Institutional challenges in cultural digitalization
A case study of the CERDOTOLA’s Documentation center in Cameroon

NGWEE NGIJOL, ROLAND

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ABSTRACT

Svensk titel: Institutionella utmaningar i kulturell digitalisering: En fallstudie av CERDOTOLAs Dokumentationscenter i Kamerun

Engelsk titel: Institutional challenges in cultural digitalization: A case study of the CERDOTOLA’s Documentation center in Cameroon

Författare: Ngwee Ngijol Roland O.B.

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Abstract: This study approaches CERDOTOLA from a librarian perspective while looking at the introduction of digital libraries and possible issues that could arise during the development of a cultural digital repository. In spite of existing cooperation agreements between CERDOTOLA and various local, regional, and international organizations involved in cultural documentation, the present inter-institutional collaborations rarely reflect a level of involvement that brings direct input from stakeholders. This problem is set within normative institutionalism and reveals the difficulties in leveraging the technologies of digital libraries in order to effectively contribute to the development digital collections. This research is a qualitative case study that analyzes and discusses 10 individual interviews, 2 group interviews, 1 focus group discussion, and multiple site observations with critical discourse analysis. The analysis is based on Siegfried Jäger and Florentine Maier’s interpretation of Foucault’s critical discourse analysis and dispositive. A major finding of the study is that there is a lack of trust in and among institutions that impairs any collaboration is spite of the fact that digital libraries are valued and progressively accepted by the local LIS community. An organization such as the CERDOTOLA that tends to capitalize on alliances and inter-institutional collaborative agreements may need to re-conceptualize its view of stakeholders and reconcile the stakeholders’ understanding of digital libraries and digital libraries’ contents with its internal objectives. The conclusion of the study is that a redefinition of stakeholders’ roles and the direct involvement of the groups who own cultural materials could ease the documentation and digitalization process. Since the study mainly focuses on the opinion of LIS professionals and the example of one specific ethnic group, further research is recommended with additional groups using the same methodology.

Nyckelord: Bibliotek, digitalisering, diskursanalys, dokumentation, institutionsteori, Kamerun, kulturarv, stakeholders teori.

Keywords: Cameroon, cultural heritage digitalization, discourse analysis, documentation, institutionalism, stakeholder’s theory
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This study started with the basic idea of exploring the development of digital libraries in Cameroon. In my application form for funding, I motivated my research proposal by stating an obvious problem discussed in the literature. Sub-Saharan Africa is already dealing with struggling libraries that can hardly cope with the demands of the local communities. It appears that the priority should be to revamp these structures instead of creating new virtual ones. The answer to this problem was also found in the literature. Digital libraries are considered an augmentation of physical counterparts and seeing them as a center of interest is hardly neglectful.

SIDA, the Swedish International Development Co-operation Agency, granted me the scholarship to conduct a minor field study (MFS) in Cameroon. CERDOTOLA, the International Centre for the Research and Documentation of the Traditions and Languages of Central Africa, agreed to host it. I was received on February 25th, 2013 by the organization’s General Secretary, His Excellence Prof. Charles Binam Bikoi, who introduced me to the staff and explained my presence at CERDOTOLA. A team was put in place to help me conduct the study. Deciding to approach digital libraries from the side of cultural digitalization, I didn’t know that I would soon be taken on a journey of personal and academic self-discovery using participatory action research (PAR). PAR could be summarized in the Bassa’a language of Cameroon by the saying ‘man a ye man m’baye’ or the child belongs to the village; or ‘it takes a village.’

My understanding of participative action considers this work the product of a collaborative effort that started at a University College of Borås (Sweden) and matured at the CERDOTOLA in Cameroon. Indeed, the data collection process happened with the participation of CERDOTOLA’s employees. I visited select cities in Cameroon, stopped by cultural sites, academic institutions, and government offices. I am indebted to all those who provided me with valuable information; particularly staff members at the National Archives in Yaoundé and Buéa, at the Ministry of Arts and Culture of Cameroon, employees at the universities of Yaoundé I, Douala, and Buéa who patiently answered my questions. I keep warm feelings for the people of Bafou, “the fool’s barbers” as they call themselves because of their unbridled commitment to good deeds under any circumstance, and their willingness to lay down the foundation of a participatory collaboration between CERDOTOLA and their ethnic group.

I would have been lost in a field of 280 different ethnic groups without the guidance of Dr. Ngué Emmanuel and Dr. Emmanuel Makasso who watched over me during my entire stay at CERDOTOLA and in the field. I could not have found better collaborators and mentors. I extend the same gratitude to Mrs. Etamé Sophie, the manager of CERDOTOLA’s Documentation center who considered me an integral part of her team. I said “Thank you, Professor Charles Binam Bikoi, for giving me the opportunity to surprise myself!” I also thank those I might have forgotten. I am forever indebted to my family, my wife and my two children who supported me during years of studies punctuated by nine weeks in the field and additional months of editing the data I am about to present in this document. I dedicate this work to my belated parents who taught me that giving back is the better part of receiving.

Writing a thesis is a task that requires a lot of planning, organizing, and editing. It can only be done with the support of a selfless group of people I call my teachers. They have been many over the years but I can only name two who are directly linked to this project: Prof. Elena Maceviciute, the head of the LIS program at the University of Borås, and Claes
Lennartsson. While I thank them both, I am particularly indebted to Claes for his guidance, the countless hours of Skype meetings and the invaluable criticism he provided me throughout the field study, up to the write-up of my thesis. Let it be known that I could not have done it without him.

Any oversights, mistakes, or prejudices that could transpire from my writings are but my sole responsibility.
<table>
<thead>
<tr>
<th>ABBREVIATIONS</th>
<th>Description</th>
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<tr>
<td>AU</td>
<td>African Union, Formerly the Organization of African Unity.</td>
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<tr>
<td>ABADCAM</td>
<td>Association des bibliothécaires, archivistes et documentalistes du Cameroun</td>
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<td>ACALAN</td>
<td>The African Academy of Languages (ACALAN) and the center for linguistics and historical studies of oral traditions (CELHTO)</td>
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<tr>
<td>CBAAC</td>
<td>The Center for Black African arts and civilizations</td>
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<td>CDC</td>
<td>CERDOTOLA Documentation center</td>
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<tr>
<td>CERDOTOLA</td>
<td>International Centre for Research and Documentation on African Traditions and Languages.</td>
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<tr>
<td>CIBIBA</td>
<td>The international Center for Bantu civilizations</td>
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<td>DLs</td>
<td>Digital libraries</td>
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<td>DLMS</td>
<td>Digital library management systems</td>
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<td>ESIIJY</td>
<td>Ecole Supérieure de L’information et journalisme de Yaoundé</td>
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<tr>
<td>ESSTI</td>
<td>Ecole Supérieure des Sciences et Techniques de l’Information</td>
</tr>
<tr>
<td>ESSTIC</td>
<td>Ecole Supérieure des Sciences et Technique de l’Information et de la communication</td>
</tr>
<tr>
<td>HCI</td>
<td>Human Computer Interaction</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technologies</td>
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<tr>
<td>IFLA</td>
<td>International Federation of Library Association</td>
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<td>IMF</td>
<td>International monetary funds</td>
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<tr>
<td>IRAD</td>
<td>Institute of Agricultural Research for Development of Cameroon</td>
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<tr>
<td>LIS</td>
<td>Library and Information Sciences</td>
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<tr>
<td>MFS</td>
<td>Minor Field Study</td>
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<tr>
<td>OCPA</td>
<td>Observatory for Cultural policy in Africa</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>OAU</td>
<td>Organization of African Unity</td>
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<td>PMB</td>
<td>Pour ma bibliothèque</td>
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<td>SAP</td>
<td>Structural Adjustment programs</td>
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<td>SIDA</td>
<td>Swedish International Cooperation Development Agency</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Culture Organization</td>
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1. INTRODUCTION

“I will begin by arguing for the priority of analysis – the idea that sociological conceptualization of user communities and institutions is logically prior to the design and evaluation of the technical systems. When the priority of analysis is not respected, an intellectual vacuum is created, and various patterned cultural myths flow in to colonize our thinking.” Agre (2003, p. 220)

1.1. BACKGROUND

This quote of Philip Agre provides a launching pad for exploring the institutional challenges faced by International Center for Research and Documentation of the Traditions and Languages of Central Africa (hereinafter the CERDOTOLA or the Center). It suggests viewing the priority of analysis as work that must be done prior to the construction of socio-technical systems (i.e. digital libraries, archives, repositories) because these systems are designed to support the needs of communities (distinguishable groups of people sharing common trays and values). Agre also indicates the importance of grasping the social practices, i.e. norms, covenants, and conventions that are sustained over time (Audunson, 1999; Lawrence et al., 2002, Peters, 2005) and challenged by the introduction of new technologies.

This study approaches the current development of the CERDOTOLA’s Documentation center from a librarianship perspective while looking at the introduction of digital libraries and possible issues that could arise during the development of a repository of local and regional cultural items. Library and Information Science (hereinafter LIS) already consider digital libraries, (also DLs), as social hubs and interactive tools (Borgman, 2000). Their recent social history put them in the path of institutionalization to the same extent as traditional libraries (Hansson, 2006), as different groups of people sharing similar interests congregate around them, suggesting the need to transform them into enduring entities. However, in spite of a growing body of works that focus on users’ participation in building DLs and evidence found in practice (i.e. Bishop et al., 2003; Star et al., 2003; Owen et al., 2011), a new perspective towards institutional resource development is still needed. I make this observation with respect to those institutions that provide information resources to end-users, where these same end-users could also be perceived as owners/suppliers of these same resources, as it appears to be in the case of the CERDOTOLA’s cultural documents.

Romerio (1994), Borgman (2000), Xiao & Yuan (2000), Liao (2004), and Silva (2010) are among the scholars who traced the origins of libraries to the dawn of human civilization. Borgman (2000) explored their evolution into modern systems of information retrieval that include digital libraries. The Sub-Saharan impression of this evolution has traditionally been reviewed in the context of Arab influence (see Ekere, 1983) and the legacy of European colonial powers (Maack, 1982; Amon & Lajeunesse, 1987; Iwuji, 1990; Sene, 1992; Alemna, 1995 & 1998; Lajeunesse & Sene, 2006). The difficulties encountered by various communities in building shared meanings and purposes in Sub-Saharan Africa libraries and in the practices surrounding them have been debated by scholars such as Sheriff (1977), Stutzman (1978), Sene (1992), Diop (1993), Awasom (2003), and Lajeunesse & Sene (2006). Shared meaning and purposes are pre-requisites to the development of institutions and contribute to making them enduring entities (Peters, 2005; Hodgson, 2006). Narrowing
research to the Republic of Cameroon, home of the CERDOTOLA’s headquarters, the fight to cope with new technologies, i.e. the internet (Tonye, 1999), computers (Awasom, 2003; Jones et al., 2005), digital repositories (Ngum et al, 2010) and their aggregate effect on the LIS establishment (Bikai-Nyunai, 2008; Eyango, 2010) has caused practitioners to demand some solutions to the slow development of libraries that regard DLs as a needed improvement of the entire current infrastructure.

The history of librarianship in Cameroon can be traced to the German Protectorate period (Simon, n.d.) and continuing on under the French and British mandate of 1918-1945, and the United Nation’s trusteeship of 1945-1960. Sene (1999) noted that libraries and archives were created to assist with colonial administration. My own research (Ngwee, 2011) uncovered that the national archives of French-speaking Cameroon was founded in 1952 under the French administration. The national archives of Buéa that were created by Mr. and Mrs. Ardener were bequeathed to the re-unified Cameroon in 1961 (Schaefer, 1974; Good, 2012); and in 1962 a national decree mandated the creation of the national library of Cameroon (www.minesup.cm.gov, 2013). In addition, the transfer of the higher education system from the French government to the Republic of Cameroon saw to the foundation of the University of The Federal Republic of Cameroon (today the University of Yaoundé I) and its library in 1963 (www.minesup.cm.gov, 2013.). The republic of Cameroon began forming information professionals in 1970 with the creation of the École Supérieure Internationale du Journalisme in Yaoundé (ESIJY) in 1970 (www.universite-yde2.org, 2013). ESIJY was to address the information needs of 10 regional states. The school was nationalized in 1982 and had its name changed to ESSTI (Ecole Supérieure des Sciences et Techniques de l’Information), and was finally renamed ESSTIC (Ecole Supérieure des Sciences et technique de l’Information et de la Communication) in 1991 (www.minesup.cm.gov, 2013)1.

The CERDOTOLA was created in 1977 under the impulse of United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Organization of African Unity (OAU) to spur the regional efforts of documenting and preserving local and regional cultures (www.cerdotola.com, 2012). Since its inception, the CERDOTOLA has witnessed the multiplication of national academic libraries, the creation of the association of museographers, librarians, archivists, and document handlers of Cameroon (AMBADCAM), the introduction of disruptive technologies such as the internet and social media networks2, and a renewed interest in cultural documentation and preservation initiatives in the region. The CERDOTOLA’s Documentation center possesses a high concentration of cultural documents. These are items that display ethnic regional heritage in various formats, although primarily in books and articles but also in tapes and videos. The development of these collections can be studied from many theoretical viewpoints.

1 Décrets No 61/55 du 25 avril 1961, No 62/Df/84 du 12 mars 1962, No 77/108 du 28 avril 1977, and No n°62/Df/289 of 26 juillet 1962 are official documents linked to evolution of national educational systems of Cameroon and the origins of memory institutions. The first library of the republic of Cameroon was that of the Federal University of Cameroon that is known today as the University of Yaoundé I. Décret No 77/108 du 28 avril 1977 that transformed existing university centers into the universities of Buéa, Douala, Dschang and Ngaoundéré, also created their university libraries.

2 My own research (Ngwee, 2013a and 2013b) explored how the internet and social networks are affecting how people communicate, seek out information related to their cultural backgrounds and traditions, and cope with daily leaving. This life-altering effect has been considered disruptive in the literature.
Institutional theories are used to study the challenges related to system design or institutional development in library and information science. See Boyd (1971); Andersson & Skot-Hansen (1994); Sturges (1996); Fitch & Warner (1997); or Budd & Raber (1998). Audunson (1999) and Hansson (2004 & 2006) are additional authors who covered topics such as creation, change, re-structuration, evolution, or institutional management.

The path of organizational theories is another way to look at organizations as institutional forms (Lawrence et al., 2002; Peters, 2005) in order to understand how they work, and to draw a link between the internal and external environments of an institution. Stakeholders’ theories are part of the organizational theories that are used to establish the link between individuals, institutions, and organizations (i.e. Freeman, 1984; Mitchell et al., 1997). The notion of stakeholder will be discussed later on. For now, suffice it to say that a stakeholder is anyone having an interest in the present and future course of an organization (Freeman, 1984). This study views the CERDOTOLA as an organization/institution that operates in a multi-institutional environment and its Documentation center as a representative of the local LIS establishment that is nested within it. Based on that, and much like Crane & Ruebottom (2011), the study perceives stakeholders as subscribing to many sets of norms at once because of their wider social dimension and their ability to belong to many institutions at the same time.

Combining institutional and stakeholders’ theories, as I will do, opens a window into the exploration of a practical integration of institutional stakeholders as users and user-groups in the production and access to cultural digital collections. The institutional domain is however vast and complex. Its coverage invites the contribution of additional tools in making sense of this study. It is my opinion that it will be useful to delve into the social exchange happening between stakeholders to understand the respective positions of various groups in order to have a better appreciation of the general environment in which they evolve. This third direction is made possible by critical theorists (Habermas, 1988; Bourdieu, 1991; Foucault, 2002; or Fairclough, 2003); particularly Foucault’s study of the distribution and manifestation of power in society. His probing into inter-subjective exchanges requires getting close and personal to data and data sources and finding ways to be admitted into circles that are not entirely opened to all. This can result in revealing unexplored facts about the introduction and development of digital resources in an organization like the CERDOTOLA whose success depends on leveraging inter-institutional collaboration.

1.2. PROBLEM AREA

This section identifies a specific research area, a problem statement and several research questions, delimits the study, and presents the plan of the thesis.

1.2.1. Problem Statement

In spite of existing cooperation agreements between the CERDOTOLA and various local, regional, and international organizations involved in cultural documentation, present inter-institutional collaborative agreements rarely reflect a degree of involvement that brings in direct input from stakeholders. I define these stakeholders as the users of the CERDOTOLA’s resources. I also classify them as user-communities when similar traits are shared and/or specific interests are shown about a select portion of the CERDOTOLA’s collections. I set my problem statement within normative institutionalism and based it on the fact that, on one hand libraries have established ways of functioning (rules and regulations) that guide the profession (Audunson, 1999; Hansson, 2006). On the other hand, institutions are everywhere (Peters, 2005), including among the people who rely on the services provided
by libraries. This problem equally deals with the difficulties to leverage DL technologies in manners that account for stakeholders’ direct participation in developing digital collections, such as in the case of organizations that specialize in the documentation of cultural heritage in Central Africa, i.e. the CERDOTOLA. The collection, documentation, and digitalization of material and immaterial cultural artifacts, defined by UNESCO as belonging to a group of people (www.unesco.org, 2013), present a unique challenge to the institutions that document them (Tchakouani, n.d.), to the presumed owners, as well as others who would like to have timely access to them.

The stakeholders, i.e. individuals, groups, and communities (see chapter II) are considered an important part of the problem statement. In the CERDOTOLA’s case, ethnic groups and their members can be viewed as some of these stakeholders, suppliers, and users of the cultural documents. The research community (students, scholars, etc.) and the local populations are also considered another category of stakeholders. In this study, I relate them to a process of digitalization within a multi-institutional context that includes the local LIS community, the CERDOTOLA as an organization, and representative of ethnic groups (i.e. the Bafou people of Cameroon through their virtual arm, www.Bafou.org). The CERDOTOLA’s information contents (documents) are unique because they are specifically related to the documentation and study of local and regional cultures (www.cerdotola.com, 2013); they are organized and maintained, and their bibliographical lists are accessible online; they are managed by one full-time trained staff person. Moreover, the CERDOTOLA’s interdisciplinary teams of researchers have been contributing studies to the Center’s physical collections since its inception in 1977. This process was accelerated in 2012 with the initiative to develop a digital collection of grey literature materials, i.e. academic theses (www.cerdotola.com, 2013). The process has been qualified as cooperative by the CERDOTOLA’s leadership since it requires the collaboration of participating institutions of higher education in six member countries, though it remains entirely academic and limited to select universities and their libraries.

1.2.2. Research questions

The research questions I submit in this study are based on a perceived gap in the (LIS) literature in the area of institutional challenges to building digital libraries and investigating the local LIS professionals’ appreciation of the change brought on by their introduction. Indeed, Wildemuth (2009, p.11) considers it a useful and fruitful intellectual exercise to contribute knowledge to an area of inquiry that has been missed or barely been touched upon by early researchers. It is my belief that recent writings about the introduction of DLs in Sub-Saharan Africa have provided readers with a concise enumeration of the present and anticipated problems faced by memory institutions. I refer to studies produced by Awasom (2003), Ngum et al. (2010) or Eyango (2010). Some writings have recounted the steps taken by various organizations to upgrade their respective infrastructure over a long period of time (Kawyala, 2009; Edem & Ofre, 2010). Others have been very specific to the introduction of DL technology in Africa and Cameroon in particular (Jones et al., 2005; Ngum et al., 2010).

The research questions I propose are rooted in normative institutionalism. They attempt to go beyond merely looking at the internal structures of the CERDOTOLA as an organization/institution, its conformity to established practices, or how it strays from its expected modus operandi simply because DLs have been recently adopted by the entire local LIS community and, of course, its Documentation center. I find it necessary to mention that it is not the matter of exposing a nuance in two concepts, adoption and institutionalization, rather the necessity of stressing a difference that must be sorted out before the study can move forward. It is my understanding that one can in fact take in or adopt something (i.e. a concept,
a tools, etc.) without so much submitting it to the processes of socialization and acceptance that are pre-requisites to the long term in-culturalization process that characterizes institutions (Agre, 2003; Peters, 2005). Not doing so could amount to ignoring the tinges of growing pains that pave the passage from a former pre-institutional state to the institutional one.

I believe that the adoption of digital libraries is charged with statements that reflect the moods and positions of various stakeholders. As the CERDOTOLA attempts to build a quality-driven documentation center these statements, positions, and moods are liable to influence the final outcome of change. Therefore, assuming that changes brew challenges and challenges beget changes, I submit the following questions for scrutiny:

- What is the appreciation of the power of DLs in the local LIS ecosystem?
- What emerged from this appreciation within an authoritative and administrative context?
- How are economic questions addressed by select institutional stakeholders?
- How do institutional stakeholders view change brought about by DLs?
- In light of all four preceding questions, how are collaborative efforts to acquire, build, and use DL perceived by LIS professionals and a select cultural group?
- Finally, do interviews with stakeholders reveal hidden perceptions about resource acquisition and the current state of the institution that could be directly linked to the introduction of DLs?

These questions are motivated by the fact that the CERDOTOLA seems to be confronted with five perspectives in developing its digital collections. First, there is an administrative view of developing the collections while remaining faithful to the organization’s mission statement. As an institution, the CERDOTOLA has rules, norms and regulations that guide collection development. Second, there is the need to address the research community’s access to information on local cultures found at the organization’s library. However, because the library (i.e. Documentation center) is but a functional unit of the entire organization, this may imply talking people having different practices but a common interest in the resources (i.e. local researchers, LIS professionals) about the development of contents. Third, one must take into consideration the general apprehension of the value or, at the very least, the function of the library by the CERDOTOLA’ staffs who are not directly involved in the unit’s operation. Staff assigned to functions other than document management may have difficulties picturing the library as more than just a reading room. This requires another take on internal stakeholders. Fourth, LIS personnel broad evaluation of any professional obstacles to change and growth should be accounted for. The fact that the library or documentation center is managed and staffed by only one professionally trained individual poses the problem of incorporating her minority input in a summative opinion about collection development. Fifth and finally, the contents (cultural documents, oral traditions, languages, etc.) as well as their sources (local ethnic groups) represent unique challenges to the CERDOTOLA. I need to take all these realities into consideration.

1.2.3. Balancing questions and methods

Booth (2006), Bryman (2008), Punch (1998) Wildemuth (2009) and other methodologists have argued the preeminence of the research question in a study. The question should guide the inquiry, although such is not always the case in practice. Bryman (2007) has uncovered two distinct discourses related to the research questions with the context of mixed methods (a combination of qualitative and quantitative tools in a study). There is a
traditionalist or “particularistic” discourse that maintains that the research question should be concise, precise and guide the investigation (Blaikie, 2000; Mason, 2002) in Bryman (2007, p.6). I have attempted to tailor my questions to this understanding. There is also a “universalistic” discourse proposing a more general application of the research question (Glaser & Strauss, 1967), without reducing its importance, as observed in Bryman’s (2007) reading of Strauss & Corbin (1998). The universalistic discourse accounts for the influence of external factors as well as the researcher’s commitment to a known research paradigm (quantitative or qualitative). However, committing to a qualitative approach, I argue in favor of the existence of a direct link of varied strengths between questions and methods in my quest to balance methodological commitments against practical expectations. As opposed to Bryman’s (2007) study about the methodological inclinations of mixed-methods practitioners, it is in the qualitative research mode that I noticed the existence of a convergence mechanism that could be used to create a balance between questions and methods as in Figure 1.

![Figure 1: Convergence of research question and methods, based on Bryman (2007, p.16).](image)

I consider that commitments and expectations are given and difficult to change. And while methodological commitments and exceptions are directed and purposeful, they are not necessarily set in opposition to one another. They could exist in a convergence space (convergence points in Figure 1) where commitment would overpower expectation and vice versa, giving ascendency to either the research questions or the research methods, while remaining constantly connected. As I tilt the study towards the universalistic view of the role of the research questions (see Bryman, 2007), I recognize that a case study could be dynamic. Its movement could compel the researcher to adjust his methods. As a result, the initial case is not necessary the one that the researcher holds at the tip of his pen, having perhaps uncovered more interesting problems to investigate along the way.

I therefore say that the research questions I have proposed only reflect my attempt to eliminate the general in order to reach the particular (Denscombe, 2010); to explore a wider frame of institutional challenges in a specific African LIS ecosystem by refining it in order to uncover its implications for the CERDOTOLA. With the CERTODOLA’s Documentation center as the unit of analysis, I quickly realized that the Center employs one trained LIS
person. I saw in it an opportunity to expand the field of inquiry to other LIS professionals before collapsing it back onto the Documentation center. Also, I felt the need to approach the question of non-LIS stakeholders, individuals and ethnic groups, users of the Documentation center’s resources who are not connected to the profession. Selecting more than one group out of 285 ethnic groups was not permissible under a 9 weeks field study and being able to directly work with a member of one such group (an employee of the CERDOTOLA) helped in selecting the Bafou people as a user-community and a representative in the inter-institutional domain. Therefore, in the context of this study, I saw my research questions shaping my methods and my research methods influencing and, sometimes abruptly and sometimes subtly, changing the framing of my questions.

1.3. AIM & DELIMITATIONS

This section discusses the importance of the study, draws delimitations as to scope and methodology, and presents the outline of the work.

1.3.1. Importance of the thesis

The major aim of the study is to contribute new insights in the area of collections’ development in developing countries by visiting various apprehensions of the introduction of DL technologies. A little over a decade ago, at a time when LIS was considered an emerging field, Hjørland (2000) questioned the activities of LIS practitioners in producing relevant knowledge. Few years passed before Kim & Dejeong (2008) posited that LIS had finally come to age and matured as a science on its own. Yet, Barbara Wildemuth (2009) still considered LIS a young field of inquiry that nevertheless investigates a multitude of LIS related topics. Blessinger & Hrycaj (2010, p.160) have listed information retrieval, library information, user studies, information needs, research methods, library information science research, and research in librarianship among the most cited subject in LIS research. According to Alemna (1998), sub-Saharan Africa LIS research focused more on the improvement of academic libraries or public libraries. This study has two major theoretical axes: institutions and stakeholders. The study presents an attempt to explore how a regional organization/institution can cooperate with local stakeholders (ethnic groups) in building cultural collections. On this basis the study enters the context of information needs, user studies, or research in librarianship (see Blessinger and Hrycaj, 2010). But, the study also joins the discussion about the development of libraries (Alemna, 2008; Ngum et al., 2010). In terms of theoretical knowledge production, the study equally embraces the debate on the social and cultural identity of stakeholders in a developing country in hope to provide some insights on how they navigate their local information eco-system.

The Cameroon’s LIS community has seen a revival of activities in recent years with the re-emergence of the Cameroonian Association of Librarians, Archivists, Document handlers, and Museographers (ABADCAM) during a two-year period of cooperative work with the International Federation of Librarian Associations (IFLA) in order to update competencies in the local sector (www.abadcam.sitew.com, 2011; www.ifla.org, 2011). This initiative received the support of the Cameroonian government (www.ifla.org, 2011). In addition, ADADCAM has debated government’s policy to increase the number of public libraries (Balock, 2012) and stepped up the efforts to consolidate provincial sections of the

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3 Per www.ethnologue.com, Cameroon has approximately 285 ethnic groups identifiable by the languages they speak.
organization throughout the country (Balock, 2012). Cameroon is also home to several academic and cultural digitalization projects. The University of Bue’a’s Open Access Catalog (OPAC) has an ongoing project to digitalize theses and publications (Ngum et al., 2010). One can also cite the cooperation between the CERDOTOLA and Yaoundé University I to compile and digitalize theses about local and regional cultures (CERDOTOLA, 2012); the British library’s support to rehabilitate Cameroon’s archives in Yaoundé and Bue’a through its endangered archives program (www.eap.bl.uk, 2013); the Volkswagen foundation, in cooperation with the Max Plank institute, is working on documenting endangered languages (www.mpi.nl, 2013); the Goethe institute, Germany’s Foreign Ministry, Bayreuth University’s, and the Germany international Cooperation agency’s (GIZ) collaboration with Cameroon’s ministry of culture in digitalizing all music tapes held by Cameroon Radio and Television (CRTV) (Bach, 2013). One can add the preservation of the Bamun Script (www.mpi.nl, 2013) and scores of private and individual digitalization projects, personal and group websites alleging to document cultural heritage (i.e. www.bafou.org, www.mblogliaa.com, www.sawa.com, etc.). Some of the notable digitalization projects (see table 1) are funded or sponsored by international bodies. The CERDOTOLA is one of them. In addition, CERDOTOLA possesses its own Documentation center.

