

Are Cataloguers' Skills Still Relevant? A Critical Reflection on South African Cataloguing

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Abstract

The study that directed this article aimed at finding out the requirements for cataloguers' positions in South Africa in the twenty-first century. Cataloguing has always been at the very heart of library and information work. Arguably, as technology has become ubiquitous and libraries are becoming technology hubs, cataloguing has become increasingly important. In the study, a qualitative approach was employed to gain an in-depth understanding of the job market for cataloguers in South Africa. Qualitative content analysis was used to achieve the purpose of the study. Ten cataloguers' job advertisements from LIASA and two national news articles, namely *Sunday Times* and *Mail & Guardian* from 2013- 2016, were reviewed for the purpose of the study. Data elements require a qualification from an accredited higher learning institution. The study revealed that traditional cataloguing standards (for instance, AACR2, LCSH and DDC) are still highly required for cataloguing jobs. However, these standards should be incorporated with ICT components. Some other advertisements require RDA instead of AACR2, further to the fact that other advertisements require knowledge of digital curation in order to arrange information on the web. Therefore, it is clear that Library and Information Science (LIS) schools should incorporate both traditional and techno-centric cataloguing skills in their teaching to ensure that candidates are ready for cataloguing practices. Based on the findings, cataloguers should be provided with on-going training to keep pace with emerging trends in the cataloguing field.

Keywords: cataloguing and classification; South Africa; job market; LIS education; bibliographic control

Introduction and Background

Generally, it is required of a librarian to possess skills and knowledge of cataloguing and classification in order to meet the demands of the information society. Cerbo (2011, 41) expresses the view that as technology changes, requirements for librarians with regards to the requisite competencies also change. Consequentially, cataloguers must adapt to the new technological changes. Glasser (in Cerbo 2011, 41) states that “to meet the challenges of today’s cataloguing positions, library students must develop a broader set of skills that, in addition to the traditional theory and practice of principles of bibliographic control and metadata standards, include management skills, computer skills, the ability to work in a team, flexibility, and, perhaps most important of all, a willingness and ability to learn and embrace continuous change.” Ocholla and Ocholla (2014) concur and state that lifelong learning should be in a cataloguer’s vein in order to catch up with the continuous changes in the field.

Sewdass and Theron (2004) ascertain that the LIS schools should not focus only on maintaining their present skills, knowledge and competencies; in addition to that, attainment of new skills, knowledge and competencies should also be their main focus. Along the same lines, Raju (2015) suggests that, in Africa, LIS curricula at the present moment need to be revisited, since the LIS sector is redefined based on the delivery of quality information services. More recently, Raju (2017) indicates that the emerging technologies in higher education have presented the LIS profession the challenge to reschedule their traditional roles of organising and providing access to information materials to the new technology-based requirement with tools and systems that are continuously evolving.

The implication of the above statements is that traditional cataloguing requirements, such as subject analysis and descriptive cataloguing and classification, should be integrated with metadata creation and the management of electronic resources to tighten the grounds of the profession through quality service.

In the South African context, there has been relatively little research attention directed towards cataloguing and classification job requirements. To date, a study on cataloguing and classification job requirements was last conducted by Cloete in the year 2005. This study aimed at finding out the transition from the first to the modern generation of cataloguing and classification tools. Ocholla and Shongwe (2013) and Shongwe and Ocholla (2011) are of the view that cataloguing and classification knowledge and skills are still relevant in the LIS job market. While the course is taught in most LIS schools in South Africa, most authors found that students are usually unprepared for cataloguing positions in environments that are increasingly technocentric (Lusky 2008; Yusuf 2015). Lusky (2008), Davis (2008) and Yusuf (2015) caution that this is because LIS schools provide less practical education and that less time is provided for teaching cataloguing and classification. Ocholla and Ocholla (2014) also indicate that some LIS schools have insufficient resources to teach these courses, especially at a time when the catalogue has ceased to be a key to resources within a defined physical entity to

becoming a key to universal knowledge in a globalised and networked environment. MacLeod and Callahan (in Davis 2008) affirm this position. Further to that, the authors voice their concern that most students would graduate with insufficient skills and knowledge of cataloguing and classification.

