Nomenclature Change for Cataloguers and the Future of Cataloguing

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Abstract

This paper examines nomenclature change for cataloguers and the future of cataloguing. Cataloguers are a valuable subset of the library professionals that provide critical but behind the scene services to libraries and the users. Even in this time of change it seems hard to imagine that even with cataloguing there has been an evolution. This evolution is changing the job profile of cataloguers thereby bringing along with it nomenclature change. There is therefore no question that the art of cataloguing and the role of its practitioners are evolving. The study finds out that the term cataloguer is changing to catalinkers, metaloguers or even making them information ninjas. The paper concludes that cataloguing will remain a part of the library but may be called something different to better describe what it does. The importance of cataloguing will neither fade nor will their skills set thrown away.

Keywords: Cataloguers, Cataloguing, Nomenclature Change, Catalinker, Metadata Librarian, Metaloguer, Telecataloguing, Information Ninja.

1. Introduction

"Librarians must manage change; indeed, managing the library is a continuing process of managing change. If libraries do not manage change, change will manage them. Libraries must be managed in such a way as to handle present challenges and changes and also to be prepared for new changes at any time. What is needed for them to mange change?" Smith & Carter. (1996).

No one doubts that libraries like most organizations have to embrace changes when the information business environment demands them. But the idea that a library might want change for its own sake often provokes skepticism. As with most organizations that have been around as long as the library profession has, a lot has changed about how librarians go about their daily business of being library and information professionals. Since most librarians began their careers at a period when analogue librarianship was fashionable, change has been galloping towards even our very newest entrants into the profession at full speed. In today's rapidly changing library environment, traditional boundaries are being broken down by a variety of forces that are economic, technological, or managerial in nature. It is even more often said that library and information services must change to survive. The fact remains as Bivens-Tatum, (2010) observes that *"any institution which does not change too, adapt itself to the times, and become part of the onward 'drive of change,' will be pushed aside to be left perhaps for a time to make a harmless life of its own."* Just as the function of libraries and the role of librarians are not the same as they used to be, the same is true of cataloguing and cataloguers.   It seems hard to imagine that even with cataloguing there has been an evolution. There is therefore no question that the art of cataloguing and the role of its practitioners are evolving. Cataloguers, according to Parchuck, et.al, (1989).can trace their ancestry as first service professionals whose identity, functions and requirements are well established, defined and understood. Thus, as it has been from the past, libraries would continue to look onto cataloguers for mastery over the technical procedures and details necessary to keep collection organised and accessible. Cataloguers have a key body of professional knowledge and a set of professional skills which they deploy in the performance of their professional chores. They are the interface between the user and information resources. A cataloguing librarian is a specialist in knowledge management of a library. Cataloguing librarians as professionals that create access to information resources and render services to users are the most vital part of an effective and efficient library and information service (Merriam-Webster's Collegiate Dictionary, 2002). Using the beauty that is resplendent in the Classification Scheme, cataloguers decide where in the library an item should be shelved, hopefully in such a way that it sits alongside items which deal with similar subject matter, aiding the library user who likes to browse or rely on serendipity for their reading pleasure. In libraries, this usually includes bibliographic description, subject analysis, assignment of classification notation, and other activities [processing] involved in physically preparing the item for the shelf - tasks usually performed under the supervision of a librarian with functional specialization as a cataloguer. For the purpose of this study, cataloguers or cataloguing librarians are defined as professionally trained individuals who hold Master of Library Science (MLS) (MLIS) or equivalent library degrees and are currently employed in a cataloguing position requiring that degree. This definition creates a distinction between professional and paraprofessional cataloguers. It is not the degree that makes a professional good cataloguer but more importantly it is competence which is a central

concept for understanding the preferred qualities of professionals. Competence is something that constitutes the core of the cataloguing profession. Cataloguing is complicated but there is finesse and background knowledge that hover around skills set. Professional competence of cataloguers is based on technical know-how, tacit knowledge and the understanding of work-practice which amounts to the way of getting things done. This means that if technological development brings new practices which affect professional competence of cataloguers, they will embrace and adapt to the change that accompany such.

In most libraries, cataloguers have moved away from manual cataloguing as they have embraced new technologies currently sweeping the information highways as well as transforming the content and services of libraries. What is going on in libraries like other organizations are a classic example of how automation has impacted on the traditional ways that work is done, particularly in cataloguing departments. The context of this change revolves around how change is carried out, and by whom the cataloguing is done. As a result of the impact of ICT on technical services, the roles of cataloguers have witnessed profound changes. Their roles now involve operations that have become integrated thereby making them to be inter-dependent in their pursuit to provide bibliographic control and access. This description of the changing library and cataloguing environment not only raises some fundamental questions about the future for the cataloguer but also challenges them to consider them as they seek to manage the change that has come:

- ❖ What are cataloguers' current responsibilities, roles and skills and how are they changing?
- ❖ What are the current and emerging trends in cataloguing?
- ❖ What nomenclature changes will reflect what cataloguers do and what they are going to be known as?
- ❖ What will be the future of cataloguing librarians?