Table 1: Some notable cultural digitalization projects in Cameroon

<table>
<thead>
<tr>
<th>Project name</th>
<th>Museum Des Civilizations</th>
<th>Endangered Archives*</th>
<th>African photos</th>
<th>Bakuko</th>
<th>Music Records</th>
<th>Bafou.org</th>
<th>CERDOTOLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiative</td>
<td>Institutional</td>
<td>Institutional</td>
<td>Institutional</td>
<td>Institutional</td>
<td>Institutional</td>
<td>Institutional</td>
<td></td>
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<tr>
<td>Location (cities)</td>
<td>Dschang</td>
<td>Yaounde/Buea</td>
<td>Buea</td>
<td>Yaounde</td>
<td>Yaounde</td>
<td>Yaounde</td>
<td>Yaounde</td>
</tr>
<tr>
<td>Sites</td>
<td>Museums</td>
<td>National Archives</td>
<td>National archives</td>
<td>Sl Cameroon Radio</td>
<td>Yaounde</td>
<td>Yaounde</td>
<td>Yaounde</td>
</tr>
<tr>
<td>Content</td>
<td>Cultural artifacts</td>
<td>British colonial documents</td>
<td>Photographs</td>
<td>Languages and scenes</td>
<td>Endangered music tapes</td>
<td>Materials &amp; immaterial</td>
<td>Cultural academic related</td>
</tr>
<tr>
<td>Focus</td>
<td>East Cameroon</td>
<td>English Speaking</td>
<td>Cameroon Colonial records</td>
<td>Culture and daily living</td>
<td>National music</td>
<td>Bafou heritage</td>
<td>Central African cultures</td>
</tr>
<tr>
<td>Initial Collection</td>
<td>Physical</td>
<td>Physical</td>
<td>Physical</td>
<td>Physical</td>
<td>Physical</td>
<td>Physical</td>
<td></td>
</tr>
<tr>
<td>Document format</td>
<td>Images</td>
<td>Images</td>
<td>Audio &amp; Videos</td>
<td>Audios</td>
<td>Text, video, images</td>
<td>Text</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Completed</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Scope</td>
<td>International</td>
<td>International</td>
<td>International</td>
<td>International</td>
<td>Local</td>
<td>International</td>
<td></td>
</tr>
<tr>
<td>Institutional partners</td>
<td>City of Nantes</td>
<td>British Library</td>
<td>British Library</td>
<td>Volkswagen Foundation</td>
<td>Goethe institute</td>
<td>Bafou Community</td>
<td>CERDOTOLA</td>
</tr>
<tr>
<td></td>
<td>University of Leiden</td>
<td>University of Leiden</td>
<td>German cooperation</td>
<td>Université libre de Bruxelles</td>
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<td></td>
<td>Cameroon government</td>
<td>Cameroon government</td>
<td>Cameroon government</td>
<td>Universities of member states</td>
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<td>Cameroon government</td>
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<td></td>
<td>Max Plank foundation</td>
<td>Max Plank foundation</td>
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<tr>
<td>Sites</td>
<td>Dschang</td>
<td>Yaounde, Buea</td>
<td>Buea</td>
<td>Yaounde</td>
<td>Yaounde</td>
<td>Yaounde</td>
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</tr>
</tbody>
</table>

1.3.2. Delimitations

The study has a number of markers beyond which it will not venture. First, I consider this work a qualitative case study. The CERDOTOLA’s Documentation center is the unit of analysis. Second, I highlight the digital component of the Center, although I may from time to time refer to the print aspect of the collections. I assume that the research dilemma is also a management dilemma, and I borrow from management sciences’ methods to motivate the debate on overcoming institutional challenges by looking at the statements of my informants. Second, I select three theories to guide this study: institutionalism, stakeholders’ theory, and Foucault’s theory of power and inter-subjectivity. However, the overarching theory is normative institutionalism. The other theories have supportive roles in explaining how members in an institution, envision, construct, and deal with the world around them. For that,
I lean more on Foucault’s critical discourse analysis method espoused by Jäger & Maier (2006) to make sense of data collected during a field study in the Republic of Cameroon.\(^4\)

### 1.3.3. Outline

Although the outline presents seven distinct units (introduction, literature review, methods, results, analysis, discussion, and conclusion), I consider that this study is organized in four sections.

The first section consists of the introduction and the literature review. They provide a general overview of the study of librarianship by focusing on Africa South of the Sahara, Cameroon, and the CERDOTOLA as an international organization/institution. I introduce the low involvement of various stakeholders in building digital collection in cooperation with memory institutions as a springboard for stating my research questions. The objective of these questions is to investigate the statements, positions, and moods of select stakeholders around the introduction of ICT, i.e., DLs, and their challenges to institutionalization. Finally, I offer a summary of the concepts, theories, paradigms, and related works that guide the case in the literature review.

In the second section I discuss the methodology by covering epistemological and ethical issues, the qualitative nature of the case study as research design and the participatory action research paradigm that produce the data under examination. However, I make a clear distinction between the methods employed in collecting data and those used in reviewing and analyzing my thesis. In this section I also present my data collection strategy (literature, interviews, focus groups, and site observations) and data analysis method with Foucault’s critical discourse based on Jäger & Maier’s (2009) interpretation of his process.

In the third section, I present the empirical data through a formal introduction of the CERDOTOLA’s history, centers of activities, organizational chart, and Documentation center. I follow up with a presentation of interviews results and focus groups according to the major sites or cities (Buea, Douala, Yaounde) where I conducted field research. In the second half of this section, I briefly revisit Agre’s analytical model before submitting my findings to Jäger & Maiers’ Foucauldian critical discourse analysis. This section is topped with a discussion that focuses on emerging discourses around the introduction of DLs in the local LIS ecosystem and their impact on the CERDOTOLA.

Finally, my conclusion offers a summary of the case, discusses the extent to which I have answered the research questions, and indicates possible avenues for future research.

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\(^4\) The data reviewed in this document come from a field study that was financed by the Swedish International Development and Cooperation Agency (SIDA) and hosted by CERDOTOLA. A main condition of the funding was to provide CERDOTOLA with a report of my findings.
2. LITERATURE REVIEW

2.1. KEY CONCEPTS

The key concepts of this study are memory institutions (libraries, digital libraries, etc.), culture and cultural heritage, digitalization, stakeholders, documentation and documents, and institutions, user-groups, user communities. These concepts appear throughout the study. Some (libraries, digital libraries, culture, etc.) have already been introduced in the introduction. The next section 2.2 “theoretical framework” provides more description about of some of the key concepts, i.e. institution, stakeholders. These concepts are explored further under section 2.3 “related works”.

2.1.1. Institutions

Institutions have been defined in many ways but Peters’ (2006) definition is the one that is used in this study. According to him, institutions represent formal or informal organization of people who share the same values, have a common sense of purpose and explicitly or tacitly recognize that they are subjugated to the norms, rules, and/or regulations of the entity to which they belong. I support Peters’ definition with Lawrence et al. (2002) understanding that organizations can also be views as institutions. When they form, merge and change they actually evolve into a proto-institution, a new type of institution.

2.1.2. Memory Institutions

Earlier generations of thinkers perceived documents as vessels (memories) that store information. As a result, a system to regulate the use of documents also speaks to the commutative function of memory as institution, and institution as memory. Memory institutions are infrastructures designed to hold data that could be retrieved later on, interpreted and transformed into useful information (Borgman, 2000; Manžuch, 2011). This study names libraries, museums, archives, digital libraries and other types of Documentation centers as memory institutions.

2.1.3. Digital Libraries

“A digital library is an online collection of digital objects, of assured quality, that are created or collected and managed according to internationally accepted principles for collection development and made accessible in a coherent and sustainable manner, supported by services necessary to allow users to retrieve and exploit the resources” (www.ifla.org, 2013).

Freeman (2005) stated that, traditionally, libraries have been designed as places that store physical documents, and certainly as structures that provide a collectivity with much needed information. He also recognized the social function of the library as bringing people together (Freeman, 2005). According to Borgman (2000), DLs could be born from physical counterparts or be entirely digital from their inception. When they are parts of traditional libraries, they are considered hybrids: physical and digital. However, they require structure, organization. As stated by Arms (2001, p. 2), “a stream of data sent to earth from a satellite is not a digital library. The same data, when organized systematically, become a library collection.”
2.1.4. Culture

At the 1982 world conference in Mexico City, UNESCO defined culture as “the whole complex of distinctive spiritual, material, intellectual and emotional features that characterize a society of a social group” (UNESCO, 2013; Cameroon’s Ministry of Culture, 1991). Wouters’ and Vital’s (2007) definition refers to two distinct realities; one that is system-center (sociological and anthropological) and one that is process-centered (focusing on cultural creation). People are viewed as creators of culture from the process-centered perspective and as products of culture from the system-centered view (ibid, p. 149). The context of this thesis favors the first definition and all the implications it carries for the rights of access to cultural productions.

2.1.5. Cultural Documentation

Burkland (1977) cited in Levy (2003, 27), defined documentation as a “set of techniques developed to manage significant [...] document, meaning, in practice, printed texts.” He also claimed that documentation techniques are also applicable to printed as well as non-printed materials (Burkland, 1977) and provided a rational for managing all types of data that could yield useful information. Hjørland (2000) opined that documentation is the operational domain of a document manager who sees his/her functions limited to providing a service to information seekers. It could be said that cultural documentation is to serve the needs of user groups interested in cultural contents.

2.1.6. Cultural digitalization

Digitalization refers to the methods and techniques used to reproduce machine readable images of “an object which already exists rather that the creation of a novel pictorial information” Terras (2008, p. 10). Levy (2003) calls this process digital convergence. Cultural digitalization thus implies the possibility to take something (material or immaterial) unique to a people and transfer it into a format that is accessible on an electronic device (mobile phone, tablet, computer, etc.). Digitalization is an expensive process that has been adopted by memory institutions to delivery cultural and historical documents to end-users online (Terras, 2008, p.100).

2.1.7. Documents

Levy (2003) lets us know that a document could be understood for the purpose it serves within a given socio-historical context. It is a representation of objects and ideas that are meant to provide information-seekers with knowledge, evidence of a physical phenomenon expressed in a conceptual form, and representations of thoughts and ideas that withstand the passing of time (Burkland 1997; Levy, 2003, 27). The invention of new media for storing information (i.e. tapes, CDs, videos) seems to have created a much needed compromise for the acceptance of oral works as forms of documents. Traditional oral compositions (i.e. epic poetries, songs, and visual performances) have been classified by UNESCO as types of immaterial cultures earmarked for preservation alongside material cultural heritage (i.e. books, objects d’art) and natural heritage (geographic spaces, buildings and monuments).

2.1.8. Stakeholders: users, user-groups and user communities

A stakeholder is anyone (personal or entity) who has a claim in the future of an organization (Rainey, 2006). In this study, user, user-groups and user-communities are special
categories of stakeholders. In fact, Bishop et al. (2003) referred to them as having an interest in DLs as information systems. They need and seek out the information contained in DLs. The term ‘user-groups’ provides a detailed segmentation of LIS stakeholders. In the case of CERDOTOLA’s Documentation center, user-groups and user communities are the researchers or scholars who need to access documents as well as members of the general populations having a common interest in some of resources that are kept in its databank. User-groups, user-communities and communities of users are often used interchangeably. However, they are distinguishable by their respective level of organizations. For example, a group conveys the notion of informality and loose structure whereas a community appeals to a higher degree of organization and formalism found in institution.

2.2. THEORETICAL FRAMEWORK

The study is based on three theories: normative institutionalism, stakeholder’s theory, and Foucault’s power and inter-subjectivity theory.

2.2.1. Institutionalism

Institutionalism is the study of institutions and their impact on society; how they form, change, grow or disappear (Peters, 2005). Institutional theories have been used in LIS research in past decades. Byod (1971) provided insights into change and organizational design and linked both to LIS institutions; Sheriff (1977) pointed out institutional challenges in resource sharing in West African libraries; Anderson & Skot-Hansen (1994) reviewed library practices in a post-modern world by evaluating library services; March (1994) addressed the reaction of decision-makers to external stimuli; Sturges (1996) and Budd & Raber (1998) produced work on the fundamentals of the social and political roles of libraries; Fitch & Warner’s (1997) study centered on values of library services; Audunson (1999) used institutional theories to discuss the norms and the ability of libraries to cope with changes in the external environment; Agre’s (2003) normative approach to institutional theory offers an analytical model to conceptually frame and place DLs in appropriate social environments based on shared meaning, practice, and understanding of the multi-institutional domain; and Ngimwa & Adams (2011) explored policies in the design of digital library.

Institutionalism has been divided along two lines, old and new institutionalism (Peters, 2005). Old institutionalism deals with the functioning of large institutions and attempts to generate solutions that will improve them. New institutionalism understands that there exists a micro-dimension to understanding how a system works and as such could be considered an upgrade to the old institutionalism (Peters, 2005). In her thesis about the inception, challenges and prospects of the National Library of Uganda, Kawayla (2009, p. 20) remarked that the growing use of institutional theories has been centered on normative new institutionalism as viewed by March & Olsen (1996). She cited the respective works of Audunson (1999) and Hansson (2004 & 2006) to support her argument. New institutionalism makes the actors (stakeholders) the keystones of the institution (Wildavsky, 1987) and the centerpieces of this study. With new institutionalism I attempt to answer questions related to what user-groups stand to gain by collaborating and wonder if belonging to a group is based on a sense of duty prescribed by norms, covenants and conventions, and common meaning derived through shared purposes (Peters, 2005). But in final analysis, I agree with the fact that individuals and groups can fairly assess a situation and decide upon a course of action that is neither entirely utilitarian nor completely normative (Peters, 2005).
The concept of an institution has been subjected to multiple interpretations. Guy Peters (2005, p. 29) pointed to the generous usage of ‘institution’ as a word that applies to almost any formal or informal gathering of individuals who are bound by a tacit or explicit social contract. March & Olsen (1989) highlighted the durability of a “collection of interrelated rules and routines that define appropriate actions in terms of relation between roles and situations” (in Peters, 2005). Another interpretation, based on major social theories such as positivism and pragmatism, acknowledged that “institutions are systems of established and embedded social rules that structure social interactions [...] Organizations are special institutions that involve (a) criteria to establish their boundaries and to distinguish their members from nonmembers, (b) principles of sovereignty concerning who is in charge, and (c) chains of command delineating responsibilities within the organization” (Hodgson, 2006, p. 12). All these definitions apply to the CERDOTOLA as an organization that functions within an information ecosystem it shares with its user communities. However, the present case study is not an essay on the nature or the development of the CERDOTOLA as an example of institution. It is only meant to provide an in-depth look at the issues its Documentation center faces in light of the statements presented by select institutional stakeholders. The CERDOTOLA’s Documentation center has been designed to look like existing local academic libraries. Its website (www.cerdotola.com) keeps the digital component descriptively close to the physical one (see Chapter 4); that also enticed me to choose normative institutionalism to make sense of this case.

Peters explained normative institutionalism with the concept of “logic of appropriateness.” The logic of appropriateness dictates that the goals of an organization supersede that of the individual and anyone who integrates with the organization accepts to subordinate their personal interests to that of the group (Peters, 2005, p. 27) in the interest of group sustainability. There are many ways in which organizations can be sustained, i.e. through coercion, remuneration, and norms (Etzioni, 1975), although March & Olsen (1989) believed that organizations that rely on people who adhere to them for “moral reasons” are more likely to be stable. A much earlier study by Matthews (1973) has showed that the existence of shared values shape the behavior of members in an organizational setting. Though the views of these authors are central to normative institutionalism, they are criticized by others. Christensen (1999) for example opined that shared values only demonstrate the vagueness of institutional constraints on individuals. It means that it is difficult to clarify institutional boundaries since an institution must evolve in a greater arena with other institutions. He further posited that situations that support shared values reflect a sense of purpose that may in fact benefit institutions that chose to function with open and pro-active members (Peters, 2005, p. 30-31). After all, this seems reasonable since the rules and the norms that give meaning to an institution come from society (March & Olsen, 1989, p. 17-19) and put institutional members in a situation of reconciling a minimum of two sets of rules belonging to different institutions.

Change is a very important concept in institutionalism. Cohen et al., (1972) assumed that in normative institutionalism existing procedures automatically channel organizational changes. This type of change is often attributable to unforeseen events taking place within and outside the institution (Peters, 2005). It is understood that change in the external environment (society) always presents an opportunity for the institution to reform (Japperson, 1991; DiMaggio, 1998a; Boine and t ‘Hart, 2000). Authors such as Brunssen & Olsen (1993) have argued that there is a the disjuncture between values and behaviors; meaning that as long as the institutional values expressed by institutional behaviors move away from society’s expectations, there would be increasing probabilities that change will occur (Peters, 2005, p.
35). Studying institutional change in public libraries, Audunson noted that “field external, environmental tendencies decide the direction of change” (Audunson, 1999). This study sides with the idea that the change happening within a unit of the CERDOTOLA, i.e. the CERDOTOLA’s Documentation center and its process of developing DLs, also manifests itself in the collaborative space inside the entire organization, and at the inter-institutional level, i.e. between culture (ethnic) groups. In these arenas, institutional stakeholders evaluate a situation and debate existing norms in order to assess how change could benefit them as members of the institution. The study also tries to understand the trade-offs between the status quo and possible futures, and what should be required to move towards closing the gaps between the perceived, actual, and attainable goals of the CERDOTOLA.

2.2.2. Stakeholders’ theory

The notion of stakeholders implies the existence of non-stakeholders, people or groups who cannot be associated with the present and future stake of an organization. Organizations as institutions have historically been defined by addressing the needs of primary stakeholders. Freeman’s (1984) seminal work on stakeholders, which according to Crane & Ruebottom (2012) was a response to Friedman’s (1970) neo-classical economic ownership-center discourse, spurred the study about the importance of all stakeholders (people and groups) in the development and welfare of the organization. It simultaneously revealed a divided world that pits institutions against individuals and validates class structures based on power (Mitchell et al., 1997). Corporate stakeholders are plural (Freeman, 1984; Simmons & Yolles, 2005; Stieb, 2009). They engage the firm from many vantage points. They come with different needs. Stakeholder theorists have been in the business of pitting them against one another hoping to explain why organizations function as they do (Freeman & McVea, 2001). In political sciences and sociology, stakeholders are members of an entire collective. They are affected by the institutions. They represent all living things on Earth in ecological economics (Rainey, 2006) and they define the reciprocal relationship that ties them together. This spectrum shows multiple applications of stakeholders’ theories (Freeman, 1984; Mitchell et al., 1997; Phillips, et al. 2003).

All variations of the stakeholder’s theory (normative, instrumental, and descriptive) (Donaldson & Preston, 1995; Friedman & Miles, 2006) have typically been appreciated from an economic perspective leaving little room to any other interpretations (Derry, 2011; Crane & Ruebottom, 2012). Furthermore, all these strands were developed based on a misinterpretation of Freeman’s attempt to reform a dominating business philosophy of the later 70s and early 80s (Derry, 2011). Normative stakeholder’s theories prescribe a management model that ensures the survival of the corporation by tending to those who are exposed to the greater investment risk, although the proportionality of said risk often appears to be subjective, biased, and narrowly defined (Derry, 2011). Instrumental stakeholder theories are based on the belief that managers giving due consideration to the importance of stakeholders would effectively ensure the firm’s long-term success (Donaldson & Preston, 1995; Jones & Wicks, 1994). This formula appears utilitarian and self-serving to the manager as a stakeholder. It also leads to the questioning of how the former could fully appreciate the multiple needs of the latter or how he could relate them to his own ambitions (Donaldson, 1999; Freeman, 1999). Finally, descriptive stakeholders’ theories attempt to rank stakeholders based on power (Mitchell et al., 1997). It is a narrowing of the field and a contextualization of “who really counts.” Much like normative and instrumental theories, these views assimilate management to the institution and neglect the fact that managers are also stakeholders who should be appreciated like any other. Above all descriptive stakeholders’ theories provide us
with an incomplete picture of the stakeholders (Derry, 2011; Crane & Ruebottom, 2012; Mainardes et al., 2012).

Figure 2 gives us a possible representation of this view by initially positioning the stakeholders outside the organization (small circle to the left). Here, the stakeholders are surrounded by the elements that give them an institutional/organizational dimension: shared ownership, contents, and purposes in the organization. The organization (big circle) is represented by the managers who assign an importance rating to the presumed stakeholders. Such rating is used to determine who among the stakeholders matters. The figure depicts a biased and selective appreciation of stakeholders (Crane & Ruebottom, 2012).

In fact, Crane & Ruebottom (2012) advocated adding a social dimension to stakeholders’ identification which highlights shared values and common interests. In the broader domain of social sciences, Library Information Sciences already offers a wealth of studies revolving around the social dimension of stakeholders (i.e. Carroll, 1996; Bishop et al., 2003; Marchionini et al., 2003; Van House, 2003), and refer to them as users, the user-groups, or information seekers or user communities. These stakeholders have the ability to influence the system and be reciprocally affected by it. Although specific to a well-defined category of stakeholders, these synonyms still fall within various classifications commonly found in business and economics studies that result in labels such as in primary and secondary stakeholders (Freeman et al., 2003). Though it is Crane’s and Ruebottom’s (2012) wish to move the definition of stakeholders beyond the established nomenclature through an understanding of the social, they may yet have to consider a teleological definition predicated on the nature and role of the concerned organizations or units under examination. I believe that institutions/organizations are created by and for people (stakeholders) in order to serve sometimes well-defined purposes or to achieve personal or group objectives. All the elements that foster attaining an institution/organization’s objectives and insuring its survival also help to identify all of its organizational/institutional stakeholders.

In order to study institutional challenges in building cultural collections at the CERDOTOLA, I looked for stakeholders that could inform the change process. I used the organization’s mission statement to identify some of them (i.e. managers, and administrators, staff, researchers, governments, partner organizations, resource users (clients), customers, etc.). However, the case revealed an extended category of groups with stakes in the

Figure 2: A conception of stakeholders in relation to the organization (author’s graph)
CERDOTOLA. I looked closely at the organization’s Documentation center (CDC) as the unit of analysis. I attempted to answer question such as “Why has it been created?” “What does it hold?” and “To whom does its content belong?” These questions are articulated on three axes: purpose, contents, and ownership as depicted in Figure 3. The first and second questions are answered in the organization’s mission statement. The last question was revealed in the field study and completed the loop around the stakeholder’s identity. I saw it as a critical link to the understanding of the institutional documentation in the local environment. Accepting that institutions/organizations are created for and by stakeholders made it easier to decompose the organizational process as people – software – hardware – people, which in turn enabled understanding the notions of information-seekers (users) or user-groups, or community of users as LIS institutional stakeholders.

Figure 3: A view of a stakeholder conception in LIS (author’s graph).

2.2.3. Foucault’s power and inter-subjectivity theory

Foucault has been influential in philosophy, sociology, literature and linguistics but he is only beginning to be appreciated in library and information science (Olsson, 2010, p. 63). I used his theories in my analysis because I believe that his views have a direct bearing on the preceding theoretical paradigms: normative institutionalism and stakeholders’ theories. Foucault’s theories have been classified as critical theories. Bauman (1991, p. 277) defines them as the theories “of the foundation and validation of knowledge [...] that culturalizes the interpretation of the world instead of naturalizing it” (in Leckie and Buschman, 2010, p. ix). ‘Culturalization’ suggests a re-enforcement of the bonds between critical theory, institutions and stakeholders. Bourdieu and Wacquant are cited for describing the individual’s capability to function in society as reconstructed and prefigured by the cultural, social and economic fields in which he/she lives (Hussey, 2010; Schatzki, 2002). A review of critical theories in general and in LIS in particular is beyond the scope of this study. For more information on the subject I suggest consulting Buschman, (2010); Fairclough (2003); Hussey (2010); Jäger & Maier (2006); Leckie et al., (2010); Olsson (2010); and Reisigl & Wodak, (2012).

Rabinow (1991) declared that “for Foucault there is... no universal understanding that is beyond history and society” (in Olsson, 2010, p. 65). People in discursive communities share common “truth” statements guided by their understanding, narrative of phenomena, archiving and recalling of events in multiple forms (p. 66). I consider the CERDOTOLA a consequence of historical events that could be viewed from the perspectives of several nations.
coming together to inspire the creation of an institution that specializes in the study and documentation of Central African cultures (www.cerdotola.com, 2013). Its Documentation center reflects the norms (mode of functioning) of other libraries through the organization and management of resources and the provision of services such as access to reading materials. To Foucault, language is a social practice and discourse its vocal, silent, or visual manifestation (Wodak & Meyer, 2012, p. 6). Critical discourse focuses on the relationship between language and the manifestation of power (Wodak & Meyer, 2012, p. 89).

Foucault’s discourse focuses on the manifestation of power in institutions “through the construction and reproduction of social mores and through the disciplining of the body itself” (Gaventa & Cornwall, 2008, p. 175). Power refers to the ability to establish one will at the expense of others in a group situation. Foucault’s understanding of the power of discourse should not be viewed negatively. It can be used to create and bind members of a community; to generate the norms and formal agreements that establish institutions (Gaventa & Cornwall, 2008). Dahl (1969) shared that power expresses itself in a coercive relationship where person A gets person B to do what he will not otherwise do (Gaventa & Cornwall, 2008, 173). Bachrach & Baratz (1970, p.105) added a deeper adversarial touch to Dahl’s argument when they posited that power interplay extended beyond those directly involved in the fray in order to include a decision about maintaining a status quo and/or excluding other stakeholders. These positions are not fully shared by Foucault (1977) who moves the debate from the plane of subjectivity into the field of inter-subjectivity that also acknowledges the existence of institutional dialogs in building reality.

While the power/knowledge relationship could be viewed as perpetuating inequality, Foucault (1979, p. 145) believed in reviewing questions of a higher order that address “the right...to rediscover what one is and all that one can be”. Hayward (1998) introduced the concept of ‘de-facing power’, whereby institutional contexts and the meeting of multiple sets of shared meanings, values and purposes “constrain and enable action for all actors” (Gaventa & Cornwall, 2008, p. 175). This provides us a link with the ideology of participatory action and the co-production of knowledge. Foucault (1977) views power and knowledge as two sides of the same coin.

“Power produces knowledge (and not simply by encouraging it because it serves power or by applying it because it is useful); that power and knowledge directly imply one another; that there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations” (p. 27).

Therefore, power is pervasive and affects communities as stakeholders and individual stakeholders as members of communities. My reading of Olsson (2011) leads me to conclude that local memory institutions (i.e. library, archives, museums, Documentation centers), the CERDOTOLA and local ethnic groups are not spared by Foucault’s social dialectic on power or his admission of inter-subjectivity as a possible way to understand, uncover, and appreciate challenging social problems. Therefore, the whole exercise in dissecting the power flow between the CERDOTOLA’s select groups of stakeholders via shared meaning could also be viewed as impacting the local institutions. The manner in which shared meaning is achieved within any given community speaks to the manifestation of power in discourses, to what is said and kept unsaid that could equally affect an organization such as the CERDOTOLA.
2.3. RELATED WORK

This section reviews three articles dealing with institutional changes: Agre’s (2003) analytical model for the institutionalization of digital libraries; Audunson (1999) on library reforms; and Hansson (2006) on the creation of joint libraries.

2.3.1. Agre’s view on the institutionalization of Digitals Libraries

Agre (2003) debated information and institutional challenges in DLs, and provided a theoretical approach to studying institutional changes. He questioned the abilities of libraries to keep their practice uniform within a multi-institutional environment and wondered whether the malleability of information technologies would lead to a distinctive institutional field. His analysis highlighted the practices of scholarly communities within the information ecosystem. He linked practice and place to the design and acquisition of DLs and their usefulness to various communities and institutions. I have extracted three key concepts that ground his analysis: conceptual parity, bridging concepts, and meso-level concepts (Agre, 2003, p. 222-223). Agre did not personally use the words conceptual parity in his article although I assigned it to his understanding of technological issues (DLs) matching institutional issues from a theoretical as well as empirical perspective. Conceptual parity is made possible by bridging concepts articulated by the systems designers. Bridging concepts provide an institution with the means to appropriate the technology and technology to fit in an institutional arena (p. 223) at a level that is neither too specific (micro) or too generic (macro). Such an institutional arena is described by meso-level concepts (p. 223).

Conceptual parity, bridging, and meso-level concepts are the cornerstones of what Agre called the priority of analysis. He looked at the functions performed by DLs (i.e. storage, access and retrieval and dissemination of information) as technological tools and institutions (set of rules and believe designed to create a durable establishment) and stated that they result from a socialization process, understanding, and definition of common goals (Agre, 2003, p.228). The socialization process is facilitated by users and user communities who, through practices, enable DLs to pass from the state of mere artifacts to conforming (institutionalized) technologies, thanks to a series of mechanisms starting with a conceptual analysis and ending with the creation (embedment) of a functional system that in return is embraced by communities in a multi-institutional environment (the public sphere). Finally, Agre posits that DLs “bear on the relationship between the professions and the rest of society [...] but they also may enable non-professional to appropriate this (professional) knowledge in their own ways” (p. 233). In theory, exemplary DLs should incorporate the institutional context in its design in order to bridge the gap between technologies and institutions (p. 233).

