Brenda

by B V

Submission date: 27-Oct-2017 12:11PM (UTC+0200)
Submission ID: 869873965
File name: Relooking_a_digital_learning_commons.docx (283.58K)
Word count: 6901
Character count: 41369

RELOOKING A DIGITAL LEARNING COMMONS IN A DISTANCE TEACHING AND LEARNING ENVIRONMENT

Brenda van Wyk

Head: Library and Information Services, The IIE.

bvanwyk@iie.ac.za

Irvine Kadzenga

National Librarian, The IIE: Rosebank College.

ikadzenga@rosebankcollege.co.za

Key words: Learning Commons; Digital resistance; Distance learning library services.

ABSTRACT

A private higher education institution in South Africa piloted its first digitally enabled campus in 2015. Also known as a connected campus, this campus was designed to cater for distance learners with the added benefit of attending scheduled contact sessions. After opening its doors to new cohorts in January 2016, the campus reported that this model of teaching and learning was successfully received and implemented. The library and information support services for this campus are offered as an integrated digitally enabled learning commons. Here, information support services are also embedded in the learning management system (LMS). Based on the success of this campus, a further two campuses have been accredited and are planned to roll out along similar lines in 2018.

This case study reports on observations and outcomes of the library services for this campus during the first phase of the digital learning commons implementation and offers solutions to improve the information services as part of the second phase of the project. The question is whether the learning commons framework by Faber (2012) used during the first phase, is sufficient for the implementation of a successful digital learning commons? What is required to equip and skill librarians and

information specialists to interact meaningfully and to sufficiently support teaching and learning on technological, informational and academic levels? Could the digital librarian and information specialists in the digital learning commons benefit from further insights informed by pedagogic, andragogic and heutagogic frameworks to address issues such as digital resistance? The methodology used for this paper includes a literature review on recent research, as well as reporting on a case study.

1. Introduction

Instead of implementing traditional library services for the digitally connected campuses, a new concept was researched, designed, and implemented as a digital learning commons, tailored for the specific teaching and learning requirements of the connected campus. In this model the digital library services range from embedded information sources on the Learning Management System (LMS), access to the latest full text eBooks, online videos and how-to-guides for plagiarism prevention and referencing, software down loads and more via a single sign on authentication on the official web page. This digital learning commons concept sets new trends for higher education in Southern Africa in supporting learners' and academics' information needs.

Faber (2012) defines a learning commons as the space where the physical and virtual environments integrates and blends, thereby enabling co- teaching and learning for both staff and learners. This results in the co-creation of knowledge (Faber, 2012: 17). It offers a digital solution for a digital generation.

The first digitally enabled campus, or connected campus as it is generally known, was implemented in 2015. Despite being a totally new concept, the implementation of a digital learning commons and embedded digital library service at this digitally enabled campus proved to be successful. As two more connected campuses are being planned, the implementation of the first phase was evaluated to determine the effective planning of the next phase of embedded digital library services.

2. Background

At the time of writing this paper, there were 117 private higher education institutions in South Africa, all accredited by the Council of Higher Education (CHE) to offer

certificate, diploma and degree qualifications, compared to the 26 public universities. The private higher education institution in this case study offers a range of qualifications covering undergraduate and postgraduate degree programmes using a learning management system which includes a digitally embedded library service. The distance teaching and learning programmes offered require specialised information support and digital skilling to both learners and academics alike.

The mode of teaching and learning on this campus is following a new trend in digital and distance learning. As a result traditional library and information support roles changed to see interdepartmental collaboration, new and dual roles of the library service, academic departments and ICT departments. Incorporating cyber centres into physical library spaces changed the business model and developed into collaborative spaces designed for enhanced electronic access to information. New skills and duties are required from the digital librarian. Information services for the digital campus are embedded in the learning management system of the institution. The methodology used for this paper includes a literature review on recent research on digital learning commons, teaching and learning frameworks, as well as reporting a case study of a digital learning commons project.

3. Literature Review

Terms such as learning commons, knowledge commons, research commons, and media commons have been developed and defined by Library and Information Science (LIS) scholars since 2004: Lori (2013: 3) referred to the definition used by Beagle *et al*. where they described a learning commons as: “a cluster of network access points and associated IT tools situated in the context of physical, human, and social resources organised in support of learning”. It is clear that he views a learning commons slightly different from an information commons. Lori (2013: 3) however, prefers the use of the term media commons, Dewey (2008: 2) prefers to refer to a media commons as a learning commons, thereby focussing on the goals and not the resources.

For the purpose of this study the digitally enabled learning spaces on a connected campus can be described as digitally enabled learning spaces, with both a demarcated physical as well as a virtual space where collaboration and sharing of

expertise takes place between IT, instructional designers, information specialists and lecturers for the benefit of the learner (Van Wyk & Kadzenga, 2016).