These questions constitute the basis of this study.

1.1 The Changing Roles, Responsibilities and Skills of Cataloguers

Cataloguers are moving into new roles as they provide enhanced access to information resources
not only books, but also CD-ROMs, computer discs, and multi-format items and add the records they create to a shared international database. The technological developments in the tools and techniques on the Web have been factors in making the change possible. In the new scheme of things, cataloguers recognized quite early that their relevance and survival were under threat from the changes brought about by the burgeoning technology more so of the Internet, and what Vaidhyanathan, (2011) in his paper described as the *"Googlization of Everything"*. These threatened their continuing existence (Thompson, 1983). As a result, many cataloguing librarians saw the need for fundamental changes in what it meant to be a professional cataloguer. More recently, some new products and product developments are offering a change in the environment in which cataloguers may work. The technology is either here, or in development, to allow cataloguers to access bibliographic records, the Internet, and the primary bibliographic tools from a personal computer at a remote site. Library automation has in many cases changed cataloguing of routine materials from being primarily a responsibility of the cataloguing librarian to a paraprofessional responsibility for employees assigned to the cataloguing department. The introduction of non-professionals to cataloguing is one of such changes. Resource-sharing of cataloguing activities is another very notable change being currently experienced in cataloguing. Nwalo (2006) notes that resource-sharing is of immense benefits to libraries and their users as it makes information more readily available, saves costs and prevents duplication of effort especially in cataloguing and classification. The skills, knowledge and understanding that cataloguers have make them a valuable resource, but they need to keep up with the changing environment. It is quite apparent as Buttlar, & Garcha, (n.d.) observe that professional cataloguers no longer are defined merely on the basis of performing their traditional roles of original cataloguing, authority work, and assigning call numbers and subjects. Rather, they are viewed as managers, policymakers, up-graders of the database, bibliographic instructors, collection development librarians, automation librarians, and more. Brisson,(1995) in a recent two-part article on the cataloguer's workstation, which describes the transformation of cataloguing, emphasizes the new demands made on the cataloguer in terms of computing knowledge and experience, in addition to cataloguing knowledge and subject expertise. The author sees the cataloguer's role as mediator between computing and cataloguing activities. In their literatures (Winters, 1994 and Veaner, 1984) suggest other roles to include: contract negotiators, designers or managers of automated systems, resource allocators, writers, speakers, fundraisers, researchers, subject experts, collection managers, proposal writers, or telecommunications experts. According to Intner,(1993) the necessity for cataloguers and technical services librarians did not change but, rather, the requirements of the positions did. *In a paper titled Changing rules, changing roles: being a cataloguer in 2012 delivered at the 2012 Cataloguing and Indexing Group Conference in Sheffield Heather Jardine enumerated* some of the requirements of the position that have changed to include:

- i. Rules - before AACR2 there was AACR1, and before AACR there were rules which have replaced each other down the centuries, all the way from the Library at Alexandria.
- ii. Formats –from UKMARC the format changed to MARC21, and now we are witnessing the end of

MARC altogether. Just as we are facing changes to rules (RDA in place of AACR2), changes to data structure (whatever follows after the end of MARC) and changing materials (e-everything), "*So changes to rules and formats are nothing new, and although they are uncomfortable and unsettling, as professional cataloguers we can cope with them*".

iii.   Information resources- these are changing from traditional print to electronic. Now we are facing a challenge in cataloguing everything "e-"– *but we will survive, we will cope, as we did before*".

iv.   Restructuring- from combining and managing acquisitions with cataloguing duties to managing Integrated Library Management Systems.

v.   Knowledge management- from cataloguing-[creating bibliographic records] to metadata creation-[a world of digital objects]. Others include:

vi.   Visibility of cataloguers: from being a "*bibliographic hermit, typically housed in some back room, basement, or, increasingly, off-site altogether, seated behind a computer amid piles of books*"[cataloguers were traditionally hidden behind the scenes], to becoming visible as instructors/educators in knowledge management and cataloguing, presenting papers at conferences, seminars and workshops and other duties that will put him in the front burner as a result of the skills he has added to his functional specialization. But as DeZelar-Tiedman, (2004) reinforces, it is important to *"recognize that, as for traditional cataloguing, the best training is by doing. No matter how many articles you read or workshops you go to, you will not really 'get it' until you sit down and put it into practice."*

vii.   Automation of routine tasks requires a shift in cataloguing work.

Transforming the process of cataloguing of the future from a craft into an industry therefore depends on what Tillett (2004) in his abstract succinctly states as follows:

We will do cataloguing differently in the future while retaining the best of basic cataloguing
principles and the benefits of authority control. Our tools not only will improve future catalogues
but also information seeking systems of tomorrow's world.

Comments such as these provide answers to questions which in part constitute the statement of problem of this study.