Globally, studies by Lussky (2008), Cerbo (2011) and Cabonero and Dolendo (2013), and in South Africa by Cloete (2005), have been conducted on cataloguing and classification education, but very few focus on job requirements, especially in the South African context. Therefore, this study intends to fill the existing literature gap. In the following pages, the article proceeds by presenting the research questions and examining the literature review of the primary related concepts of the study. Section 3 outlines the methodology and section 4 presents and discusses the results. The final section of this article provides recommendations that reflect the conclusions.

Problem Statement

According to Boydston and Leysen (2014, 227), cataloguers play a key role in any organisation or library where knowledge is recorded and records are made searchable and retrievable. A review of the literature acknowledged that skills, knowledge and competencies for cataloguing, subject analysis and descriptive and subject cataloguing remain vital for the cataloguing job market (Turner 2020, 591). The overarching problem at hand may be articulated as the fact that, in South Africa, there has been growing concern regarding the future of cataloguing jobs and the recruitment of cataloguers. Based on an analysis of jobs advertised for cataloguing positions in South Africa, the researchers discovered that while cataloguers should have experience in traditional cataloguing, they are also required to have a thorough understanding of computer applications and metadata standards and have the necessary web skills as well as to be familiar with emerging metadata schemas and tools. In this context, many Library and Information Science students in South Africa are not fully equipped with these essential skills, knowledge and competencies that lead them to be successful in the cataloguing job market. As a result of this, the exact effect of these cataloguing skills gaps makes it difficult for students to find and secure cataloguing jobs. In South Africa, insufficient attention has been paid to this problem; therefore, research within this area is urgently needed to understand the cataloguing job market.

Research Questions

This study addressed the following research questions:

1. Which sectors are advertising cataloguers' jobs?
2. What are the educational requirements and work experience required to qualify for the cataloguing position?
3. Which skills, knowledge and attitudes are mostly listed?
4. What are the job descriptions of cataloguers in South Africa?

Literature Review

This section provides a comprehensive and detailed review of the existing and relevant literature (theoretical and empirical) and previous studies within the area of cataloguing. The literature review discussed in this section covers the following sub-themes: a) sectors advertising cataloguers' jobs; b) educational requirements and work experience required for cataloguing positions; c) skills, knowledge, attitude and competencies required for cataloguers; and d) job descriptions of cataloguers in South Africa.

Sectors Advertising Cataloguers' Jobs

According to the literature reviewed there are various sectors that are currently advertising a growing number of cataloguing positions on a daily basis in South Africa. The Library and Information Association of South Africa (LIASA 2015) has indicated that educational sectors such as schools, colleges, universities, and training centers; healthcare sectors including hospitals and medical centres; and business sectors are among the most common sectors advertising cataloguing jobs in South Africa. Reeves and Hahn (2010, 33) advocate the view that sectors such as information technology, healthcare, government, financials, consumer discretionary, and communication services are capable of advertising librarian and cataloguing jobs in South Africa each and every year. These sectors play a significant role in the job market for cataloguers in South Africa. A study by Ocholla and Shongwe (2013) reported that five categories of the LIS sector in South Africa, namely academic, archives and records management, information, library, and knowledge management were advertising cataloguing and librarian jobs at that stage.

Educational and Work Experience Requirements to Qualify for a Cataloguing Position

Lussy (2008) and Cabonero and Dolendo (2013) provide three broad areas that cataloguing and classification comprise of, namely: 1) descriptive cataloguing; 2) subject analysis; and 3) the ability to identify a catalogue entry and be able to classify using a variety of tools. The aforementioned authors are of the view that cataloguers must have at least a Bachelor's degree in LIS; alternatively, a postgraduate qualification majoring in cataloguing and classification. They are also of the view that technological skills are prerequisites for cataloguers to organise digital collections because most information sources come in a digital format.