3.1Theoretical Frameworks for New Teaching and Learning Models

According to Farber (2012) the learning commons philosophy is contextual, iterative and evolving and there are four cyclical stages which needs to be taken into consideration during implementation. Faber's four cyclical stages by (Farber, 2012) are as follows:

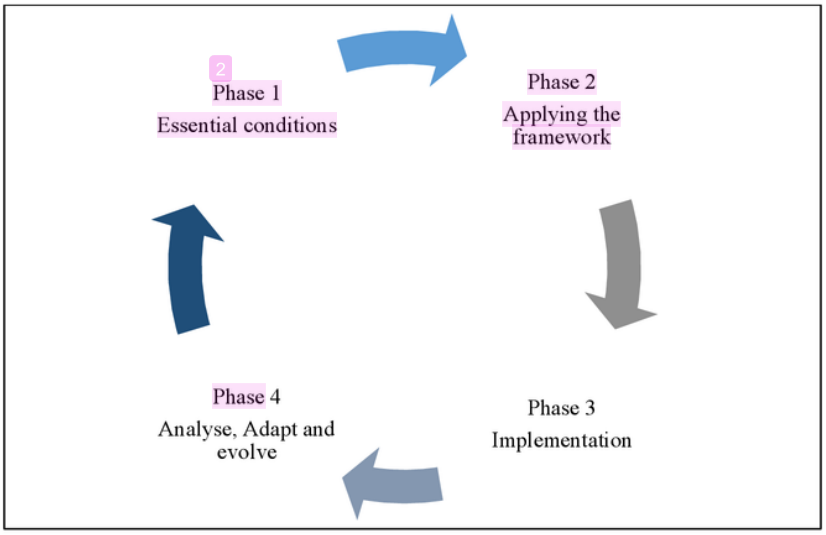


Figure 3.1. Faber's four cyclical stages of implementing a learning commons (Faber, 2012)

During phase one of implementing a digital learning commons, an understanding and a shared vision among the campus community, learners, academics and staff members are required. During the period of establishing the digital learning commons, the management of the private higher education institution involved every stakeholder to give input in designing the learning commons. Important factors taken into consideration during this stage were sharing of the vision, leadership, research and evidence, resources, professional learning, time and community engagement.

The learning commons conceptual framework identifies four learning spaces namely open commons, the virtual commons, the physical commons and the investigative commons (Farber, 2012). This particular campus offers a welcoming, technology rich, flexible space for individual, small groups and large groups. The entire building is Wi-Fi enabled and the library has secure charging stations for laptops, smartphones and tablets.

Adopting the four elements of learning commons is a crucial part of success. The campus has an area with moveable tables, chairs and work stations to change and adapt to needs during the year. The digital librarian manages the campus library as well as the adjoining cyber centre area, which opens up into a collaborative learning space for discussions and group work.

The digital learning commons has to keep up with ever changing technological developments to stay relevant, which requires the project team to be proactive and open to new ideas and technological developments. Going forward, the management will evaluate the effectiveness of the learning commons in supporting teaching and learning. The digital commons is a dynamic environment, designed to support the needs of learners, lecturers and the learner support teams. The progress will be investigated during the post project monitoring phase.

3.2. Pedagogic and Andragogic Approaches

Many of the learners who enrol for distance education programs are mature learners. Their expectations and learning styles may differ from learners who just completed their schooling. Generally distance learners need to be self-driven, determined and motivated, more so for learners who have to balance work and studies simultaneously. The second phase of the project therefor, considered different learning styles and paradigms to inform the nature of library support services, selection of online resources and the approach that library orientation sessions must follow. For the second phase, implementation plans considered combined andragogic, pedagogic, and heutagogic frameworks. Andragogy refers to the art of adult learning (Kearsley, 2010).

The table below shows the differences between pedagogical and andragogic models according to Knowles *et al*. (1998) as cited by Roberts (2007:19).

ASPECT	PEDAGOGICAL MODEL	ANDRAGOGIC MODEL
1. Need to know	Learners need to know what the teacher tells them.	Learners need to know why something is important prior to learning.
2. The learner's self-concept	Learners have a dependent personality.	Learners are responsible for their own decisions.
3. The role of the learners experience	The learners' experience is of little worth.	The learner's experience has great importance.
4. Readiness to learn	Learners become ready to learn what the teacher requires.	Learners become ready to learn when they see content as relevant to their lives.
5. Orientation to learning	Learners expect subject-centred content.	Learners expect life-centred content.
6. Motivation	Learners are motivated by external forces.	Learners are motivated by primarily by internal forces.

Table 3.2 Differences between pedagogic and andragogic models according to Knowles *et al*. (1998) as cited by Roberts (2007:19).

Drawing from these insights it was decided that the distance students on the digitally enabled campus need to be approached from a more andragogic paradigm when introduced to library services. Learners in the higher education institution for this case study were aware, in advance, that the distance mode offering would be different from traditional offerings in a face- to- face class situation.