1.1.2.   Reasons for the Changing Roles of Cataloguers

At the 2014 'Defining a Future for Cataloguing' Conference held in Cambridge Stuart Hunt Data Services Manager and Digital Production Manager at the University of Warwick and Chair of CILIP Cataloguing and Indexing Group states as follows:

The old way of doing things does not work anymore; if we carry on with our existing models then we will drown!
The amount of stuff libraries are acquiring is going up all the time, with an explosion in the number of formats
we are getting. With all these new acquisitions, our backlogs are not declining (and students are still turning up
with carrier bags full of unwanted books they want to donate).

Cataloguers need to reflect with increasing focus on the impact of current and emerging trends of development in the cataloguing environment. As the implication of technological innovation become clearer, cataloguers have had to look to the future with concerns about cataloguing and what it will entail in the new cataloguing environment, especially in developing countries with low levels of Integrated Library Systems. Dyer, (2012) provides an insight into current cataloguing work and answers some questions about what cataloguing in the new cataloguing environment actually involves.

- Changes in society
- Purely and simply, personal development needs
- Economic – scrutiny of funding and spending, often seen as expensive
- Technological advances, resulting in need to change work flows and learn new skills
- Availability of improved procedures and tools
- New management styles and philosophies (mainly derived from the business world, and including preference for outsourcing, management favouring added responsibilities, or priority shifts and expanding services without more resources)
- Ensuring best use of professional time
- Co-operative cataloguing model changing (Wolven, 2008), (since 1970s built on consensus, now moving towards a new model involving consensus on what to tell vendors, publishers and agencies that might do our cataloguing for us, and a model of a culture based on principles and judgment rather than comprehensive set of rules)
- Availability of institutional repositories and open access
- Changing user needs/wants (Byrd, 2006), (e.g. instant gratification, wide choice, improved products and services, ability to customize their library services)
- Shift from print to electronic, which requires more maintenance

- Lack of teaching of cataloguing skills on HE courses
- Need for skills in the area of archiving of web pages
- Growth in publishing output, print and e, so can't keep up
- Advance of web 2.0, web 3.0 – users' preference for enriched content
- Users' expectations in terms of retrieval and delivery

Cataloguers have to keep pace with this changing environment by managing materials in new formats, manipulating different metadata schemes as well as cataloguing resources for diverse user environments and audiences. Current and emerging trends in cataloguing are summarized as follows:

- Importance of workforce planning taking into consideration
  - Retirement and difficulty to find trained staff
- Increasing complexity of the cataloguing process as a result of
  - The increasing number of online tools for cataloguers
  - Rapid emergence of new formats
  - Emphasis to indexing and metadata
  - Cataloguing for diverse user environments and audiences.
- Growing need to provide multilingual cataloguing
- Increased rate of updates to cataloguing rules, subject headings and MARC21.
- New type of presentation in OPACs prompted by
  - the changes in user environments - cataloguers will need to include additional feature into the bibliographic record, such as book cover art, reader reviews, book summaries, etc.
  - application of new cataloguing rules in OPACs – cataloguers will need to create links between the related records in the database, the expressions and manifestations of the work.

1.1.3 Nomenclature Change

Change for the better is a good thing. Change for the sake of change sometimes isn't so good. Regardless of where our profession is now on technology, services, delivery, our aims and ideal or even what we look like, we do know that right now we're trusted. We're wanted. And we don't want to change that.

Changes in cataloguers' professional identity as a result of increased use of new technology in the performance of their routine chores seem, however, inevitable. Such use generates changes in the context of their work and ultimately necessitates changes in professional identity. In library and information science profession, cataloguing practices have increasingly witnessed radical transformations over the years as a result of the introduction of ICT. These changes have come about both in information sources and new tools for managing cataloguing records. Following from this development, new technical terms and buzzwords are emerging to reflect the changing scenario. Just as it is in all other professions and subject fields, this must be seen as an enrichment of the language reflecting a dynamic state of development. One of the great changes in this sector over the years has been our own nomenclature. Nomenclature is a system of names or terms, or the rules for forming these terms in a particular field of arts or sciences. Name giving is a part of our general communications which come about using words and languages. It is an aspect of everyday taxonomy as we distinguish the objects of our experience, together with their similarities and differences, which we identify, name and classify (Wikipedia). *Nomenclature change reflects not only a change in what cataloguers are called and known as but more importantly what our profession which is now driven by technology has assumed. It would appear that nomenclature change is to state the obvious the 'confirmation' of the name by which we were earlier 'baptized'.* Like many librarians there is curiosity among cataloguers who spend a fair bit of time contemplating their identity, roles and professional future. We used to be described simply as librarians, be it reference, acquisitions, reader services, serials, cataloguers, or, eventually – if we were lucky – managers or whichever niche applied. Library job titles in particular are especially fascinating. These new job titles all reflect new roles and content of work. Not many other professions are there where employees perform almost identical roles as those of librarians whose job title is completely different, or conversely employees who share similar job titles but whose actual job bears no resemblance to theirs? In the world of cataloguing, metadata creation and bibliographic control services this is perhaps particularly noticeable. In particular, it may be interesting to find out if technical services job title used to mention cataloguing but now does not (or indeed if cataloguing job itself used to include cataloguing and now does not). Is there really a need for nomenclature change [a separate term] for those involved either in the traditional cataloguing environment or those involved in creating or working with metadata in some way - an advocate of something, especially something this recondite or ambiguous? Some libraries are beginning to effect nomenclature change by renaming their cataloguers Metadata Librarians, to reflect that the materials they are dealing with are different, and that they should be approaching them in a different way. The role of cataloguer/metadata librarian is an enhanced and increasingly diversified skill set. It is a confluence of 'traditional' and 'technical' skills and more. Sticking to just 'traditional' skills only makes cataloguers an easy target. This change has caused some anxiety across the library and throughout academia as well as with society