2.3.2. Audunson and change in libraries

Audunson (1999) interviewed 36 librarians in his comparative case study about changes in three European public libraries from 3 European states: Norway, Sweden and Hungary. Most interviewees were mid-level managers. Following a semi-structure interview guide, he investigated librarian attitudes towards four categories of institutional changes:

1) Organizational modernization
2) Technological modernization
3) Introduction of new and goal-oriented planning methods
4) Adaptation to market-oriented tendencies
With the help of questionnaires distributed in Olso, Gothenburg and Budapest, Audunson also investigated the librarians’ ‘‘perception of the level of conflict associated with each individual category of change, and with the change process as a whole, and their perception of the influence of different categories of actors in the process (city politicians, city management, library management, library staff, and users)” (Audunson, 1999, p. 531). Looking at libraries that focus on structural organizational change and where the professional obsolescence is fear, Audunson discovered that highly sensitive issues generate more conflicts and greater resistance and resolving conflict necessitated a great deal of institutional leadership. Considerations were given to reforms perceived as emanating from the profession (i.e. librarianship). Such sectoral reforms were justified by a transposition of professional norms onto administrative policies and institutional norms. Audunson deduced that while professional norms play a role in the appropriation of changes, institutional norms and change in the external environment decided the nature and pace of change. A key to understanding this situation can be traced to the self-interest of individual professionals. The study of change provided insights into the personal challenges of individual LIS professionals albeit in a European context, and could hardly be generalized to other areas of the world.

2.3.3. Hanson on library mergers

Hansson (2006) studied inter-institutional collaborations between a public library and an academic library in two respective Swedish cities of Härnösand and Visby. The norms and values of collaborating units were challenged in this study, as well as the institutional identities of concerned libraries and their staff. Hansson concluded that the collaborative projects led to a “shift in normative institution identity” (Hansson, 2006, p. 549) thereby creating a new type of library: the joint library. Bundy (2003) and Imhoff (2001) have defined the joint library as two different entities co-locating their services in the same location and agreeing to the manner in which they will be served to their constituencies (Hansson, 2006, p. 552). However, community and societal dimensions needed to be incorporated in the reform in order to present the institutional side of joint libraries.

Hansson (2006) wrote that the creation of the joint library in Visby was strongly influenced by the need to develop the resources of the local academic communities and to provide better services to the entire community. However, in Sweden there exists a strict separation between public and academic libraries in the political arena. This also implies the existence of two different LIS practices in the local LIS eco-system. The merger of both institutions presented several challenges to institutional development. Each institution carries a unique historical background. On the one hand public libraries are grounded in Swedish popular movement towards information literacy that helped to build a strong identity for the institution (Hansson, 2006, p. 564). On the other hand academic and university libraries emerged from a national policy on education. The proposed structural changes that merged the norms of these different institutions resulted in an isomorphic proto-institution. In general, the mergers needed to give new meanings to existing norms and to conventions associated to the public. It also needed to integrate user-groups and librarian expectations within the new context of joint libraries. Like Audunson (1999), Hansson confined his case to the library institutions of developed countries.

2.3.4. Synthesis

Agre (2003) proposed framework for handling institutional changes by examining various tensions between what is thought and what is realized. Audunson (1999) and Hansson (2005) provided us with empirical evidence in negotiating these tensions and closing
conceptual gaps. These three researches have their origin outside the developed world. They offer three unique and strong case studies about LIS institutions. They equally inspired the study of the CERDOTOLA as an organization where DLs have been recently introduced and collaborative efforts with regional institutions could actually lead to the merger of a service between the institutions, or a greater change at the Center.

Philip Agre’s general analytical model focused on the conceptual traps to the institutionalization of digital libraries. Although focused on DLs, the model does not ignore the fact that DLs can stand alone or be incorporated into larger library institutions. Audunson (1999) and Hansson (2006) exposed apparent challenges to developing public and academic libraries in Europe. They showed that any change, i.e. structural, organizational or institutional, may affect all possible services within a library. Audunson and Hansson did not discuss DLs as separate entities; nor did they specifically address the development and management of electronic documents. Theirs were global views of the changes that happen in an organization. As a result, DLs faded with Audunson’s (1999) mention of change related to electronic resources and are almost absent in Hansson’s (2006) broader study of the merger of two different types of libraries. Nonetheless, they are able to provide information useful to my case study. The articles of Audunson and Hansson showed existing communities that are aware that they co-exist and must resolve their differences in order to address the needs of their constituencies. In addition, they show that the changes that are taking place are mandated by the various administrations, and all the stakeholders must find a way to generate a workable library model. They get close to Ngum et al.’s (2010) narrative about the creation and integration of an OPAC at a Cameroonian university library or that of Kawyala’s (2009) about the evolution of the National Library of Uganda.

However, Jane Kawyala (2009) remained focused on the internal development of one institution without giving much thought to various stakeholders’ roles, values, and opinion in the inter-institutional domain. Ngum, Shafack, & Koelen (2010) did not attempt a study of institutionalism to explain the process of introducing an OPAC at their university. Other local literature (Awasom, 2003; Jones et al., 2005; Eyango, 2010; Balock, 2012) cited in this research does not lend a voice to local stakeholders although they manage to describe the LIS environment. My approach to investigating institutional challenges focuses on the challenges to the development of the CERDOTOLA’s digital resources through stakeholders’ perceptions. The study looks at seasoned LIS professionals’ experience (in the countries memory institutions) and the possibility to work with a local ethnic group in building a shared repository. Internal changes due to the introduction of DLs at the CERDOTOLA are not mandated. However, I presume that change is anticipated by the users and the staff-members, and expected by the CERDOTOLA’s management team. I also presume that looking for proactive solutions to improvement of the quality of service is a daily function and occupation of the Documentation center.
3. METHODOLOGY

Israel (1992) explained that methodologies deal with the tools or research methods while taking into consideration the epistemological position of the researcher, and scrutinizing the procedure and foundation leading to the results of a study. This section discusses various elements that influence the methods of this thesis, such as the epistemology, ontology and deontology of the researcher.

3.1. EPISTEMOLOGY & ONTOLOGY

Epistemology is generally regarded as the study of knowledge (Floridi, 2002) and questions what should be regarded as acceptable knowledge in a discipline, and what constitutes an appropriate methodology to reach it (Bryman, 2004, p.11). On the one hand, there is a positivist camp that subscribes to the idea that research in social sciences must imitate natural sciences’ research methods and procedures. On the other hand, post-positivists assert the quasi-impossibility to separate the object of inquiry from its context, or the researcher from the object of her/his inquiry (Reason & Bradbury, 2008). For example, Bhaskar (1975) cited by Bryman (2004) posited that the rigor of positivism is somehow tamed by an idealist epistemology that holds that natural and social sciences should use the same tools and methods to collect, analyze and interpret data. He further differentiated between empirical and critical realism by elaborating that the former is naïve in maintaining that reality could be understood through the use of appropriate tools, while the latter stresses the necessity to identify catalytic elements in social constructions that affect the scientist’s conception and interpretation of a reality (Bryman, 2004, p. 12).

The case of the CERDOTOLA embraces post-positivism by recognizing the value of, and relying partly on, data generated through a participatory action research report that I produced during the course of a minor field study on the development of DLs in Cameroon (Ngwee, 2013). Whereas positivism requires distance from the subject that is being study (Bryman, 2008), such as in the case of natural sciences where detached observations are greatly valued, post-positivism recognizes the fact that the researcher is an integral part of the research environment. He/she brings into an ever-changing field personal bias in his/her attempt to make sense of his study. Post-positivism is as much indebted to hermeneutics as it is to phenomenology or the study of how individuals comprehend their surrounding environment and compartmentalize the many ways in which the world can be interpreted. Hermeneutics identifies the theory and method of interpreting human action (Bryman, 2004, p.13), holding true that society is defined by a web of interactions that carry meanings for those who inhabit it (Foucault, 1977).

As I attempted to understand how the CERDOTOLA’s stakeholders construct their social web and hope to attain practical results (Bauman, 1978; Heap & Roth, 1973) with the creation of a repository of cultural digital documents, I implicated them in this study. To be exact, I included the CERDOTOLA’s staff in the minor field study that produced the empirical data that I analyze in this thesis. In so doing, the present work accounts for more than just my own evaluation of the subjects of my inquiry but also my perception of their reception of DL technologies and the development of cultural digital collections. Alan Bryman stated that “questions of social ontology are concerned with the nature of social entities” (Bryman, 2004, p.16). He went on to inscribe ontological considerations in social sciences along two lines: objectivism and constructionism. Objectivism separates the researchers from the phenomena they study. The infrastructures and institutions that host and
Regulate human lives are seen as distinct objects unaffected by those who inhabit them. This conception of reality allows researchers to create the space needed to study institutions as independent and immutable constructs that transcend human actions. Indeed, this objectivist view embraces a positivistic spectrum of thoughts and proposes society and its contents (human beings included) as empirical materials subject to the same level of analytical detachment that is found in the natural sciences.

From a constructionist point of view, Gaston Bachelard has argued that the field of scientific enquiry grows through successive reformations (Bachelard, 1967). The same could be said about a society that stays agile through the actions of its members. According to Olsson (2010), thinkers like Michel Foucault believe in the creative power of words and their effect on the order of things. Subsequently, discourses that emanate from social interactions appear constructionist. In the case of the CERDOTOLA, the discursive ground between the research and the group studied serves as a thinking platform to comprehend various attitudes and positions that shape the adoption of information and communication technologies (ICTs) and the possible effects they could have on building digital collections. However, this research applies a reflection on action that completes the reflection in action that defines the participatory process of field data gathering and report writing (Greenwood & Levin, 2010). Attempting to offer a detached analysis of empirical data gathered during a field study that employed constructionist and post-positive methods, I wish to underscore the fact that the sense-making I employed finds a place more on the side of the post-positivist stretch of the research method and analysis continuum.

3.2. ETHICAL CONSIDERATIONS

Library and information science literature is split on the idea of an epistemological foundation in LIS. As early as 1961, Shera argued for a ‘social epistemology’ that “provide a framework for the effective investigation of the entire complex of problem. [...] From such a discipline should emerge a new body of knowledge about, and a new synthesis of, the interaction between knowledge and social activity” (p. 15–16). Luciano Floridi argued against that position. To him, “LIS works at a more fundamental level than epistemology. Its object is not knowledge itself but the information sources that make it possible, even if only indirectly” (Floridi, 2002, p. 41). Inspired by Shannon (1993), Herold (2001) proposed the philosophy of information as the epistemological base for LIS. Carlin (2003) posited that previous works about ethics in LIS focused on the challenges faced by librarians, on ‘existing codes of practice’ in the profession, and less on LIS Research. A survey by Kim (1996) and Powell (1999) revealed that LIS researchers borrow a breath of methods for validating research and handling ethical questions from other disciplines. See also Carlin (2003, p.4). Zwaldo (1997) indicated that LIS is a field that is simply too comfortable borrowing theory from other fields because of its inter-disciplinary nature. These methods also come with deontological and ethical implications.

Deontological considerations permeate the entire research process and have implications for selecting an appropriate method of investigation. Gergen & Gergen (2008) have argued that social researchers who objectivize tend to be self-centered and highlight the intellectual capacities of the researchers at the expense of the subject of research. This may be construed as value laden judgment that calls for revisiting the position of the researcher in his/her quest for knowledge. The main questions deontology attempts to answer deal with how the researchers handle bias, ethics, and moral issues associated with his/her work. There are writers who acknowledge that research cannot be value free and they choose to reflect on
the existence and perception of bias by readers. Other researchers fully admit to the inclusion of bias to the constraints of the field of studies. For example, Mies (1993) cited by Bryman (2004, p. 22) deferred to conscious partiality instead of value free or value neutral as acceptable practice within feminist writings. This case study embraces Mies’ understanding. In fact, it seems to invite bias (personal views) in its effort to close the understanding gap between the researcher and other participants.

The case of the CERDOTOLA reflects trends from an ideological viewpoint by including staff members in co-generating solutions. Indeed, practice-based research identifies an eminent issue in the practice and sets out to resolve it (Wildemuth, 2009). Another understanding that I propose here, one that matches this case, is that LIS practice-based research also attempts to understand a problem and to be sufficiently informed before taking the appropriate steps to answer it. This is a qualitative exploratory process. The deontological and ethical criteria that would apply to it would have to correspond to the method. In the data gathering phase that forms the basis of this study I addressed this question by resolving the issue of consent with the authorization of the CERDOTOLA’s organizational leadership and by disclosing the purpose of the study to all participants. Borrowing from participatory action research’s internal validation criteria (see Bryman, 2008; Denscombe, 2010; Greenwood & Levin, 2006), I submitted the data and a final report of a minor field study to the CERDOTOLA. This, for me, constituted partial validation. I made some reservations for the possibility of additional external validation by safekeeping the recordings of interviews, the reports about the site observations so that they will be available for further scrutiny. I do not assume that the results of this study will be fully reproduced by another researcher. This is a case study and by definition a unique occurrence that is not easily subjected to generalization (Denscombe, 2010). However, I make some provisions that my methods for data collection and my analytical process can be applied to a similar study in the future. Figure 4 depicts an LIS practice-based research paradigm delimitated by epistemological, ontological, and deontological considerations.

![Figure 4: ILS practice-based research paradigm (author’s graph)](image-url)
Like most research, LIS practiced based research is supported by a strong deontological foundation. The practicing LIS professional identifies an issues and attempts to resolve it by following professional ethical standards. However, the research process is guided by the way the researcher personally validate knowledge. The researcher may arrive at knowledge on his/her own or with the help of others. Or the researcher may choose the preferred path of a given discipline, i.e. quantitative deductive analysis or qualitative inductive reasoning. All these elements are present in this study about exploring the challenge in cultural digitalization at the CERDOTOLA. As practice-based study, the work relies on a qualitative and inductive epistemology. I believe that knowledge is co-generated; an idea that agree with Foucault’s (1977) view of discourse; a view that is equally in agreement with the social validation provided by the deontological underpinning of practice-based research (Greenwood & Levin, 2010).

3.3. METHODS

In this part of the methodology, I discuss the case study as research framework that uses semi-structured and unstructured interviews and a focus group discussion to gather information, and critical discourse as a means to analyzing the data.

3.3.1. Research design: the case study

Case studies are suitable research alternatives “when one is aiming at understanding organizations within a contextual framework, there are strong arguments for choosing an intensive and qualitative approach instead of an extensive and quantitative research strategy” (Audunson, 1999, p. 532). They have been produced in social sciences for many years and have often been associated with places such as the organizations that researchers hope to study in detail (Bryman, 2004; Denscombe, 2010; Choemprayong & Wildemuth, 2009). A case deals with a current event involving a person, a group, or an organization that is submitted to an in-depth examination in its natural setting Benbasat et al.(1987) cited by Choemprayong & Wildemuth (2009 p. 51-2). However, there always exists the possibility that the location of the case would move as the hypothesis evolves. Choemprayong & Wildemuth (2009, p. 51) considered the case study a research approach as opposed to a research design, given that different tools and methods could be used to collect and analyze data.

While scholars differentiate between various types of case studies (Yin, 2003), I retain that they have been used for a wide range of purposes in social sciences primarily to discover new information but also to test new theories (Denscombe, 2010), leaving in essence cases that are either discovery-led or theory-led. Discovery-led cases describe, explore or compare events. The description refers to what happens in the case, what type of processes take place and how they relate to one another. The exploratory case reveals opportunities and threats. Comparative cases take into consideration at least two events that are matched and contrasted. Theory-led cases tend to be explanatory (dissecting the causes and effects, the processes and observed relationships); illustrative (demonstrating the application of a given theory into a context); and experimental (testing change in order to observe variables) although this characteristic was excluded from Benbasat et al.’s (1987) postulates. This study of the CERDOTOLA is both discovery and theory-led. It investigates a current situation and tests the feasibility of a method for growing digital collections.
But case studies also come with a set of pitfalls. There is a historical tendency to associate them to a qualitative research (Bryman, 2008, p. 52-3), although Yin (2003) noticed that they could also be used for a quantitative research. In addition, it is sometimes difficult to differentiate between a case study and other types of research design (i.e. cross-sectional studies) that present the same focus but rely more on quantitative data analysis (Bryman, 2008, p. 53). In this type of situation, the reader may perceive the work as mislabeled and the researcher confused about the true nature of her/his study. Because the case study uses many tools and lends itself to a multitude of methods, it becomes possible for a case to be overpowered by its leading method (i.e. such as qualitative or quantitative); especially in mixed-method research. Case studies have also been criticized for their vulnerability to any generalization due to their inductive nature (Bryman, 2008). However, one of the criteria of the case study is uniqueness, hence the difficulty to generalize from singular findings and the need to revisit them for further validation (Denscombe, 2010, p. 63). What the critics of case study have implied is the inexistence of rigor and the need to pay close attention to the details. Finally, the findings of the case depend heavily upon the ability of the researcher to integrate data. To handle these issues, Choemprayong & Wildemuth, (2009, p. 52) advocated curtailing the research question to a natural setting and ascertaining that the events in discussion are current and observable.

Practical considerations in a case study research include the near impossibility to conduct research in a natural environment without effecting any change as evidenced by negotiating access to the premises, the personnel, and the documents. Also the observer or Hawthorne’s effect settles in as the investigator prologues his stay in the field (Denscombe, 2010). The observer effect indicates that observed subjects may alter their normal behaviors and affect the result of a study. Here, I attempted to mitigate both issues with a deeper involvement of participants in the investigation. I felt that is was necessary that I position myself as a “friendly outsider”. Greenwood & Levin, (2010) claims that the “friendly outsider” find himself in the position of reflecting on his actions during the research phase. He is both participant and observer. It is equally noteworthy to say that my personal understanding of the cultural environment of Cameroon because of my membership in a local ethnic group put a little more on the insider’s section of the figure.

This new paradigm also led to reconfiguring the research validity criteria according to participatory action research. In fact, the study relied on data obtained from a field study that was conducted based on a participative action methodology. During the field study, I consistently involved members of CERDOTOLA in gathering data, discussion and reviewing, and figuring out what would be the implication for their Documentation center. At the end of the field study, I produced a report that conformed to the conditions of the scholarship SIDA granted me. One of the conditions was to generate an end product (report) that could be used by the host organization (see Appendix 3). As a result, I consider that the data I am about to present here most reflects my own observations and not my action in collaboration with the CERDOTOLA’s staff. Therefore, I view this study as a qualitative case study. Whereas, some would choose to discuss the comparable characteristics of quantitative research in order to further explain the difference in the research framework, I personally feel the need to speak about participatory action research because a substantial portion of data I scrutinized here was produced with that methodology.
3.3.2. A word about participatory action research (PAR)

Participatory research is inductive qualitative research because of the possibility it has to generate theories out of research (Bryman, 2008). LIS literature provides examples of recent works based on qualitative analysis, i.e. White & Marsh (2006), and Mansourian (2010). For example, Shenton (2004) used qualitative data to study how an English school librarian handled information request. Bishop et al. (2003), Swantz (2008) and van House (2003) provide examples of PAR in various social settings. Bishop et al.’s (2003) is particularity noticeable because it deals with the development of digital libraries. Like any other qualitative methods, PAR has positive and negative side. For example, until recently, one did not know how to assess the results of qualitative studies because they were held in low esteem by the advocates of quantitative research (Denscombe, 2010; Givens, 2006; Wildemuth, 2009). PAR is considered an extreme among qualitative cases. By involving participants in the study, it embraces bias and poses a challenge to known quality assessment criteria (Greenwood & Levin, 2007). According to Bryman (2008, p. 377), there is a set of quality assessment criteria that apply to qualitative studies: credibility, transferability, dependability, and conformability.

Greenwood & Levin (2007, p.66) consider credibility and validity the social science researcher’s amulet that offers peace of mind in a sea of confusion. Credibility could also be termed respondent validation, and depends on the extent to which the members of the community that was studied agree with the findings of the study (Greenwood & Levin, 2007, p.67). This internal validity, already mentioned in the section 3.2, is supplemented by the ability to convince someone who did not participate in the study that the results are believable (Greenwood & Levin, 2007). The combination of external and internal validity fully authenticates the study. Transferability (generalization), as argued by Lincoln & Guba (1985), is based on the ability of the researcher to provide sufficient data that could be used and applied to the same situation or other cases at a further date (Bryman, 2008, p. 378). PAR deals with unique situations. The results from studying these situations are not meant to be generalized; only results knowledge generated and tested in practice are considered valid in participatory action research.

3.4. DATA COLLECTION

The thesis used secondary data from the literature (i.e. text books, journal articles, magazine, internet etc.) and primary data from semi-structured and unstructured interviews and group interviews, and focus groups, combined with observations during a period of 8 weeks.

3.4.1. Literature: Books, journal articles, online catalogues

An aspect of research that permeates this study is a constant recourse to written sources such as books, journal articles, magazines and newspapers constitute secondary data (Morgan & Wildemuth, 2009). The first three chapters of this study provide a general background as well as methodological grounding for the thesis. In the quest for appropriate sources of information, I linked the research questions to specific terms, i.e. memory institutions, cultural digitalization, documents, and challenges, change, etc. These terms needed to be explored in isolation and in relation with one another. The exploration was accomplished through a review of the literature on key concepts, theories, research paradigms, and examples of related works about collection development using PAR in LIS. I always kept in mind that
my main area of inquiry was “the institutional challenges in cultural documentation” within the realm of memory institutions. Combining keywords produced better results and allowed me to narrow the search area to LIS, when using terms such as library, documentation, or librarianship along with other search words. I was able to link the research questions to specific terms, i.e. memory institutions, cultural digitalization, documents, and challenges to name a few.

The Open Access Catalogs of Borås University (BADA) and the Swedish University of agricultural Science (EPSILON) offered the opportunity to look at academic works written about LIS subjects and various theories. Both Universities equally provided access to various electronic databases (i.e. LIBRIS, SCOPUS, LISA, ERIC, EBSCOHOST, WORLD of Science) containing e-books, full-text articles in magazines and peer-to-peer journals, or abstracts that could be accessed with simple Boolean key work search, and advanced search methods that allowed for stemming and truncation (Chowdhury, 1999). The CERDOTOLA’s library provided additional background material through its Documentation center. Internal documents such as the mission statements and various signed international agreements and conventions allowed for a better understanding of the institutional context of the CERDOTOLA. I also included internet press releases that informed about current events and operational changes at the CERDOTOLA that were helpful in building a general profile for my case. I also consulted documents at the national archives of Cameroon. However, the low level of access to electronic documents at the national archives of Cameroon did not facilitate access to official data pertaining to the development of LIS in the country. The most valuable part of consulting the archives (in Yaoundé) came from observation of the premises (see paragraph. 4 on site information). Most official citations originated from works produced by other scholars (Awasom, 2003; Bikai-Nyunai, 2005; Ngum et al. 2010; Balock, 2012, etc.). Additional historical data about the development of libraries in the region were acquired through UNESCO’s website, ABADCAM, or IFLA.

3.4.2. Interviews

Repsstad (1987) wrote that a researcher can handle a maximum of 30 qualitative interviews. This study stays below that threshold with 12 qualitative interviews: 10 individual interviews and 2 group interviews. This limited number of interviews helped manage the limited timeframe of my field research.

3.4.2.1. Selection of respondents

The study connects memory institutions to the digitalization of culture. The selection process was purposeful and looked for informants who had a background in either or both domains because I believe that they could provide useful information. Key informants were mostly LIS professionals. I defined LIS professionals as people working in libraries, archives, museums, and Documentation centers in the public or private sectors. The informants were selected based on work experience, the work they had produced in the context of repository development, or their involvement with cultural policies. The least experienced interviewee had been working in the field for 5 years. The most experienced interviewee had 30 years on the job. Appendix 12 presents the list of interviewees. Appendix 5 shows a sample follow up letter with a high value informant.
In Cameroon, librarians and archives are under the tutelage of the Ministry of Arts and cultures (Ministry of Art and Culture of Cameroon, 2013) and the informants had to understand the political and administrative landscape surrounding memory institutions. I did not attempt to create a gender balance with the demographics of the case, although I considered that the level of education was important in providing the picture of the landscape. All informants had a least a college degree. The informants with the highest educational level had a doctorate. I felt that these informants could provide us with greater insight into the inner workings of the institution. The first informant recommended additional people who she believed had a better grasp of the local LIS environment. It was certainly possible to obtain further insight with less educated and less experienced informants but that is a recommendation for future research.

3.4.2.2. Interview pilot

The pilot questionnaire was inspired by a review of Agre’s (2003) listing of 12 traps to conceptual design of digital libraries. I regrouped these traps in 4 distinct groups, i.e. culture, technology, economy, and politic/administration that also represented the coding scheme for the data received during the course of an interview. I also derived a fifth group that addressed institutional collaboration (see Appendix 6). Each group contained a set of questions about institutional challenges to DL development, if not the respondents’ attitude vis-à-vis the introduction of DL technologies. The rigidity of a classical (structured) interview was abandoned in favor of flexibility and focus on the main themes as indicated by semi-structure or unstructured interviews (Bryman, 2008; Denscombe, 2010; Luo & Wildemuth, 2009, p. 233). While the questions in the semi-structured interviews guided the accumulation of data, I considered the possibility that the interview process may drift from semi-unstructured to unstructured interviews, focusing more on the interviewee’s state of mind and his/her social interaction with the researcher (Zhang & Wildemuth, 2009, p. 222). This seemed unavoidable since semi-structured and unstructured interviews are very close the one another (Denscombe, 201, p. 175).

I tested the pilot interview with a document manager working in the private sector. She holds an advanced degree in librarianship and has been working in her field for over five years. The pilot interview lasted 30 minutes and led to pinpointing several issues. For example, although I endeavored to focus on LIS professional, I realized that I also needed to include non-LIS informants whose contribution level on any given topic would vary based on the amount of knowledge they possessed on the subject. I did not expect that information communication technology (ICT) workers in libraries will know all the contours of a librarian’s daily routine or librarians who are not trained in archival sciences would be fully versed in cultural documentation or preservation. Nor did I expect that an amateur archivist could discuss the intricacies of converting analog documents, voices and image streams into a digital format. This posed a special problem in the broad cultural domain. So, I decided to view culture-laced questions in relationship to (technology) change in the organization where the interviews took place, or other sites that I visited during the field study. I had to consider an aspect of the CERDOTOLA’s mission statement that stressed documenting local cultures and the constant link to my research objectives. Finally, I realized that informants who

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5 Decree N° 2005/177 of May 27th, 2005 mandated the reorganization of the Ministry of Culture of the republic of Cameroon and the creation of the direction of the National Archives. Decree N° 2008/2750/PM of November 12th, 2008, issued by the Prime Minister of the Republic of Cameroon nominated of a director of National Archives the Prime Minister of the Republic of Cameroon.
worked on a daily basis with documents, archives, and culture would be more suitable to answer cultural questions.

3.4.2.3. Conducting interviews

I contacted interview candidates by telephone and via email. When I encountered them, I gave them a copy of the SIDA and Borås University’s introduction letters, and CERDOTOLA’s acceptance letter. I re-introduced myself and further explained the reason of my visit. Finally, I obtained verbal consent to conduct the interview and promised confidentiality whenever it was requested or insinuated. The semi-structured and unstructured interviews took place at the respondents’ sites and during pre-arranged field trips. The literature indicates that in spite of some problems associated with these data collection methods (i.e. gaining the trust of informants, controlling the interview process and analyzing data), semi-structured and unstructured interviews have been successfully used in LIS research. See Cobbledick (1996) in Zhang & Wildemuth (2009; p. 227-228) for unstructured interviews and Hara et al. (2003) in Luo & Wildemuth (2009, p. 237-238) for semi-structured interviews. I allowed for serendipity during the field trips and jumped on any opportunity to conduct group interviews, whenever that was possible.

For example, one scheduled face-to-face interview with a respondent in the city of Buéa developed rapidly into a group interview at her behest. She wanted to be assisted by colleagues who could provide additional information when needed. In this situation, instead of following the slightly more rigorous format of the semi-structured interview, I drifted into the unstructured format where I could focus on key themes extracted from the pilot. I had another experience when I conducted my first interview at another site in the same locality. My face-to-face scheduled exchange with an informant suddenly developed into an informal group discussion. The findings were interesting and impossible to dismiss. I was faced with the dilemma of considering this impromptu session as a methodologically correct interview. Consequently, this experience is reflected in the appendix that corresponds to the site observation. I had a similar experience in the city of Douala where a scheduled one-on-one interview was transformed into a group interview. I faced a far lesser dilemma since all participants agreed to the new schema. In these two cities, interviews were either preceded (Buéa) or concluded (Douala) with a tour of the facilities. Most notably in Buéa, one interview took place while touring the premises. As a result, site observations became a welcome supplement to the interviews and, like Denscombe (2010, p.173), I did consider them valuable in contributing exploratory data to the research.

Acknowledging that I am not an efficient note-taker, I did not take notes but settled on recording dialogs with an Olympus NP 700 voice recorder that had no interface to a computer. Later on, I transferred portions of the interviews onto my desktop computer. All interviews started by collecting basic demographic data from the interviewees, i.e. title, profession, tenure, etc. Questions directed at LIS professional focused on the general perception of their functions by colleagues and outside communities; a description of their work, and appreciation of the evolution of librarianship towards a more developed digital space. Archivists, for example were asked about the state of cultural digitalization, and about the challenge of cultural digitalization. Other non LIS interviews were questioned about their work or life experience in connection with cultural documentation. One informant, a guide during our field trip, did not have a direct link to the topics. In general, all individual interviews lasted 30 minutes to 1 hour. Group interviews lasted 90 minutes on average. Whenever a guided tour was associated with the interview, the interview lasted 1 hour on
average. One interview was completed in two occasions, due to the informant’s schedule. Another respondent declined to be recorded. His contribution is included in the site observation.