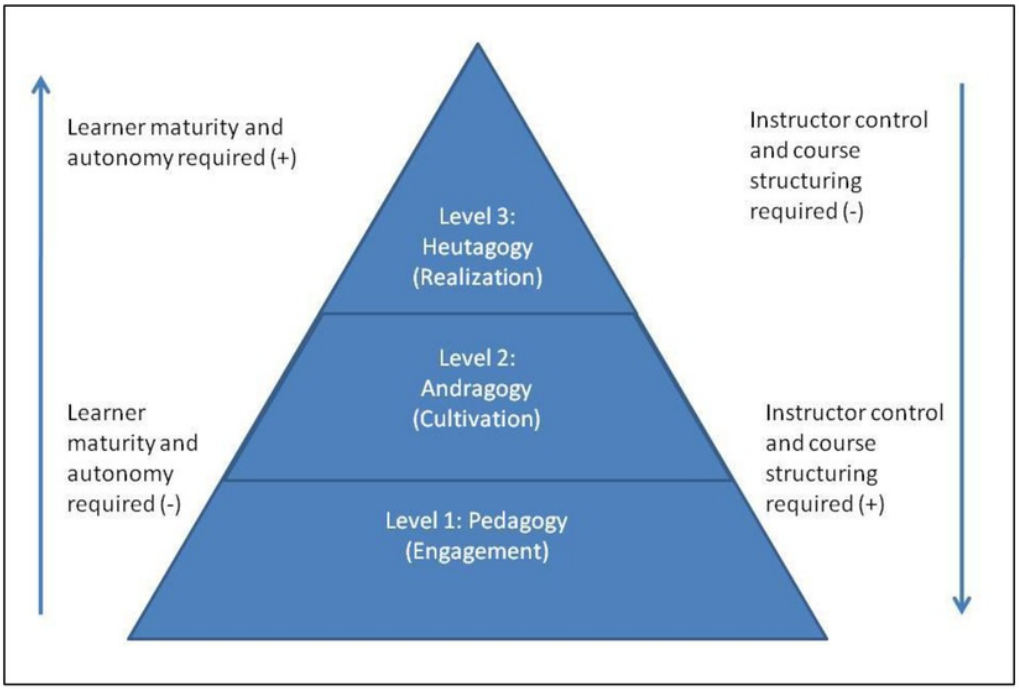
3.3. Strengths and Weaknesses of the Andragogic Model

According to Knowles, (1989) as cited by Roberts (2007) andragogic models has various strengths including their flexibility, broad applicability and the fact that it takes into consideration what expectations and perspectives of the learners are. Broad applicability is another strength of andragogic paradigm, where learning involves every field, corresponding here with andragogic paradigms. For example, librarians must teach information and digital literacy skills to learners whose IT skills and information seeking skills are limited. In order for these skills to be properly transferred to the learners, the librarians must teach learners in ways that are conducive and learner focused. The andragogic model also has tangents with other learning theories. It aligns with Bloom's taxonomy, constructivism and transformational theory. Bloom's taxonomy encourages higher levels of thinking, proposing that learners are capable of self-direction. Like the andragogic model, constructivism and transformation theory recognise the influence of an individual's experience in learning (Roberts, 2007:21). The weakness of andragogic paradigms are that it does not address programmatic goals, it only takes into consideration the characteristics of the adult learner (Roberts, 2007). Mature students start their studies with many years of prior life experiences and knowledge. Therefor a heutagogic approach may be considered to address these short comings.

3.4. A Heutagogic Approach

Heutagogy refers to the Greek word meaning 'the self'. Hase and Kenyon (2000) as cited in Blaschke (2012:58) describe heutagogy as the study of self-determined learning. The foundation of heutagogy stems from andragogic and self-directed learning paradigms. A heutagogic approach in teaching and learning, encourages learners to work independently and to be self-motivated. Experiences are that learners often need to be developed and be assisted to acquire these qualities in order to operate and learn within a fast changing technological world (Blaschke, 2012). Heutagogy theory is based on humanistic and constructivist principles and it combines various early learning theories into a composite picture of learning that is suitable and needed in the current educational systems (Blaschke & Hase, 2016). Canning (2010) as cited by Blaschke (2012), sees a heutagogic approach as a progression from pedagogy to andragogy and then to heutagogy, where learners

become more mature and succeed in studying independently. Figure 4.3 explains this process.



From pedagogy to heutagogy (Blaschke 2012: 60).

Heutagogy extends the andragogic approach to form a continuum with andragogy (Blaschke, 2012). In table 3.4 Blaschke (2012) compares and explains how heutagogy builds on, and extends andragogy.

ANDRAGOGY (SELF-DIRECTED)		HEUTAGOGY (SELF-DETERMINED)
Single-loop learning	➢	Double-loop learning
Competency development	➢	Capability development
Linear design and learning approach	➢	Non-linear design and learning approach

Instructor-learner directed	➢	Learner-directed
Getting learners to learn (content)	➢	Getting learners to understand how they learn (process)

Table 3.4. Self-directed versus self-determined learning (Blaschke, 2012)

The distance learning environment, such as reported in this case study, is very different from the traditional classroom setting, in that teaching methods support self-directed learning (Blaschke, 2012). Here the lecturer often has the role of facilitator and the learners need to clearly understand what is expected of them. For instance, in double-loop learning the learner is required to think deeper, do reflection on content of course material and ask questions. It is a process to develop the learner's own capacity, instead of only developing competencies. It is here where the assistance of a digital librarian to support the learner to get answers during this process, is required. Furthermore, library orientation session and digital literacy sessions should follow the same methodology as the rest of teaching and learning.

