A Comparison of Cataloguing and Classification Education (CCE) in Library and Information Science in South Africa, Brazil and the USA (SOBUSA): An Overview

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Abstract

This article reports on initial findings of a three-country (South Africa, Brazil and United States) study on cataloguing and classification education. Copies of the questionnaire were distributed to the heads of library schools and to cataloguing and classification instructors in South Africa, the United States, and Brazil. The substance of the two questionnaires was the same in all three countries, but changes were made primarily to clarify terminology and national conventions for ethics review. The questionnaires included multiple choice questions and open-ended questions, producing both quantitative and qualitative data. Findings were confirmed through interviews and course syllabi. The results of the study found more similarities than differences in CCE among the countries. The authors speculate that these differences among the three countries may be due to the influence of different European traditions on the development of LIS education in each country.

Other differences include the use and availability of technology and the L-word/I-word controversy. The findings of the initial data analysis reported here reveal numerous areas that merit further scrutiny. Further results are derived from analysis of correlations in the data and qualitative analysis of the questionnaires' many open-ended questions.

Introduction

Cataloguing and classification education (CCE) faces many challenges, even though professionals and educators agree that cataloguing and classification are at the core of library and information studies/science (LIS). They strongly support CCE as an important component of LIS education (ALA, 2009; Blankson-Hemans & Hibberd, 2004; Bowen-Chang & Hosein, 2009; Cloete, Snyman & Cronje, 2003; Davis, 2008; Hill, 2004; Ocholla & Ocholla, 2014; Pattuelli, 2010; Shongwe & Ocholla, 2011). The major challenge affecting largely the developed countries such as USA is what Gorman calls "enemies of cataloguing."Gorman points out that " Enemies of cataloguing today include ill-informed administrators, information scientists in library schools, and those who think that alternatives [e.g. metadatologists] to vocabulary control and bibliographic architecture – such as Google-are better and cheaper than cataloguing" (Gorman, 2002). Thus, Gorman asserts, "those administrators believe that OCLC records grow on trees and their libraries can safely dispense with original cataloguers to rely on ill-paid staff to

pick the fruit of the OCLC trees and construct incoherent catalogues of increasingly less use to their users" (Gorman, 2002). This paradigm from possible LIS graduates' employers (Library administrators) tends to influence CCE in some LIS schools, even in the developing countries such as South Africa and Brazil. Nevertheless, challenges persist and they vary across countries and cultures including the three countries represented in the study reported here: South Africa, Brazil, and the United States (Ocholla et al., 11-17 August 2012).

South Africa has 25 public universities, 12 of which have LIS schools or information/library schools with different names and only 8 offers CCE. In South Africa, concerns include a shortage of cataloguers and circumstances that prevent full use of technology in CCE (Ocholla & Ocholla, 2011, 2014). The L-word (Library) and I-word (Information) that is referred to later as a concern in the USA also cause problems on decision to offer CCE or not in South Africa.

Brazil's LIS education has seen successful efforts to cooperate within the country and across the Mercosul region (Argentina, Brazil, Chile, Paraguay, and Uruguay), as well as across information and documentation professions. All types of schools have strong lines of communication with one another resulting in mutual collaboration. Information or knowledge organisation in the context of information science serves as the theoretical domain which furnishes a common theoretical and methodological basis for the applied domains including archival, library and museum sciences (Homulos, 1990; Mason, 1990; Smit, 1993; Smit, 2003).

In the United States, CCE is affected by the "L-word" (library) versus "I-word" (information) confrontation. Library schools are rapidly joining the iSchool group that appears to de-emphasise and devalue cataloguing and classification (Miller et al., 2006). They examined the issue in official lists of competencies, discussions on electronic lists, a meta-analysis of existing studies of curricula, and current curricula as represented in schools' websites (Miller et al., 2006). They concluded that while the principles of cataloguing and classification have remained in the curricula of most of the schools, the hands-on application of those principles that practicing professionals often believe to be essential is limited.

To explore the issues of different experiences and their potential for each other's futures this research addresses four questions:

a.   Do cataloguing and classification curricula vary in different cultures/countries?

b.   If so, what are the differences?

c.   Why do they differ?

d.   Is there sufficient similarity in conceptions, motivations, etc. that those who teach cataloguing and classification in a given country/ culture can learn from their counterparts elsewhere? Or are they too contextually specific?

These questions are very wide-ranging; so, the study which is of necessity also encompasses a variety of aspects of CCE.