at large. Some cataloguers see these changes as making their work more valuable, not less Miksa(2008,) expresses a different opinion:

We can change our job titles, but being forced to do so points to the larger misconception that a cataloguer and a 'metadata specialist' are two completely different professions.

Table 1 below is an attempt to provide a taxonomy for cataloguers taking into cognizance their job environment and functional specialization.

Table 1. Taxonomy for Cataloguers, their environment and functional specialization

NOMENCLATURE	ENVIRONMENT	SKILLS- SET	FUNCTIONAL SPECIALIZATION
CATALOGUER	Print	Traditional	Responsible for the processes of bibliographic description, subject analysis, classification, and authority control of library materials.
CATALINKER	Web	Traditional and Technical	Responsible for the creation of web-friendly descriptions of resources—metadata that is discoverable outside the library catalogue, which can be re-used easily by library and non-library communities, and has a context because it is linked to other information resources.
DATAMANCER	Web	Traditional and Technical	Thinks of Dublin Core, RDF, and XML as the last words in metadata, because librarians structure the data inside the tags.
INFORMATION NINJA	Web	Traditional and Technical	Responsible for providing new online privacy-protection services that shield patrons from unwanted spying of their library activity.
KNOWLEDGE MANAGER	Hybrid	Traditional and Technical	Responsible for organization of knowledge by creating bibliographic records and metadata [a world of digital objects].
METADATA LIBRARIAN	Web	Traditional and Technical	Understands the application of web standards, classification systems, records management, content management, search engine configuration capabilities, assets management, how information is created and used etc. etc. etc.
METALOGUER	Web	Traditional and Technical	Responsible for the work of describing resources in any of a variety of schemas,
TELECATALOGUER	Web	Traditional and Technical	Responsible for remote site cataloguing as an alternative to traditional cataloguing.
GENERIC INFORMATION RESOURCE WORKERS	Hybrid	Traditional and Technical	New breed cataloguers who will adapt their cataloguing activities to processes as they evolve either in the traditional or digital environment.

Within the metadata architecture some advocates of structured metadata on their part put forward the following variety of names which derive their existence from those involved in creating or working with metadata to include:

- ❖ Information Architect
- ❖ Metastructurer
- ❖ Metadata-Architect
- ❖ Metadata-Hacker
- ❖ Metadata-Worker

❖ Metadata Officer
❖ Metaloger [Metaloguer]
❖ Content Analyst (someone who creates a metatorial framework)
❖ Metator (someone who applies it. These last two were blamed on Content Wire although the actual glossary page is now defunct so couldn't be checked)
❖ Cartulary or Cartularist
❖ Metadatist
❖ Metadataist
❖ Data Architects
❖ Metadata Magician (which I understand to be humorous (while also understanding that not all suggestions are necessarily entirely serious))
❖ Datamancer (do.)
❖ Signifiers
❖ Metaologists
❖ Semantic Webmasters
❖ Cataloguer (Web Metadata)
❖ Metamatician
❖ Advocate of Structured Metadata
❖ Metaphile

The term Cataloguer might suggest that the metadataist is contributing to a catalogue, which will not be the case for many people involved with Web applications. However, as cataloguers involved in the description of materials, the provision of controlled headings, and encoding all this in machine readable form; if this is not the same as an Information Architect or a Metastructurer, Metadata is often defined as data about data; Cataloguers have been cataloguing and providing data about data for centuries. Whatever job one performs in the cataloguing landscape whether catalinking, datamancing, metaloguing, telecatologuing or as an information ninja then such a person is doing the job of a cataloguer.

Librarians have become much more creative over the last 20 years. Welch, (2012) writing in the editorial column of the *INCITE* states as follows:

Library and information professionals, after all, are found in some seemingly strange places these days, and frequently do some amazing things. Some of those things solve problems, some improve the quality of life, and others make that life bearable for members of the communities we serve. One suspects this is a profession that is harder on itself than anyone else manages to be, despite all those stereotypes that just won't go away.