According to Raju (2015), skills that are required by cataloguers include (but are not limited to) the following: knowledge of emerging technologies, mark-up languages, optical character, recognition, indexing and database technology, cataloguing and metadata and web technology. Cerbo (2011) points out that due to the digital tsunami, materials which include databases, electronic resources, repositories, web searches, online catalogues, and e-books, compell cataloguers to reinvent their skills and knowledge. Cerbo (2011) further states that RDA and MARC21 are vital in the digital environment characterised by next generation catalogues.

Table 1 lists Cloete's (2005) cataloguers' requirements and responsibilities.

Table 1: Cataloguers' requirements

Requirements	Responsibilities
Knowledge and understanding of AACR2, DDC, UDC, LC, LCSH, NLM classification, and MeSH	Cataloguing, classification, and subject analysis of: monographs, audio visual materials periodicals and in-house reports
Proven expertise in online cataloguing	Maintaining authority catalogue files
Automated cataloguing on USMARC/MARC21 based system	Original and copy cataloguing
Knowledge of URICA, INNOPAC, CPALS and OCLC systems	Original and copy cataloguing
Online cataloguing on SABINET, SACat, WorldCat and SABICAT	Original and copy cataloguing

Source: Adapted from Cloete (2005)

This implies that education for cataloguing and classification should include the content presented in table 1. However, because of changes that have transpired in the global library landscape, these requirements might have changed, hence the need to conduct investigative research.

The curriculum offered by any institution should meet the demands of the job market. Witbooi (2004) states that theory should be linked with practice. This means that LIS schools should offer education that is relevant to the practices of information centres. The content of cataloguing and classification and the requirements which employers adhere to before employing a cataloguer, have been discussed above. However, the question still remains whether the cataloguing and classification education in South Africa meets the requirements of the dynamic LIS profession in the twenty-first century. This is due to the perception presented by Sibiya and Shongwe (2018) that even though the cataloguing and classification curriculum is deemed to be relevant, there are insufficient practical sessions for cataloguing students to properly turn theory into practice.

Davis (2008) conducted a study in the USA that aimed at evaluating whether LIS schools were teaching what was expected to be taught to librarians and whether they were adhering to the technological changes that are happening in the profession of cataloguers. Davis (2008) revealed that LIS schools were adhering to these changes as they were offering advanced cataloguing. Okello-Obura and Kigongo-Bukenya (2011) are of the view that due to the changing environment and employers' demands—for instance the diversity of the main employers of information workers—LIS schools have changed their departments' names, courses and degrees and channelled them towards the demands of the job market, which include archives, libraries and other information centres. El-Sherbini (2008) discovered that among topics that were discussed for the future of cataloguing education and the requirements for job markets, were knowledge of Functional Requirements for Bibliographic Records (FRBR), Resource Description

and Access (RDA), applications and relations of metadata to MARC, cataloguing tools and standards and authority control.

Ocholla and Ocholla (2014) in South Africa pointed out that most of the requirements needed in the job market were taught by LIS schools, but RDA was still lacking in South African schools and that most libraries were still using AACR2. One can assume that developing countries are one step behind their Western counterparts in developing their bibliographic records and that could be the reason behind the slow development of cataloguing.

Skills, Knowledge and Attitude Required for Cataloguers

Skills, knowledge and competencies, as well as the attitude of cataloguers, are of great value in the organising and storing of information for use in the library. Previous studies have revealed that cataloguing is a scarce skill (Cabonero and Dolendo 2013; Lussky 2008; Ocholla and Ocholla 2014). Al Hijji and Fadlallah (2012) observe that being a cataloguer requires one to have comprehensive knowledge of rules, methods, procedures and principles of bibliographic control, as well as broader skills in the utilisation of its tools and resources so that accuracy is ensured for entries and the assignment of class numbers. Such skills are perceived as difficult to understand by students as they perceive that cataloguing and classification are boring and difficult (Yusuf 2015).