3.5. Digital Resistance

Digital resistance is currently a problem experienced in many higher education sectors and there are various causes for this unwillingness and avoidance to use e-resources. It appears that the current generation of learners are digitally orientated in many other aspects of their lives such as social media, but are hesitant to apply these skills in the academic environment. Generally, resistance can be seen as an opposing or retarding force, preventing interaction (Khalil, 2013:152). Globally, educational technology has been changing higher education on a large scale, and both academics and learners struggle to keep up and adjust to these innovations and changes. Indications are that the offering of online distance education courses are popular and are increasing (Khalil, 2013; Akerlind &Trevitt, 2011). Where learners and academics resist these changes and fail to use educational technology in lecturing, communication, research, teaching and learning is at a peril (Khalil, 2013). Khalil (2013) refers to Moerchell's (2009) statement explaining resistance as: " A limited vision of the future, in the comfort zone with the way things are, lack of knowledge in information and communication, the individual's nature with

uncooperative and the excuse of not having the skills to execute assigned duties by the superior". One of the major challenges with digital resistance in education is that many learners do not have the digital literacy skills required to perform assigned tasks. It could further be that their schooling did not prepare them sufficiently to engage in new educational technologies. Therefor many learners enrol to study through distance learning without having the technological skills and exposure required by programmes, leading to high dropout statistics. Again, the role of the digital librarian is to close this gap by facilitating and offering digital skills training and be a known and trusted port of call when the learner needs assistance. This can be hugely successful where there is a culture of collaboration, mutual understanding and alignment between the librarian and the lecturer. This will enable the librarian to offer support that addresses the just- in time information needs of the learner meaningfully.

Haymes's (2008) Three-E Strategy for overcoming resistance to technological changes in an educational environment sets out to improve acceptance with learners when introduced to new technology. According to this model learners must be able to understand that the new technologies are:

- Evident;
- Easy to use; and
- Essential.

Learners and lecturers must have the opportunity to engage with these new developments in a meaningful and practical manner and the new technology must be seen as a useful, necessary and an enjoyable experience.

This strategy was considered and measures to address it were built into all library guides, interactive literacy sessions and one-on-one reference interviews with the librarian to avoid learners from feeling ill-equipped and overwhelmed in using new technologies. Overcoming digital resistance was not only essential for the success of the digital learning commons, but also for the use of the LMS. Using the LMS is compulsory for offerings on the digitally enabled campus across all offerings. Lecturers and librarians are all trained and skilled to use the LMS. Learn Guides (LMS study guides), for all programmes offered are developed centrally by the

relevant academic team consisting of subject matter experts and instructional designers.

One of the remaining challenges in addressing digital resistance is the lack of a suitable and uniform eBook platform in the market. Learners and lecturers reported their frustration with the variety and complexity of various e-platforms from suppliers and publishers.

With knowledge and understanding of how mature adults learn, librarians were able to better understand and address challenges and fears experienced by our adult learners. Digital resistance and an unfamiliarity with digital sources and technology were addressed by means of interactive academic and information literacy sessions offered by the digital librarian. It is of the utmost importance to have digitally skilled librarians, as well as cooperation with IT staff and academics in this team effort.

4. The Connected Campus in Context – A Case Study

The mode of provision in distance learning is based on designing programmes where the lecturer and the learner may be separated either entirely or at certain intervals. The CHE guidelines (2014: 12) makes provision for single mode, dual mode and mixed mode for distance education. The University of South Africa (UNISA) provides mostly single mode of distance education, while some of the private higher education institutions such as The Independent Institute of Education (The IIE), to date offered a mixed mode. Here, courses are offered via contact sessions with digital learning support including online access to relevant information, and independent learning via IIELearn, the Blackboard e-learning management learner portal (Van Wyk & Kadzenga, 2016).

According to the CHE document on Distance Learning (2014: 15) distance education providers adopted new technologies and digital trends much earlier than traditional institutions of higher education. The five generations, or phases of development, of technology used in education are explained as:

- 1st – electronic mailing systems such as announcements, sending of accounts
- 2nd – electronic storage and despatch of learner material, results and records

- 3rd – two way communication in learner support via learner portals
- 4th – ICT's and two-way interactions
- 5th – the forming of communities of learning including learning management systems (LMS) and virtual learning environments (CHE 2014: 11).

The digitally connected campus model has progressed into the 5th generation.

4.1. Roles and Responsibilities

The higher education institution in this case study embraces the concept of technology enabled learning, which places it in the 5th generation of distance learning. Agherdien (2015), an LMS instructional designer, describes this form of learning as: "… social beings involved complex intellectual, social and psychological processes that happen in a fluid space" (The Mighty Pen 2015: 3). The advocacy, planning and implementation of a digital learning commons to cater for the academic information needs of the brand new campus add information- and information technology components to this definition, playing out in a multi-disciplinary environment of cooperation.

The higher education institution started offering distance education in 2013 with the Bachelor of Business Administration degree. In 2016 a new learning management model was developed called Learn, making use of the Blackboard LMS for all the distance offerings and increasing also for full time offerings. Learners have fixed schedules for contact lecture and tutoring time and complete their Online Learning Engagement (OLE) activities and work through the learning unit/s on the RCLearn in a prescribed time frame (Van Wyk & Kadzenga, 2016). Learners are prepared for this new mode of teaching and learning in a face to face session called a preparation lecture:

- Preparation Lecture – Face-to-face session where the learners are given guidance on what to focus on during their OLE time as well as activities that need to be completed for that cycle. Letters to prepare students are given to the learners.

- 10% of notional hour's activity based is covered in online engagement – access on campus or off campus, or from a booked cyber centre.