Methodology

The questionnaire developed in South Africa (Ocholla & Ocholla, 2011) was distributed to the heads of library schools and to cataloguing and classification instructors in South Africa, the United States, and Brazil.ENREF_9 The substance of the two questionnaires was the same in all three countries, but changes were made primarily to clarify terminology (e.g. various terminologies for instructors other than professors) and national conventions for ethics review. However, the questionnaires remain largely the same. The differences made each of them more effective in context, not different in content.

The questionnaires included multiple choice questions and open-ended questions, producing both quantitative and qualitative data. The data gathering techniques were also adjusted for their audiences.

In South Africa (Ocholla & Ocholla, 2014), questionnaires were sent by email and follow-up visits to the heads and cataloguing and classification instructors of all eight South African library schools that teach CCE with a 100% response rate. Findings were confirmed through interviews and course syllabi. It is noted that the analysis of course content/ course description or syllabi seems to be quite common in related studies (Davis, 2008; Pattuelli, 2010).

In Brazil, the copies of the questionnaire were distributed by email to the heads and cataloguing and

classification instructors of all thirty-eight Brazilian undergraduate library schools (the thirteen Brazilian graduate information science schools did not take part of the research since the professional librarians are educated by undergraduate schools, and the graduate schools are devoted to forming professors and researchers in information science) with a 61% response rate. Findings were confirmed through searches of the library schools' homepages.

In the US, email messages were sent to heads and cataloguing and classification instructors in all 53 schools that offer master's degrees accredited by the American Library Association inviting them to participate. The messages included links to the online questionnaires using the Qualtrics survey software. US academics are more likely to respond to a questionnaire if the data will be anonymous which is what they expect to see. This anonymity is supported by Qualtrics. The response rate was low, as is common for online questionnaires, at 20-40%. This presentation reports the findings that have meaningful results from the initial analysis.

Findings

The focus of this presentation is on basic quantitative data analysis; that is, the more obvious results of this study. This first level of analysis partially answers the research questions and points the way to deeper analysis of selected topics as, is noted in the conclusion.

Before looking at the research questions, it is important to establish whether or not the respondents to the questionnaires felt that the topic of study itself is relevant. Do they believe that it is still necessary to teach cataloguing and classification in LIS schools? The popular opinion is that cataloguing and classification still belong to core competency and activities of librarians as reflected in ALA and IFLA core competency of librarian's guidelines. For instance, Gorman asserts that " we should teach cataloguing and classification because it is essential that those who wish to be librarians (not just those who wish to be cataloguers) understand the way in which recorded knowledge and information is organised for retrieval" (Gorman, 2002). Thus, it is nearly impossible to function effectively as a librarian without sound knowledge of library collection, how they are organised, where to find them and use them. In other words, 'if you cannot think like a cataloguer,

you cannot think like a librarian and, therefore, cannot deliver effective library services" Gorman asserts. Increasingly, skills of a cataloguer are required in emerging organisation of information (OI) activities related to digitisation, and new titles such Medata Librarian, E-Resource Librarians among others are becoming common (Cerbo, 2011). Boydston and Leysen add cataloguing of local hidden collection or unique local library collection, non-MARC metadata, Internet resources, digital documents, vendor records for batch loading into library's catalogue and increasingly involved in creating institutional repositories (Boydston and Leysen, 2014).

The South African respondents (Ocholla & Ocholla, 2014) from the eight LIS schools offering CCE considered cataloguing and classification to be a core LIS course; the backbone of librarianship's professional qualification; a course that supports knowledge of library information and reference services; extremely useful for the critical analysis and synthesis of a library collection by knowledge domains/ structures for effective information services; and essential for the organisation of knowledge in libraries.

In Brazil, information processing, including classification, indexing, abstracting, cataloguing and information retrieval are believed to be the nucleus of LIS studies, and they constitute an average 25% of the hours of the total library course (in accordance to the Mercosul LIS educational agreements). Agreement on this basic concept rests on the relationship between the role of information science as a theoretical domain supporting the practical information domains like archival science, library science, as well as museology. All the respondents declared that classification and cataloguing teaching in library schools are "surely very important." They also consider the need for changes and adaptations to fit new users´ needs, including the need to furnish technological empowerment to librarians and users.