Evans (2018) stipulates that cataloguers should possess soft skills (e.g., negotiation, curiosity, critical thinking), leadership, and proficiency in multiple languages. Cataloguers need to be fluent and skilful in current (RDA) and emerging (BIBFRAME) metadata standards, plus batch processing. Panchyshyn (2015) postulates that the next generation “Cataloguer 3.0” must know and apply traditional cataloguing standards, and also be comfortable with Semantic Web standards and the programming and transformation languages. Mkhize (2012) notes that cataloguers should have problem-solving skills, organisational skills, project management skills, as well as the necessary skills to examine relevant cataloguing and metadata schemes and identify their use.

With regards to knowledge competencies, a recent study by Turner (2020) revealed that cataloguers should have a good understanding of conceptual models upon which standards are based, and the structure of basic cataloguing tools and encoding standards. Cataloguers are expected to have a basic understanding of data standardisation such as content standards, including RDA guidelines, AACR2, DCRM, DACS, CCO; structure standards including Dublin Core, MODS, MARC, RDA Element Sets, BIBFRAME, EAD, VRA; as well as data encoding, format, and exchange standards such as MARC, XML, Turtle and value standards such as LCSH, LCGFT, LCMPT, LCC, DDC, RDA Value Vocabulary (Cataloguing Competencies Task Force 2016).

Job Descriptions of Cataloguers in South Africa

Bello and Mansor (2012) articulate that cataloguers are fundamentally people responsible for bibliographic control, information management, and the creating of discovery tools that assist users in their search for resources. Cataloguers are essentially charged with duties to provide and organise effective and efficient retrieval systems in the library environment (Bello and Mansor 2012). Among other duties, the literature indicates that cataloguers mainly perform original/copy cataloguing, determine appropriate guidelines in applying cataloguing and classification rules, assign main entries and subject headings (Bello and Mansor 2012; Turner 2020). Turner (2020) adds that cataloguing or metadata librarians are also charged with organising information on the Internet. Bello and Mansor (2012) further echo that cataloguers are also responsible for authority control within the library environment, which is part of original cataloguing.

Theoretical Framing

Adom, Hussein, and Agyem (2018) are of the view that a theoretical and conceptual framework explains the path of research and grounds it firmly in theoretical constructs; a theoretical framework that forms an important part of any research. Grant and Osanloo (2014, 20) define a theoretical framework as the “blueprint” or guide for research. It is a framework primarily based on a present concept in a discipline of inquiry that is associated with and/or displays the hypothesis of a study. It is a blueprint that is regularly “borrowed” by the researcher to construct his/her own research inquiry. The theoretical framework serves as the foundation upon which research is constructed. A core competency theory was used as the theoretical framework underpinning the context of the present study.

The core competency theory is a theory of strategy that prescribes actions to be taken by firms to achieve a competitive advantage in the marketplace (Kawshala 2017). The concept of core competency states that firms must play to their strengths or those areas and functions in which they have competencies. The core competency theory provides ample opportunities for describing the professional and personal aspects that are needed to achieve a high level of efficiency throughout the organisation as a whole. There is an opportunity to focus on the key aspects of personal and organisational qualities that affect the outcome. The core competency theory provides a useful theoretical lens for examining the skills, knowledge and competencies required for cataloguers in the job market. In the present study, the theory was applied to determine job descriptions and sectors advertising cataloguing jobs in South Africa.

Research Methodology

Qualitative content analysis was adopted for this research. Cataloguing job advertisements from LIASA listserv, the *Mail & Guardian* and *Sunday Times* news articles were analysed. Initially, thousands of librarianship-based job advertisements

were retrieved. However, the researcher narrowed the requirements down to strictly cataloguing job requirements. Therefore, only 10 job advertisements from 2013–2016 were retrieved from these sources. A content analysis schedule tool was developed to retrieve information on: job titles; the sector in which the job had been advertised; experience and educational requirements; skills, knowledge and attitudes required; and job descriptions of cataloguers.

For data analysis, a framework for qualitative data analysis proposed by Miles and Huberman (1994) was adopted in analysing data from cataloguing job advertisements. This framework has three processes, which are: data reduction, data display and lastly conclusion drawing and verification. All these processes were applied throughout the analysis of data in this study.