3.4.3. Focus group

I organized a single focus group discussion in order to explore the possibility of a participatory framework for collection development at the CERDOTOLA. Powell and Single (1996) defined a focus group as “a group of individuals selected and assembled by researchers to discuss and comment on, front personal experience, the topic that is the subject of research” (in Wildemuth & Jordan, 2009, p. 242). There are recorded focus group studies in LIS research. See Large et al. (2002) or Shoaf (2003). The main issues associated with focus group discussion is selecting a venue, recruiting appropriate participants, and recording the data. The forum was a result of a negotiation started by two people; a researcher (myself) conducting a field study on cultural digitalization and an individual engaged in documenting his culture in the context of his ethnic group: the Bafou people of West Cameroon. The realization of the focus group was facilitated by a member of the Bafou community employed by the CERDOTOLA. It took two face-to-face meetings, several phone calls and email exchanges to set up a focus group discussion. Focus group are placed somewhere between meetings and conversation (Agar & McDonald, 1995) with a key characteristic that participants can compare their views the each other and are able to produce rich (observable) data, create a learning environment and generate new ideas (Wildemuth & Jordan, 2009, p. 243). Finally, combining focus groups with other methods (i.e. interviews) could help generate better results (wildemuth & Jordan, 2009).

3.4.3.1. Selection of participants

I divided participants between members of the CERDOTOLA (LIS professional, researchers, and or staff members) and representatives of the Bafou ethnic group. The selection of CERDOTOLA’s participants was relatively easy as it included four active participants: a moderator, a staff researcher, the document center manager, and a finance officer. The technologist and cameraman videotaped the event. A researcher who had been involved in cultural documentation and very active in field data collection did not come due to a personal emergency. The selection of an ethnic group was a bit problematic.

My personal research about cultural groups using social media networks reveals the interest of a specific ethnic group from Cameroon in sharing their culture on Facebook. As a member of the ethnic group and in my capacity of administrator of one of the ethnic group’s discussion forum I was able to produce a qualitative content analysis paper (Ngwee, 2012a) and quantitative content analysis study (Ngwee, 2012b) of discussion threads and pictures that seemed to convey a cultural message linked to information sharing on Facebook. I also anticipated future research on a similar topic (Ngwee, 2012c). The intention was to contact them first. However, during an initial site visit to the village of Fotoh in the heart of the Bafou kingdom where I intended to conduct my first interviews, I met a young man who held a small collection of videos of cultural events he had filmed and kept on his computer (see Appendix 11). He explained that he was not the only one gathering this type of materials. I filed his initiative as a small scale cultural documentation and drew a connection between his work and the CERDOTOLA’s mandate. Later, I learned that an employee of the CERDOTOLA came from the same region. He provided me with a reason to approach the representatives of the Bafou community in the city of Yaoundé on the subject of developing a digital repository of their culture.
The participation of the Bafous in the focus group is only a consequence of several weeks of negotiating with them. The Bafou group was highly diversified in spite of all apparent homogeneity. Representatives of the Bafou community were selected because of their online activities through www.bafou.org, a website that discusses the Bafou community issues and promotes their culture, and their attempts to build a digital library. Representatives of the Bafou community personally selected candidates they thought could defend their interests. They included several members of the Bafou royal court, noted scholars, and social activists and students. One third of the participants were females of different social ranks. Bafou.org proposed an initial list of 19 participants; 15 were present the day of the event; only seven actively participated in the debate.

3.4.3.2. Selecting venues

The discussion took place at the CERDOTOLA’s headquarters. The venue allowed me to control the environment. The facility was equipped with filming and recording tools, and a technician that could produce videos that were used in the analysis. During the initial discussion, the Bafous had proposed to have the meeting in their Kingdom, at Bafou. I finally settled for CERDOTOLA. CERDOTOLA offered snacks and drinks. The participants covered their own transportation costs.

3.4.3.3. Designing and running the group discussion

The theme of the forum was the preservation of culture with ICT Tools. The prime objective of the forum was to evaluate the possibility of researchers and members of specific ethnic groups to collaborate in building a digital collection of cultural documents. The gathering was more about fact finding than providing solutions and represented an ideal occasion to test an institutional participative framework for collaboration in cultural digitalization with a local ethnic group. All participants were made aware of this objective. I drafted the program of the forum and proposed it to the representatives of both organizations a week before the event. They reviewed and amended it to the satisfaction of all the participants. The topics were grouped under two main themes: cultural sensibility and personal initiative, and dialog for institutional documentation initiative that lasted 1 hour and 30 minutes each (Appendix 13). I acted as moderator for the forum and had a list of questions that reflected the themes of the group discussion. The questions were posed to the audience and anyone could answer. It was suggested that a friendly exchange between the groups would follow a question and representatives of the Bafou community could also ask questions to the CERDOTOLA’s personnel in attendance.

3.4.4. Site observations

Site observations are integral parts of the field study and provide visual data that could be used to complement interviews (Bryman, 2008). The study took us to five cities, Yaoundé, Dschang, Buéa, Douala, and Edea where I interviewed people. I will not provide a full description of these localities. However, I only included observations from the sites I visited in these cities and that I thought would be relevant for the study (see Appendices 8-10). Our primary site was CERDOTOLA’s HQ and its Language Laboratory in Mvan where the reading rooms present the characteristics of academic libraries. I conducted interviews at the University of Buéa, Douala and Yaoundé I. In Douala and Buéa I was offered a guided tour of the premises. I also had the opportunity to tour the national archives in Buéa and I spent an afternoon doing research at the national archives in Yaoundé. I also spent two entire research
days at the library of the faculties of letters, social sciences of Yaoundé University I, due to renovation taking place in the central library. During the site visits, I was interested in the design and layout of the premises; the state of the libraries (bookshelves, classification schemes; the presence of modern technologies such as computers, printers, etc.). This observation was combined with how people behaved on these sites; the attitudes of staff the areas I was allowed to visit. It is to be noted that the people I interviewed on these sites were trained LIS professionals, i.e. librarians, archivists, and document managers.

3.5. DATA ANALYSIS: FOUCAULDIAN CRITICAL DISCOURSE

Discourse analysis is used to comprehend the way in which individuals express the reality in which they live, and the manner in which they construct and cope with their world (Fairclough, 2003, p.2). The analysis of discourse has been influenced by Wittgenstein’s and Austin’s beliefs that language (written or spoken) creates reality (ibid) and latent meanings that often go overlooked (see Fairclough, 2003). In the study of society and technology, the creative power of words results from a communicative exchange between people and is not an isolated event in the individual mind (Tuominen & Savolainen, 1997); a thought owed to Habermas (Buschman, 2010), Bourdieu (Hussey, 2010) and Foucault (Olsson, 2010) who reviewed the communicative effect of language and saw in it more than a tool, with conversation as pre-requisite, for constructing reality and generating knowledge that reflects many different perspectives (Tuominen et al., 2003). Per Bourdieu, the way individuals shape and view themselves, the societies in which they live, and their places in these societies often happens unconsciously (Hussey, 2010, p. 42).

Discourse analysis does not need to be based on a large volume of data and could be successfully completed with little but rich information (Fairclough, 2003). I use data from 12 interviews in this study, a focus group discussion, and field reports based on what I observed. A report was written after each field trip into a major location. Link (1983) in Jäger & Maier (2009, p.35) conceived discourse as determining actions through shared meanings, and as such an exercise of power. According to Jäger & Maier (2009), Foucault’s critical discourse analysis, which is a method for analyzing how people utilize words in order to define and construct their living environment, targets four (4) major areas:

1) The conception and validation of knowledge;
2) The origin and transmission of knowledge;
3) The instrumentation of knowledge;
4) and the consequence of knowledge in shaping and developing society

Knowledge can be defined as “all kinds of content that make up a human consciousness [...] all kinds of meanings that people use to interpret and shape their environment” (Jäger & Maier, 2009, p. 34). To Foucault, knowledge is situated within a cultural context from which it originates and it is intrinsically linked to power, and discourses constitute “practices that systematically form the objects of which they speak” (Foucault, 2002, p.54).

The general model of my analysis incorporates the four steps mentioned above. I also depict it in Figure 5.
First, I isolated the topic of discussion (i.e. digital libraries/repositories or Documentation center development, etc.); second, I looked at the local understanding (origin and transmission of knowledge) of DLs; third, I reviewed the manner in which they have been implemented (instrumented) locally through the eyes of select stakeholders, and, finally, from the preceding steps, I reviewed the consequences of the local knowledge of DLs on local memory institutions. My application of critical discourse analysis starts by linking Philip Agre’s text on information and institutional changes in DLs (Agre, 2003) to the four areas of Foucault’s discourse in the manner proposed by Jäger & Maier (2009, p.35).

The analysis takes an empirical turn by focusing on the local community and a specific organization in the following sequence:
1) First, giving due consideration to the topic of DLs and collection development, I isolated 5 main discursive planes (Foucault, 1996, p.394) from the 12 conceptual (analytical) traps listed by Agre (p.223-227): culture, economy, technology, administrative/politics, and institutional cooperation (Appendix 6).

2) The resulting discursive planes become the main categories for the questions and themes of the interviews and the discussion group. However, these categories did not appear in an orderly or systematic fashion in the course of the interviews. They were rather guided by themes that identified them in various discursive strands (text fragments, sentences, keywords, etc.).

3) I extracted the discourse strands or concrete utterances linked to context (Foucault, 2002) and fragments (texts) from the interviews and reviewed them in light of identified discursive planes. Through this exercise, I hoped to generate an understanding of DLs as socio-technological tools and their place in the local institutional field of libraries.

4) In the origin and transmission of knowledge, I looked at information provided by the two main groups I have approached in this study (i.e. LIS professionals and representative of the Bafou ethnic group) in relation to the CERDOTOLA.

5) In looking at meanings each group assessed to its own understanding of DL technologies. I compared and contrasted these meanings and searched for common points or apparent contradictions between what was said and what was observed in the field.

6) Interview results were combined with observational data from the field (non-discursive practices and material representations) that were used as a triangulation tool in support of Foucault’s critical discourse analysis method (Jäger & Maier, 2009). This step enhanced the credibility of analysis. It also allowed me to look at how power is applied in the local context and reflected in various local memory institutions, including the CERDOTOLA.

7) Finally, I looked at emerging discursive planes and discussed potential social and institutional impacts in a revised apprehension of DLs and any practical actions in light of the priority of analysis.

Conceptual (analytical) traps in the priority of analysis were given an important role in this study because concepts “define the criteria by which the technical and institutional systems are evaluated” (Agre, 2003, p. 222). Consequently, a mental representation of the key characteristic of DLs should be based on a clear understanding of what they are and how they could possibly impact the societies where they are being deployed.
4. RESULTS

This section presents CERDOTOLA within the context of librarianship in Cameroon. It also introduces the Documentation center as unit of analysis, its mandate and recent actions in the region. It provides a summary of primary data summaries.

4.1. EMPIRICAL BACKGROUND

4.1.1. The CERDOTOLA’s abridged history

UNESCO tabled an agenda on cultural policy for Africa during its 17th general assembly, October 17th to November 21st, 1972 in Paris, France. Resolution 3.313 of the national assembly that framed a global cultural policy that defined and classified cultural heritage into various categories (www.unersco.org, 2013) started a process that led to creation of the CERDOTOLA. Six African countries (Burundi, Cameroon, Congo, Central Africa Republic, The Democratic Republic of Congo, and Chad) signed a convention and became the CERDOTOLA’s founding members (www.cerdotola.com, 2013), and UNESCO’s partners in the preservation of regional cultural heritages. The CERDOTOLA is therefore a consequence of UNESCO’s 1972 convention and Recommendation no. 4 of the organization of African Unity’s (OAU), the predecessor of the African Union (AU), at the interstate conference on cultural politics of 1975 in Accra, Ghana. It was created on August 25th, 1977 with the ambition to expand into Angola, Sao Tome & Principe, Rwanda, and Equatorial Guinea. The Republic of Cameroon agreed to have its headquarters located in Yaoundé in 1979 in a convention that was ratified by the organization and the host county, and known as presidential decree no. 80/204 of June 10th, 1980 (www.cerdotola.org, 2013). The CERDOTOLA was very active the decade following its creation (1978 to 1988). It showed a low level of activities in the following decade due to a global economic crisis that affected all member countries. It re-emerged in 2004 with the help of the Cameroonian government in support of the 2005-2006 Emergency Plan to revive the study of culture in the region. Finally, in 2007, with the approval of the CERDOTOLA’s governing Council, the Center published its revised Master Plan or “Scientific Project” for 2007-2011.

4.1.2. Centers of Activities

The CERDOTOLA had two missions at the moment of its creation: to research and document oral traditions, and to contribute to the development of African languages. These axes include the following subcategories of activities according to Prof. Binam Bikoi (n.d.):

1. The coordination of regional projects and cooperation with national research institutions
2. Fostering cooperation between national and regional institutions
3. Facilitation of scientific research in oral traditions and regional language development
4. Human resources and competence development
5. Equipping and offering technical assistance to national research center
6. Ensuring the reception, exchange and movement of scholars within member countries
7. Developing the means for collecting, studying, preserving and disseminating oral traditions
8. Fostering cooperation between researchers and the artists
Today, these activities are carried out autonomously or in collaboration with other research organizations/institutions and governments. I list partnerships with the Observatory for Cultural Policy in Africa (OCPA), the Center for Black African Arts and Civilizations (CBAAC), The International Center for Bantu Civilizations (CIBIBA), the African Academy of Languages (ACALAN), the Center for Linguistics and Historical Studies of Oral Traditions (CELHTO) and UNESCO (www.cerdotola.com, 2013). In addition to these partnerships, The CERDOTOLA contributes to educational programs by offering internships to national and international students, hosting conferences and workshops, collaborating with various government administrations (ministry of Higher Education, Arts and Culture, etc.), and co-producing cultural events that fall within the scope of its mandate. Presently, CERDOTOLA carries out several research projects (i.e. mapping the linguistic atlas of the sub region) in accordance to listed items ‘7’ and ‘8’ that aim to document various oral traditions in the region. Yet these projects present little evidence of inviting the concerned populations to contribute appropriate documentation to CERDOTOLA’s Documentation center. And so, well nested within a paradigm of inter-institutional and interstate collaboration, CERDOTOLA’s actions still fail to clearly demonstrate a participatory approach that increases the involvement of the local communities in building cultural collections that could greatly enhance its databank.

4.1.3. Organizational structure

The CERDOTOLA is supervised by an administrative board composed of representatives from member countries and is managed by an executive secretary who is appointed for two 4-years terms. I could not retrieve any formal documents that outlay the CERDOTOLA’s organizational chart. The information presented in the following graph is derived from observing the site during a two-month interaction and discussion with employees, and their own description of their workplace.

- **Executive staffs:** Executive director and financial and administrative director
- **Manager:** Head of documentation
- **Other staff:** Technology personnel, 1 web support, 1 marketing and communication.
- **Research:** Four research consultants
- **Support staff:** 1 executive assistant and one Head of protocol.

The financial and administrative director assumes the interim in the absence of the Executive Secretary.
4.2. The CERDOTOLA’s LIBRARY

This section introduces the Documentation center, the digital library management software Greenstone, as well as realized and anticipated collection development initiatives.

4.2.1. The Documentation center

Document center and library are used interchangeably. The library is managed by one trained professional. At the time of the study, library collections were found in two buildings in the city of Yaoundé. A larger collection was located at the CERDOTOLA’s Headquarter in Bastos. A small collection was found in Mvan. Both structures have reading rooms and internet access, and are centrally managed from Bastos. The documentation manager is sometimes assisted by students (interns) from the Superior School for Sciences and information Technologies of Cameroon (ESSTIC). These interns assist in updating metadata and sorting out documents. Books and journal collections are managed with the open source digital library management software (DLMS) Greenstone and interfaced with the web. Website management is outsourced to a local web designer. The site is maintained and constantly updated by a staff editor who doubles as a marketing and communication specialist.

The Documentation center is a hybrid library. It contains physical documents and a nascent digital collection which is primarily made of bibliographical reference data. Chowdhury (1999) recognizes three categories of information that may be required by an organization. The first is factual information such as the contents of the databases. The second
is bibliographical information which is typically textual and includes enriched metadata, sometimes full texts and abstracts. The third is institutional information that may be subject to restricted access (Chowdhury, 1999, p. 25). These categories of information are present in the Documentation center. However, I will limit presentation to digital materials only.

- The online catalog contains 600 distinct titles. The metadata for this collection is well developed, structured, organized, and is accessible online, through GREENSTONE Interface.
- The video collection includes 11 clips. Six of these clips are related to a single conference and the rest are linked to current events. The clips are not accessible through the DLMS and not managed through the library but by the photographer and video technician who is directly responsible to the finance director.
- The photo collection contains 95 images depicting various cultural scenes, i.e. fisherman, marketplace, plantation work, traditional festival, etc. These images are also not available through the DLMS and not managed by the librarian but by the photographer and video technician.

These three distinct collections come with a decentralization of responsibilities. The purview of the library manager appears limited to prints and their digital representation in GREENSTONE DLMS. This situation is at odds with Levy’s (2003) understanding of document representation in the form of print, audio, videos, etc. However, the representation agrees with Ranganathan’s perception that documents are anything in a written form (Levy, 2003.) While the CERDOTOLA offers onsite access to written materials, it does not provide the visitors access to research computers. However, those who own a computer or Laptop are able to access the online catalog via WiFi.

4.2.2. GREENSTONE: Digital library Management Software (DLMS)

GREENSTONE is an open source DLMS “produced by the New Zealand Digital Library Project at the University of Waikato, developed and distributed in cooperation with UNESCO and the Human Info NGO” (www.greenstone.org, 2013). UNESCO and Human Info NGO work together to empower organizations and institutions to build DLs. They also encourage sharing information in the public domain (www.humaninfo.org, 2013; www.greenstone.org, 2013). GREENSTONE is relatively easy to use software. Files are downloaded online, uploaded on any computer, and unzipped on the desktop. Once installed, the DL manager can start building his/her collections. The software is available in many languages and there is an entire community that supports its development and offers assistance through blogs and Wikis. Wikis are web applications used by people to generate and modify contents in cooperation with other (Barsky & Giustini, 2007). GREENSTONE comes with a list metadata schemes (i.e. Dublin Core, MARC, Dewey, etc.) And the librarian in charge of the document and classification only needs to choose which one is appropriate for his/her organization. Once installed, GREENSTONE interfaces with the internet. Users who possess the right tools will be able to search the catalog and local existing resources that have been catalogued. GREENSTONE has recently been introduced at the CDC. At the time of study, CDC was still expecting its first batch of digital full-text documents.

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WiFi are wireless technologies that allow mobile devices to exchange data using radio wave frequencies. The WiFi alliance (www.wi-fi.org) defines it as a wireless local area network.
4.2.3. Collection development

The CERDOTOLA collection focus on the study of civilizations, practices and traditional techniques, immaterial culture and traditional knowledge, conviviality and social ethics, language for development and the history of the people of Central Africa (www.cerdotola.com, 2013). The following table presents a linguistic composite of the areas where the CERDOTOLA operates. The first 6 columns mark active member countries and their respective demographical data. The remaining columns represent the direction of expansion of the CERDOTOLA in its effort to document regional cultures. The data were produced by Lewis et al. (2013) and retrieved from www.ethnologue.com

Table 2: Linguistic composition of the region based on Lewis et al. (2013)

<table>
<thead>
<tr>
<th>Countries</th>
<th>Cameroon</th>
<th>Chad</th>
<th>Congo</th>
<th>DRC</th>
<th>Burundi</th>
<th>RCA</th>
<th>Equatorial Guinea</th>
<th>Gabon</th>
<th>Angola</th>
<th>Sao-Tome</th>
<th>Rwanda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>17,646,000</td>
<td>11,227,000</td>
<td>3,077,000</td>
<td>6,870,000</td>
<td>7,305,000</td>
<td>3,057,000</td>
<td>693,000</td>
<td>1,208,000</td>
<td>19,082,000</td>
<td>136,400</td>
<td>3,124,000</td>
</tr>
<tr>
<td>Language Status</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>Institutional*</td>
<td>11</td>
<td>16</td>
<td>21</td>
<td>28</td>
<td>48</td>
<td>43</td>
<td>34</td>
<td>28</td>
<td>14</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Vigorous**</td>
<td>106</td>
<td>53</td>
<td>36</td>
<td>155</td>
<td>48</td>
<td>28</td>
<td>12</td>
<td>3</td>
<td>16</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Developing***</td>
<td>96</td>
<td>38</td>
<td>17</td>
<td>33</td>
<td>17</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>10</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Threatened x</td>
<td>43</td>
<td>19</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Dying xx</td>
<td>24</td>
<td>10</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Dead xxx</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
<td>133</td>
<td>62</td>
<td>202</td>
<td>72</td>
<td>41</td>
<td>39</td>
<td>41</td>
<td>39</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

* Widely used languages including official Languages (Such as French and English)
** The language is used for face-to-face communication by all generations and the situation is sustainable.
*** The language is in vigorous use, with literature in a standardized form being used by some though this is not yet widespread or sustainable.
x The language is used for face-to-face communication within all generations, but it is losing users.
xx The only remaining users of the language are members of the grandparent generation or older who have little opportunity to use the language.
xxx The language is no longer used and no one retains a sense of ethnic identity associated with the language.

Table 2 only demonstrates that there exists a possibility to gather documents from highly diverse sources cut across many linguistic lines in 11 countries. The cultural range of these countries (based on language count) varies from 3 to 286 languages, with Cameroon accounting for most. Half of the countries represented in the CERDOTOLA’s activity pool speak 51 languages, which represents the median of languages spoken by the CERDOTOLA’s members. While the table does not tell us which ethnic groups are represented in the Center’s collections, it still accurately represents the CERDOTOLA’s operational range. Given the current organizational set up, it is difficult to provide a detailed account of the documents related to specific cultures or to indicate which of the local or regional culture is represented in the organization’s documentation bank. What is known is that the present physical collections are not limited to African heritage. Visitors can retrieve documents about cultures from other continents. These documents would interest scholars or researchers who focus on the study of comparative cultures. After all, the CERDOTOLA is and remains a research institution (www.cerdotola.com, 2013). Finally, the CERDOTOLA’s documents are organized using a mixed classification system (MARC and DEWEY); by subject (i.e. history, geography, sciences, etc.) and for better digital bibliographical control. The library is built to imitate or conform to how other local academic libraries organize their documents.

Prof. Charles Binam Bikoi, Executive Secretary of the CERDOTOLA, announced in 2012 the beginning of a project to digitalize theses written on African cultures and traditions at the University of Yaoundé I (UYI), in Cameroon. The project was initiated by CERDOTOLA’s library manager, Mrs. Sophie Etame. It is supposed to become one of the largest OPACs in the region and it will be managed with GREENSTONE. Most academic works that have been produced at the university are still not digitalized, documented, or
archived. This project represents the largest electronic documentation initiative in the Central Africa. It involves at least one university in each member state and the collaboration of the Brussels Free University. The CERTODOLA has provided equipment (computer, scanners, and electronic binders) to participating university libraries. The project rejoins other cultural documentation projects that help grow the CERDOTOLA’s collection.

4.3. EMPIRICAL DATA

Field data collection accounts for 10 direct face-to-face interviews, two group interviews with 2 and 3 participants respectively, and a focus group with 12 active participants. The following summaries are not presented in a chronological but by regions and sites visited. Dschang is a site that was visited twice but it is not included into the summaries because I believe that the site had less in common with the CERDOTOLA’s Documentation center, the archives, and other academic libraries I visited. Consequently, the data I gathered in Dschang are folded into the focus group discussion in order to strengthen the data I garnered from representatives of Bafou.org who originate from that region.

Table 3: Summary of data collected

<table>
<thead>
<tr>
<th>Summary table of data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
</tr>
<tr>
<td>Cities</td>
</tr>
<tr>
<td>Sites</td>
</tr>
<tr>
<td>Observations</td>
</tr>
<tr>
<td>Interviews and conversations</td>
</tr>
<tr>
<td>Interviews*</td>
</tr>
<tr>
<td>Group interviews*</td>
</tr>
<tr>
<td>Focus Groups</td>
</tr>
</tbody>
</table>

The star-marked items represent the actual number of interviews (12) that are reviewed in the analysis section. Sites visits, observations, and informal conversations are used to triangulate the findings of these interviews. They constitute an integral part of a simultaneous dispositive analysis (Jäger & Maier) that reviews non-discursive practices as well as the material constructions in which they occur.

4.3.1. Interviews’ summary

Appendix 8 presents a full tabulation of the field research. In includes a list of all the sites I visited, all the interviewees I conducted, all informal discussions I had with people in the field. This section presents interview data from three major locations: Buéa, Douala, and Yaoundé.

4.3.1.1. Buéa

I interviewed 4 people at national archives in Buéa: a manager, a staff member working on a digitalization project, and an independent project manager. The interviews lasted 1 hour 30 minutes and included a site tour. Two (2) additional individual interviews were scheduled at Buéa University Library (UBLIB): a one-on-one, face-to-face interview and a group
interview. The face-to-face interview was semi-structured. The group interview was unplanned, opportunistic, and unstructured. Both interviews lasted a combined 2 hours and included a site tour. The people I interviewed in Buéa believed that anything could be documented and preserved. The main requirement was to have the appropriate technology, the know-how to complete the project, and the financial resources to carry it through. They stated that combining all three elements could lead to profound change in an organization. Informants at the national archives and at the library explained that it is not easy to document and digitalize materials. The process requires a team of people with various skills. A University of Buéa informant stated that he did not know much about a librarian’s work and that his colleagues have different professional foci. However, they share the common purpose of creating a better library and providing better services to the communities. The same idea was echoed at the city’s national archives. The archivists acknowledged the need to have the skills to carry out digitalization projects given that the overarching purpose is to create better collections.

The archivists who worked on cultural digitalization projects stated that it is necessary to understand internal organizational structures, actual classification schemes, issues and challenges of the workplace. They mentioned that there are requirements for creating a system that could be successfully linked to the outside world. They also claimed that they could retrieve any document in their collections within three minutes, which is something that could not be done in the recent past. An informant at the library and an independent project manager, who work on the photo archives, agree that the work was cumbersome, tedious, and needed to be done right in order to bear good results. However, the independent project manager stressed the importance of having the right administrative (political) support. I was also informed that automation was important at both sites. Library staff stopped classifying documents manually, ensuring better control over the resources and better bookkeeping. Learning from his study abroad, the informant implemented a card system granting the students access to library resources. The process was initially outsourced to a local technology provider who designed and produced student ID cards/badges. The badges took 90 days to complete and were often delivered with mistakes. The students could not use them. It was not unusual to see a student completing a term without a library badge. The library cancelled the outsourcing contract, took over the operation, saved money, and improved operating cash flow. The economic impact of change at the national archives was associated to digitalization. Documents needed to be preserved before the visitors or the elements, i.e. lights, humidity, dust, destroyed them. The archivists complained about the light, the ambient temperature, and the nature of the equipment.

I learned that the national archives’ access card is still produced manually and does not have a barcode system that could be linked to the resources in order to provide better tractability. Both locations expressed their concern for the control and centralization of resources as ways to provide accountability. The interviewees mentioned that the lack of technology could be translated into a lack of financial oversight. Automation made it difficult for income to line the pockets of unethical employees. However, the absence of automation hardly translated into the organization’s unwillingness to reform. Informants at both sites stressed their dependency on the central government, its funding schemes and process for selecting projects, and the people appointed to lead them. They said that motivated people are required in higher places. I heard stories of staff working for years without salaries. A local scholar I encountered while visiting the archives, opined that the degree of neglect was due to the lack of financial resources on one hand. He added that, on another hand, it was due to the lack of initiative to drive people to read and/or to visit the office of the national archives. I
also learned that the national administration issued proclamations about changes that materialize only very slowly, especially in the provinces. An informant mentioned that there was a time when a simple request of student interns was approved with a three months delay. Another informant remembered being initially denied an air conditioner for the library servers he kept in his office. He also recalled some staff members’ unhappiness about the change from a manual to an automated system.

4.3.1.2. Douala

I conducted a single individual interview at the Regional Direction of the Ministry of Arts and Culture of Cameroon and an impromptu group interview with 2 library staff members at the University of Douala, and a former employee of the same department. The interview led to a library tour and 1 1/2 hours socialization session in the librarians’ common work office. The interviews approximately lasted 1 1/2 hours each.

I learned from our informant at the regional direction of the Ministry of Arts and Culture that the (national) government actively pursues and finances cultural digitalization projects. He cited official texts and policy written by the national government. He also added that, on the matter of cultural heritage, administrators work with traditional leaders who have the rank of government representatives in their respective communities. The subject of administrative support, centralization, and control came during the group interview. Some respondents declared that in theory, the administration pursues a policy of cultural preservation in collaboration with the people but that is hardly the case in practice. They mentioned that individual administrators were selective in their choice of projects based on political allegiance of the project owner(s). Administrators do not always support the involvement of opposing traditional leaders in projects that could enhance these leaders’ credibility and popularity. The group interview also revealed that there is an atmosphere of distrust and non-participation among the local population towards the traditional elite and the government. As a result, it is very difficult in some regions to rely on tribal rulers to assemble the populations around a good cause.