All but one of the US respondents agreed, although not whole-heartedly, that cataloguing and classification should be available to students. Most of them suggested it be an elective rather than a required course. Hsieh-Yee (2008) expresses this equivocation when she suggests that the traditional catalogue while trusted by users is not a first choice in finding information and is no longer cost-effective. She concludes, however, that theory and principles of knowledge organisation are still necessary and

need to be connected with technological knowledge. The broad range of CCE courses offered by the University of Wisconsin-Milwaukee as reported by Miller et al. includes : Organisation of Information, metadata; Indexing and Abstracting, including Controlled Vocabulary and Thesaurus; Information Architecture; Classification Theory; Comparative Bibliography; Social and Cultural Issues in Information Organisation; Linked Data for Libraries; Mashups, Semantic Web and Web 2.0; RDF; Ontologies and Semantic Web etc. This shows that CCE is essential, can be offered at different levels for different needs of students and work place (Miller et al., 2012).

What is the content of the curriculum in terms of modules, courses and content or units being taught?

A survey of cataloguing education in the USA by Davis divided cataloguing education into eight areas: Organising – focuses on general principles of bibliographic control and basic knowledge of information organisation; basic cataloguing– focuses on introduction to knowledge and related skills (e.g. AACR2, MARC, LC, DDC etc.), advanced cataloguing (AC) focuses on details and complex aspects and practicals; subject analysis focuses on subject cataloguing and classification, indexing and abstracting; metadata schema and applications, serials focusing on bibliographic control of serials, other focuses on issues and topics not covered in any of the seven categories (Davis, 2008). Except for basic cataloguing or organisation of knowledge, the other six could be categorised under advanced cataloguing (Pattuelli, 2010). Like Patuelli who analyses introductory courses in cataloguing in USA, Davis study concluded that "LIS programs are continuing to offer and require introductory courses in cataloguing and bibliographic control, they are relying more heavily on these introductory courses to provide the bulk of cataloguing education" (Davis, 2008). Unlike the South African scenario (Ocholla & Ocholla, 2014) where practical cataloguing/hands on is taught together with theory at all levels except at the UNISA (distance learning), cataloguing practical does not seem to be offered at basic levels in USA LIS Schools reviewed by Davis. Also many

LIS Schools teach most of the eight content areas – mentioned by Davis – in one semester long (15 weeks) or two semester long courses. Janet Swan Hill and Sheila Intner, in Davis, cautions that "when a library school curriculum provides no opportunity for every student to perform a certain amount of actual cataloguing, many who might have loved the work will never apply for cataloguing positions" (Davis, 2008).

The quantitative data revealed a strong common core of concepts covered in CCE (see Table 1). Lussky analysed online employment advertisements for positions with a "cataloguing orientation" and found that demand was high for knowledge of traditional cataloguing standards, subject knowledge, and communication skills suited to working with people and data (Lussky, 2008). Demands for experience and technological skills were modest.

In South Africa (Ocholla & Ocholla, 2014) the contents of the cataloguing and classification courses fall within the following: AACR2; abstracting; authority control; bibliographic control; bibliographic description; cataloguing: theory, process, tools, manual, computerised, online, etc.; classification: theory, history, schemes, process, policies, practical, etc.; DDC; LCC; descriptive cataloguing; Dublin Core; indexing; information retrieval; LCSH; library catalogues; MARC 21; metadata; subject organisation and access; and thesaurus construction. These topics are virtually the same as those that Lussky ENREF_20 found in her study of job advertisements for cataloguing and related positions, but Lussky found more emphasis on technology (Lussky, 2008).

In Brazil, the content of CCE is very similar to that taught in South Africa. In terms of classification, DDC and UDC are taught in all the library schools and only a very few cover Library of Congress Classification (and under a historical approach) since this system is not used in Brazil. There is also an emphasis in special classification schemes, and it was possible to observe a deep concern on the subject analysis processes, with a strong French (Coyaud, Gardin) and English (CRG) influence.

Similar content is covered by courses in the US with the addition of Library of Congress

Table 1: Course Content

	South Africa	Brazil	USA
AACR2R	Yes	Yes	Yes
Abstracting	Yes	Yes	No
Authority control	Yes	Yes	Yes
Bibliographic control	Yes	Yes	Yes
Cataloguing theory/history	Yes	Yes	Yes
Cataloguing practice & manuals	Yes	Yes	Yes
Classification theory	Yes	Yes	Yes
Classification application, policies	Yes	Yes	Yes
DDC	Yes	Yes	Yes
LCC			Yes
UDC		Yes	
Dublin Core, metadata	Yes	Yes	Yes
Indexing	Yes	Yes	Yes
Information retrieval	Yes	Yes	No
LCSH	Yes	Yes	Yes
Library catalogues	Yes	Yes	Yes
Online cataloguing, MARC	Yes	Yes	Yes
Subject analysis	Yes	Yes	Yes
Thesauri	Yes	Yes	Yes

Classification. In many cases, theory is covered first in a prerequisite to cataloguing and classification which is an overview of information organisation. Generally, there is a greater technological emphasis in the coverage described by US instructors (Davis, 2008; Miller et al., 2012). Half of the instructors used a single textbook which will have a homogenising effect on course content. The other half was divided between only two other texts.