Data from job advertisements were selected, focused, simplified, abstracted and transformed into four themes: sectors advertising; educational requirements and experience required; skills, knowledge and attitudes required; and lastly the duties of the cataloguer. Therefore, thematic analysis was used as guided by Miles, Huberman, and Saldana (2014).

Results and Discussions

The study used 10 cataloguing and classification job advertisements to investigate employer job requirements and cataloguers' duties. The structure of this section is based on the following themes:

- Sectors advertising such cataloguers job advertisements.
- Educational requirements and experience required.
- Skills, knowledge and attitudes.
- Job description.

Table 2 below provides a summary of these results:

Table 2: Cataloguers' skills, knowledge and attitudes			
Job advertisements	Skills required	Knowledge	Attitudes
Advert 1: Cataloguer	<ul style="list-style-type: none"> • Basic and advanced computers skills • MS Office Suite, e-mails and internet usage • Good communication skills • Driver's licence code 8/10 	<ul style="list-style-type: none"> • Knowledge of cataloguing tools, namely for example DDC and AACR2 or RDA, USMARC and LCSH • General knowledge would be an advantage • Knowledge of OCLC and SA catalogue 	<ul style="list-style-type: none"> • Client oriented and customer focused • Self-driven • Display of initiative • Pay attention to details
Advert 2: Cataloguer	<ul style="list-style-type: none"> • Basic computer skills • Written and verbal communication skills • Good interpersonal skills • Be able to work in a team and independently 	<ul style="list-style-type: none"> • Knowledge of online cataloguing tools, for instance Web Dewey, Cataloguers Desktop, Web class and OCLC's Bibliographic formats standards • Know DDC, RDA and LCSH 	<ul style="list-style-type: none"> • Honesty and integrity • Highly motivated • Sense of urgency • The ability to develop self and others
Advert 3: Assistant metadata librarian	<ul style="list-style-type: none"> • Ability to work under pressure and meet strict deadlines • Basic and advanced computer skills 	<ul style="list-style-type: none"> • Knowledge of AACR2, DDC and LCSH • Good sense of general knowledge 	<ul style="list-style-type: none"> • Require a high level of self-confidence • Self-discipline • Assertiveness
Advert 4: Content Curator/Corporate Libraria	<ul style="list-style-type: none"> • Good organisational skills • Multitasking skill • Basic and advanced computer skills (MS Office Suite, e-mails and internet usage) • Good communication skills 	<ul style="list-style-type: none"> • Experience with taxonomy • Metadata and tagging for digital content management • Robust digital content experience • Mastery of interactivity and the Web • Familiarity with common social platforms 	<ul style="list-style-type: none"> • Provide good judgements • Ability to assess the situation and give relevant advice • Capability to adapt and work in a team • Being analytic
Advert 5: Librarian - cataloguing section	<ul style="list-style-type: none"> • Mediate computer skills • Communication and people skills in local and communication language • Driver's licence code 10 • Ability to meet deadlines and work under pressure 	<ul style="list-style-type: none"> • Knowledge of AACR2, RDA, DDC and LCSH. • Knowledge of MARC21, InMagic genie as cataloguing software • Know other databases, e.g. SLIMS and OCLC. • WebDewey and online WebClass 	