Lecturers evaluate learners' engagement and activities daily. The roles and responsibilities of team members are as follows:

TEACHING AND LEARNING ROLES AND RESPONSIBILITIES ON CAMPUS		
Lecturer	**Learner**	**Information Specialist**
The lecturer facilitates and supports the learning process during timetabled face-to-face lecturing time and through OLE with the learners.	The learner bring their own devices and have access to data, the Internet, to enable OLE.	Digital learning commons has a focused collection of recommended and prescribed books. Learners are provided with all their prescribed text print and eBooks
Critical to this role is the constant monitoring of learner activity on the LMS and analysis of learner performance with the OLE activities, and remedial plans put in place to manage the at risk learners.	A Learner does self-study but with guidance from the lecturer (prep letter), as well as attend the Prep session.	Learn guides and storyboards have permalinks to the prescribed and recommended textbooks, also accessible from the library website
Lecturer needs to engage with the learners during the OLE sessions and answer questions, as well as ensure productive	Learner complete OLE activities for lecturer to assess	MYLIBRARY – This tab is available on the LMS, giving access for learners via single sign on to a collection of electronic

feedback is given within the LMS, as well as in the face-to-face sessions.		information sources offered by the library services such as online subscription databases, referencing guides, OPAC and Open Access databases. Past papers for revision is available here.
		Learner attends library orientation and timetabled class search and literacy skilling sessions
		Information specialists/librarians assist with plagiarism prevention and submitting assignments to the similarity checker embedded in the LMS

Table 4.1 Roles and Responsibilities in the Connected Campus Model.

Learners are issued with 3G cards to access internet when they are off campus. Wi-Fi connectivity on campus and library is free to learners. Access to library services and electronic resources are available off campus as well via a purposefully designed library website.

Over and above the roles and responsibilities on campus explained in table 4.1, there is a central academic team of subject specialists and instructional designers responsible for the central development of LMS Learn Guides and Story Boards. All offerings are accredited nationally by the CHE, as well as internationally by the British Accreditation Council.

5. Improving the Digital Learning Commons in the Connected Campus

The long term vision of the digitally enabled model and its library services is to develop the digital learning commons in the connected campus into a 3.0 library (Van Wyk & Kadzenga, 2016). According to Kwanya, Stillwell and Underwood (2015) progressing to a 3.0 library model implies that a library service and its institutional decisions are moving away from traditional library services towards electronic services. Here library services are user centred, and intelligent libraries have librarians as apomediators, being skilled and experienced to play a supportive role in knowledge and technological skills transfers (2015: 59). These services include sophisticated systems including federated information search capabilities, discovery services and a library management systems capable of dealing with virtual services. Collaboration in being included in all related teaching and learning activities are critical to the success of this service. The planning and implementation of the campus digital learning commons spaces were important factors of the connected campus project plan. The project team comprised of The Project Manager, Academic Manager, Head Librarian and National Librarian, General Manager, Financial Manager, IT Manager and Operations Manager and consultants.

Information technologies in the 21st century are changing and growing rapidly. These changes globally influenced every facet of library and information services in public, academic, and special libraries. There are new opportunities and challenges that the library professionals must face to play important roles in the knowledge society of higher education institutions (Pawar & Kaur, [s.a.]). The digital library staff at digitally enabled campus are required to have all the skills and competencies of a Web 3.0 librarian as explained by Kwanya, Underwood and Stillwell (2015). These skills, inter alia, include information retrieval and resource knowledge and competencies, legal competency for copyright and DRM compliance, research competency among others.

The digital librarian's job description was written and advertised reflecting these skills and competencies. With these skills the digital librarian at digitally enabled campus is managing the new concept of digital information system professionally, adapting to the changes and independently work alone.

Library services must be included and synchronised with new systems such as the LMS. Embedded librarianship is defined as a distinctive innovation that moves the librarians out of the physical library spaces and creates a new model of library and information work (Dene, 2011: 225). Embedded librarianship emphasise the importance of forming an integrated and collaborative working relationship between the librarian and the academic team. For embedded librarianship to succeed and work on this connected campus, the head librarian of the group worked with the developers of the modules to make sure that some of the textbooks to be used by learners and lecturers were going to be available as e-books. A good working relationship between the national librarian, the digital librarian and academic team ensured that the digital learning commons were rolled out in time before the classes commenced. Post-project monitoring will be conducted to evaluate library services and standards, and surveys will be done among learners and academics to evaluate and monitor performance, and to inform improvement plans.

Traditional library orientation sessions, such as information literacy training, plagiarism prevention and referencing workshops, providing library guides and other services had to be adapted to introduce and prepare learners to the changed teaching and learning model.

Library orientation and training sessions are not only conducted once a year. Following the principles of just-in-time information access, librarians also have scheduled in-class visits with learners before assignment due dates, where they conduct refresher training and guide students in finding specific information to complete their assignments. Lecturers undergo separate training to introduce them to the available online databases. Links in course material give learners direct access to full text information for independent learning and further reading. Sessions with learners and lecturers cover:

- Learning information retrieval and database search skills;
- Training session to understand intellectual integrity, plagiarism prevention and consequences of plagiarism as set out in The group's Intellectual Integrity Policy;
- Introduction to study skills and assignment writing skills;

- Sessions to explain how to use plagiarism prevention software, Safe Assign – how to videos are also available on the library website;
- Assistance with downloading eBooks and eReader software;
- Assistance with creating user profiles to save searches and search results;
- How to make use of permanent links in course developments, story boards and in assignments.

A week before classes start, the librarian facilitates training sessions on the functionalities of the library website. The library website is integrated into the LMS and is available under the MYLIBRARY tab on the LMS, Black Board login page, and is the first page the learner sees after logging in. The website has quick links to plagiarism prevention software, such as Safe Assign and Turnitin, referencing guides, and free software downloads used for accessing electronic resources (e.g. Adobe Reader, Adobe Digital Edition).