In the 1980s the Australian Library and Information Association [ALIA] inserted the word "information" in librarians title and *INCITE's* [the news magazine of the Australian Library and Information Association] own style calls for members of the profession to be known as "library and information professionals". Shortly after, in the 1990s the cataloguing/library world discovered – re-discovered – the word 'knowledge' and only suddenly realized that what they have been doing over the years centered on managing knowledge. In LIS curriculum a terminological shift has occurred where the use of the term "*cataloguing*" is being replaced by a more encompassing phrase *"organization of knowledge (OK)"*. Most library schools now opt for 'organization of knowledge' as a course where students are exposed to the principles and methods of cataloguing and increasingly a very important course that provides a foundation for students interested in a professional cataloguing career. Today, librarians especially cataloguers are now being described as knowledge managers. "What then is in a name?" is a common question that adorns professional cataloguers' mind going by the perceived nomenclature change they envisage in the new cataloguing environment. According to Khoshoo,(1995) cited in Bawa,(2010) '*all wisdom begins by calling all living (including humans) and non living things by their proper names*'. The power of a name and its value has long been immortalized in prose, poetry, and religious ceremony. Everyone recognizes himself or herself by name. Even in professions and vocations a name describes what the practitioners do. In the library and information science profession, more so in the new cataloguing environment, the question is: how or does a change in the job profile of cataloguers influence or result in nomenclature change? In the present circumstance, can we accept the assumption that the name "cataloguer" is sadly a bygone relic or that the skills-set- cataloguing is over? The changing face of the cataloguer and cataloguing may have less to do with the *how* the image-makers [especially those outside the library] portray us and more with the *way* we show our true colours. To blatantly plagiarise Shakespeare, as Annie Seidl writer /director and Hollywood Librarian whimsically states: *"The fault, dear Brutus, lies not in our movie stars/But in ourselves."* The same goes for our strength. If the nomenclatures "cataloguer" and "cataloguing" are on their way out of library lexicon and milieu as being speculated, such raises fundamental questions. What does this trend mean, and how will that affect the practitioner's responsibilities and workflow in cataloguing and his role as a cataloguer and a new librarian? Is it because most people start their quest for information on the Web with a major search provider like Google rather than come to look up their information

needs in library catalogues? Or the fact that the information contained within the traditional library catalogue is not accessible to these search providers? Does it therefore show that cataloguers are failing in their specialty of making the library resources accessible or not making their collections discoverable in the space where our users are (Coyle, 2010). Are cataloguers still relevant in the business of connecting people to information? What does the future hold for cataloguers, cataloguing and the catalogue? Will they all morph into metadata specialists, metadata creation and digital objects? Or are they changing from cataloguers to information Ninjas? Perhaps, as some have suggested, the term "cataloguer" itself is becoming obsolete, and not the profession. The one thing that everyone is agreed about is that change is the new normal, which makes for anxious times. *Heather Jardine cited* In Glasser's (2007) comments; one could see the *"old"* cataloguing position as no longer necessary and a professional shift to a more general-technical occupation that derives its name from the digital era. Now that they have rediscovered that they are 'knowledge managers' why not stick to that? Brodman, (1979) advises that:

> We must educate for the problems of a generation hence, not for the problems of today ... librarians must be imbued with the psychological ability to handle change and to live with ambiguity. Without this they will be performing tomorrow's tasks with yesterday's concepts.

This shift is not only possible through education and training in which cataloguing is being systematically changed to knowledge management but more importantly professionalisation. Perhaps Wooliscroft,(1997) effervescent evaluation of the attributes of cataloguing librarians provides a satisfactory answer to all the questions and issues raised above as he romantically states:

are not only openers of doors and gateways to information; we are not only navigators of the seas of information; we are not only choreographers of the dance of knowledge; explorers, scouts and pathfinders, but we are also key enablers, able to empower our users to become more self-sufficient in developing information gathering and evaluating skills which will assist others to be well resourced for changing life circumstances.

In today's cataloguing milieu, digital technology has changed the profile of cataloguers and what they do as well as how they provide access to their materials and keep patrons online activities safe from unnecessary surveillance to become what (Folkes and Soper, 2014 ;Macrina, & Glaser, 2014) refer to as "Information Ninja". Information Ninja? It started as a joke, but it turned out to be true... A name which Soper,(2011) says was fashionable when it was first suggested as it presented cataloguers skills and knowledge of the broader realm of the organization and management of information to our jobs by stealth and after a while was found to be apt. Information Ninjas are cataloguing librarians who provide new online privacy-protection services that shield patrons from unwanted spying of their library research activities. They do this by installing a number of privacy-protecting tools on public PCs which guarantees patrons digital privacy as an intellectual freedom. In this new role, some of the foundational pieces of job specialization required of cataloguers include:

- ❖ Figuring out the best way to manage and access resources, wherever they are located and in whatever system and format they are stored.
- ❖ Moving away from traditional records file and library classification systems and making innovative use of more consumable methods of classification such as metadata and social tagging.
- ❖ Focusing on establishing common classification and management practices, applicable to any information resource, across systems and formats.
- ❖ Recognizing and building the necessary skills: becoming tech savvy; building knowledge of search; understanding structured and unstructured content; learning about retention and preservation requirements, just to name a few.
- ❖ Having a unique responsibility in helping keep patrons visit and library activities for all kinds of online research information needs safe by installing a number of privacy-protecting tools on public PCs (Macrina, & Glaser, 2014). http://www.catalogingfutures.com/catalogingfutures/future_of_cataloguing/

Similarly, as the materials in most libraries change from fewer traditional formats to more digital and electronic formats, cataloguers and cataloguing continue to change as well. Learning to work in digital environments requires that cataloguers create metadata which is an essential building block in facilitating effective resource discovery, access, and sharing across ever-growing distributed digital collections. This, as a result, has led the word "metadata" —which Baca, (2008) says, in many ways can be seen as a late 20th early 21st -century synonym for "cataloguing" and Day (1997) points out a connection between today's metadata and the traditional library bibliographic record—to certainly attract the admiration and fancy of stakeholders in the information industry. For Caplan,(1993) metadata is a neutral term for cataloguing without the 'excess baggage' of the Anglo-American Cataloguing Rules or the MARC formats. Marcum, (2006) at the Ebsco Leadership Seminar held during the 2005 ALA Midwinter meeting in Boston had issued a challenge to the library community called for a redefinition of cataloguing as we know it today by working towards a model more in line with the "world of Google". We expect this very redefinition of cataloguing to evolve as well over the next five years, from that of *"creating MARC records"* to something more akin to *"creating metadata in diverse environments"*. In the

library and information profession new technical terms and buzzwords are emerging and this necessitates that the new digital environment generates taxonomy where librarians and indeed cataloguers are classified due to the change evolving. Like in all other professions and subject fields' librarianship enjoys such privilege and this must be seen as an enrichment of the language/lexicon reflecting a dynamic state of development in the profession. However, it should be noted that AACR and MARC records are themselves metadata. For now there really is no suitable verb for the noun "metadata" yet, but in a recent paper- *Principia bibliographica?* Dick Miller from Stanford has used the word "metaloging" or "metaloguing" to represent the work of describing resources in any of a variety of schemas, which Warren, (2007) says is appealing, and a good candidate for the next label. These two terms incidentally are not the only good candidates for the next label. Telecataloguing [cataloging technology] (Hopkins 1994) or remote site cataloguing has also emerged. Its emergence is as an alternative to traditional cataloguing. As some cataloguers may move farther away from cataloguing books and toward electronic resources, telecataloguing becomes more an alternative to traditional cataloguing practice instead of primarily a means of addressing personnel issues. A variety of cataloguing activities, such as authority work, database clean-up, retrospective conversion, and original cataloguing were described as being accomplished at a remote site using the tools and resources currently unavailable. The availability of cataloguing tools and online public access catalogues of most worldwide which linked resources and tools accessible in one website presents opportunities for the enterprising cataloguers. Cataloguers can now perform cataloguing outside the walls of the library. Tools are now available that can be conveniently accessed help reduce a lot of the cumbersome manual work that cataloguers do thereby saving time and money. Bibliographic data can be easily downloaded or copied resulting in more productivity and efficiency. Bibliographic information about materials being catalogued can also be accessed through book reviews and publishers catalogues. Such environment provides cataloguers the opportunity to work in the comfort of their homes. Then enters yet another candidate "catalinking" coined in January 2013 by Eric Miller at the American Library Association Mid-Winter meeting from the words 'Cataloguing' and 'Linked Data'. Wallis, (2013) advises that cataloguers should "stop copying and start linking" and introduced the term "catalinking" as a new way of thinking about cataloguing. According to McGuire & McKenzie, (2014) the term catalinking means the creation of web-friendly descriptions of resources—metadata that is discoverable outside the library catalogue, which can be re-used easily by library and non-library communities, and has a context because it is linked to other information resources. The Web of data and RDF do not mean that cataloguers have to become IT specialists. However, the fact is that rather than searching authority files for the correct data and then copying the text into local catalogues, cataloguers should instead link to persistent URIs of the same authorities. This then allows their catalogue to be part of the linked web of data. In practical terms, this could work with the linked data appearing as a widget or add-on to a traditional bibliographic record (Wallis, 2013). Linked Data is data structured in a standardized way so that computers can understand it and derive meaning from it and is essential to realizing Tim Berners-Lee's vision of the Semantic Web as one *"in which information is given well-defined meaning, better enabling computers and people to work in cooperation"* ((Berners-Lee, 2006); Berners-Lee, Hendler and Lassila, 2001). He needed a new word because he was talking about a new activity, something radically different from traditional cataloguing (Miller, 2013). From all indications there is need for nomenclature changes for the specialization of the practitioners from cataloguers to metadata specialist/librarian and the function from cataloguing to either metaloguing or catalinking. From this discussion, both catalinking and metaloguing appear to be fashionable within the context linked data and metadata creation and as a result either would be a very acceptable term to represent the work of describing resources in any of a variety of schemas, so that a "catalinker" or "metaloguer" could be working in MARC, extensible markup language [XML], Dublin Core [DC] Visual Resources Association [VRA], Encoded Archival Description [EAD] and so on, or with any taxonomy. Each of these will be used when appropriate to provide highly granular access to materials beyond the scope of the traditional MARC catalogue. The word "cataloguer" it would appear, is therefore, rightly or wrongly associated with the past- a bygone relic- and with one form of metadata only: MARC records. But perhaps having any label at all may be out of fashion [passé] therefore what we will have are 'generic information resources workers' who will adapt their activities to processes as they evolve. As stated in the Libris presentation at ELAG 2013 conference the difference with linked data, is that cataloguers will primarily choose among existing entities rather than describe the items with strings. This, as it were, explains the idea that cataloguers will become "catalinker" and their functional specialization "catalinking". These terms apparently are very trendy. This author, therefore, supports the idea put forward at the conference that the terms "catalinker" and "catalinking" be nomenclature changes for both the practitioners and the practice so that cataloguers and the cataloguing world do not lose sight of where we are coming from as well as focus on where we are going. Whereas "cata" derives from the old relic cataloguing "linker" derives from linked web of data that is linked to persistent URIs. The fact remains that as we prepare the library and navigate to Library 3.0 the nomenclature change will be in tandem with the vocabulary of Web 3.0. Reinforcing this assertion Schoeman, (2014) declares that cataloguers will become "catalinkers" while answering the question in her paper *Does Web 2.0 Prepare us for Library3.0?*