I learned from the group I interviewed, that interesting projects are carried out by foreign actors and non-governmental organizations in all sectors. They mentioned that the foreign actors and NGOs are perceived as being neutral, harmless, and apolitical. The interviewees also exposed the problem of administrative competences. While our informant at the regional office stressed the fact that the government is always trying to get the right people at the right place in order to elevate the importance of local cultures in the eyes of the populations, other LIS interviewees stated that the right people were not always appointed to the right place. They also said that promotions were associated with rewards for services rendered, and sometimes that had nothing to do with professional competences. They were unanimous in saying that in their profession, one takes the job that is offered. A consequence of this situation, they said, is that administrative leaders who are not trained in LIS responded very slowly or not at all to the urgency of the profession although trained professional sometimes exhibited the same behavior. They pointed to their workplace as a consequence of this decision making process (Appendix 9).

When the issue of technology came up, informants at both sites reminded me that if I saw any technological items in their offices, it was because they had purchased them with their own money. The informant at the regional direction of the ministry of culture mentioned that they still expected him to complete his work manually and send data back to the central office in the capital (Yaoundé) where it will be treated and sent back to him. At the university,
they mentioned that they were still waiting for an electronic system to files all the theses found on the staircases and in the corridors. When I brought up the success story of the University of Buéa, they quickly attributed the implementation of a different administrative structure that provided the University of Buea’s library with representation on the university’s administrative board, which authorized the Head librarian to initiate change. They mentioned that such was not the case in their institution or any other French speaking University of the republic. Some viewed libraries and archives as places of exile. On the subject of introducing or using technology such as the internet, computers, and mobile phone, the interviewees believed that nothing had been thought out and planned. They claimed that people had internet but they still did not read; they had cell phones but did not know how to use them. They believed that a multimedia center in the library would not necessarily translate into accessing library resources.

4.3.1.3. Yaoundé

I conducted 2 formal interviews with CERDOTOLA’s staffs, 1 interview at Yaoundé University I, an interview with a private cultural entrepreneur, an interview with a person responsible for programs at Cameroon Radio Television (CRTV), and the pilot interview with a document manager working at quasi-public corporations. Each interview lasted approximately 45 minutes; the art gallery interview was done on two different days and lasted 2 hours.

I learned about an ongoing restructuration project at the Central library of Yaoundé University I, due to a problem of space. The library started experimenting with electronic resources in 1992. In 2000, the university entirely stopped using a manual system for organizing data. The change began with the introduction of CDS/ISIS a document management system developed by UNESCO (www.unesco.org, 2013); it was replaced by WinIsis, the windows compatible version, and now Pour Ma Bibliothèque (PMB) which is a French document management system. These are freeware. The university has also been involved in a pilot project to digitalize theses with The Institute of Agricultural Research for Development (IRAD) of Cameroon. The informant said that when the project ended nothing else followed. It is only recently that the university was contacted by the CERDOTOLA to digitalize another batch of theses but the project was not moving forwards as quickly as expected, although the library has received equipment (high performance scanners and binders) from the sponsoring organization. This information was corroborated by the CERDOTOLA’s librarian. I also learned that the university library did not have internet (broadband) connection at the time of the interview. The computers were old and inoperable, and data contained in PMB were not yet available to the public. It was the opinion of the interviewee that the administrative hurdles that created this situation could be traced to a couple of individuals who opposed change. Consequently, proactive workers were forced to constantly find new ways to make subtle improvements in service.

Other informants I interviewed in Yaoundé told us that neither LIS professionals nor their professions were understood. One female interview recounted an event during which a colleague from another area completely ignored her presence and started offering a tour of her library to a visitor. She also mentioned an instance where colleagues planned events that discussed her functions without consulting with her or inviting her. A researcher who was interviewed at length about his work on a cultural documentation project mentioned that there is a break in communication between LIS professional and research staffs. I observed that researchers thought that they could do without LIS professionals and sometimes perform their work better. A similar statement was made at the University regarding the cooperation
between the librarians, the faculties, and the administrators. And when asked about the contribution of the students into the conception of services, or how they cope with the lack of resources, I learned that the students who represent an important part of the university community were not included in the debates about resource building. The informant linked it to a painful history of strikes. I was told about the lack of motivation in various communities around digital resources. One informant concluded his interview by stating that people read, but not the right information. He added that the internet was a good tool but a confusing one for many people and the local populations still needed to master it.

4.3.2. Focus group summary

Seven people from Bafou and five from the CERDOTOLA actively participated in the discussion forum. I questioned the Bafou about their culture and learned that they are united by a family of languages called Yemba. Yemba reflects the group's linguistic diversity inherited from the conquests of neighboring tribes in an emerging Kingdom called Bafou. The Bafou court is already cooperating with the Dschang’s Museum of civilization in the preservation of some material aspects of the Bafou culture and showcasing the history and beauty of this five hundred years old kingdom on http://www.routedeschefferies.com. A participant considered Yemba the formal expression of values, norms, codes, and mores that bind the group. A female representative who had studied overseas testified that an objective of the Bafou community in Hamburg, Germany, is to search for information about their culture. Another female participant expressed the wish to see Yemba (languages) properly documented on the web and associated with the recording of ceremonies and social events.

A highly respected member of the Bafou community, who is also a scholar, reminded the audience about the existence of a world of information on the Bafou that has not yet been published and that could constitute the basis for a larger documentation project; one that can be linked to www.bafou.org and can be used to generate a dialog on the cultural development and the advancement of the Bafou people. He hoped that the efforts will be rewarded with a Documentation center that could be exploited by the members of his community and be accessible to the rest of the world. A member of bafou.org stated that the use of the internet and the possibility to build a collection of documents related to their culture is encouraging to community members who feel that they depend less on the national administration. He expressed that he was not concerned by the quantity of digital documents they could produce with their modest means.

The forum took the participants to task by asking them to envision how they could work together in order to build a common repository of digital cultural materials. The meeting revealed the elements of the culture that are shared by all Bafous. A member of the Bafou group, who is also a higher ranking member of his ethnic community, explained that in the Bafou culture, actions that engage the social group, even when initiated by an individual, no longer belong to that person and but to the group. They considered the creation of the website bafou.org such an initiative. The discussion forum also uncovered a prior attempt by the Bafou community and the CERDOTOLA to meet and discuss a possible cooperation. Indeed, a representative of that group, who is also a contractual employee of the CERDOTOLA, revealed that he had suggested to Bafou.org’s administrator to work with the CERDOTOLA in a cultural documentation project. He did not succeed because he could not satisfactorily answer any questions pertaining to the nature and benefits of cooperation between both parties. A forum participant asked to know what the CERDOTOLA could contribute to their society.
A CERDOTOLA employee suggested that his institution could contribute technical
know-how in documentation, the possibility to store information in the CERDOTOLA’s
digital library, and grant access to all materials that would be deposited in it. On one hand, the
representative of the Bafou documentation project believed that they knew much more about
how to digitalize and archive their own culture. On another hand, the CERDOTOLA
representatives maintained that it possesses the expertise and technology to help produce
better results if given access to information. This led to discussing rights’ management and
issues related to licensing and copyright. During the forum, Bafou participants expressed
some anxiety about their culture being documented and commercially exploited by a third
party. They referred to their work being copied online and not credited to them.

The most important question of the forum was centered on rights’ sharing between the
CERDOTOLA and the Bafou community. They considered working alone and not having to
worry about sharing the rights to their works. On the other hand, they understood that the
participative project allows them to benefit from the technical expertise and clout of a
regional institution. They were also concerned about the CERDOTOLA adding to their
financial burden and generating far less return on investment in the project. Indeed, the
CERDOTOLA’s staff had to explain the entire process and costs associated with capturing
documents, processing data and generating the digital files, and having some control in the
project. The CERDOTOLA’s staff resubmitted that the whole approach is participatory and
consists in working hand-in-hand with local communities in order to build a shared cultural
repository that will benefit all stakeholders.
5. ANALYSIS

In this chapter, I review Agre’s analytical model and link it to Foucault’s critical discourse analysis and I submit the empirical data from interviews, the focus group discuss, and sites’ observation data to a consolidation of both analytical methods.

5.1. THE PRIORITY OF CONCEPTUAL ANALYSIS

As I proceed through my analysis, and later on to my discussion of the recordings and transcripts of my interviews, I will focus on terms, phrases, and sentences that fit in any of the discursive planes I will identify. For example, if an informant mentioned money or the budget, the phrases or sentences in which these terms occurred would be filed under the categories reserved for economic discourse. However, words are not static. They belong to a context they help shape and they shape discourse (Foucault, 2002). Therefore the same words, i.e. money and budget, could shape interaction in the political and administrative arena and/or be discussed in the section reserved for the technological discourse, and so on. The reader will see elements of the conceptual traps in one field remerge in another one. Finally, when citing participants, I will not mention them by name but by site. For example, any informant from site SD1 will simply be labeled SD1 or be referred to as informant SD1. There are three major sites that provide the interview results being analyzed here. They are Buea (B), Daoula (D) and Yaoundé (Y). So SD1 is informant at location 1 in site D. This should add the anonymity requested by some of the informants but also easily reveal any contradictory statements emerging from any given site.

Agre’s model is extracted from his article “Information and institutional Challenge: the case of Digital Libraries” (Agre, 2003). The model has four steps: clearly defining all concepts related to DLs, investigating a social process, matching the practice to the public arena, and assessing the resulting systems. Agre’s model corresponds to the Foucauldian CDA framework prescribed by Jäger & Maier (2008) as follows:

1) The priority of analysis reveals 12 conceptual traps that must be resolved in order to validate knowledge. These conceptual traps, as we will see in this analysis, show various tensions, conflicts and power struggles about the perception of DLs by various users and communities and their institutional fits.

2) Agre’s example about scholarly community discusses the tensions brought by institutions adopting DLs. These tensions as expressed in discursive and now non-discursive forms, and in the inter-institutional space called ‘public sphere’ (Agre, p. 230).

3) The instrumentation of knowledge (of DLs) and the manifestation of power in discourse happen in the public sphere as negotiated exchanges between various institutions and communities. This confirms DLs’ knowledge created through tensions (Foucault, 2002) and via subsequent actions.

4) Institutional embedment represents the materialization of DLs as “a dynamic approach neither ignoring the institutional context, nor trying to legislate it but participating in the dialectical interaction between technology and institutions” (Agre, 2003, p. 233).

The priority of conceptual analysis identifies the technological tool (i.e. the DL) and sets out to understand its cultural context. I interpreted this step as building knowledge through various negotiated positions. The instrumentation of that knowledge relies on
bridging concepts that allow the designer to connect his system to society (Agre, 2003). I perceived the instrumentation of knowledge as understanding the purposes DLs are meant to serve, the extent of their reach as viewed by system designers and/or purchasers, and the inscribing of societal requirements in DL functionalities with the implication of reaching a larger audience. Functionalities reflect shared meanings and shared purposes that are equally contextual, temporal, momentous, yet persistent (Peters, 2005). The discourse that creates them does not happen in a vacuum (Foucault, 2002). It is generated somewhere by groups of people. Agre provides us with the example of the global scholarly community. Scholars embrace libraries as institutions. Library contents produced by scholars reflect “the institutional structure of scholarship” and reciprocally affect the community (Agre, 2003, p. 223). In other words, the set of principles, guidelines, norms, or standards that codify the behaviors of scholars dictate the rules of engagement with respect to DL systems and resources. This global understanding could also apply to the regional LIS community of Central Africa, or even a smaller representation of that part of the world, i.e. CERDOTOLA. Because the CERDOTOLA’s Documentation center is an integral member of the local LIS ecosystem, I believe that it is shared language (meaning) that defines local libraries and help deal with common issues such as growth, change or improvement, and any attempt to devise methods and set goals that do not conflict with the aspiration of the communities (Agre, 2003, p. 228).

The CERDOTOLA’s digital repository could become a focal point for harnessing the effort of the communities in co-creating knowledge and as such it represents a move towards institutionalization. The intersection of one (scholarly) community and the public sphere or, in the Case of CERDOTOLA, one LIS community and the various ethnic groups representing a section of the public sphere, may require isolating pitfalls in socio-technological dialectics that could lead to the wrong designs, therefore the wrong outcome for information seekers. This is reminiscent of the notions of ‘concept bridging’ and ‘conceptual parity’ that link the theory to the practice of creating DLs. “Much of the skill of conceptual analysis consists in watching out for common traps that can confine a project's concepts within the bounds of necessary assumptions”, says Agre (2003), implying an understanding of interplays between DLs, their users, their multiple uses, and their faculty to adapt to institutional needs. Ergo, the power of words is used to build the surrounding environment and to make sense of it (Foucault, 2002). So, I use Agre’s general analytical model to identify existing and emerging traps in the development of CERDOTOLA’s digital collections. However, Agre’s analysis is not empirical (ibid, p. 220), although his procedure could be used to clarify statements, positions, attitudes, and moods surrounding the introduction of DL technologies at CERDOTOLA from a librarian’s perspective. Agre’s and Jäger & Maier’s models are far more complex than what I make out of them in this analysis. However, I refer to their common shell in order to provide a pathway for studying institutional challenges to building digital collections at CERDOTOLA.

5.2. EMPIRICAL DATA ANALYSIS

This section is divided into six parts: technological discourse, political/administrative discourse, economic discourse, cultural change, and collaborative challenges. Each section regroups some of the conceptual traps mentioned by Agre. The sixth part offers is a synthesis of what I write in the preceding ones. This is a list of the conceptual traps in the order in which they appear in Agre’s article (2003, p. 223-227):
During the analysis, I will try to confirm the presence of any of the twelve conceptual traps in the statements made by the interviewees. I will also try to uncover areas of contradiction as well as emerging discourses revealed in the attitudes, moods, and positions indicated in the responses. However, emerging discourses will be reviewed in the section 5.3: Discussion. Even as I will list various concepts, i.e. automation, standardization, transparency, I will not attempt to build paragraphs around them. I will view these concepts in relation to the respondents’ perception of the introduction of a new technology in their environment. Finally, I will review the implication for developing of digital repository of cultural materials by linking it to an analysis of the CERDOTOLA’s documentation center.

5.2.1. Technological discourses

The following figure depicts the analysis process of the technological discourse identified in the interviews, focus group and sites observations. It regroups similar conceptual traps into a discursive field. The interviews and focus groups generated discursive strands (phrases and sentences) that mentioned words and ideas related to standardization, automation, economics-driven scenario and transparency. The observation focused on the existence of appearance of DLs on site. It provided an additional way to confirm the veracity of the discourse, exposing contradictions and revealing the technological impact of DLs in the local ecosystem, as well as emerging conceptual traps in chapter 6: Discussion.

Figure 9: Analysis of technological discourse (Author’s graph)
5.2.1.1. Internal attitudes towards ICTs and DLs

LIS professionals who have been involved with digitalization projects and organizational reforms had an input in defining the desired functionalities of the systems they have helped to implement. The objective of the technology, as stated by some informants, was not to eliminate the job. Automation meant that the institution could become more efficient in delivering services. Such was the case of being able to efficiently track resources and retrieve information. I gathered answers that indicated that the people involved with technology were proud of their accomplishment. Here is how one informant expressed it:

“When I came, the software we were using then was Adlib[7]. The license for Adlib for just one station ...was 60,000 dollars [...] I looked around and found PMB...Pour Ma Bibliothèque[8]. It is free and open source// we have been using it since 2008. Miraculously it has been running on that machine (indicating the server he built) since that period of time.” (SB1)

I was given the impression that the process of acquiring ICT tools was facing a resistance inside the organization from colleagues who fear to become redundant or who were used to the “old ways” and therefore were afraid of technology as an agent for change. This case of technophobia has been documented in the literature (West, 2007) and linked to a misunderstanding of ICT Tools in the local context by Awasom (2003). Some interviewees also gave the impression that some of their colleagues behaved as if the introduction of new technological tools would only complicate their life and lead to a change of status in the organization. As a result, aligning technological issues to economy and cultural change, an informant at SB1 stated the following:

“...if you keep sitting and listening, and waiting for the day money will come or the day these people’s mentality would change towards certain things nothing is ever going to happen.” (SB1)

Another informant at Site SD1 took the example of local internet websites that claim to provide information on local cultures. He stated that one advantage of technology is that it forces people to work and exposes those who are not performing. Doing so, he ascribed a policing effect to technology. The introduction of technology could actually give the administration the possibility to control electronic transactions related to borrowing and returning documents. As a result, the processes become transparent and the people using it become equally aware that they are being monitored. This situation is visited by Foucault’s concept of panoptic, one of self-monitory and maintenance in a prolonged state of subordination (Olsson, 2010). This process can also be construed as a manifestation of power through the use of technology, whereby authority is exerted over a workforce. The following exchange provides some insight about how control is perceived by one respondent:

SB1: We had opposition even from the staff who were not ...like happy./They could perceive that something has changed//I mean they did not even understand what it was all about. //The problem we have is that resistance to change. We still have some technophobia.

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[8] PMB is a DLMS.
Question: Does it have to do with the fact that it is a matter of keeping what you have? Or is it a matter of losing control?

SB1: it is more of losing control than keeping what they have//The whole idea of losing control here is useless//What are they controlling? It is individual. It is personal.

Although the exchange expressed the opinion of the interviewee with respect to the true nature of the change being implemented, it equally reveals that these same colleagues are not completely unaware that the new processes imposed by ICTs are reshaping the workplace.

5.2.1.2. External appreciation of DLs

During the focus group discussion, a forum participant from the Bafou group asked who and how the system and the documents will be controlled. He seemed to be more worried about not being able to control the repository than being controlled by it. This emerging challenge crosses over internally motivated change and externally sponsored reforms. The representatives of Bafou.org believed that the internet was becoming an increasing part of their community life. They claimed to have adopted it as a preferred communication tool to connect members of their ethnic group scattered all over the world. They equally believed that they were using it in order to assemble cultural materials and avail them online to anyone interested in their community. In my research report to the CERDOTOLA (Ngwee, 2013), I indicated that a high ranking member of their community indicated that the initiative is supported by the Bafou royal court. It is equally important to know that their decision to adopt ICTs antedates the dialog with the CERDOTOLA.

Agre (2003) has stated that the role of automation represents a conflict in itself. Some interviewees expressed that the conflict needed to be resolved within the organization in order to be able to confront resistance coming from without. It appeared that the key to create common meanings around ICTs and showing that technology does not pose a threat but improves working conditions was to start with turning skeptics into believers; by finding out which aspects of a given technology, in our case DLs, appeal to a larger audience. Here is an interesting point of view provided by an interviewee who also happened to be an agent in the market of arts and culture:

“There is no global vision, no regulation, no orientation by ways of policies that would promote the will to organize (the cultural domain)//We need a supply and a demand.// We have a supply and a demand that does not yet meet as they must and when they must.”\(^9\) (SY6)

This statement has a strong economical tone that addresses culture as a commodity that is consumed by households. I set a parallel with ICTs as commodities consumed by institutions and DLs as products consumed by many stakeholders. To further illustrate his case, the informant opined that the local publishing industry blames the low volume of book sales on the fact that local populations do not read. This argument was laid down at another site by seasoned LIS professionals. However, informant SY4 blames failed packaging due to a lack of understanding of the local populations’ needs. In my opinion, he believes that the problem could be easily solved with a different marketing strategy. But there seemed to be, as he himself says, a much deeper problem that hits the LIS institution at its core. That problem

\(^9\) « Il n’y a pas de vision globale, une réglementation, une orientation en matière de mesures incitatives établies et mises en place qui amèneraient tout le monde à s’organiser//Il faut qu’il y ait une offre et une demande.//L’offre et la demande ne se rencontrent pas encore là ou il le faut, comme il le faut, quand il le faut. »
is the difficulty for local institutions to appropriate technology, to embed it into their daily routine, and accept it as a part of their life. Existing financial constraints demand that one continuously looks for cheaper and better free digital library management software. An informant’s library has used CDS ISIS\textsuperscript{10}, WINISIS\textsuperscript{11}, and PMB in the past. The library is currently in the process of adopting the GREENSTONE DL software. However, the institution to which the library belongs has initiated a university-wide creation of a central filing system for all academic works. Here is what SY2 shared about this experience:

“The DLs will be managed with what software? We have not yet been told...that. I have the impression that...hum... as a matter of speculation, they will assign the management of the DLs to us. We don’t know yet. We are still in the process of proposing it to them because when they conceive (the project of a centralized OPAC)...we were not associated as custodians. We would like to have it. Because it is something that will be managed better by LIS professionals.”\textsuperscript{12} (SY2)

This statement shows that this informant recognized the importance of DLs and believed that LIS professionals are better equipped to manage them. The statement also reveals his anxiety with respect to the possibility of having to deal with new software. In addition, having been assigned a marginal role in the conception of a digital library, he probably perceives that his skills or his profession are misunderstood. Moreover, there is the insinuation that those who decide are viewed by LIS professionals as incompetent to decide alone about the management this new technology. Furthermore, anxiety meets resignation with the realization that librarians do not have the power to influence change and must accept the decision of the administration. So, while they are willing to comply with the norms of the institutions to which they belong, they do not seem ready to embrace the technological change that is forced onto them.

5.2.2. Political/administrative discourse

The following figure depicts the analysis process of the political/administrative discourse identified in the interviews, focus group and sites observations. It regroups similar conceptual traps (centralization and decentralization, command and control, transparency, and de-intermediation) into a discursive field. The discursive strands (phrases and sentences) generated by the interviews and the focus group are triangulated with site observations, in an attempt to confirm the veracity of the discourse by exposing contradictions in the conception of DLs and their practical usage in the local ecosystem. Emerging political and administrative discourses are reviewed in chapter 6.

\textsuperscript{10} Micro CDS ISIS is a software development developed by UNESCO in 1985. It was upgraded to function in a windows environment and renamed WINISIS.

\textsuperscript{11} See preceding footnote.

\textsuperscript{12} French text : La bibliothèque numérique on va la gérer avec quel logiciel. Ca, on ne le nous a pas encore dit. J'ai l'impression de manière théorique...que...peut-être qu'ils vont nous confier la gestion de la bibliothèque numérique. On ne sait même pas encore. On est encore en train de leur en faire la demande parce que quand ils l'ont conçu (le projet d'un fichier de thèses) ils ne nous ont pas beaucoup associé comme des dépositaires. On souhaitait l'avoir. Parce qu'on pense qu'elle serait mieux gérée plutôt par des professionnels de l'information documentaire.
5.2.2.1. Power and decision-making

Bourdieu (1991) referred to power as a symbolic form that allows a dominant social group to shape social representation. According to him, power is exercised in a discursive sphere dominated by what is not said as tacit agreement between opposing groups. In this domain “oppressed” and “oppressors” chose to ignore the existence and/or manifestation of power (ibid, p. 164). Power is thus used to describe and reorganize institutions (Foucault, 1977). The traps of assuming political consequence from technology (geographical decentralization), maintain order, and streamlining the control process resurface in our interviewees’ comments. LIS literature has already produced articles questioning the roles of librarians and the effects of digitalization on traditional library infrastructures (see Fagbami & Ogunjobi, 2009, Freeman, 2005). The manner in which power flows through a decision making process that affects more than one institution (i.e. the university establishment and the library) worries the local LIS establishment. Eyango’s (2010) report explicitly revealed that employees of memory institutions feel marginalized and powerless to deal with the problems that arise in the daily operation of their workplace. The pool of interviewees echoed the same message. Distress appears in statements that describe LIS professionals’ lack of power in changing the establishment and the perception of librarianship as a graveyard for the professional outcast. Let us follow this exchange with the informant at SD2

**SD2:** The libraries of French speaking Universities have not progressed. There exist no written policies that explain how the libraries should be formally administered.

**Question:** Why the discrepancy?

**SD2:** …one cannot really explain it. Nonetheless, since 1993…there is resistance due to ignorance about the operation of a library. //Librarians raised this issue in 1993.//We still do not have any solution. That is unfortunate because it is people with university degrees that do not understand the importance of a library in a university. We don’t know where this problem comes from but the problem has been mentioned since 1993// […] There is a dislike for the profession. Youth people are uninterested.//And at the University, employees who have been assigned to work at the library consider it a disciplinary action!13

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13 SD2 : Les Bibliothèques des universités francophones n’ont pas progressé. Il y a pas de texte organique qui dit comment on administre formellement les bibliothèques.
This exchange brings up a couple of themes that are worth exploring. On several occasions, the informant mentioned ‘1993’ in order to establish the persistence of an administrative problem and the apathy of the authorities. It is important to mention that all memory institutions of the Republic of Cameroon are under the tutelage of the Ministry of Arts and Cultures (Eyango, 2010). Said ministry also has the smallest budget of all government departments, and all research and academic libraries have a yearly budget inferior to 3% of financial resources allocated to their respective institutions (Eyango, 2010). It is therefore not surprising that some interviewees viewed memory institutions not as harbingers of social progress and democracy but as oppressive tools in the hand of a few people. For instance, workers are forced to work without appropriate equipment or consider their appointment at a library a disciplinary action. The following citation reveals a bit more about the discourse.

“It is unfortunate and that is the source of the university libraries’ problems. Consequences: We are three professionally trained individuals responsible for managing 30 to 40 non-trained colleagues. The rest...the rest acquire skills on its own. It is difficult to internalize the profession with non-professional employees.// It is at the whims of the hierarchy that there is an interest for the library [...] however, one must step over the threshold//When you introduce the acquisition of ICT tools, digitalization, they (the hierarchy) are lost. One asks you first to wait because it is not a priority// Consequence: no budget, no electronic documents.”14(SD2).

So, when an interviewee declared that accessing digital documents with PMB Digital library software is not possible due to all types of difficulties caused by a few people who hinder progress, he also described an institution divided in two camps: the administrators' side (excluding library management, staff, and other personnel) and the librarians, archivists, document managers. He also points out that the divisions set a demarcation line between those who wanted change and those who are opposed to it by mooring his statement in control issues that must be resolved by the LIS institutions in a communicative space with other institutions (i.e. politicians, faculties, etc.).

5.2.2.2. Administrative culture and communicative approaches

As participants at SD2 reflected on the evolution of their French speaking Cameroon site in the city of Douala, they considered it a consequence of different administrative approaches and the presence or absence of a cultural predisposition to change. They claimed that during the reforms of 1993, Universities of English speaking Cameroon that stood at the vanguard of change had already planned to develop adequate libraries. The university libraries of Anglophone Cameroon are directorates. They directors have the authority to implement

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Question : Pourquoi cette inadéquation ?

SD2 : ...On ne peut vraiment pas l’expliquer. Non cela, depuis 1993...il y a des résistances d’abord même dues à la méconnaissance des rouages d’une bibliothèque//Depuis 1993 les bibliothèques ont posé ce problème. Nous n’avons pas de solutions. C’est dommage parce que c’est les universitaires qui ne comprennent pas le rôle d’une bibliothèque dans une université. On ne sait même pas d’où vient le problème//Depuis 1993 les bibliothèques ont posé ce problème. Nous n’avons pas de solutions. C’est dommage parce que c’est les universitaires qui ne comprennent pas le rôle d’une bibliothèque dans une université. On ne sait même pas d’où vient le problème//Mais le problème a été posé depuis 1993 [...] Il y a un dégout de la profession. Les jeunes ne s’y intéressent pas. // Et à l’université tous ceux qu’on y affecte trouvent que c’est une affectation disciplinaire.

14 SD2: C’est dommage et c’est la d’où vient tous les problèmes des bibliothèques universitaires. Conséquences: nous sommes 3 professionnels à gérer sur une trentaine ou quarantaine de non professionnels. Les autres se sont formés sur le tas. // Avec les non-professionnels on n’arrive pas toujours à intérioriser la profession.// C’est au gré de la hiérarchie qu’il y a un intérêt pour la bibliothèque [...] Bon, il faut franchir le pas//Quand vous nous amenez déjà au niveau de l'informatisation, de la numérisation, ils ne comprennent plus rien// On vous dit attendez d’abord que ce n’est pas une priorité// Conséquences: pas de budget. Nous ne sommes pas informatisés.
change.\textsuperscript{15} Colleagues at the other site (SB2), they claimed, could not entirely credit current results to personal initiatives. Power and organization structure differ between both establishments. The librarian’s authority at site SB2 is recognized by the administration but that is not the case where he works. The librarian at SB2 could voice an opinion during a meeting of the administrative board whereas, anywhere else, librarians are considered nothing more than errant boys. This discourse is shared in most answers relating to a lack of appreciation of memory institutions, especially university libraries. It also confirms what local scholars have written on the topic (see Awasom, 2003; Eyango, 2010; Ngum \textit{et al.}, 2010).

The empirical data suggest a high level of frustration among LIS interviewees who could not understand that people with ‘higher education degrees’, ‘who have study abroad’ and benefited from such infrastructures elsewhere stood in the way of progress. Another view of this situation is that the organizational structures of these LIS sites contain the mechanics that do not encourage change or the introduction of modern ICT tools. For example, there is a long-lasting familiarity with print and technology that has been associated with control. So, when in an earlier citation an informant declared that the introduction of DLs is not viewed as a priority, he apparently conceded that the decision-makers are still undecided about the real purpose of ICT and question whether it will also be used to monitor them among other things.