Extensive orientation took place where the librarian conducted information literacy training on using the various databases. These sessions continue throughout the semester and are rolled out to both learners and academic staff.

5.1 Library Resources

Collection building principles for a digital learning commons are different from traditional academic collection building principles and practices, and requires extensive product knowledge from the library team to ensure that databases and electronic resources are selected correctly. E-resources are accessible on and off the campus through a central EZproxy authentication. A hosted OCLC EZproxy service was entered into and implemented centrally at, and are now available at all campuses via the library website. EZproxy services are defined as: “EZproxy access and authentication software allows your library to deliver secure online e-content simply and effectively” (Online Computer Library Centre, 2016). The EZproxy enables single sign-on to various e-resources using the provided credentials such as learner number and password. The EZproxy provides access both on and off campus and learners only need one password to access various services and sources.

The print collection is small in size and is mainly for use on the campus as core reference material. Services also include intra- and interlibrary loans facilities should additional material be required.

Electronic resources present the important component of the collections building activities of libraries. “Electronic resources refer to those materials that require computer access, whether through a personal computer, mainframe or handheld mobile device” (Johnson, 2012). The various e-journals, e-books and full text databases were selected in line with the identified information needs for the programmes offered at the connected campus.

Various trial databases were sourced and evaluated. Feedback from academics and content developers were considered before e-resources and new databases were selected. The library acquired academic database packages and subscriptions from EbscoHost, SABINET, Emerald and ERIC such as eBooks, e-journals and e-databases.

According to Armstrong, Edwards, and Lonsdale, as cited by Vassiliou and Rowley (2008), an e-book is defined as “any piece of electronic text regardless of size or composition (a digital object), but excluding journal publications, made available electronically (or optically) for any device (handheld or desk-bound) that includes a screen”. On average, each course being offered on this connected campus has two prescribed e-books. Additional and recommended reading materials are available as e-resources and accessed on Project Gutenberg, Directory of Open Access and Google Scholar. The library website has a number of free software download links. Devices are not supplied to learners, but the library has work stations, as well as loading stations were devices can be charged.

Project Gutenberg, Directory of Open Access Books and Open Access Journals, Google Scholar and BookBoon are open access sources available through the library website for recommended reading. The open access research repository of the private higher education institution is also available for further research. Advantages of open access are that it improves the speed, efficiency and efficacy of research because researchers and scholars will no longer need to waste time looking for papers and articles that the library does not subscribe to (Hunt & Swan, 2012).

The digital environment brings new challenges for copyright compliance. Digital rights of suppliers and authors receive special consideration. “Digital Rights Management (DRM) is any system used by producers, publishers and vendors to embed technological controls on what users can do with electronic files such as e-books” (American Library Association, 2012). The entire academic team are informed of the importance of understanding copyright issues, especially on the issue of distributing electronic materials to learners. The digitally enabled campus has a transactional license from The Dramatic, Artistic and Literary Rights Organisation (DALRO), meaning that each instance of copying outside of the fair dealing allowances of section 12 of the copyright act, (Act no. 98 of 1978, as amended) needs to get written permission via DALRO, and fees are levied for both electronic and print copies.

6. The Importance of an Integrated Library Management System and Technical Support

Digital libraries require a sophisticated and suitable library management system to manage all services and the information sources. Regular statistical reports must be analysed to monitor performance. The new library management system at the digitally enabled campus has discovery services, link resolvers (increase access to full text collections), alerts on system, for example system upgrades or new changes to the system and SMS services used as reminders to return or renew library materials. Course reserves on the systems helps to manage the resources especially during assignment period and for lecturer reservations. The library has an uninterrupted power supply (UPS) to make sure that there is always power during the power cuts. The digital librarian constantly collaborates and integrates with the technical support team in order to monitor and upgrade the system for the provision of effective services to the learners.

7. Lessons Learned: Preparing for the Second Phase Improvements and New Sites

- When the digital library was established, it had 5 computers, with an additional 4 computers in the learning common and a cyber centre with 30 computers. The cyber centre was also used as a lecturing venue. With that in mind, the 9

computers available during the day were not sufficient. The digital learning common which had 4 computers was converted into a 20 PCs cyber centre in order to mitigate the demand;

- The availability of great network facilities such as WI-FI and plug in network points in order for learners and lecturers to access online resources seamlessly is of great importance. Currently, the institution has the best bandwidth without any network challenges;
- Collaboration among the academic, library, IT Departments and Operations Departments was of utmost importance in that each department had to share their unique duties and responsibilities to support learners and lecturers. This led to scheduled meetings regularly among the teams updating each other and collaborate;
- More space for electrical points for internet access for learners with electronic devices need to be provided;
- Collaboration spaces for learners need to be provided as the content they work on encourages for learner team work;
- The digital campus had to invest more on e-resources, as prescribed materials in e-format and new database subscriptions were acquired for use on and off campus for both learners and lecturers;
- The digital librarian provides digital literacy skilling workshops. Learners need on-going digital literacy skills training to keep up with changes taking place in the digital world;
- Provision of software downloads from the library website is a necessity for use when learners are off campus;
- There is a need for constant support from lecturers and digital librarians should a learner struggle with online content and need to ask questions. This support are available during office hours and late in the evening;

- Over and above in-house training offered, the digital librarian was formally trained in using the LMS, encouraged to read articles and attend webinars on learning theories, copyright developments and advances in Library 2.0 - 3.0;
- All library orientation sessions and literacy and plagiarism workshops are practical, hands-on, interactive and collaborative. The in-class sessions are timed just before students have to do their assignments, which add to purpose and meaningful self-directed learning.