1.1.4 The Future of Cataloguers

What does the future hold for cataloguers, cataloguing, the catalogue and of course the library?

For cataloguers in the library community can we look back to some years past and come up with a smile, or a chilling thought of where we are coming from and where we are going? What about the future? C. S. Lewis quoted in Levinson,(1967) says it is *"something everyone reaches at the rate of sixty minutes an hour, whatever he does, whoever he is".* Cataloguers engage in noble pursuits in the performance of their functional specialization like their peers in other professions even though it takes hard work and tenacity. Whereas the hard work includes acquiring the specialized skills needed via training, internships, or volunteer opportunities in cataloguing and actually deploying same to work; the tenacity includes advocacy for the importance of cataloguing in one's own institution and beyond. Cataloguing is steeped in a tradition of rules and standards which is more of a powerful tool than a burden. That cataloguers can facilitate something so noble to a point of pride is one of the best reasons why cataloguing is considered a worthwhile career (Barton, 2010). This accounts for why cataloguing is not dying but only passing through nomenclature change. When the library and information community discuss metadata, the most common analogy given is the library catalogue record. It also confirms that evolution does not obliterate the past but it manifestly modifies by transforming it. The role of the cataloguing librarian is changing and has in fact spilled beyond their traditional functional specialization. From sitting in a revolving chair bespectacled and surrounded by a mesh of books that derive their placement on the shelves on the mercy of AACR2, ISBD, MARC21, Library of Congress Subject Headings and Schedules to sitting in front of workstations fiddling with the provisions of RDA and managing resources in a variety of ways; cataloguers are becoming managers, teachers, and trainers of non-professionals. They manage outsourcing projects, provide quality control, and database management. Cataloguers are becoming more involved in technology, management, training, and education; their skills are no longer restricted to simply cataloguing of materials. El-Sherbini & Klim (1997). Vellucci, (1996) notes that the skills and understanding of professional cataloguers *"enable them to design and restructure bibliographic tools in response to evolving needs, and renders cataloguers indispensable in the changing information environment".* What is responsible for this? The increased availability of digital materials, user preference for online access, and digitization of local resources are significant factors affecting new roles for cataloguer librarians. In library literature four roles have become increasingly prominent as follows: involvement in non-MARC metadata cataloguing, work with institutional repositories, creating access to unique local library collections, and reviewing vendor records for batch loading into the library's catalogue. The creation of metadata for these digital resources is becoming an additional role for cataloguers. As Reimer, (2009) opines, cataloguer librarians could participate in a broader range of activities in metadata including:

...figuring out how data elements, schemas, and controlled vocabularies can best be used in nascent projects, analyzing inherited metadata for batch actions that can give it valuable context when it is shared; planning and managing digital library projects; mapping across schemas; strategizing for the repurposing of metadata; and offering metadata consultations to members of a campus community.

An examination of cataloguers/metadata librarians positions reveal that such terms "catalogue,""cataloguer," and "cataloguing"; "metadata," "electronic," "digital," and "e-resources" appear prominently in the advertisements thereby suggesting that both traditional cataloguing skills as well as knowledge of emerging technologies are required and valued in these new positions. We cannot, of course, predict the future of cataloguing with any certainty not minding Rodriguez', (1992) paradoxical prediction over two decades ago that:

"the paradox of cataloguing today is the growing importance of cataloguing and the declining importance of cataloguers." Is that really true? Does that reflect the situation with cataloguers?