However, the issue surrounding the adoption of ICT tools is far more pronounced, especially when weaving the thread that links digitalization and documentation of cultural heritage to the CERDOTOLA’s mandate with respect to the region’s cultural heritage. The CERDOTOLA’s Documentation center is a member of the local LIS ecosystem, although it is steered by the CERDOTOLA’s internal policies. Another reminder; the CERDOTOLA has a history of cooperating with various national and international institutions. The Library of the University of Yaoundé I, its Cameroonian partner in its largest digitalization project to date (www.cerdotola.com, 2012), is controlled by the ministry of Arts and Culture of Cameroon, while the University itself is under the control of the Ministry of Higher Education (www.minsup.gov.cm, 2013). Its multiple agendas must be carefully balanced otherwise the whole process of digital collection building could lead to confusion, indecision, inaction, and even mismanagement. Therefore, as I submit the next quote, I implicate the position, perception and attitude of an employee at the ministry of arts and culture of the Republic of Cameroon; an informant who considered himself a career LIS professional and government employee.

“Yes [talking about the lack of modern technology in his office] it is a serious handicap because a responsible in charge of cultural heritage and other aspects of culture should have modern tools for conservation and research in his domain. Therefore, this is where the State (Government of Cameroon) has sinned…by denying equipment, by not thinking about equipping the regional services with the tools of the trade. If you go to Yaoundé, at the national director of cultural heritage, over there service managers have computers and there are data going in those machines \textit{[...]} but the regional services are the ones providing data to the central services.”\textsuperscript{16}(SD1)

\textsuperscript{15} The Republic of Cameroon is divided along two major linguistic zones, French speaking Cameroon in 8 regions, and English Speaking Cameroon is the remaining two. Our informants opined that the legacy of different colonial administration have predisposed the inhabitants of these respective zones to face social problems differently.

\textsuperscript{16} SD1 « oui c’est un handicap sérieux parce qu’en fait tout responsable qui s’occupe du patrimoine et même des autres aspects culturels devrait avoir des outils modernes de conservation, des outils de recherche et dans le domaine qui est le sien. Et c’est donc là que l’Etat a péché… en refusant d’équiper, en ne pensant pas à équiper les services du matériel…dans les régions. Je peux dire, à Yaoundé, à la direction du patrimoine, les chefs de service là-bas on
This statement starts with an indictment that releases a host of emotions, i.e. frustration, anger, and resignation in view of the behaviors of those in charge of making the kinds of decisions local LIS professionals see as having a negative effect on their performance or as misrepresenting the nature of their job. The informant states the refusal of the administration to equip his entire office; a statement he directly tried to temper with the idea that his office has simply been overlooked. However, the quote also indicates an attempt to control the workforce by limiting the spread of ICTs beyond the central office. Finally, what is alarming is that, in the event that the informant’s statement could not be verified, one would need to look at other reasons to explain why he claimed to have been denied resources. This problem was posed at the other site I visited. Employees had to fight for the resources or purchase them with their own funds. The finger points to the mismanagement of resources. I cannot help but wonder about the level of anxiety of LIS professionals and the kind of impact it could have on CERDOTOLA’s efforts in developing cultural collections with the help of local partners.

5.2.3. Economic discourse

The following figure depicts the analysis process of the economic discourse identified in the interviews, focus group and sites observations.

![Economic discourse field](image)

**Figure 11**: Analysis of economical discourse (Author’s graph)

The graph regroups similar conceptual traps into a discursive field. The interviews and focus groups generated discursive strands (phrases and sentences) that mentioned words and ideas related to standardization, automation, economics-driven scenario and transparency. The observation focused on the existence of appearance of DLs on site, on the management of existing resources, and the observation of LIS professionals in their respective work environment. It provided an additional way to confirm the veracity of the discourse, exposing the contradictions and revealing the economic impact of DLs, as well as emerging conceptual traps in chapter 6: Discussion.

The local arena of memory institutions is presented as a context where people are usually appointed to their positions. Appointments take the forms of rewards (promotions), punishments (demotions); or mutations (that could be interpreted either ways.) The acts I just

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mêmes leurs ordinateurs. Il n’y a même les données qui entrent dans les ordinateurs […] et pourtant c’est la région qui alimente les services centraux.

17 Décret N°2004/017 du 22 Juillet 2004 –Administrative decentralization of the republic of Cameroon, effectively told about empowering regional office to carry out their duty, as that not yet been realized with respect to memory institutions.
mentioned are used to reinforce behaviors and to dictate institutional norms (Peters, 2005). They are not without consequences as experienced employees are often moved from their areas of interest and competence, into unfamiliar terrain. This was not mentioned in Agre’s conceptual traps, however, they emerge from the perceptions of librarians, documentations, archives, and other stakeholders I interviewed.

5.2.3.1. Management of resources

There is general perception that the debate about resources must be brought down to functional areas. The result could lead to the development of adequate resources such as a digital library. However, organizational structures and positions seem to be shaped by rational and instrumentation perspectives, (Aiken & Hage, 1971) based on bureaucrats pursuing their own self-interests. Informant SY2 addressed this issue by stating that sometimes asking for resources was like asking for a personal favor. Library staff did neither control the resources nor the system that avail them. A similar statement was registered from informant SD2 who tied it to fact that administrators sometimes did not understand the inner workings of an institution such as a library. DLs have been portrayed as functional electronic aspects of memory institutions in Cameroon. It appears that the habitual low allocation and sometimes miss-allocation of financial resources to the sector speak about the institution’s low status in society, which is viewed as acceptable practice. The choices and recommendations of DL technologies that are not constrained by financial resources are viewed favorably by practitioners who feel that they are finally allowed to do their job.

An informant indicated that LIS professionals have been in a position of receivership in a system where the administration decides on the allocation of resources based on arbitrary criteria. As early as the early mid-nineties, the library decided on less dependency on external forces in the provision of services and a more proactive stance in resources acquisitions. This is how the informant expressed it:

“Even when there is money, the money is not put into the project for the right reasons. Somebody comes into it with his own selfish aim and puts money into it, and buys something we cannot use. And they impose it onto you. And you don’t know what to do with it.”(SB1)

According to the informants I interviewed and who have been through the process of acquiring technology or running a technology related project, it seems that personal motives have always been a part of the local reality. They provide a ground for LIS professionals to seek out resources that are free and/or that they can control. These free resources often provide the means through which they can assert their autonomy, have the freedom to realize some of the LIS establishment goals, and leverage technology for the benefit of the institution. The informants’ statements equally show the effort to nullify all the pretenses of hierarchical dominance manifested by the action of handful of people. This subversive discourse transpired the behavior of staff members who did not respond well to change; an attitude our informant perceived as futile, linked to personal and financial gains, and a misguided sense of priority. But this attitude is not spontaneous. It reflects a status quo that antedates the advent of all form of new technology within the institutions.

5.2.3.2. The Availability of resources

Informants SB2 and SB1 mentioned that, in the nineties, the shortage of financial resources at the national level made it impossible to receive funds for basic infrastructural
maintenance. Revisiting history, an informant at SB2 added that the national archives in Buéa were left unattended, and that local and national universities and university centers could not purchase materials. In one case, informants at SB2 declared that an archivist worked from 9 o’clock in the morning to 5 o’clock in the afternoon with no pay for nearly eight years. However, he added that it happened at the time when there was no money – alluding to the economic crisis of the 1990s and the effect of the international Monetary Funds’ (IMF) structural adjustment plans. Moments later, the same informant revealed that it took two years to staff the regional office of the national archives with trained personnel. This happened long after the economic crisis of the 1990s.

These statements probably held true in the 1990s but they are hard to sustain today. Eyango (2010) revealed the minuscule budgets that are allocated to LIS institutions. He stated that the budget of a research library in the Republic of Cameroon amounted to no more than 3% of total funds allocated to the host institution, the university. Without negating the existence of a digital or an economic divide, he further showed that the lack of financial resources led to a brain drain from national memory institutions to the private sector. His presentation confirmed previous work by Awassom (2003) and vindicated the challenges of Ngum et al. (2009). Based on the information I received from the informant and the literature, I believe that the mismanagement of diminutive financial resources places an enormous stress on the local LIS institutions that do not control them. LIS institutions do not have the means to keep qualified staffs or to motivate them. This stress represents a factor that affects the institutionalization of DLs as there is a cost involved in continuously training employees and there are never enough funds available for that purpose.

5.2.3.3. Volunteering and the adoption of new technologies

Among the conceptual traps discussed by Philip Agre, there is the perception that DLs will bring about a market economy new deal. He considered various ideas around a redefinition of roles of human and machines; a change in production mechanisms without so much as pausing at the idea of compensation. The preceding paragraphs succinctly mentioned compensation. I provided informants’ testimonies about colleagues working without pay and the loss of valuable staff due to inadequate compensation. In this section, I will explore a different topic that was brought to light during several interviews: volunteering. While volunteering has been used successfully in some large scale digital library projects such as Project Gutenberg (www.gutenberg.org), it is a concept worth re-evaluating in the local environment. The interviewees revealed a tacit understanding among all workers that even the most voluntary of works should be remunerated. I present these two statements in evidence:

“We had other colleagues...most of them gave up. With us being part of the ministry, we had to work whether the money was there or not.” (SB2)

The two colleagues were volunteers. According to the informant, it was understood that they would not be paid. They accepted the work because they understood the importance of preserving the national archives. Here is what another informant said on the subject of volunteering:

“The notion of volunteering is that it is done freely/Volunteering is conceived differently here. If an employee receives 10000 francs per day,

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For more on structural adjustment programs visit [www.imf.org](http://www.imf.org).
The volunteer expects 2000 or at least 1000 francs. To be a volunteer is not that he will work for nothing.” (SY4)

The first statement belongs to someone who was assigned to work on a project. The second statement is that of a project leader. In addition to this settlement, SY1 stated that the concept of “project”, especially technical and technological projects, gives the impression that somewhere there is a budget that can cover the needs of everyone involved in it. This is interesting to know because Philip Agre’s economics-driven scenario probably did not anticipate that in another part of the world, a unique market expectation would be put on the deployment of technology and this expectation will ignite financial appetites. What is additionally interesting about these statements is that they questioned the lack of resources. They dismiss the absence of financial resources to carry out important projects. So far, all informants have agreed that the acquisition of ICTs, DLs, and digitalization initiatives are important projects. Thus, the lack of compensation creates a lack of credibility around these initiatives, slows the workflow, and hurts the adoption process. These statements allowed me to understand some of the financial issues raised in the discussion forum on both sides (CERDOTOLA and Bafou.org) of the debate in order to plan for financial consequences. This is an important statement because some LIS practitioners impute the scarcity of resources to general resource allocation policies and to decision-makers who are received with mixed feelings.

5.2.4. Cultural changes

The following figure depicts the analysis process of the discourse on culture identified in the interviews, focus group and during site observations.

The graph regroups similar conceptual traps into a discursive field. The interviews and focus groups generated discursive strands (phrases and sentences) that mentioned words and ideas related to any form of changes. The observation focused on the existence of DLs and physical appearance of the site. It provided an additional way to confirm the veracity of the discourse, exposing contradictions and revealing the technological impact of DLs in the local ecosystem, as well as emerging conceptual traps in chapter 6: Discussion.
5.2.4.1. Internal control mechanism for changes

The discourse on culture dealt with institutional change brought by technology. What emerged from these observations was that most interviewees did not place an accent on technology per se, but on the mechanism that controls and generate various types of resistances. The decision-making and change processes are very important items of discussion in Audunsson (1999) and Hanson (2006). Controlling the cultural impact of DLs could be expressed by a process of restructuration aimed at a very specific group of people. In Buéa, students, the university communities and the city were identified as targets, meaning the groups that the library wanted to serve. In Douala and Yaoundé, it seemed that LIS workers were the targets, especially the librarians and documents managers. The overall accent seemed to be placed on the librarians, document managers and archives. In both cases, previously shared internal organizational values began to drift apart (see Hanson, 2006).

I cite the following quote in the economic discourse and I believe that it also holds water in the perception of cultural and organizational changes:

“...if you keep sitting and listening, and waiting for the day money will come or the day these people’s mentality would change towards certain things, nothing is ever going to happen.” (SB1)

Here, “the people’s mentality” referred to an established way of behaving as a reminder of Bourdieu’s manifestation of the habitus; a tacit acceptance of the status quo as norm and the complicit silence of the oppressed (Hussey, 2010).

Indeed, the statement speaks about oppression and change. But it also exposes the fact that economics plays an important role in the change process. The acquisition of the technology that is used to alter the ways people conduct business, improve services, and create a better future depends on having money; and he who controls the supply of money also controls the change process. The statement is also clearly subversive that calls for actions that can produce a better future. Consequently, the interviews revealed how a tacit or explicit understanding about how the use of power can completely reshape social transactions and interactions (Foucault, 1971; Fairclough, 2004), especially when the topic is introduction and use of DL technologies by the local LIS establishment. The statement also offers a way out of a situation that put LIS professionals at a disadvantage by advocating a pro-active stance in order to solve the problems they face in their practices. This in effect helps put in place an internal control mechanism for change.

5.2.4.2. The importation and communication of Change

Audunsson has addressed the influence of external groups in a change process by stating that resistance will be stronger in situations “where change is perceived to have an external origin and motivation compared with situations where initiative and motivation originate from within the field” (1999, p. 531). This statement shows that change coming from within seemed less threatening to people in an organization, even when the reasons for change are not fully disclosed to all actors. This seems to explain why interviewees depicted a second and much stronger opposition of the idea of ICT coming from outside the organization and being imposed by a market that does not take into consideration local realities. This second threat is enhanced by the fact that it comes with additional demands, such as requesting that all (LIS) participants begin to show performance improvement based on new standards. At
this junction, I am reminded that LIS institutions are embedded into larger institutions. Therefore, the process of change should be considered at the very least two levels. The first level is that of memory institutions (libraries, archives, museums, etc.) The second level is that of the parent institution (i.e. the university, the CERD TOLA, society, etc.). The general ecosystem to which they belong creates the conditions that make it possible for change happening in one unit to affect the entire system. Therefore, a personal action at the one end of a chain would have some consequence at the other end.

Informants gave us the impression that technological changes were almost never clearly explained to non LIS professionals who run institutions. They usually referred to university administrators and government representatives, i.e. rectors, directors of academic affairs, administrative delegates from various ministries, etc. By the same token, LIS professionals have not been fully prepared for procedural and infrastructural alterations. Taking into account the degree to which technology was visible on his premises (see Appendices 8-10, as well as CERDOTOLA’s empirics) in order to explain the cultural gap and the level of miss-apprehension, one informant declared:

“We have been left behind by the velocity of technology. We are slow. We are very slow to react [...] Let us say that we are behind in this area (closing the technological gap). // In fact, LIS practitioners...it is that we are not always capable to master information technology. That slows processing (cultural) documents and availing them to the public.” (SD1) 19

Tying this quote to similar statements I received in other interviews, I feel that interviewees were left in a climate of mutual misunderstanding that brewed mistrust, especially where ICTs exemplify cultural change within an organization or an institution.

In view of this statement, during the focus group discussion, the representatives of Bafou.org saw themselves as initiators of the changes during their interaction with the CERDOTOLA’s representatives. Their discourses about making the internet a permanent part of their society and willingness to work towards the creation of better documents to testified to it. I construe these actions as part of an ongoing process of institutionalization whereby more roles and features are added to an existing institution (Peters, p. 119). Bafou.org saw the internet and DL as necessary, complementary, and instrumental in reaching far-flung members of their communities. A focus group participant claimed that the Bafou people who live abroad search for information specific to their ethnic group by visiting their website. He also recognized that in spite of their modest effort to document and to render their culture accessible online, they could use and welcome professional help from the outside. This thinking is aligned with Foucault’s (1971) and Habermas’ (1988) understanding that there are no stable permanent structure in society and durability is achieved by constantly re-evaluation and redefinition of the surrounding environment.

5.2.5. Discourse on collaborative challenges

The following figure depicts the analysis process of collaborative discourses viewed in an inter-institutional context. It regroups similar conceptual traps into a collaborative discursive field that is built on the synergy of previous discourses. Words and ideas related to

19 Fr. SD1 : Nous avons été pris de vitesse par l'évolution technologique. Nous sommes lents. Nous sommes lents à reagir[...] disons que nous avons du retard par rapport à cela.// En fait, les praticiens de la documentation...c'est que nous ne sommes pas toujours capable de maîtriser l'outil informatique. Et cela crée des lenteurs dans le traitement des documents et leur mise à la disposition du public.
cultural change, economics, administrative traps, and technology coalesce in the analysis of collaborative challenges. The observation focused on the existence of appearance of DLs on site. It provided an additional way to confirm the veracity of the discourse, exposing contradictions and revealing the technological impact of DLs in the local ecosystem, as well as emerging conceptual traps in chapter 6: Discussion.

![Collaborative Discourse Flowchart](image)

**Figure 13**: Analysis flow for collaborative discourse (author’s graph)

### 5.2.5.1. Internal collaboration

Preceding analytical sessions were easy to identify in Agre’s articles. A further examination of his work took me directly to the practice of those who are drawn to DLs, i.e. the scholars and the librarians. I have also added a non-professional group issued from the Bafou tribe to see how themes are shared on both sides of the fence; how they perceived their own environment and attempted to control their destiny. The collaborative discourse that emerged from conceptual traps crossed over the previous categories. When an interviewee mentioned that the lack of funds impaired his institution’s ability to carry out reform, he/she disclosed the economic impact on cultural change. When another informant linked the pace of reform to a few people with authority, he/she equally disclosed a side of political and administrative discourses with implications for the introduction of new technologies. So, the interviews revealed that all these discourses are interlaced and have an effect in shaping the practices of various communities in relationship to the acquisition and access to DLs. In the following paragraphs I will discuss various attitudes towards internal collaborations and collaboration in the inter-institutional space (the public sphere).

During the focus group discussion, an informant of the Bafou group explained some of their actions and practices. He stated that a singular action that is carried out by an individual member can be appropriated by the ethnic group, because of its importance and meaning for the entire community. He cited the website Bafou.org that he considered important in sharing Bafou culture and to solidify membership ties. This example allows us to pause on the concepts of shared meanings, values, purposes, and their role in forming institutions. It also gives us a representation of the constructive power of discourse (Foucault, 1977) and its effect in moving a society into a new cultural setting where socio-technical artifacts, such as the internet, are being institutionalized. The example of Bafou.org can be revisited in the context
of the public sphere, the arena where inter-subjective communication meets global practice. Testimonies from Bafou participants revealed a number of conceptual traps that have either been nullified, or have been considered as not carrying great meaning for the Bafou. One such trap is that of ‘assuming away intermediaries’. This trap was given an economic undertone by Agre. Here, it actually crosses over into other discursive fields; i.e. the technological arena through the elimination of steps and the automation of or the political administrative arena through a centralization of the information. There seems to be a high level of internal cohesion within the Bafou community. This cohesion reflects a lack of ambiguity of the Bafou people’s appreciation and collective action using the internet, and their efforts to document their own heritage.

5.2.5.2. Inter-institutional collaboration

Our informant in SD1 brought to our attention the existence of a national program that supports private initiatives in cultural documentation and the ongoing effort of the administration to work with the communities and tribal leaders. However, the interviewee SD2 hinted to the partisan nature of a program often used to advance the agenda of “pro-government” factions. This has an effect on the appropriation of resources. In addition, the focus group revealed a low level of awareness about government programs or institutions that could assist them in their effort to preserve their own culture. The statement echoes a common understanding about the position of the local LIS institution in a political power play and speaks to the struggle of communities as well as institutions to motivate members. However, reviewing the statement of the informant at SD1, I believe that LIS employees and cultural groups view their environment with different lenses but arrive at the understanding of a common reality that is not shared by some government representatives. Several informants stated that they were not included in the decision-making process. In a specific instance an informant mentioned that although he was invited to participate in the deployment of technology or the implementation of bi-institutional project, his voice disappeared in the midst of administrative red tapes and suspicious power intrigues.

What emerges from the collaborative discourse is that although implemented DL technologies convey a sense of accomplishment, they are still viewed as a hub of tensions. However, these tensions are a legacy from the old infrastructure (see Awasom, 2003; Lajeunesse and Sene, 2006; Ngum. 2010); they antedate the current system that is being overhauled. They are further exacerbated by the fact that there is no common understanding that traverses multiple institutional domains. They have been exacerbated by the introduction of the internet that some informants considered unplanned and ill-conceived for local communities. In a group interview, all participants agreed that end users or national regulatory bodies still do not know what to do with ICT tools. This of course leads to questioning whether the cultural tensions witnessed in one community (LIS practitioners) come from the perception that political and administrative authorities hardly understand DLs, or if it is due to the fact that many among them are still not sufficiently skilled to understand and manipulate this technology at a level that will allow them to clearly explain it to others. Consequently, as one informant stated, a common understanding needs to be built around the internet. In this study, interviewees gave us the impression that such understanding should also be built around DLs and the purposes they are meant to serve, and be used to guide any cooperation between institutions.
5.2.6. Synthesis

The synthesis provides a view of CERDOTOLA’s internal and external challenges. Although, the next table summarizes a general overview of CERDOTOLA’s collections, I focus more on the digital collection. Table 4 summarizes the collection’s internal strengths and weaknesses as well as the external opportunities and threats (also known as SWOTs) the CERDOTOLA’s Documentation center faces. I was able to identify and extract them from various interviewees and site observations. Depending on the vantage point, all these items, can be construed as challenges or may come with tasks about addressing and to overcoming them.

Table 4: Representation of internal and external factors affection CERDOTOLA’s Documentation center

<table>
<thead>
<tr>
<th>SWOTs</th>
<th>Physical Collection</th>
<th>Digital collection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal factors</strong></td>
<td><strong>Analysis</strong></td>
<td><strong>Analysis</strong></td>
</tr>
<tr>
<td><strong>Strengths</strong></td>
<td>owned an international organization</td>
<td>Owned by and international organization</td>
</tr>
<tr>
<td></td>
<td>600 titles specialized collections (literature, linguistics, sociology)</td>
<td>Access to bibliographical references online (24/7)</td>
</tr>
<tr>
<td></td>
<td>Budget for collection development</td>
<td>Standing collaboration with regional organization</td>
</tr>
<tr>
<td></td>
<td>Qualified personnel</td>
<td>Broad focus on wide variety of documents</td>
</tr>
<tr>
<td></td>
<td>Reading rooms (2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Audio labs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical access</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Publishing facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inter-institutional collaboration and alliance</td>
<td></td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td>Collection access onsite</td>
<td>One staff member</td>
</tr>
<tr>
<td></td>
<td>Centralized resources</td>
<td>No full text documents</td>
</tr>
<tr>
<td></td>
<td>Non-autonomous access (requires assistance of librarians)</td>
<td>Low quantity and quality of alternative documents</td>
</tr>
<tr>
<td></td>
<td>Absence of subject specialist as librarians</td>
<td>New digital library systems</td>
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<tr>
<td></td>
<td>Low visibility of resources</td>
<td>Low online visibility</td>
</tr>
<tr>
<td></td>
<td>Focus on research production</td>
<td>Lack of understanding of document manager’s work</td>
</tr>
<tr>
<td></td>
<td>Constraint by membership funding</td>
<td>Miscommunication between librarian and other member of the team</td>
</tr>
<tr>
<td></td>
<td>Absence of internal policy and guideline</td>
<td>Low traffic to site</td>
</tr>
<tr>
<td></td>
<td>about resources management</td>
<td>Perception of highly specialized content</td>
</tr>
<tr>
<td></td>
<td>Dependency on external fundings</td>
<td>Dependency on external fundings</td>
</tr>
<tr>
<td><strong>External factor analysis</strong></td>
<td><strong>Analysis</strong></td>
<td><strong>Analysis</strong></td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td>Resource sharing with local academic institutions</td>
<td>Participating with ethnic groups in creating special collection</td>
</tr>
<tr>
<td></td>
<td>Collection accrual</td>
<td>Create a cross functional team (researcher/librarian)</td>
</tr>
<tr>
<td><strong>Threats</strong></td>
<td>Dependency on fundings</td>
<td>Create a special collection</td>
</tr>
<tr>
<td></td>
<td>Navigating the legal environment</td>
<td>Engage willing and motivated participants</td>
</tr>
<tr>
<td></td>
<td>Navigating the multi-cultural environment</td>
<td></td>
</tr>
</tbody>
</table>
Internally, the design of the DLs and the location of resources (i.e. audio, videos, and pictures) and the internet interface revealed some several problems. Resources that should be part of the DLs were located in other parts of the website under different categories. This represents a breach of the organizational norms around collection management. While the DL is put on the web thanks to GREENSTONE DL, it is however controlled internally from the Documentation center. The DL is an image of the Documentation center that contains all important documents found on location. However, some of the documents registered as parts of the physical collections do not have a surrogate in the DL. The Center seems to face a situation of coping with change and managing existing resources. This problem emerged from all interviews. In addition, the lack of communication described in the interviews is also manifested inside the CERDOTOLA and has an impact on participation.

The organization structure does not clearly identify various types of digital resources and who should manage them. Traffic to the library (physical or otherwise) is extremely low. During the time I spent the CERDOTOLA and my involvement with the research staff and library personal during my field study research, I hardly saw a patron in either libraries. This followed the local trend of assigning low priority to memory institutions. It appears that the stronger operational side of the CERDOTOLA is to research local and regional traditions and cultures. The small number of titles that exist in the Documentation center’s collection showed it. However, recent efforts by the CERDOTOLA to invest in the acquisition of additional documents and a major digitalization project recognize this weakness and set out to exploit the opportunity to work with partners that have already amassed large volumes of documents.

The external challenges that affect CERDOTOLA are tied to the ability to collaborate with people in other institutions. The economic discourses that emerged from the interviews, the group discussion, and field observations indicated that corruption and incompetence represent a threat to building collections. The fact that other institutions (i.e. existing and potential partners) have internal systemic problems (i.e. governance, internal communication, staff competence, collaboration, etc.) presents a threat to any inter-institutional effort in DL development. In addition, the misconception of DLs and its role in the communities slow the process of collection building. The CERDOTOLA might view the slow process of building DL collections as politically motivated. However, one must take into the consideration the fact that what could be perceived as internally initiated change by one group of internal stakeholders, may be seemed as imposed by another one. The reaction to the digitalization of photo archives in Buéa provided us with an example. An informant considered it externally motivated because the idea or resources did not originate at the national archives. Finally, the social environment that was described by interviewees as slow to change reflected cultural conflicts based on a difference in norms and values between the CERDOTOLA and potential local partners.

The SWOT table leads to Ishikawa’s (1976) diagram that provides a global understanding of institutional challenges faced by the CERDOTOLA. The fishbone diagram (figure 14) summarizes the discourses built around the introduction of DLs in the local environment. The final message all interviewees conveyed was that trust needed to be built between various groups (those with perceived power and those without) in order to create a
The idea that the DLs could be institutionalized seems to be a negotiated proposition between users, groups, and institutions. The analysis confirmed the existence of conceptual traps and challenges to the institutionalization of DLs that have not quite been linked to developing collections. It had been assumed that documents would automatically flow into the DLs. In addition, the cooperative discourse could be seen as a link between all other discursive planes mentioned in this study. Altogether, they provide an understanding of how various groups coped with their environments and approached the acquisition and development and management of their resources.

**Figure 14**: A global overview of CERDOTOLA Documentation center’s challenges based on Ishikawa’s diagram (1976)
6. DISCUSSION

This discussion is divided into five sections. The first section talks about a possible new perspective to the acquisition and management of cultural resources. In the second section, I revisit the notion of a document in light of what is said in the literature and the emerging discourse from the data. The third section discusses the position of stakeholders in the problematic of building digital collections, while in the fourth section I revisit the economic discourse that is foundational to the development of DLs in the local environment of this study. In the fifth section I attempt to provide a unique perspective on the effect of ICTs and DL technology in particular. The final section summarizes this part of the study.

6.1. A new perspective on cultural documentation and acquisition

Lawrence et al. (2002) considered institutions self-activating practices, technologies and rules that defined a group and make it difficult for members to leave due to extremely high costs. They posited, like Peters (2005), that technologies and practices could be entrenched in a group, diffused, spread out, therefore difficult to change. In this sense, the institutionalizing DLs could lead to reviewing policies about resources’ management and the process of document acquisition in an organization such as the CERDOTOLA. I recall that Agre (2003, p.) illustrated the process of institutionalization by exploring the rules, guidelines and expectations about the creation of knowledge by scholarly communities. He emphasized building practices and shared meaning around the content, and form comes as a distant second. However, my reading of Levy (2003) leads me to believe that from a scholarly perspective a discussion of the contents include the subject of forms, the containers and vessels that carried the knowledge produced by the scholarly community. I also posit that, from an analytical point of view, one can link Agre’s conceptual analysis model to the present case by extending it to the containers, forms and the types of documents that carry information and knowledge.

