C. C. (2000). Title of article. *Title of periodical, volume number* (issue number). Retrieved from URL/web address.

Example Anderson, T. (2003). Getting the mix right again: An updated and theoretical rationale for interaction. *International Review of Research in Open and Distance Learning,*4(2). Retrieved

from http://www.irrodl.org/index.php/irrodl/article/view/149/230

For more information on citing online sources, visit APA Style Help.

Style

Refer to the Publication Manual of the American Psychological Association (6th ed., 2010) for guidance on expression (including grammar and ways to reduce bias in language) and style (including punctuation, capitalization, headings, etc.).

Submissions must be in English. British or American English spelling is acceptable, but usage must be consistent throughout. Please spell-check all submissions. To abbreviate the name of an organization or agency, use capitals and no periods (e.g., YWCA). For first occurrence, provide the full name with the abbreviation in parentheses, and use the abbreviation as required after that, for example, Athabasca University (AU). Use italics sparingly to identify special terms or to indicate special emphasis.

Submission Preparation Checklist

As part of the submission process, authors are required to check off their submission's compliance with all of the following items, and submissions may be returned to authors that do not adhere to these guidelines.

- 1. The submission file must be in Microsoft Word or rich text format.
- 2. The text must adhere to the stylistic and bibliographic requirements outlined in the Author Guidelines.
- 3. The submission must not have been previously published, nor can it be before another journal for consideration (or an explanation has been provided in Comments to the Editor).
- 4. If submitted to a peer-reviewed section (e.g., Research Articles), the text has had the authors' names removed. If an author is cited, the word "Author" and the year are used in the bibliography and footnotes, instead of the author's name, the paper title, etc. The author's name has also been removed from the document's properties, which in Microsoft Word is found in the file menu.

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ANNEXTURE D: TERMS OF REFERENCE

TERMS OF REFERENCE FOR THE 60 CREDIT RESEARCH COMPONENT OF THE MED IN ODL

Introduction

According to Unisa's Open Distance Learning (ODL) Policy (2008), ODL is an approach to learning that gives students flexibility and choice over what, when, where, at what pace and how they learn. In order to model this approach, the MEd in ODL is structured to offer students as much flexibility and choice with regard to teaching learning and assessment as possible, not only to meet their individual expectations, but also to enable them to use what they have learned and gained in practice.

Braun, Kanjee, Bettinger, and Kremer (2006) argue that assessment should not be seen as an end in itself but as a vehicle for educational improvement. They state that assessment is not focused on knowledge alone, but also on the students' ability to demonstrate what they can do with the knowledge gained. Assessment should also focus on values, attitudes and habits of mind that affect both academic success and performance beyond and outside the educational environment (Oliver 2014).

Assessment should therefore consist of a diverse array of methods in order to reveal change and growth providing students with a choice regarding the form and content of the research component of this qualification. This means that, based on research, the following options are available and the terms of reference thereof should be available to students, supervisors and external examiners:

- Option A: Dissertation of limited scope
- Option B: Article ready to be submitted to a peer reviewed accredited journal
- Option C: Development of an online programme/course/module/modules

All the options should to be preceded by an approved research proposal and a supervisor needs to be appointed to ensure supervised research.

The different options will be discussed below.

Option A: Dissertation of limited scope

Option B: Article ready to be submitted to a peer reviewed accredited journal

Because of the waiting periods of some journals, articles should be submitted in the format of a research report. The style and headings should be according to the guidelines of the journal. The latter should be attached to the article as an appendix.

Emphasis: A single authored article based on new original research in order to make a

contribution to the field. The article should not have been submitted or accepted to a journal before. This is **partially fulfilment** of the MEd in ODL degree, consisting of 60 credits of the total of 180 credits for the qualification.

Length: Between 15 and 25 pages (in line with the requirements of the specific

journal). In line with articles published in peer-reviewed accredited journals, the style is different and on a higher level than that of the mini-dissertation.

Format: Research report (as indicated on the MPEDU91 myUnisa website) but the

format (after the title page and page of contents) should be that of an article (headings according to the authors' guidelines of the journal, which should

be attached to the research report as an appendix)

Focus: 1-3 research question/s and objective/s with a very specific focus. Original

research contributing to the body of knowledge in the field is required.

Need to Illustrate: Independent research under supervision, steps followed in the research process, appropriate application of qualitative or quantitative methodologies, appropriate and recent materials from leading authors and researchers in the field must be traced, collected and documented in a critical narrative literature review, empirical data collected (if applicable) must be processed into a meaningful and logical whole in line with the research question(s), with proper conclusions as required by the journal. An appropriate and reference list with all references included should be provided as well as appendices where applicable. A wider understanding of the international and specifically the African content and context should be evident.

Criteria

Formulation of research question(s), the aim and objectives based on problem statement

Critical understanding of the applicable study field

Illustration of independent research skills including the ability to select, find and apply sources

Ability to correctly and critically analyse, integrate and evaluate information

Ability to use original, well-structured and logical arguments to arrive at a scientifically acceptable answer to the research question

Professional presentation and effective transfer of information through the use of suitable language, correct terminology and adherence to conventions (accepted practices in the writing of a research document for example avoiding plagiarism)

Consistent and correct application of the prescribed reference style

Evidence of ethical clearance, Turn-it-in report (check for plagiarism)

The research report is on the required level and consistent with the journal guidelines

Option C: Development of an online programme/course/module(s) Conclusion

The options as explained should provide students with flexibility and choice and they are encouraged to choose the option that will best suit their needs in order to meet their individual expectations. Because this is the research component of the qualification, consisting of 60 credits (assuming 600 hours of study/research), the focus in all options should be on research in a particular aspect or specialisation in the field of open distance learning. As per Unisa policy, the research reports will be assessed by external examiners.