Table 2: Cataloguers' skills, knowledge and attitudes			
Job advertisements	Skills required	Knowledge	Attitudes
Advert 6: Intern (cataloguer)	<ul style="list-style-type: none"> • Computer skills (MS Office Suite) • A driver's licence (code 8/10) • Good interpersonal skills, and work ethics. 	<ul style="list-style-type: none"> • Know AACR2 or RDA, DDC • Be familiar with LCSH • Be willing to learn more 	
Advert 7: Librarian/Cataloguer	<ul style="list-style-type: none"> • Good computer skills for internet and MS Suit usage • Good communication skills • Driver's licence code 8/10 	<ul style="list-style-type: none"> • Knowledge of legal deposits • Knowledge of Millennium system • Knowledge of GroupWise e-mail • Knowledge of Z39.50 and Unicorn • Knowledge of AACR2 and RDA • Knowledge of LCSH and DDC 	<ul style="list-style-type: none"> • Be self-driven • Self-confidence and self-discipline • Assertiveness • Paying attention to details • Sound decision making
Advert 8: Librarian-cataloguing	<ul style="list-style-type: none"> • Mediate computer skills • Interpersonal skills • Communication skills, preferably in IsiXhosa and English • Be able to work under pressure and meet deadlines 	<ul style="list-style-type: none"> • Knowledge of AACR2, RDA, DDC and LCSH. • Knowledge of Online Public Access Catalogue, South African catalogue (SACat) and World Cat 	<ul style="list-style-type: none"> • Sense of urgency and the ability to develop self and others • Display of initiative • Client oriented and customer focus
Advert 9: Cataloguer	<ul style="list-style-type: none"> • Computer skills (MS Suit) • Driver's licence code 8/10 • Communication skills both written and verbal 	<ul style="list-style-type: none"> • Knowledge of cataloguing tools, e.g. AACR2, DDC and LCSH. • Online cataloguing systems, e.g. Web Dewey or Web Class • Knowledge of cataloguing databases, e.g. SLIMS, OCLC connexion and InMagic 	<ul style="list-style-type: none"> • Client oriented and customer focus • Pay attention to details • Time management • Self-confidence and self-discipline
Advert 10 Cataloguing librarian	<ul style="list-style-type: none"> • Excellent computer literacy • Excellent communication and people skills • Good organisation skills • Driver's licence 	<ul style="list-style-type: none"> • Knowledge of RDA, LCSH and DDC • Knowledge of GroupWise e-mail, internet, and Windows applications • Knowledge of web Dewey and web class • Smart port Z39 	

Sectors Advertising the Jobs

The key finding regarding sectors advertising posts was that four of the advertisements were for positions in academic libraries, whereas the rest were for positions in public libraries.

Educational Requirements and Experience Required

The results reveal that academic libraries require cataloguers to be in possession of a BLIS, a BBIBL or a BTECH degree. One job advertisement required a Higher Diploma in LIS plus a BBIBL or BLIS. A range between three to four years' experience was also required for the cataloguers' job, except for interns or entry-level positions. Public libraries required a BBIBL degree or a BLIS. Only one cataloguing job advertisement required a National Diploma in LIS. The results from public libraries required two to three years' minimum experience in cataloguing. Studies by Cloete (2005) discovered similar educational requirements in the South African context. The same results were revealed in a study by Cabonero and Dolendo (2013). The aforementioned authors further mentioned that there was a lack of emphasis on cataloguing and classification in the BLIS degree in LIS schools; however, they suggested that LIS schools should concentrate on cataloguing and classification since they are the heart of the LIS profession. Cerbo (2011) indicates that it is crucial that a cataloguer should have a recognised professional qualification since it entails comprehending and apprehending the professional principles and standards, rules and methods of bibliographic work. Lussky (2008) points out that most job advertisements require no experience at an entry level. These results are in accordance with previous findings (Lussky 2008) that at internship level, no experience is required because the practicum provided by LIS schools could be considered as the basis for gaining the requisite experience for cataloguers. This implies that LIS schools have to invest sufficient time in the practicum in order to prepare the students for cataloguing and classification jobs.

Skills, Knowledge and Attitudes Required

Knowledge, skills and attitudes required by the employer were also investigated. Raju (2014) states that disciplinary and generic skills and personal competencies are required for information organisation purposes. The findings of this study revealed that a variety of skills, knowledge and attitudes were required for a cataloguing and classification position. Skills that were required included basic and advanced computer skills (MS Office Suite, e-mails and internet usage), good communication skills (written and verbal), good interpersonal skills, good organisational skills and multitasking skills. Other requirements included a driver's licence (codes eight or ten) which seemed to be a core requirement across all public cataloguing job advertisements.