How are the courses being taught in terms of the methods used?

A variety of methods can be used for CCE but teaching both theory and practice is widely recommended (Al Hijji & Fadlallah, 2013; Hudon, 2010; Miller et al., 2012; Normore, 2012; Ocholla & Ocholla, 2014). Normore citing others refers to 'drill and practice' based on repetition, 'concept learning' or 'rule learning', 'decision making' and 'critical thinking' (Normore, 2012). An important argument by Normore is that "teaching cataloguing requires instructors to present and integrate information about

the variety and complexity of the field while providing adequate theoretical foundation for practice" (Normore, 2012) and suggests a problem solving approach called 'wayfinding' and use of cognitive/ mental maps as one of the approaches that can be used. Miller et al. provide innovative ways of teaching cataloguing and classification through online cataloguing education at the University of Wisconsin-Milwaukee that is quite novel and exciting (Miller et al., 2012).

The basic data show commonalities of pedagogical approach (see table 2 for tracking commonalities and differences). The differences are largely attributed to differences in access to technology.

In South Africa (Ocholla & Ocholla, 2014), cataloguing courses are taught mainly through lectures and manual exercises. Other methods include group discussions, practical and limited online assignments, workshops, seminars, projects, case studies, and quizzes. In Brazil, lectures, exercises and discussions based on previous readings are the most common teaching strategies. US courses are also taught predominantly with lectures and exercises, but the exercises are more likely to be online. Small group work is also common. Nearly half of respondents taught onsite face-to-face but as many taught online or in some other distance format in which the instructor and student interacted through ICT.

Who should study or be taught cataloguing and classification and at what levels are the courses being offered?

Essentially, all librarianship students should receive CCE. Who are the students? In South Africa (Ocholla & Ocholla, 2014), some LIS Schools, teaching vocational or general education, do not teach cataloguing and classification because they deem it irrelevant to their programs. Non-professional librarianship programs also omit cataloguing and classification. However, future professional librarians are expected to take the course. Generally, cataloguing and classification courses are taught in professional library schools to third and fourth year students and/or Graduate/Post Graduate students.

In Brazil, all LIS undergraduate schools (as well as the other Mercosul schools) have classification and cataloguing as mandatory disciplines in their curricula. On the other hand, the information science graduate schools (only Brazil has graduate schools in the information domain in the Mercosul area) do not focus their studies on classification and cataloguing themselves, but do consider them as a part of a broader theoretical domain called information organisation(IO) or even knowledge organisation(KO). In this sense, while undergraduate library schools are mostly concerned with classification and cataloguing as professional library practices, information science graduate schools are basically concerned with the theoretical basis of classification and cataloguing as parts of the IS branch of so-called information organisation.

The US responses show yet another different picture. Most library schools teach cataloguing and classification only at the master's level (although two reported it at both undergraduate and masters). Because the master's is the basic professional degree in the US and few master's students have an undergraduate degree in LIS, the levels are different in South Africa. Additionally, while some iSchools may not teach cataloguing and classification or may offer it only as a specialised elective because they view cataloguing in particular as not relevant beyond a library context. US iSchools describe themselves as "interested in the relationship between information, people and technology" (iSchools, 2012) and those that are library schools are generally regarded as the more elite library schools with PhD programs and plentiful external research funding and not 'limited' to libraries or librarians (iSchools, 2012).

Is there sufficient similarity in conceptions, motivations, etc. that those who teach cataloguing and classification in a given country/culture can learn from their counterparts elsewhere? Or are they too contextually specific?

Tables 1, 2, and 3 summarise the commonalities and distinctions among the library schools in South Africa, Brazil, and the US when it comes to cataloguing and classification courses. Similarities include the course content, and teaching methods to a large extent.