Much has been heard and read about the euphemistic aphorisms which Popadin (2013) refers to as the "hype and the hyperbole": *"Cataloguing is a dying art ... Cataloguers are a dying breed ...Metadata is the new cataloguing ...."*

A comprehensive review of today's reality and tomorrow's likely environment is an important exercise for any library to undertake in order to better plan for the future. As noted by Gibson,(2003)

"We have no future because our present is too volatile. We have only risk management. The spinning of the given moment's scenarios."

Joseph Miller editor of the largely used Sears List, too, admonishes us to take solace in the fact that:

"there is an amount of good libraries, good cataloguing and good serious cataloguers. We must not give up what we all know is of great worth: cataloguing information".

The need for expert cataloguers will not be diminished in the coming years as they need to be key players in addressing the many challenges facing the libraries and the overall management and organization of information. The future of cataloguing in today's world of internet access is not in doubt as it has improved indexing and retrieval tools and utilization and mass digitization projects. Cataloguers have taken an active role in organizing and providing pathways to electronic information. According to Cerbo, (2011) *"the need for cataloguers is growing, now more than ever",* because they *"are the link in the chain that helps get information where it needs*

to be"

Is anyone still in doubt about the future of cataloguers, cataloguing and the catalogues? *"The cataloguing position of the future is germinating now"* so say Paiste & Mullins,(1990) and,

"professional cataloguers can expand their basic cataloguing skills into nonconventional areas and develop skills as information access analysts, systems designers, telecommunications experts, or online analysts/technical resource managers".

 This agrees with Eleanor Roosevelt who once said that, *"the future belongs to those who believe in the beauty of their dreams."* There are a lot of beautiful dreams taking place that will help form tomorrow's libraries. Cataloguing will remain a part of the library's dream but may be called something different to better describe what it now does. Cataloguers have generally been within the library for a long time and have worked their way up through the library structure. New entrants into the cataloguing work environment would need to make the same progression rather than being employed immediately at the higher level. But there exists a problem with the work attitude of these new entrants described by Prensky, (2001) as Digital Natives who are taking over from the Baby Boomers who incidentally are retiring from the workforce. This group of workers does not believe in making a career but would rather change to a more challenging work where they believe their skills will be better appreciated than just creating metadata. Gorman (1998) while periscoping on the future of cataloguers whimsically states thus:

for cataloguers particularly, the future is challenging and bright. We must maintain the bibliographic structures that we have built and expand and develop them in two ways. First, by ensuring that worthwhile electronic documents are organized and preserved so that they can be made available to future generations. Second, by improving bibliographic standards worldwide and ensuring that they reach a level of standardization that makes possible a new level of global cooperation.

1.1.5 Conclusion

Library and information science is a profession whose cataloguers are marked by an unusual level of proficiency in creating bibliographic records/metadata/resource description and access of library resources and a comparable level of proficiency in adopting technology and networking in information services delivery. These proficiencies present great advantages to cataloguers in achieving the objectives of the library and the profession – that of ensuring access and free flow of information and connecting people to ideas. All through history cataloguers know where they are coming from; they know where they are going. Of course, they cannot be lost in what they do best no matter the nomenclature change. So while the times may have changed, and the delivery format of information and services following the same course of change, it is the underlying – and largely unchanging – values of the profession that allow cataloguers to effectively deal with the challenges change consistently brings. The profession's strategic plan is all about protecting those values and equipping its members to make the most of change. And as Wong, (2012) succinctly states:

there is more about being a cataloguer than "just" being an interpreter of cataloguing rules (whether it's AACR2 or RDA) or an expert on various formats of resources. Cataloguers don't live in an isolated world anymore. We are proud to be managers of resources and library systems, but we are—and should be—capable of more.

  Our library catalogues [OPAC] as McGuire & McKenzie (2014) observe might not look that different—the dramatic changes will be in the increased functionality. Whether described as Catalinking or Metaloguing the important thing here is that it will provide clear pathways to discovery of our resources on the Web. Our metadata will be easy to re-use, enabling library and non-library communities to build applications to share knowledge in new, diverse and exciting ways. The importance of cataloguing will neither fade nor will the skills-set of cataloguers be thrown away. For the library, the objective of the profession as Gorman (1998) further remarks provides a concluding alibi:

To put it at its simplest, the job of the librarian/cataloguer is to ensure access to all relevant library materials to all users of the library (direct and indirect) and *to make that access as speedy and efficient as possible. All of librarianship stems from these few uncomplicated duties. There is no aspect of even the most modern technologies that goes beyond the historic mission of the library. It is in recognizing the common purpose of all libraries in all times, of all types, and in all places that we approach a true understanding of our profession.*

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