These results are in line with Raju (2014), Lussky (2008), Cerbo (2011), Cabonero and Dolendo (2013) and Orbih and Aina's (2014) findings that emphasise the importance of computer skills in the library environment. Cataloguers are required to reinvent their skills and knowledge. Glasser (in Cerbo 2011, 325) emphasise that:

... to meet the challenges of today's cataloguing positions, library students must develop a broader set of skills that in addition to traditional theory and practice of principles of bibliographic control and metadata standards, include management skills, computer skills, the ability to work in a team and independently, flexibility, and, perhaps most importantly, willingness and ability to learn and embrace continuous change ...

Lusky (2008) stipulates that technological skills are required in order for cataloguers to organise digital collections since, in the modern day, most information is produced in digital format. Under disciplinary skills, Raju (2014) mentions that cataloguing and classification are traditional skills that have to be linked with technology in order to organise web-based information. Raju (2014) further points out those generic skills, also referred to as transferable skills, and states that they are important in the work environment, for example, communication, interpersonal, problem solving, teamwork and critical thinking skills. Personal competencies include the capacity of continuous learning, adapting to change and the ability to work independently. These results match those of the current study.

The results further indicate that knowledge of cataloguing and classification tools, namely DDC and AACR2, RDA, MARC 21 and LCSH are essential for cataloguers. Further to that, online cataloguing tools, for instance Web Dewey, Cataloguers Desktop, WebClass, OCLCs Bibliographic formats standards, knowledge of database software like Inmagic, SLIMS and OCLC Connexion are required. One cataloguing job advertisement from the national library required that candidates should have knowledge of legal deposits and applicable legislations and possess a working knowledge of Millennium Integrated Library System, knowledge of Z39.50 and Unicorn (online system to make the catalogue accessible on the worldwide web). The prospective cataloguer should also have a knowledge of the OPAC library system, SACat and WorldCat.

According to Raju (2014), cataloguers require knowledge of integrated library systems (e.g., Innovative Interface, UNICORN, SirsiDynix, ALEPH, INNOPAC, Millennium) and metadata standards (e.g., MARC21, RDA, Dublin Core). Most interestingly, these skills are indicated as highly ranked skills. This study found that these skills were also highly sought after by employers.

The findings of the current study indicate that from 2005, when Cloete conducted a similar study, until the present, there have been tremendous changes over time in the cataloguing and classification world. This is witnessed by the fact that when Cloete (2005) conducted her study, Dublin Core and RDA were not requirements for cataloguing jobs. However, in most current advertisements these cataloguing tools are the main cataloguing job requirements. Furthermore, a decade ago, when Cloete conducted her study, DDC was still printed. However, the printed version of this classification tool is no longer available as it is updated online as WebDewey. This emphasises the importance of continuous learning in the cataloguing and classification world by cataloguers as the technology brings more changes in the LIS profession. This

also implies that cataloguers who are already practising should communicate to assist each other in order to adapt to the new cataloguing word, as is the case with a LIASA interest group on cataloguing known as Interest Group for Bibliographic Standards (IGBIS) (LIASA 2020).

Cabonero and Dolendo (2013) point out that knowledge of descriptive cataloguing, classification and subject analysis is essential. They mention that these are the core areas that a cataloguer should master. Cloete (2005), Lussky (2008), Cerbo (2011), Cabonero and Dolendo (2013) and Orbin and Ana (2014) concur. In South Africa, Cloete (2005) has established that knowledge of cataloguing rules such as AACR2 (which has been replaced by RDA); classification tools such as DDC, UDC and LCC; and subject analysis tools, specifically Library of Congress Subject Headings (LCSH) or National Library of Medicine (NLM), Medical Subject Heading (MeSH) and Dublin Core, are essential. Proven expertise is required in online cataloguing on SANB, SACat, WorldCat and SABICAT, as well as knowledge of automated cataloguing using a USMARC/MARC21 based system. Cloete (2005) also indicates that cataloguers should be knowledgeable on current cataloguing systems.