Differences are more conspicuous. South Africa (Ocholla & Ocholla, 2014) is faced with large

Table 2: Commonalities and Differences

	South Africa	Brazil	USA
Need for CCE	Yes	Yes	Equivocal yes
Course content – see Table 1 for details	Theory and established standards	Theory and established standards	As South Africa except theory may be in earlier overview course
Methods	Lecture and exercises (manual and limited online)	Lecture, exercises and discussions based on previous readings	As South Africa + influence of online
Programs	In professional library programs		May be elective for specialists
Levels	3rd-4th year undergraduate and master's	2nd-4th year undergraduate (masters are more concerned with the theory of information organisation)	Master's and occasionally undergraduate

classes of students, staffing problems or lack of instructors, a need for more cataloguing / classification tools and access to technology for teaching CCE in its library schools. Digital and manual tools for students to use in the course are expensive and scarce. The L-word/I-word dichotomy as it is manifested in South Africa has had an effect on CCE. For example, the Bachelor of Arts – Information Science programme at the University of Zululand, is aimed at the broad information service market; so, cataloguing and classification courses were initially removed for fear of losing students focused on information technology. However, the graduates found jobs in libraries where this gap in their education became a problem (Shongwe & Ocholla, 2011).

With Brazil's development of the IS graduate schools, many scientific venues were created like the Brazilian Association of Information Science Research and the Brazilian Chapter of ISKO. This means that, in Brazil, the L-world of LIS undergraduate schools and the I-world of the IS graduate schools have a strong dialogue and a mutual collaboration. Such a situation has promoted a "revival" of classification and cataloguing studies, especially with the challenges coming from digital information, new models of information organisations,

and new forms of information retrieval.

The US is unique in having professional education for librarians at the master's level usually with no related undergraduate. As Ocholla and Ocholla note, level is one of the factors that "have a bearing on the levels and depth of cataloguing and classification teaching, learning and research" (Ocholla & Ocholla, 2011). The other factor of difference in the US context is the L-word/I-word friction. Different from the South African experience, the iSchool movement, which began in the US, has 36 members, 23 in the US, and 13 in other countries. It has had a major impact on the relationship between library schools and professional librarians and has fanned the L/I rhetoric (Miller et al., 2006). Cataloguing and classification expertise is an area in which some professionals suspect library schools of abandoning librarianship for the cachet of being iSchools.

What are the challenges arising from teaching the course?

In spite of some significant contextual differences, the challenges of CCE are surprisingly similar (see table 3).

Challenges encountered by instructors teaching cataloguing and classification in South Africa (Ocholla

Table 3: Challenges in teaching CCE

	South Africa	Brazil	USA
Students lack general knowledge	Yes		
Students lack critical thinking	Yes	Yes	Yes
No time for or interest in theory			Yes
Students are unprepared	Yes		Yes
Students need individual attention	Yes		Yes
Language concerns	Yes, first language may not be English which is the language of instruction	Yes, there is a "need for more instructional material in Portuguese	
Time allotted not enough	Yes		Yes
Not enough tools	Yes	Yes	
Not enough online work	Yes	Yes	
Students lack interest	Yes, in reading materials		Yes, in the course content
Instructors staying up-to-date	Yes	Yes	
Challenging content	Yes, especially classification	Yes, especially classification and applying rules	Yes, especially applying rules
University rules and regulations	Yes, required exam regulations	Yes, sometimes they act in conflict with the information market needs	
Content is dull			Yes, even an instructor found it dull

& Ocholla, 2014) included issues with many students who lack preparation, general knowledge and critical thinking skills. These students require individual attention. Most of the same issues arise in Brazil and the USA, except that Brazil has fewer challenges involving students. Another commonality between South Africa and the USA is the difficulty of fitting cataloguing and classification into a course of the standard length. Further, some instructors find the course content itself problematic for students in terms of being difficult or dull. Most change related challenges noted by Boydston and Leysen such as implementation of Resource Description and Access (RDA), acquisition of new skills, competition from vendors, decreased budgets for hiring cataloguers

and increased need for accountability seem to affect the three countries in different ways (Boydston & Leysen, 2014).

What suggestions can be made for the future?
Meeting the challenges is necessary for effective CCE. Some of the suggestions are double-edged. For example, more time spent bringing individual students to the level of others in a class can have staffing implications. Replacing AACR2 with RDA can leave students ignorant of AACR2 making it difficult to deal with existing catalogue records. Table 4 draws on the open-ended responses to provide a sample of the suggestions.