An early reference to Levy (2003) showed that information is all evidence present in written documents but not limited to them. Therefore, the recognition of culture in its multiple material or immaterial representations (www.unesco.org, 2013) could certainly be viewed as acceptance forms of documents not limited to written texts. Also, the nature of what constitutes ‘shared meaning’ is no longer in dispute thanks to the volume of institutional work that debates it. However, it is necessary to identify viable targets that could serve to anchor them and more importantly to clearly define them. Referring to document, digitalization, preservation of cultural heritage, culture and authority, one informant stressed that these targets are general concepts that bring about their own share of confusion. He stated:

*Is it a problem of resistance? No. In reality one must start from the level of culture (education) of these people...All these things are concepts. They are new things/and a concept is essentially intelligible. Not everyone understands it in the same way. However, for a concept to be understood uniformly, say by the majority, the majority must agree to its meaning.*  

Fr. « Est-ce que c’est un problème de résistance? En réalité il faut partir du niveau de culture même de ces peuples...Toutes ces choses-là sont des concepts. Ce sont des choses nouvelles//Et un concept est essentiellement intelligible. Tout le monde ne se l’approprie pas de la même façon. Or pour qu’un concept soit interprété de manière uniforme, disons par la majorité, il faut que la majorité le comprenne de la même manière. »(SD2)

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20 Fr. « Est-ce que c’est un problème de résistance? En réalité il faut partir du niveau de culture même de ces peuples...Toutes ces choses-là sont des concepts. Ce sont des choses nouvelles//Et un concept est essentiellement intelligible. Tout le monde ne se l’approprie pas de la même façon. Or pour qu’un concept soit interprété de manière uniforme, disons par la majorité, il faut que la majorité le comprenne de la même manière. »(SD2)
In a rather unexpected way, this informant referred back to the priority of conceptual analysis and approached meaning creation in its critical sense by assuming that there should be a tacit and/or explicit acceptable generalization of the concept of ‘culture’ or any other concept surrounding cultural documentation; a generalization that must not be academic, neither political or administrative, nor imposed by the LIS institution. It must come from the perspective of those who own said ‘culture’. This new understanding has the potential to shape any initiative in cultural preservation, documentation, or digitalization, and is impregnated with a Foucauldian undertone. Indeed, Michel Foucault would say the meeting of the minds around concepts and ideas expressed in words is a manifestation of power to co-create a new reality that is grounded in a socio-historical context (Foucault, 2002).

The above quote by the informant had a direct bearing on what he suggested as methods to overcome some of the challenges involved in building cultural digital collection, starting with the appreciation of an institutional approach and the concept of authority: He said:

“This kind of socio-cultural thing...That's generally for the NGOs//One must employ the NGO model [...] People increasingly trust NGOs. Therefore, even when Westerners come within the context of NGOs, people are ready and willing to provide them with information...because the NGO model is collaborative and participative./Because the institutional approach is generally (political) another authority and there is always fear for the authority that must be...that constitute an obstacle for the people that is not reassured.” (SD2)²¹

The participatory approach to building a shared cultural repository could mean the emergence of the CERDOTOLA as proto-institution; one that through a participatory effort and direct interaction with a local ethnic group would generate new practices and operational values. One of the benefits of participatory action is that it socializes participants and allows them to recognize existing institutional boundaries in order to evolve better ways of working together (Kemmis and Kemmis, 2008; Swantz, 2008; Rahman, 2008). Results from the interviews, focus ground, and field observations indicated that if concepts and institutional practices could be clearly defined, once they had been established, it would become easier to derive some measure of satisfaction from projects carried out according to new norms. This thinking is based on the assumption that these new norms answer questions related to empowerment, ownership and access rights, and in so doing dispels any mistrust in the technology or the people implementing it.

However, while the last citation proposes a solution it also reveals the problematic of power in the local context. It discloses hidden pitfalls in obtaining, authenticating and validating the information obtained in the field of cultural documentation. In the first half of his statement, the informant claims that it is not a question of resistance but (education) culture. In the second half, he states it is the lack of trust that generates resistance, a situation that finds its solution in the introduction of an agent external to the cultural setting. Further, it seems that beyond understanding the concepts that are being introduced into their world, the people feel the need to be involved in initiatives, but such initiatives must carry a barely

²¹ Fr. Ce genre de chose à vocation socio-culturel...généralement c'est les ONGs (qui s'en occupent)//Il faut passer par la forme ONG [...] Les peuples on de plus en plus confiance aux ONGs. Donc, quand même les occidentaux viennent dans le cadre des ONGs, les gens se montrent de plus en plus disponibles et disposés à leur offrir des informations...Parce que l'approche ONG est une approche collaborative, participative./Parce que l'approche institutionnelle est généralement une autre autorité et il y a toujours la peur de l'autorité qui doit être...qui constitue un obstacle pour le peuple...qui n'est pas rassuré.
perceptible imprint of the authorities (government, etc.). This, of course, raises questions about the role of local LIS institutions in cultural documentation projects, with the presumption that, as an international organization, the CERDOTOLA would be more successful in documenting local cultures. An overview of the political and administrative discourse already showed the existence of a communication gap between the institutions and the stakeholders. The institutions project a weak and negative image that projects to stakeholders. I suppose that the same effect will also exist here. Therefore, the participatory approach that is advocated and put in place between the CERDOTOLA and the Bafou group may depend on internally cohesive institutions working together towards a compromised understanding of the technological tools or assets they would like to develop together.

6.2. Revisiting the notion of document

The LIS practitioners we interviewed focused on the management of documents. In most cases these documents were found in libraries. The views of LIS professionals are similar to the CERDOTOLA’s Documentation center manager. They believed that the existence of DL technology is to facilitate timely access to resources, i.e. articles, books, journal, etc. They construed the absence of this conveyance as a failure. The CERDOTOLA’s mission consists in documenting all aspects of local and regional cultures. However, the CERDOTOLA’s digital repository is built with the perception that ‘if it is not written then it isn’t a document’. A consequence is that the organization’s digital portal (www.cerdotola.com) excludes audio, video, and photo collections from the digital repository; and from a more encompassing notion of documents (Levy, 2003). The focus group revealed that, for the purpose it is meant to serve, the CERDOTOLA needs to define documents as items that meet with the approval of the Bafou people if they are to build an effective shared repository together. The exemplary cultural documents, it seems, must address two issues; cultural conformance and accessibility. This citation is about cultural conformance.

“Our cultural treasures...were totally destroyed. It is only now that we are going back into enculturation...One is afraid of giving away secrets on the marketplace //Does one need to explain the phenomenon of totem to the common of mortals? One cannot put everything in it (pointing the internet screen on the projector)!” (SGY4)

This quote addresses the essence of immaterial cultural heritage, or what the Bafou group considers a cultural aspect that cannot be documented. In interview who had worked on a cultural digitalization project involvement immaterial culture testifies to the fact that his team was able to record and films events in the life of a pygmy group of Cameroon but never those aspect that were held sacrosanct this the tribe. Indeed, the informant SD1 mentioned that from an administrative point of view it has been problematic to collaborate with various ethnic groups in documenting cultural heritages, especially immaterial cultural heritage. He also claimed that the administration as well as the institution is slow to react, and for this reason very little of what the CERDOTOLA is attempting to document has been inventoried. The problem does not stop there. It continues with the effect representation of digital objects. The following citation addresses this presentation of some cultural elements once they have been captured.

22 Fr. Ce qui étaient nos richesses culturelles ont été brûlées. C'est maintenant que nous sommes en train de rentrer dans l'inculturation...On a peur de délivrer les secrets sur la place du marché.// Le phénomène de totem, est-ce qu’il faut qu’on l'explique à monsieur Tout-le-monde? Comment ça se passe?...on ne peut pas mettre tout la dedans (montrant du doigt une page internet)! (SGY1)
“Here is a small observation. I am at home. My children turn on the TV. They are fixated on a channel called TJ (Entertainment for the Youth)...So, for whom are we really preserving our culture. It is not for our children. It is for us with a certain level of education...// it is the very way of transmitting this culture, perhaps in writings that poses a problem because the children...perhaps the majority of our children do not read. It does not mean anything to them. It could be with the help of visual or audiovisual support...” (SGY4)

The quote alludes to the format of the documents and the characteristics of those who would inherit the culture that will be documented and digitalized. This quote shows a difference in the way a document can be perceived. Without excluding prints, they consider functionality, and accessibility. The participant perception of the problematic around ICT is reminiscent of an earlier statement addressing supply and demand, and ensuring technology will stimulate the consumption of documentable culture. The complex problem of handling documents should also take into consideration ownership and right to access. I reiterate that the Republic of Cameroon has approximately 280 ethnic groups (www.ethnologue.org, 2013). Some of these ethnic groups share many aspects of their culture. Since each of these groups is an institution, intersecting cultural points can be considered communicative points in their inter-institutional sphere. This poses the problem of resolving ownership disputes centered on common cultural elements as stated by informant SD1.

“We have a diversification of our cultural heritage here. In fact, we have a common cultural heritage plinth. Therefore, when one looks closely, one discovers that this folklore also belongs to other people, and so on and so forth. This begins to create problems. It is from there that we must see how to allocate what belongs to whom?”(SD1)

An interesting aspect of this quote is what it does not mention; that which is unique to each group. It certainly would be interesting to study this issue further; but not here. However, it is interesting to know that written documents do not pose any unusual problem, except accessibility for the younger generation. On the other hand, documented immaterial culture need to resolve to problem of access, which most informants failed to mention, depends on the cost of electronic devices, i.e. computer, laptops, smart phones, and internet connection.

### 6.3. Institutional stakeholders as confused audience

Rethinking the nature of the document, redefining it and building a common practice around it does not necessarily resolve another equally important issue related to the respective position, role, and appreciation of various stakeholders in a multi-institutional context. Discourses that are shared within a community sometimes follow diametrically opposed leads (Fairclough, 2009), hence the necessity to reveal the contradictions they leave behind. The discursive planes I established in the analytical part of this work revealed a tension between a

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23 Je pars d’un petit constat. Quand je suis à la maison mes enfants ouvrent la télé. Ils sont focalises sur une chaine qu’on appelle TJ…le divertissement pour jeunes…Nous prévoyons notre culture pour qui? La tranche d’âge qui est intéressée aujourd’hui par notre culture c’est pas nos enfants. C’est nous qui avons un certain age et qui avons attaïnt un certain niveau.// La façon de transmettre cette culture, peut-être par l’écriture, s’avère difficile parce que nos enfants…la majorité de nos enfants ne lit pas. Ça ne leur dit rien (notre culture). Ce serait peut-être par des aménagements visuels ou audio-visuels…”

24 Nous avons une diversification du patrimoine. En fait, nous avons un socle patrimonial commun. Alors, quand on va fouiller on trouve que ce folklore appartient aussi à d’autres peoples. Ainsi de suite. Ça commence à créer des problèmes. C’est de là qu’il faut voire comment faire la part des choses.
techno-centric and human-centric view of DLs. They showed that the whole confusion around techno-centrism resided in the assumptions that the power of a technology reached much farther than the limitation of its design (Agre, 2003). All interviewees saw innovative technologies as enabling change in their immediate environment. In some instances, the notion of change popped up in association with the idea of rewriting the rules and norms of a group, an institution, and organization; a notion described by Peters (2005) as de-institutionalization. In one instance, an informant mentioned corruption and trafficking influence. He stated that some staff members had to learn a new way to perform their job and that they could no longer do business as usual. He presented DLs as policing tools that have the power to re-establish order in an organization.

Foucault has discussed the use of power with the concept of pan-optics which is the effect of self-monitoring and self-controlling based on the assumption of being observed by others (Olsson, 2010). As a result, some of the stakeholders who are directly involved with the technology and those who are contacted or have the power to introduce DLs in their organization are reluctant to act. I equally found out that DLs, digital repositories, digital archives have a clear meaning and position at the CERDOTOLA and for the LIS professionals I interviewed. DLs are viewed as innovative tools in those organizations were I conducted interviews. However, they are conceived as an extension of physical libraries, and as a solution to meet the demand of changing academic libraries in the areas. All interviews provided stories of DLs and electronic archives, or digital repositories (the terms that are considered synonyms here) being developed in their workplace. This mimicry of other institutions could be filed in the vault of institutional isomorphism -adapting by copying the practices of other organizations (Lawrence et al., 2002, Peters, 2005). The CERDOTOLA already had a digital library, an extension of this physical collection that possessed a list of bibliographical metadata, with the expectations that an international collection of theses would soon constitute the bulk of the collections. So, much like previous research (i.e. Borgman, 2000; Levy, 2003; Lynch, 2003) this study exposed that a common definition or view of DLs and what make digital libraries meaningful only to the extent of their perceived usefulness to various stakeholders. This usefulness included the ability to affect the power salience of various stakeholders.

6.4. Revisiting the economic discourse

In the context of digital Libraries, what is known as the digital divide, the gap between technology rich nations and technology poor nations (Salinas, 2006) can also be applied to communities (Bishop et al., 2003) and could translate into an economic divide and a manifestation of power. Our interviews and focus group revealed a discourse that takes place at the macro and micro levels. At the macro level, the economic discourse appeared in the form of the higher economic constraints, with the states providing resources to communities, and institutions (organizations), and communities waiting for stately handouts. At the micro level, the discourse takes the form of resources allocation to specific programs and/or organizational units, or groups. Armed with this knowledge, people and groups adjusted to the prevailing situation and found ways to justify the non-allocation of financial resources to the acquisition of technologies such as DLs. The LIS professional I interviewed, who appeared satisfied with the success of their institutions, publicized that they have tried to overlook macro-economic implications on their institutions. For them, the key was to work at the unit level and with available resources in order to create a system tailor-made for their unique needs. It emerged from the discussion forum a sense of disillusion about working with the state. There, also, the effort was put on a micro-economic model that relies mostly on the
organization’s (i.e. bafou.org) own resources. However, an interviewee revealed that macro-economic impact can be dulled with appropriate administrative measures that foster progress.

The CERDOTOLA is affected at all levels of a discourse advocating the control of economic resources linked to the acquisition of DLs’ technology in order to moderate the hold larger institutions maintain on smaller ones. The ratio of power between them constitutes a discourse in itself, a tacit imposition of the will of the stronger over the weaker and a silent and complicit acquiescence of the weaker in this matter (Bourdieu, 1991). As an interstate organization, The CERDOTOLA is filed in the category of organizations that are sought out for collaboration based on the belief that they are more suitable to bring about positive changes. This perception comes with some challenges exposed in the focus group, i.e. the necessity to relinquish some control in order to gain access to potential documents belonging to a group of people that experience some economic independence. This economic independence discourse has an additional implication in a collaborative or participative project. It aims for a balanced and democratic resource generating process, a reorganization of knowledge, and a reinterpretation of society (Foucault, 1992) based on the position of the one and the other. This suggests that financial control dictates the pace of change or one group’s ability to re-organize around a technological artifact, i.e. the internet in the case of Bafou.org. The Bafou representatives saw the appropriation of the internet as a mode of communication that could be used to solidify community ties and store cultural documents. This fact put them at the intersection of different practices (Audunsson, 1999; Hanson, 2006) and squarely in the public sphere with memory institutions (Agre, 2003). It also provided the incentive to participate in a foundational work to create a shared repository of their culture.

6.5. Personal and institutional satisfaction

Perhaps the most important theme in the revelation of institutional challenge has been the persistence of the liberating power of DL technologies. There has been discourse around DLs that pointed to the fact that they could help the LIS practitioners perform more efficiently and with very little interference from an overwhelming bureaucracy. As an informant, SB1 boasted “we can track better who has what books, when they are due.” Or in the case of informant SB2, “I can get you any document in our holding within three minutes.” We may also consider a group interview participant claiming that they (the Bafou) were able to produce and access their own cultural material online themselves. By large, the literature on African LIS institutions talks about the need to improve the libraries (Awasom, 2003; Lajeunesse and Sene, 2010; Ngum et al., 2010). We noticed that DLs were viewed as a remedy to the extent that they could help establish a new balance of power within the institutions and deliver a refreshed image to the outside world. Perhaps this could be rationalized by the desire of one group of professionals wanting an accelerated rate of DL development (fast healing) and another group wanting a more advised development about this new form of service (slow healing). In the local context, both methods lead to the same results.

In one case, individual (professional) emancipation was defined by the ability to control the type of information that would be available by financing the acquisition of technology. The local institutional opinion seems to be the same. An informant at SB2 informed that it is always a good sight to realize that the document management system works as planned. The mean of acquisition coupled with the competence of a trained staff is vindicated by results. Finally, an interviewee at SB2 expressed satisfaction in the fact that “they [the administrative representatives] are surprised by what we [library employees] have achieved here.”
Subsequently, the context only provides the option of designing for economic scenarios with the risk of coming up with unexpected results. A final dimension of the healing discourse is evident in the cultural discordance. One interviewee (SB1) opined people are not given to reading. When reading happens, “it is superficial…skimming through texts and [internet] technology is a facilitator of this behavior.” This opinion is seconded by an informant (SD2) who opined that “[internet] has not been thought through…the situation is far worse than we think.” Yet, both agree that DLs are services that should be provided to the people but adapted so that when reading fails a more user-friendly format (audio, visual, interactive, etc.) could stimulate the deployment of technology.

### 6.6. Synthesis

I attempted to justify the existence of institutional challenges to cultural digitalization at the CERDOTOLA. Emerging discourses did not specifically focus on the collaboration with the CERDOTOLA. Nevertheless, they suggested ways to face some of the obstacles that stand on the way of building collections. The focus group discussion between Bafou.org and the CERDOTOLA revealed that one approach to move forward was to not tell people what to do rather to empower them to change their situation (Rahman, 2008). In an environment where institutional stakeholders vacillate on the nature and definition of the tools they use, it may become necessary to identify common practices between interested groups and to imagine how they could be framed in new services (Hansson, 2006). This could also constitute a bridge between the people and the system. This study additionally exposed two distinct practices to purporting to document cultural heritage materials. The CERDOTOLA’s means, objectives and ambitions are viewed through the lenses of LIS professionals for the most part. Researching and documenting cultural heritage has been dependent upon an economics-driven scenario based on purchasing needed resources (documents) or generating them through research. The model has been enhanced by inter-institutional collaboration with other academic and research institution. The byproduct of this formula is academic and scholarly documents. The functioning of the Documentation center and current digitalization projects reflect this view. We also have Bafou.org that claims to be involved in documenting and sharing their culture online. Here, a non-academic approach to documentation, a culturally and participative scenario, involving an entire community, defines the documentation process. This approach is based on the ownership of the raw materials that need to be accessed by the CERDOTOLA. As a result, we have a convergence of as well as meanings that could be leveraged to benefit the memory institutions and culture groups, the CERDOTOLA and the Bafou community. Moreover, there is the necessity to define what should be institutionalized. Should it be DLs, the documents, the way the documents are viewed, or how it is presented? Which among those is the driver of change in this Cameroonian LIS eco-system? I do not answer these questions here but they certainly constitute interesting subjects for future research.

Libraries are designed to hold documents and to store them for future use (Levy, 2003). However, dedicated digital repositories, libraries or archives are only as important and useful as the contents it holds. Resolution of these questions could lead to having a group of people working on a project they strongly identify with and that provides them with an incentive to continuously build the collections, visit them, and use them. This view of collection development embraces a participative ideology (Gergen & Gergen, 2008, Rahman, 2008) while simultaneously addressing shared ownership and control. Finally, there is the issue of trust that has been linked to attitude towards changes. All discourses suggest that working with proactive people (Audunson, 1999) within and outside administrative structures would actually produce better results. Indeed, the interviewees suggest that proactive members of the
communities do not tolerate older and inefficient systems; they show great interest in new ideas; and they push to enlarge the stakeholder’s base of the updated infrastructure.
7. CONCLUSION

This chapter summarizes the study, presents the implication for the CERDOTOLA’s Documentation center and suggests future research.

7.1. Summary

Philip Agre’s article about the institutionalization of digital libraries provided an understanding about how DLs fit in contemporary societies by defining them in context. The context takes into consideration local stakeholders’ values and appreciations of DLs, the roles assigned to technologies, and how they are viewed in a specific LIS eco-system. I applied Agre’s analytical model in this case study about exploring institutional challenges in the development of cultural digital collections at the CERDOTOLA, in Cameroon. These collections support the needs of specific stakeholders, i.e. researchers, LIS professionals, and various ethnic groups that claim ownership to the cultures and traditions that are being digitalized. The timeframe and scope of the research limited the study to selecting one ethnic group, the Bafou people of West Cameroon, among 285 found in the country, in order to complete an analysis that rounded up some major stakeholders implicated in the development of DLs and cultural digitalization projects. I proceeded based on the assumptions that the adoption of digital libraries are charged with statements that reflected the moods and positions of various stakeholders; that these statements, positions and moods were liable to influence the final outcome of change; and that changes brewed challenges as much as challenges begot changes. These assumptions led to stating the following questions:

- What is the appreciation of the power of DLs in the local LIS ecosystem?
- What emerged from this appreciation within an authoritative and administrative context?
- How are economic questions addressed by select institutional stakeholders?
- How do institutional stakeholders view change brought about by DLs?
- In light of all four preceding questions, how are collaborative efforts to acquire, build, and used DL perceived by LIS professionals and a select culture group?
- Finally, do interviews with stakeholders reveal hidden perceptions about resource acquisition and the current state of the institution that could be directly linked to the introduction of DLs?

I attempted to answer these research questions with the help of normative institutionalism, stakeholders’ theories, Foucault’s power and inter-subjectivity theory, and by submitting the research data to a critical discourse analysis (CDA) method conceived by Siegfried Jäger and Florentine Maier. Their analytical conception of Foucault’s CDA identified discourse planes as communicative spaces that exposed major thoughts and ideas happening either in isolation or manifesting themselves in relationship with other ideas. Foucault’s CDA was applied by extracting discursive strands (phrases and sentences) from identified discursive planes in order to uncover their foundational meanings in context. Uttered sentences and phrases were examined and triangulated with non-discursive practices (the carrying out of tasks within the environment) and the physical design of the spaces - structures and infrastructures where these practices were carried out (dispositive). This simultaneous triple analysis increased the validity and reliability of the study by scrutinizing what was said in relation to what was done, and how they together effectively materialized in a practice.
I analyzed data from 10 face-to-face interviews, two group interviews, and a focus group discussion with LIS and non-LIS professionals. The analysis also included site observations. The interviews were recorded with an Olympus digital voice recorder VN-7000. Sections of these interviewees were transferred to a desktop computer for further analysis. The resulting empirical data revealed that the positions, attitudes, and moods of people around the introduction and adoption of ICTs and DLs have an impact on the digitalization process. The empirical data uncovered five discourses linked to five different categories of conceptual traps derived from Philip Agre’s priority analysis in the development of DLs, thus allowing me to answer the research questions as follows:

1. **The technological discourse** regrouped preconceived ideas about the design of DLs, such pre-supposed standardization and automation that provided LIS professionals and users with the ability to complete their tasks with ease. The discourse also revealed that the acquisition of DLs that are easy to operate were strictly linked to the memory of institutions’ financial means and the willingness of the profession to tailor the new systems to its user-communities’ needs. This discourse also discussed the fact that local memory workers believed that DLs can fundamentally alter the dynamics of a workplace by redesigning the roles of employees, enforcing organizational rules and regulations, and instilling new norms and values. However, the data also revealed that internal resistance to the acceptance of DL technologies was due to a lack of general understanding of what they represent.

2. **The political and administrative discourse** was centered on the political consequences one can derive from technology. This discourse essentially dealt with power and decision-making, and current administrative cultures and communication approaches that affect all stakeholders involved in the acquiring and development of DLs technologies and delivering digitalization projects. The discourse showed that memory institutions such as libraries and archives are embedded in bigger organizations that set the pace for their development through the allocation of financial resources. The lack of financial and administrative autonomy bred mistrust and led to the perception of an endemic LIS institution. Professionals who have successfully implemented DLs were considered to have managed to gain some autonomy whereas those who could not do it saw the flaws of a communicative approach to change that failed to involve all concerned parties.

3. **The economics discourse** focused on the management and availability of resources, and on the incentives to introduce DL technologies in the local LIS arena. In this mostly economic perspective, DLs are viewed locally as extensions of traditional libraries; therefore subject to the same financial constraints as the latter. The empirical data showed that insufficient financial resources demanded that the delivery of DLs be based on criteria that fulfilled all the requirements associated with ease-of-use and compatibility with existing systems. But that was hardly the case in practice since the decision-making process was not controlled by the profession. So, while the standardization of DLs was not assumed, it appeared to be wanted by the local LIS institution. In addition, the lack of funds favored a scenario of developing them with the help of volunteers. The common definition of volunteering was questioned. The data revealed that project workers believed in the inclusion of financial incentives in volunteering. This was due to the fact that local development of DLs was viewed as an economic enterprise and the lack of proper incentives slowed their introduction.
4. The discourse on cultural change focused on the internal mechanisms for change; on the importation and communication of change. The empirical data revealed that the introduction of DL technologies was expected to quickly alter memory institutions and to fundamentally change them. As a process of restructuration, the introduction of DLs brought in new values that clashed with old ways, creating in effect the impression that nothing was changing. However, this impression was different when the institutions that benefited from DL technologies claimed to be partially or entirely responsible for their introduction. This in effect highlighted the importance of being able to control the communication mechanism around the implementation of DLs and the delivery of digitalization projects.

5. The Collaborative discourse linked previously all other discourses to the practice of introducing DLs and building digital collections. Incorporating more elements of Agre’s conceptual traps from previous discourses provided a thorough examination of internal and inter-institutional collaborations. The analysis revealed that institutions sought out intermediaries as intermediation provided the link to the public sphere. The expectation of positive changes resulting from the introduction of DLs, their interactive properties, and the diverse needs of the stakeholders played an important role in this matter. Similarly, emerging discourse equally revealed that, in spite of the sense of accomplishment they conveyed, DLs and the projects they brought with them, were seen as hubs of tensions and compromises.

A synthesis of these discourses provided an enhanced picture of the internal and external factors that affected the CERDOTOLA’s Documentation center at the time of the study. The external threats were manifestations of a resistance towards the introduction of DLs in institutions that were present or potential partners of the CERDOTOLA. These institutions’ internal struggles to build a common vision about DLs, their lack of resources, the competence level of the workforce, and inadequate motivation schemes, as well as an endemic lack of trust for administrative authorities, the lack of professional motivation, a defeatist attitude that besieged the local LIS communities, or other economic ills that overwhelmed them represented factors that the CERDOTOLA did not control. The CERDOTOLA’S own internal weaknesses showed challenges to digitalization by disclosing a communication gap between the Documentation center and the rest of the organization. The synthesis of the analysis summarized the impact of these challenges by showing the existence of these threats and weaknesses that slowed down any digitalization project, hindered the institutionalization of DLs, and resulted in inoperable systems. In addition, the five discourses led to a new set of discoveries that proposed different views of institutional challenges.

1. A new perspective on cultural documentation and acquisition was first among all emerging discourses. In the CERDOTOLA’s unique context, cultural documentation and acquisition are viewed as inter-institutional activities that happen in the public sphere. This is due to the nature of the materials that are earmarked for digitalization. Peoples’ folklore, traditions and rituals present a unique challenge that could benefit from a participatory approach. The empirical data revealed that a participatory approach is justified by a general low level of understanding of DLs and digitalization as new concepts. A consensus about their overall social representation is needed in order to deliver functional systems and documents.
2. *The need to revisit the notion of document* was the second emerging discourse. The study of documentation shows that documents have been viewed differently by different thinkers. The empirical evidence suggested that in the case of cultural heritage materials, perhaps the accent should be place primarily on the opinion of the owners of the objects or material that will become a part of a documented or digitalized collection. Therefore, representation became an important issue. The data suggested that scholars (researchers and LIS professionals) have long succeeded in offering users and user-groups information in writing. This format was seen as limited to an “intellectual elite” and presented little appeal for the masses. This emerging discourse suggested expanding the notion of documents to other formats, i.e. audio-visual in order to increase the consumption and justify the existence of cultural digitalization projects.

3. *The institutional stakeholder as confused audience* was the third emerging discourse. The empirical data showed that there was no clear role, appreciation, and understanding of various stakeholders in a multi-institutional context. While LIS professionals had a clear vision of what DLs should represent, they often did not grasp the overall impact of the technology and they were not seen as sufficiently trained to use it. They found themselves in the position of not being able to explain its scope or impact to others who possessed a far lesser knowledge of DLs or digital documents. Consequently, DL technologies were perceived to be meaningful only to the extent of their usefulness to various stakeholders.

4. *In revisiting the economic discourse*, the empirical data showed impacts on two levels. A high level impact touched the entire local LIS establishment. At that level, professionals seemed to apologize for the lack of financial resources from the state. At a lower level, that of individual institutions, they were unforgiving about organizational/institutional governance. They linked sound financial control of limited resources to the acquisition of DLs, the ability to carry-out digital projects, and the possibility to gain more freedom on the job.