The importance of sound management and administration of libraries and digital learning commons can never be over-emphasised. Collection building and management of information sources such as online databases subscriptions, open access databases and the technology and tools to access these sources form the foundation of a successful learning commons. There is a danger that a digital learning commons may function in a silo after implementation, which will impede on the real educational value it should add. It is imperative that the digital learning commons forms an inclusive and integrated part of all teaching and learning in HEI. Based on the feedback reported and evaluations done after the first phase implementation, key success factors, in addition to librarians managing the library on a day to day bases, were identified as requirements for success. In summary: strategy, standards, skilling, staffing, synergy, systems, staffing and support from the higher education institution will ultimately determine the impact and success that this service has on education. In Table 7.1 these factors are explained.

KEY SUCCESS FACTORS FOR A DIGITAL LEARNING COMMONS	
Strategy	The institutional strategy must recognise the need for access to quality academic information and validate the digital commons' purpose and objectives.
Standards and Compliance	Industry standards, library standards, institutional policies, accreditation criteria and legal requirements must be adhered to at planning stage, and must be audited continuously for compliance.
Synergy	Integration, recognition and collaboration of the Digital

	Learning Commons librarians in teaching and learning objectives and planning must happen inclusively, continuously and seamlessly
Systems	IT, database and LMS and Library system integrations and coordinated maintenance and development must take place
Staffing	Suitably qualified and digitally skilled librarians must be in charge of the digital learning commons
Skilling	Librarians must be included in skilling and re-skilling in LMS and other teaching and learning skills development, as well as keeping abreast of library and information science developments.
Support	The digital learning commons must receive support and understanding from decision makers, academics and IT, as much as giving their support to all academic levels and students

Table 7.1 Digital Learning Commons Key Success factors

8. Conclusion and Recommendations

The digital learning commons campus forms the heart of the connected campus. The first phase of the planning and development of this services was initially informed by models such as Faber's four cyclical stages of implementing a learning commons. During the second phase of evaluation and improving the service, the need was identified to elaborate and build on this model. Although a firm foundation in pedagogy is found in teaching and learning at HEIs, a better understanding of how adult learners study and learn best in an online environment is required in an environment where self-determined learning needs to be supported. Studying andragogic and heutagogic frameworks equipped librarians with this back ground information and assisted in creating a better understanding of the changed needs of academics and learners alike. In addition, to fulfil the role of apomediators, librarians had to attend courses such as Blackboard Certification courses, database training,

and advanced plagiarism checking courses. The Three E-Strategy by Haymes (2008) assisted librarians to adapt library workshops and presentations to be seen as necessary, enjoyable and valuable. Interactive digital literacy sessions, online library guides and support from the digital librarian, learners are able to adapt to the challenges of distance learning, finding and down loading electronic information and overcome digital resistance. The library systems and LMS links were improved and adapted to give support both on and off campus and to give access to information anytime, anywhere and from any device.

References

Adams, P.N.A. 2011. Role of Policies in Collaborative Design Process for Digital Libraries within African Higher Education. *Library Hi Tech*. 29(4) pp.678-696. Available: http://dx.doi.org/10.1108/07378831111189778. [2015, December 17].

Akerlind, G and Trevitt, C. 2011. Enhancing Learning Through Technology: When students resist the change. Available: https://www.researchgate.net/profile/Gerlese_Akerlind [2017, July 27]

American Library Association. 2012. Digital Rights Management Library Education Tip Sheet. Available: http://connect.ala.org/files/94226/DRM%20Library%20Education%20Tip%20Sheet_DEFINITIVE_7_11_12.pdf [25 January 2016].

Blackboard. 2016. Use Safe Assign in Assignments. Available: https://en-us.help.blackboard.com/Learn/9.1_2014_04/Instructor/100_Assignments/025_Use_SafeAssign [2016, February 03].

Blaschke, M. L. 2012. Heutagogy and Lifelong Learning: A Review of Heutagogical Practice and Self-Determined Learning. Available: http://files.eric.ed.gov/fulltext/EJ979639.pdf. [2017, July 19].

Blaschke, L.M. and Hase, S. 2016. Heutagogy: A Holistic Framework for Creating Twenty-First-Century Self-determined Learners. Available: https://pdfs.semanticscholar.org/81b5/8a3f7909351c520a96f710491f7151e2ee40.pdf. [2017, July 19].

Carlson, J. and Kneale, R. 2011. Embedded librarianship in the research context: navigating new waters. *College & Research Libraries News* 72(3) pp.167- 169. Available: http://crln.acrl.org/content/72/3/167.full [2016, January 25].

Council on Higher Education. 2014. *Distance Higher Education Programmes in a Digital Era: Good Practice Guide.* Pretoria, Council on Higher Education.

Dene, J. 2011. Embedded librarianship at the Claremont Colleges. In Embedded librarians: moving beyond one-shot instruction. Association of College and Research Libraries. Pp.219-228.

Dewey, B.I. 2008. Social, Intellectual, and Cultural Spaces: creating compelling library environments for the digital age. *Journal of Library Administration*. 48 (1) doi:10.1080/01930820802035059 (Accessed 17 December 2015)

Educause Learning Inniative. 2011. *7 Things you should know about the Modern Learning Commons*. Educause, April 2011.