Hsieh-Yee suggests three goals for CCE: 1) increasing awareness and appreciation of information

Table 4: Suggestions for overcoming challenges

	South Africa	**Brazil**	**USA**
Small group work		Yes	Yes
Individual consultation		Yes	Yes
Adequate staffing	For groups and individuals		
Constant curricular evaluation and improvement		Yes	
More practical exercises	Yes	Yes	Yes
More case studies		Yes	
More computer resources	A priority	Yes	
More technical visits		Yes	
Patience			Yes, mentioned by several
More emphasis on RDA		Yes	
Replace AACR2 with RDA	Yes, with lots of questions	Yes	Yes, with only a brief backward glance
Public funding for instructional material		Yes, in Portuguese	
Retirement			Yes, solution of two responses for addressing RDA

organisation, particularly cataloguing; 2) educating future cataloguers and metadata specialists; and 3) developing future leaders in the area of cataloguing (Hsieh-Yee, 2008).

Exploration of these same questions in relation to other countries may be useful. For example, Harvey and Reynolds describe the context of CCE in Australia in terms very similar to the L-word/I-word issues in the US (Hill & Intner, 2002), Harvey and Reynolds also note the responsibility of employers in the hands-on training of cataloguers in Australia.

Respondents in South Africa and the US are rapidly incorporating *Resource Description & Access* (RDA) into their courses as the new set of cataloguing rules. Most are setting aside the *Anglo-American Cataloguing Rules* 2nd ed. (AACR2), not surprisingly given the time constraints of university terms and the difficulty of covering all of the key standards and practices in cataloguing and classification. Several indicated a focus on *Functional Requirements for Bibliographic Description* (FRBR) and *Functional Requirements for Authority Data* (FRAD) which are conceptual frameworks rather than rules. This shift of focus could take CCE further from practice and further toward theory. Handling RDA seems likely to be a continuing question. Some US respondents left concrete measures behind and suggested that students' concerns be countered with patience and, in one case, "handholding." Two US respondents plan to cope with introducing RDA by retiring before it has to be done – not an option open to everyone.

Conclusions

The findings of the initial data analysis reported here reveal numerous areas that merit further scrutiny. Some are treated in this presentation including the interests and capabilities of students; sufficient and current staffing; linking theory and practice; the different impacts of technology in different countries and cultures; and the different yet similar manifestations of the L-word/I-word controversy. Other topics were too complex to include in this brief overview, particularly the delicate issue of instructors from the field and from the faculty and the language used in representing CCE (notably course titles).

The researchers look forward to delving deeper into these topics as well as the broader discourses that characterise the local/global experience of CCE in South Africa, Brazil, and the US, and how they can be mutually supportive in recognising the importance of, teaching future professionals in, and fostering leadership for cataloguing and classification.

An unexpected finding is that CCE in South Africa and CCE in the US appear to be more similar to each other than to CCE in Brazil. It would be worthwhile to explore how much this difference grows from the different outside influences on each country's LIS education. South African LIS education was originally largely patterned on a British model. The US had its own pioneers like Dewey and Cutter, but their predecessors such as Panizzi brought a mainly British influence. British research, such as the Cranfield studies, also heavily influenced US practice.

In contrast, LIS in Brazil was built under a merging of different foreign influences. During the seventies and the eighties, the Brazilian Government generously funded sending professors abroad for getting their PhDs. They went to France, Canada (both British and French traditions), Spain, the UK ,and the USA. Those professors formed a Brazilian generation of LIS professors and researchers whose scientific profile is a melting pot of different foreign influences like Brazilian culture itself. One example for this is the common use of the expression 'documentary analysis' for subject analysis as well as 'documentary languages' for indexing languages, which reflects both the French and the Spanish influence, the studies on indexing in Archival Science as well as of Diplomatics in LIS (which reflects the Canadian influence), the ever growing research in classification theory (under a British influence). Extensive information retrieval research, as well as the widespread use and teaching of DDC, reflect a strong American influence.

Future research might combine historical traces of influence with differences manifested today to give us a much clearer picture of why we do what we do in CCE and beyond.

In spite of different influences, a preliminary conclusion to this study is that there are enough similarities to form a common foundation for the fruitful exchange of ideas. However, deeper analyses are needed to determine whether the commonalities

offer common solutions to common problems, leaving little to learn from each other; or, do the commonalities grow out of different contexts to lead to different solutions. Such a circumstance would indicate potential for constructive exchange of ideas to address our common problems.

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