The results indicate that RDA is starting to be a requirement. This is because AACR2 is gradually being phased out. Cerbo (2011) is of the opinion that due to the introduction of new digital information materials, including new generation catalogues, it is required that future librarians possess RDA knowledge and skills. Nampeya (2009) recommends that cataloguers should have skills of engaging in resource sharing, for example, communicating online by using the Z39.50 protocol to link to other catalogues and engage in the exchange of accessions lists and resource sharing models. This will improve the quality of services as more and varied materials will be accessed using the Internet (Nampeya 2009). Al Hijji and Fadlallah (2012) observe that a professional cataloguer must have comprehensive knowledge of rules, methods and principles of bibliographic control and broader skills in the utilisation of its tools and resources so that accuracy is ensured for entries, assignation of class numbers of catalogued items and subject headings, in order to improve the quality of the library catalogue.

The literature concurs with the current study in that bibliographic workers should have knowledge of cataloguing rules, principles and methods as well as technological skills.

Attitudes required for cataloguers (as mentioned in the job advertisements) include: honesty and integrity; being highly motivated; paying attention to detail; a sense of urgency; the ability to develop themselves and others; a high level of self-confidence and self-discipline; assertiveness and time management; stress management; provide good judgements and the ability to assess the situation and give relevant advice; client oriented and customer focus; being self-driven; display of initiative; ability to meet strict deadlines and work under pressure; and time management. These attitudes are required across all job advertisements. Studies by Lussky (2008), Cabonero and Dolendo (2013) mention attitudes that are in line with the abovementioned skills. Glasser (2007) is of

the same view and the current study affirms these findings. Glasser (2007) states that even though traditional cataloguing skills are still needed, today's employees must have some additional skills, for instance computer skills, communication skills, and management skills as well as characteristics which may include flexibility, being willing to learn, and a tolerance for change in order to succeed and flourish in the cataloguing field. Table 2 indicates the skills, knowledge and attitudes required from cataloguers.

Job Descriptions or Duties of a Cataloguer

The reviewed job advertisements point out that the core function of a cataloguer is to efficiently and effectively catalogue and classify library material. Data from job advertisements reveal that cataloguers are expected to perform information organisation of different genres, including electronic theses and dissertations (ETDs), books, audio-visuals (AVs), and other academic materials. The incumbents in the academic library also have to do original cataloguing on the World Catalogue (WorldCat). One advertisement reveals that a cataloguer has to do authority checks, administration of the library collection, library collection management, and management of bibliographic control work. They are also responsible for classifying library materials using the Dewey Decimal Classification (DDC) 23rd edition and assigning subject headings using Library of Congress Subject Headings (LCSH).

The Bibliotheca Alexandrina Institution (2013) provides the following duties and responsibilities that are exactly in line with the findings of the current study. The duties a cataloguer needs to perform for the Bibliotheca Alexandrina Institution include original or copy cataloguing, subject analysis and the provision of class numbers for various types of library material. Orbih and Aina (2014) also detail the functions of a cataloguer as being original cataloguing, retrospective cataloguing and lastly, copy cataloguing.

Conclusions and Recommendations

Cataloguing job advertisements indicate that a qualification is required for one to be a professional cataloguer. Employers require at least two years' experience, except for internship or entry level positions. Cataloguers require computer skills, communication and interpersonal skills, and knowledge of cataloguing and classification rules and tools. Such tools include metadata standards/tools like Dublin Core, MARC21 and RDA. AACR2 is still required, depending on the nature of the library, especially in public libraries. In other job advertisements, digital curation is also required. Attitudes required include lifelong learning, honesty and integrity, being highly motivated, paying attention to details, and others. Cataloguers' job descriptions include the creation of efficient and effective catalogues and classifying library material, performing information organisation of different genres, including electronic theses and dissertations (ETDs), books, audio-visuals (AVs), and other academic materials. Original and copy cataloguing was also highly required by most libraries advertising these jobs.

This study recommends the following:

- Employers must provide on-going training and skills development programmes to cataloguers in order to remain relevant in the field; for example, being up-to-date with the latest trends in the field, such as RDA.
- Cataloguers must persist in updating themselves to stay relevant.
- Constant communication between cataloguers is encouraged to improve their work.

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