Farber, C. 2012. Library to learning implementation guide. Available: http://www.cbeilc.info/l2lc/files/2013/05/Library_Learning_Commons_Implementation_Guide.pdf [2016, January 25].

Haymes, T. 2008. The Three-E strategy for overcoming resistance to technological change. Educause quarterly. No.4. Available: http://er.educause.edu/~/media/files/articleownloads/eqm08411.pdf. [2017, July 19].

Johnson, S, Evensen, OL, Gelfand, J, Lammers, G, Sipe, L and Zilper, N. 2012. Key issues for e-Resources collection development: a guide for libraries. International Federation of Library Associations and Institutions. Available: http://www.ifla.org/files/assets/acquisition-collection-development/publications/electronic-resource-guide-2012.pdf. [2016, January 21].

Hunt, H. and Swan, A. 2012. Briefing paper: open access. Available: http://www.pasteur4oa.eu/sites/pasteur4oa/files/resource/Open%20Access%20-%20basic%20briefing%20.pdf [2016, January 21]

Hyman, J.A, Moser, T.M., & Segala, L.N. 2014. Electronic reading and digital library technologies: understanding learner expectation and usage intent for mobile

learning. *Education Tech Research Development*, 62: pp.35-52. Available: DOI 10.1007/s11423-013-9330-5 [2015, December 17].

Khalil, S.M. 2013. From resistance to acceptance and use of technology in academia. Open Praxis.5(2), April–June: 151–163. Available: file:///E:/Downloads/5-263-3-PB.pdf. [2017, July 19].

Kwanya, T; Stilwell, C. and Underwood, P. 2015. *Library 3.0: Intelligent Libraries and Apomediation. Kidlington: Elsevier.*

Lori, S. Mestre. 2013. Media Commons: the process and value of centralizing services. *Library Hi Tech*. 31 (4), pp.669-687. Available: http://dx.doi.org/10.1108/LHT-04-2013-0044 [2015, December 17].

Online Computer Library Centre. 2016. EZproxy connects library users to e-content with a single - on. Available:

https://www.oclc.org/content/dam/oclc/services/brochures/213330usf_ezproxy.pdf Accessed [2016, February 04].

Pawar, S.S. and Kaur, P. [s.a.]. Need of change in library and information science education in India and skills in the changing knowledge era: a study. Available: http://www.consalxvi.org/sites/default/files/10-Sarbjeet%20Singh%20Pawar.pdf 2015, January 24].

Roberts, M.S. 2007. Applying the Andragogical Model of Adult Learning: A Case Study of the Texas Comptroller's Fiscal Management Division. Thesis. Department of Political Science. Texas State University.

UNESCO. 2006. *Growth and expansion of private higher education in Africa.* Paris: International Institute for Educational Planning.

Van Wyk, B and Kadzenga, I. 2016. Breaking the Mould: A Case Study of a Digital Learning Commons Project. SCECSAL XXII, 25-29 April 2016, Swaziland.

Vassiliou, M. and Rowley, J. 2008. Progressing the definition of "e-book". *Library Hi Tech* 26(3) pp.355-368. Available: http://bogliolo.eci.ufmg.br/downloads/TGI061%20Vassiliou%20definition%20of%20ebook%202008.pdf [2016, January 23].

The Mighty Pen. 2014. *Technology enabled learning must prepare learners for the workplace* August (1)6 p.13. Available: http://themightypen.co.za/doc/TMP_Aug_2015_WEB.pdf [2016, January, 05].

Brenda

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14

PAGE 15

PAGE 16

PAGE 17

PAGE 18

PAGE 19

PAGE 20

PAGE 21

PAGE 22

PAGE 23

PAGE 24

PAGE 25

PAGE 26

Brenda

ORIGINALITY REPORT

7%	6%	4%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to University of Central Lancashire Student Paper	2%
2	www.essentialconditions.ca Internet Source	1%
3	Submitted to Southern Cross University Student Paper	1%
4	ecommons.txstate.edu Internet Source	1%
5	Rosenblatt, Stephanie. "The Embedded Librarian: Innovative Strategies for Taking Knowledge Where It's Needed, by David Shumaker. Medford, New Jersey: Information Today, 2012. 212 p. $49.50. ISBN: 978-1-57387-452-6", Serials Review, 2013. Publication	<1%
6	www.pasteur4oa.eu Internet Source	<1%
7	Lecture Notes in Educational Technology, 2016.	<1%

	Publication	
8	scholarworks.gsu.edu Internet Source	<1%
9	uir.unisa.ac.za Internet Source	<1%
10	escholarship.umassmed.edu Internet Source	<1%
11	Submitted to 57454 Student Paper	<1%
12	era.library.ualberta.ca Internet Source	<1%
13	www.researchgate.net Internet Source	<1%
14	repository.up.ac.za Internet Source	<1%
15	www.abe.sju.edu Internet Source	<1%
16	itdl.org Internet Source	<1%
17	www.ijodls.in Internet Source	<1%
18	d-scholarship.pitt.edu Internet Source	<1%

19	docs.lib.purdue.edu Internet Source	<1%
20	dspace.nwu.ac.za Internet Source	<1%

Exclude quotes	On	Exclude matches	< 5 words
Exclude bibliography	On		