5. Finally, *personal and professional satisfaction* was a discourse that emerged for the perception of DLs as liberating tools. The data revealed that the introduction of DLs in legacy memory institutions does not necessarily resolve pre-existing problems. However, their availability and access are uplifting to individual and institutional stakeholders. DLs were seen as tools that could empower practitioners but also control them. They could be used to challenge older ways of building collections through acquisition/purchases and donation by exploiting participative cooperation, repositioning and redefining the documents in the eco-system.

The CERDOTOLA’s mandate to research and help preserve the regional cultural heritage embraces the use of any modern tool that can contribute new culture-related documents to its Documentation center’s existing collections. The CERDOTOLA’s project to implement a DL in the central African region shows it. This DL is considered a unit of the Documentation center and a welcome overhaul of a representative institution that is nested within a bigger organization. Because the CERDOTOLA specializes in leverage inter-institutional arrangements in order to fulfill its mandate, it would gain from a better understanding of the communicative space between institutions. Stakeholders that belong to these institutions may not have a uniform appreciation of DLs, a full understanding of their partners’ objectives, or the will to compose with them. DLs are new and misunderstood concepts that are introduced in an environment where trust is already lacking. The
professionals who are tasked to explain them to the people often lack the skill to do it clearly because they do not possess the skills needed to operate them. The people who could be interested in digital libraries have been conditioned to not trust the institutions. Finally, the institutions, such as the CERDOTOLA, have been more secure in collaborating directly with other institutions instead of relying on the grassroots. In the CERDOTOLA’s case, the study showed the necessity to clearly define and agree on the meaning of concepts in ways that allow them to be accepted by various institutions or, at the very least, in the public sphere.

7.2. Revisiting Institutional stakeholders

I have looked at the challenges of cultural digitalization at the CERDOTOLA in Cameroon from a librarian’s (LIS professional) perspective. LIS professionals are stakeholders who have a vested interest in DLs and the creation of digital collection. As such, the necessity of revisiting institutional stakeholders’ definition and role in cultural digitalization represents an interesting line of future inquiry I recommend to other researchers. In this section, I present some justification of future research. Organizations can be viewed as institutions (Olson, 2005) and organizational stakeholders would share the same attributes as institutional stakeholders. Current descriptive stakeholders’ theories have stratified stakeholders into primary, secondary and even tertiary stakeholders (Mitchell et al., 1999). The LIS counterparts would be primary, secondary and tertiary user of user-groups in LIS literatures. The normative approach of stakeholders’ salience has been successful in portraying the power play between various groups, presenting a claim on the organization’s livelihood. This view of stakeholders’ salience has misrepresented the key players and the field of play in two major ways.

First, the accent has been put on the “upper managers” (Mitchell et al., 1999) as the ones who are able to determine whose claim comes first; ergo who is a primary stakeholders and who is not. My interviews corroborate it. The institutions’ overseers have the power to decide the faith of LIS professionals, suppliers, clients and customers. This interpretation is due to a misapprehension of the concept of a “stakeholder.” In its simplest definition it should be understood as the one who hold the stakes (the shares). Therefore, the institutional overseers’ power to decide over all other groups makes them sole stakeholders. Anyone else counts only as long as he/she is viewed as worthy to join the circle of power devised by manager. And second, the social conception of organizations and institutions has been entirely ignored in Mitchell’s model. This most cited model (Derry, 2011) displays the characteristic of a closed system. The processes of this system are interlocked and do not allow for outbound communication since external factors (laws, mores, etc.) are presumed internalized through codes and procedures. The organization becomes an autonomous and isolate entity. This conception of the organization centralizes all stakes in one hand (the managers, administrators). It views the stakeholders it describes as mere instruments at the service of the organization. And it is contradicted by the theories of this case study and require more studying.

According to Olsson (2010), Foucault’s notion of inter-subjectivity recognizes that social discourses happen at the macro-level. People create meaning and “closed systems” always manage to find an outlet into a greater world and a connection to other systems or institutions. The institutional representatives I interviewed wore the hat of employees in their organization, but they also represented various ethnic groups, and they were also members in other civic organizations. Such was the case of a CERDOTOLA’s employee who was also a member of the Bafou ethnic group. The enhanced dimension of their persona should be
considered (Crane & Ruebottom, 2012) in determining the fate of an institution. An interpretation of stakeholders’ theories encases them in *share value, share purpose,* and *shared ownership.* As a concrete application, the CERDOTOLA’s entire staffs (librarian and researcher) will come to see the shared repository as their own creation as well as a link to a larger world of cultures. From the Bafou perspective, it may represent the strengthening of a position with respect to the documentation of their culture, as they are being brought to work hand-in-hand and side-by-side with experts. An expansion of the stakeholder’s persona eventually means a diffusion of power to a broader audience through institutional ownership, possession, and control of DLs. This can also be interpreted as the expansion of any institution beyond its perceived boundaries, i.e. the CERDOTOLA’s mandate to document all regional cultures of Central Africa when its employees already share membership in at least two organizations - the CERDOTOLA and their ethnic groups. Therefore, ignoring their social dimensions could actually constrain the development of the CERDOTOLA and its movement in the public sphere.

### 7.3. Additional areas for future research

My investigation concluded that CERDOTOLA’s Documentation centers faces some institution challenges. These challenges are similar to those found at the sites where I conducted interviewees with LIS professionals. DLs are viewed by some as administered institutional services, but many could not find a right place for them. In a case where stakeholders, users and user-groups would be directly involved in contributing cultural documents to the DLs, reaching the right outcome appeared contingent upon finding proactive people, groups or institutions that share a common objective. While DLs are and remain modern tools used to store, retrieve, and disseminate information captured in documents, the local reality I explored, indicated that they only represent a much needed improvement to legacy infrastructures, i.e. traditional libraries. However, they were also viewed as entirely new and emerging phenomena that still needed to be fully appreciated by all concerned stakeholders. As I offered a short review of thoughts surrounding the global, regional, and national evolutions of DLs in my introduction, I mentioned in passing that, in spite of all efforts to digitalize, the local LIS communities cannot avoid facing the fact that their institutional problems predate the introduction of DLs. The current representations of DLs as extensions of older buildings do not exempt them from the processes of acceptance and vulgarization that are pre-requisites to any institutionalization process. The tools must cease to be viewed as merely tools in order to be melded properly in the societies and communities they are meant to serve.

My suggestions for addition lines of future enquiries include an exploration of the issue of trust. The exploration of institutional challenges in cultural digitalization revealed a lack of trust between various stakeholders in institutions, and at the inter-institutional level in the local LIS eco-system. Working with cultural heritage materials is a sensitive endeavor that requires getting close to sensitive information owned by a group of people. While much has been written about gaining trust in conducting research, not much has been said about how local LIS stakeholders experience trust issues and attempt to overcome them in their practice. I believe that further research would benefit from studying on the impact of trust in acquiring and developing DLs that contain cultural heritage materials in developing nations.

Another possible area for future research is a comparative analysis of similar type of memory institutions as the CERDOTOLA’s Documentation center, which can be classified as a research institution library; ergo a research library. Such a study could provide additional
insights into the constraints about developing and managing of digital resources in these institutions that focus primarily on developing countries. Based on the empirical data, the cooperation between the CERDOTOLA and various institutions of higher learning placed the organization in the position of an institution that helps other memory institutions. A future study about how these final categories of institutions evolve their collaborative strategies within the specific context of digital collection development could supplement existing writings on the topic. I also recommend future research that discusses the methods of this study.

The thesis exploited empirical data from a minor field study that attempted PAR. My research of the boundary of action research, participatory research, participant observations did not produce any notable results. For example, Bryman (2004 & 2008) only succinctly mentions the trappings of the methods when used to produce academic works. Wildemuth (2009) specifically covered research methods in ILS. However, her book barely mentioned how topics related to action research have been linked to practice-based research (Bradbury & Reason, 2008). Bryman (2008) and Denscombe (2010) concluded their books with chapters that offered practical guidelines on writing academic researches based on the methods such as interviews, focus groups, case study, to name a few. Yet, they did not clearly address the difference in using data gathered with the help a non-conventional qualitative research methods such as PAR, and the difficulty one would have in calling the end result an action research project. I believe that there is a need to clarify that data gathered in participatory action field study does not necessarily translate into a participatory thesis in any scholarly discipline. However, this argument can only be supported by studies that clearly delimit the methods.

Finally, the case of the CERDOTOLA relied on the participation of representatives of an ethnic group. I recommend continuing the implementation of PAR in collaboration with the Bafou ethnic group in order to achieve full research validity, and perhaps to confirm PAR (Greenwood & Levin, 2007), as a suitable method for carrying out digitalization projects in the region. It will be helpful to carry out a similar study with a different ethnic group to compare the results. Most importantly, the questions of cultural document representation could be address. I believe that discussions with local stakeholders about which digital representation of their cultural heritage appeal to them is in order as it could lead to a better view of DLs as technologies that are useful in the preservation of cultural heritage.
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APPENDICES

Appendix 1: Summary of major digitalization projects in Cameroon explained

The majority of these projects is sponsored by international organizations and initiated by individuals who have an interest in African cultures and archives. Most national archives projects are supported by the direction of the National Archives of Cameroon, a division of the Ministry of Arts and Culture, hence the Cameroonian government.
Appendix 2: Letter of introduction from Borås University

CERTIFICATE

To whom it may concern

This is to certify that Mr. Roland Ngwee Ngjijol, born November 2nd, 1971, has been granted a Minor Field Studies scholarship from the University of Borås in order to carry out field studies in Cameroon.

Mr. Roland Ngwee Ngjijol is a registered student at the Swedish School of Information and Library Science, University of Borås. The field study is part of a thesis for his degree.

Mr. Roland Ngwee Ngjijol will carry out his field study in Cameroon during the period 20 February – 22 April 2013.

The Minor Field Studies scholarship is financed by SIDA (Swedish International development co-operation agency) and administered by the International Programme Office for Education and Training.

The scholarship is a contribution towards travel, lodging and other expenses that may arise in connection with this type of fieldwork.

Yours sincerely

Karl-Fredrik Ahlmark
International co-ordinator
University of Borås

Contact details:
Karl-Fredrik Ahlmark
Högskolan i Borås
Allmogaten 1
SE-501 90 Borås, Sweden
Phone: +46 (0)33 435 43 82
Email: karl-fredrik.ahlmark@hb.se
Appendix 3: Letter of introduction from SIDA

To whom it may concern

The holder of this document and the attached individual letter of introduction or certificate from the university/university college,

Roland Olivier Bienvenu Ngwee Ngjol

is about to undertake a “Minor Field Study” administered by the Swedish Council for Higher Education and financed by the Swedish International Development Cooperation Agency, Sida.

For many years, Sida has financed scholarships for Swedish university students. These scholarships aim to raise the level of knowledge and interest of Swedish students in Swedish international cooperation and to give them the opportunity to learn about other countries, thus promoting international understanding and global knowledge.

The student will use the scholarship to carry out an in-depth field study as part of his/her Swedish university programme. The study’s lay-out and academic plan have been approved by representatives at the university and institution in Sweden. The scholarships are intended to cover a period of study abroad lasting approximately 8 weeks.

One of the objectives of the visit is to provide the institution in the host-country with information about the study’s findings (in the form of a report by the student). Another objective is to promote contact between students in Sweden and other countries. It is hoped that the Minor Field Study Programme will be of benefit to both of our countries. The Swedish Council for Higher Education and Sida would therefore appreciate any assistance that can be offered to the student in pursuit of his/her mission, including any necessary permits.

Please note that the Minor Field Study Programme is not a research commission.

\[signature\]

Lars Nordahl
Head of Unit, Department for International Cooperation
The Swedish Council for Higher Education
Appendix 4: Letter of Acceptance at CERDOTOLA

This is to certify that I, Prof. Charles Binam Biko, Executive Secretary, CERDOTOLA in the Republic of Cameroon, agree to act as a contact person for the student Ngwee Ngijol Roland O. B, born November 2nd, 1971, who has been rewarded a Minor Field Studies grant from Högskolan i Borås in order to carry out field studies in the Republic of Cameroon, between February 15th, 2013 and April 15th, 2013.

Roland Ngwee Ngijol, student at the University of Borås School of Library and Information Sciences, is undertaking a field study as part of his Thesis work about "The design and Implementation of Cultural digital Libraries in Developing countries".
Appendix 5  Sample follow up letter with high value informant

Buéa on 2013-03-13 15:51

Dear Prof. XXXX,

Per our recent conversation, my name is Roland Ngwee Ngijol and I am a LIS student at the University college of Borås who is currently placed at the CERDOTOLA (www.cerdotola.com).

I am undertaking a field study that investigates communication mechanism between major stakeholders (cultural groups, librarians and archivists, and administrators) in the development of cultural digital library and archives in developing countries. This study incorporates in a thesis in a master’s thesis in Digital library Management and Information Services. Prof. XXXX, director of the National archives, has stressed upon me the importance of visiting Buéa and recommended that I stop by at the university library.

I am aware that your team has created the first OPAC in Cameroon and is in the process of changing the general perception of librarianship in Cameroon. I would like to have the opportunity to meet with you to discuss your experience during the conceptual phase of the OPAC. I will not be travelling alone to Buéa and will be assisted by Dr. XXXX (linguist and researcher at CERDOTOLA) and Dr. XXXX, researcher involved in a program to document endangered languages in Cameroon in cooperation with the Max Plank institute in Germany.

As agreed, I will confirmed our exact arrival date in Buéa and inform you of our presence once on site.

Kindest regards,

Roland Ngijol
University of Borås
Dept. of Library and Information Sciences
Tel. (Cameroon) 90664271

Appendix 6: Proposed discursive planes based on Agre’s (2003) conceptual traps

My investigative methods did not require participants to define concepts (i.e. digital library, automation, culture, change, etc.). In a roundabout way, it looked for a consensus and a discrepancy in an understanding of the concepts, and for the importance the interviewees assigned them in five grand categories (culture, politics and administration, technology, economics, cooperation) that I call our discursive planes. See figure 7.
This figure represents a grouping of conceptual traps in various discursive planes as they flow to reveal emerging perceptions and the overall implications for the institutionalization of DLs.

**Appendix 7** Interviews (sample pilot)

**DATA GATHERING APPROACH FOR GROUP INTERVIEWS**

The investigative approach considers semi-structured interviews directed to ethnic groups (Bassa, Douala, and Bamileke) and personal interviews with at LIS professional and administrators. Three groups: Bassa, Douala, Bamileke, French and English speaking Cameroon.

Individual interviews:
- Director of cultural centers
- Employees of the department of Cultures
- Professional archivists and document handlers
- Owners of private archives
- Educations (ethnologists, anthropologists, sociologists, historians)

The focus is on traditional entertainment including oral literature (recitations, sagas). The questions are divided into five groups. Questions in group “1” to “4” are designed to match the major divisions of the general environmental scan. Questions in group “5” create linked previous inquiries to the communicative dilemma in Cultural DL design.

**Socio-cultural type questions:**

1. Pressupposed standardization
   - Assuming inter-system compatibility
   - Difficult of address multiple users' needs
2. Political consequences
   - Decentralization of power in society
3. Automation
   - Replacement of human being
   - Renegotiation people/machines dynamics
4. Assuming rapid change
   - Change in values, norms, standards
   - Fear from being left behind
5. All and nothing change
   - Revolutionary vs. Reactionary
   - Radical alteration of society
6. Assuming away intermediaries
   - Role re-organization
   - Suppressed the middle person
7. Technology and economic driven scenarios
   - Not taking into considerations non-technological fields or designing based on economics consideration above all
8. Design for limited ranges
   - Assuming a general operability of system
   - Compatibility with multiple users' needs
9. Pre-supposed transparency
   - Ignore the limitation of individual perspective
   - Ignoring institutional boundaries
10. Technology and economic driven scenarios
    - Not taking into considerations non-technological fields or designing based on economics consideration above all
11. Design for limited ranges
    - Assuming a general operability of system
    - Compatibility with multiple users' needs
These questions set up the mood for the entire interview. They are meant to build a profile of the people, group identity, locations, customs and values. Here I consider six (6) sample questions that are meant to guide the exchange between co-researchers.

1. Where does to tribe come from?
2. What make one a proud member of the tribe?
3. Are there traditional means of sharing knowledge among group members?
4. What is the meaning of tales and saga in the overall culture of the tribe?
5. How important is it to be visible in Cameroon cultural scene?
6. Is there any concern about future of the tribe traditions?

**Socio-economic type questions:**
This set of questions approach current challenges linked economics. They flow from the socio-cultural aspects of sharing one’s cultural heritage and cannot ignore any direct, indirect or subsidized costs associated with such initiatives.

1. Have you organize to keep records of your tribe?
2. Where do you usually find them here in the city? If so how?
3. Is it difficult or expenses to promote (a specific dance)?
4. What is so important about promoting an event such this dance or something else that belongs to your people?
5. When you organize public ceremonies do feel that you have the financial support you deserve?
6. Who Do you usually turn to for financial support and why?

**Socio-political type questions:**
This set of questions address the socio-political environment. The questions are about visibility, control and cultural representation.

1. What does it means for you to dance your tribe favorite dance in public?
2. Are there other dances from you tribe that you will not share with the public? If yes why?
3. For example, some perform a song in you native language on national TV, what comes to your mind?
4. Is that a common occurrence?
5. How do you feel about it?

**Socio-technological type questions:**
These questions introduce the innovative technology in the debate. Here, we have a mixture of open-ended and close-ended questions. Because digital library are technological tools that have an impact on people’s life and that rely on the same power grid as other communication tools, this section contains more questions than any other. Here are some sample questions.

1. I see that almost everyone here has a cell phone. Do you use it to call each other when you organize your cultural events?
2. Do you sometimes call the person (if any) who is the expert of this ceremony to ask for his advice?
3. In a city as big as this one, who you think to go to a library to look for a book that someone has written about the histoire of your people?
4. Have you hear of the internet?
5. When you go to an internet café, what do you usually do when you are there?
6. Have you ever been on a website called Facebook? Why?
7. Can you name other website that you have visited?
8. How do you feel about sharing some aspects of your culture on these sites?
9. Are there aspects of your culture you will never consider sharing online?
10. What do you think are the key benefits of been able to access once culture only?

Questions about collaboration with institutions:
These are open-ended questions that hope to investigate the relationship between documents centers, archives and ethnic groups. Above all, they provide a synthesis of the entire interview.
Have you ever worked with any cultural organization of association that tried to promote your culture?
How did you communicate and how did that work out?
How do feel about being included in the conception and design of a structure that will host given elements of your culture? Have you been approached by any institution before?

DATA GATHERING APPROACH FOR INDIVIDUAL INTERVIEWS
Questions that are asked in individual interviews will complement the questions from the group interviews and offer the institutional perspective of the dilemma. Here, I select documental handlers, archivists, and librarians are the first subgroups to interview in this category. The second group consists of the appropriate government workers within LIS. The final group is composed of scholars who specialize in the study of culture.

Socio-cultural type questions:
These questions set up the mood for the entire interview. They are meant to build a profile the person being interviewed
1. What is your name?
2. Could you describe your profession for us (title, role, year of experience)?
3. What do you find existing in your profession?
4. To which ethnic group do you belong?
5. What are the cultural elements of your tribe that are most representative of who you are?
6. How important is for an ethnic group to be visible on Cameroon’s cultural scene?
7. As a professional in the field, do you have any concern with the preservation of these cultural elements?

Socio-economic type questions:
This set of questions approach current institutional challenges that are linked to economics. Here are some sample questions.
1. How can we understand the economic challenges linked to documenting and archiving cultural elements, object, etc.?
2. Is there a part of this challenge that is the responsibility of the people who own these cultural elements? Are they economically responsible (meaning should personally finance the initiative?)
3. Can one create a bridge between these private initiative and actions from institutions and government? How?
**Socio-political type questions:** This set of questions address the socio-political environment. The questions are about visibility, control and cultural representation.

1. Based on your understanding of the cultural elements we are discussing, do you feel that there has been an evolution (improvement) in the treatment of various cultural artifacts?
2. To what degree do you think that you/your institution/administration collaborate with the various ethnic groups?
3. Is there any reluctance from social groups such as the one mentioned herein to document and catalog these cultural elements?
4. What can that represent in term of negotiation more representation at the national level?
5. Can we clearly link economical mean (at tribal level) with visibility and influence on a national scale?

**Socio-technological type questions:** These questions introduce the innovative technology in the debate. Here are some sample questions.

1. I see that almost everyone here has a cell phone. What do you usually use it for?
2. Do you sometimes call the person (if any) who is the expert of this ceremony to ask for his advice?
3. Do you see the potential of cell phones as innovative technology to improve cultural visibility?
4. What could the limits of cell phone and technology in linking enhancing cultural visibility?
5. In a city as big as this one, would you think to go to a library to look for a book that someone has written about the histoire of your people?
6. When you go to an internet café, what do you usually do when you are there?
7. Have you ever been on a website called Facebook? Why?
8. Can you name other website that you have visited?
9. How do you feel about sharing some aspects of your culture on these sites?
10. Are there aspects of your culture you will never consider sharing online?
11. What do you think are the key benefits of been able to access one’s culture online?
12. Does the idea of digitalizing conflicts with the authenticity of cultural elements?
13. What type of problem do you foresee with groups that try to access their cultural information in a system you could be asked to manage?

**Questions about collaboration with institutions:** These questions hope to investigate the relationship between documents centers, archives and ethnic groups.

1. Have you ever worked with any cultural group that is tried to promote its culture?
2. What were the challenges?
3. What can be improvement in term of digital cultural representation?
4. Do you feel that it is important to include those who own the element being digitalized in the conception and design process for cultural digital libraries?

What are possible solutions?

**Appendix 8: Site Description in Buéa**

(University library of Buéa, Buéa National Archives)
Both sites are located at on the south Western slope of mount Cameroon, in the English speaking city of Buéa. The National Archives is located in the oldest site of town, closed to the colonial mansion of the German governors of the late 1800s and earlier 1900s. The University of Buéa and its library are located further down the slope.

The National Archives of Cameroon double as national libraries. Buéa’s National Archives occupies one Building. The building houses a reception room, a waiting area, a research space with direct access to reading materials; a vault that contains sensitive documents, and office spaces. The National library is staffed by professional librarians and archivists. Visiting the library National archives is not free and various subscription schemes are offered to different categories of visitors (academic, the general public, international visitors, etc.) who also pay a fee for scanning, copying, or photographing documents. The fee is explained as helping to maintain the current infrastructure. The building looked old, some areas were dilapidated. A stack of old documents could be seen on the pathway between the reception room and the vault. They are books found in the reading rooms. However, visitors need help with most documents, some of which dating from the early to mid-1800s. During our visit, we meet three employees at the library. On the day of our visit we found a team of three people working on the tail-end of digitalization project and learned about another ongoing project located in the building of the ministry of information: the national photography project led Erin Haney of the Smithsonian Institute, Jurg Schneider of the University of Basel, and photographer Rosario Manzuela (www.africanphotography.org). The project is at the first stage of converting 144000 photographs into digital copies. There were no computers on site.

The University Library of Buéa (UBLIB) occupies a modern 2 stories building, with offices on both floors, a multimedia center with 12 desktop computers and broadband connection and a large reading room on the first floor. The building looked clean and fresh and the staff is as friendly as those we meet at the national archives. The library employs trained librarians and support staff. We also visited the offices of the library Director and the technology manager and observed that they were bright and spacious, equipment with computers. The technologist kept the library server in his office. He showed us the university open online access catalog (OPAC). UBLIB began its change process a little over a decade ago (Ngum et al., 2010) and has managed to digitalize theses produced by students. Access to the resources is fully automated. Student require one (student) ID to access the premise, rent materials, register. Library employees can track all transactions (rental, printing, copy, registration, deposit of document, etc.) Student access to reading material is included in the university registration fees.

**Appendix 9: Site Description in Douala**

*(Regional office of the Ministry of Arts and Culture, and University of Douala)*

The Ministry of Arts of Culture of Cameroon is responsible for the national policy about memory institutions (library, archives, museums, etc.). On visit of the regional direction of the ministry of Arts and Culture was unplanned though we managed to interview and administrator responsible to the cultural national heritage program in the province, on the day of this retirement. The Direction is housed in an old colonial building with high ceilings. The reception is a small office with no windows with desk for the receptionist and waiting chair and small table for visitors. There is no computer in the
rooms and stacked of rolled up old newspapers packaged in shelves. The corridor between the reception desk and office of the head of national heritage service is dark. On notices that the building is not property maintained and mountains of documents stacked at various points in the corridor. The office where the interview took place is somber and has a desk and three chairs. No electronic equipment, i.e. computers, laptops, printers, etc.

The University of Douala library is located in a modern 2-story building with administrative offices on both floors. It has a huge reception hall, a reading room on each floor, and a collective staff office on the first floor with each work desks. The rooms contains high shelves with books, some of them are very old. The room is badly lit. One also notice that, in the reading rooms books could be found on the wrong shelves. From the top floor looking down into an area of the first floor’s reading room that serves as a dumping ground for student exams. In additional to giving me a guided tour of the library (after the interview), my informant showed me his office. The office was clean, tidy, and the working, but lack in space to store the documents that have been piled up behind the staircases. The interview took place in yet another office belonging to an administrator. The place was spacious and accommodating. The person we met was a professional librarian assigned to other functions.

**Appendix 10: Site description in Yaoundé**

*(CERODOTOLA, University of Yaoundé I, National Archives)*

Chapter IV, section I and II, provides us with information about CERDOTOLA that will be excluded from this section. Our observations focus on Yaoundé University I libraries and the national archives in the heart of city. The central library of the University of Yaoundé I is the oldest university library in the country. It was being renovated when conducted our interview with a library administrator. We could not tour the library. However, our informant’s office was spacious and orderly. We notice that in addition to his computer he has a copier, a scanners and a document binding machine in his office. The machines were unplugged. The library of the faculties of letters was opened and it always full during the weeks of research we spent there. However, there were manual catalogues with the list of documents. We did not notice the presence of a computer. Student needed ID cards which they had to pay for in order to do research. Also the shelves we organized by subject, I was very difficult to find any document because of students moved them around and often put them back in the wrong place.

The library content was mostly comprised of student theses. The ready room had not internet connection. The city national archives are located in the administrative center. I was received by the Director of the National archives and provided with information regarding the location of resources. I was also assisted by staff during an afternoon of research. One needs to select a topic of research and find a file cabinet that contains a given number of manual cards related the subject of interest. The next step will be to transcribe the metadata onto an order form and give it to an archivist who will retrieve the binder with the right information. However, most binders are in bad shapes; pages are either missing, or damaged by the elements. The national archives, like most public and official sites, is being renovated, and participating a joint digitalization program with the National archives in Buéa.
Appendix 11: Dschang’s Field report (The Bafou Kingdom and beyond)

Field Trip Review

Field trip ID:

Date: Friday 8th, March 2013
Departure date: Friday 8th, March 2013
Departure time: 15:30 PM
Arrival time: 22:30 PM
Destination: West Cameroon, Menoua
City: Dschang
Location: Chefferie Foh; Bafou Kingdom, Lepoh Village

Cultural event: Funeral

Symbolic: Generation Change – enthronization of a new Chief

Objective of the trip: The purpose of the field trip was to witness a traditional ceremony, hopeful interview participants about the significance of the event and illicit information about how the Bafou people document their traditional. Secondary and equally important objectives were prima facia assessments of the possibility to conduct group interviews during a festive occasion, locate potential resource persons, and a set a baseline for the research budget.

Realization of various objectives

1. Witnessing a tradition ceremony

The funeral of a local chief was an ideal opportunity to witness a highly important cultural event in West Cameroon. The Bamileke tribes consider this event the rites of passage for an entire family and acceleration of the life of the departed. The celebration started on Friday 8th, March 2013 and the various residences of the sons, daughters, and relatives of the late chief. We stayed at the home of one of the sons. The following day, we left the village to meet the rest of the family at the square where we waited patiently for the King of the Bafou to arrive. We assisted a various processions and shows of respect, presentation to dignitaries, tributes and gifts to various head of clans (male and female). In West Cameroon, funerals are both a religious and a social event. There was a stand with palm fruits, plantains and various types of food stocks in the middle of the court. We were told that these offerings belong to the deceased whose life continues even after dead. After the celebration all initiated adult male visited the patrimonial hut that contains the remains of the ancestors. The festivity continued in the afternoon with a diner and more celebrating. At 3:50 PM on Saturday 9th, we departed for Yaoundé. Although we did not witness the whole ceremony, we were able to film short clips, take a dozen pictures, and converse with a guide about the meaning of the entire event. While we did not record the informal interview that happened on bus, we manage to gather that some traditions remained unchanged and hidden from the public; members of a family that choose to undergo the rite of passage were held to the highest traditional standards; and the funeral which is more about the living than the dead, is a show of prosperity and a declaration of one’s ability to carry on in the memory of the departed. In recent years, the ceremony has become a show of wealth and power.

Interviews and contacts
It was very difficult to set up any form of interviews during the celebration. However, we were able to have many informal conversations with a guide, a driver and members of the royal family.

The interview with the guide took place during a bus trip from Lepoh village to Hotel in Dschang, around 1:30 AM on Saturday 9th, 2013. The guide was his mid to late twenties. I sat next behind him in the bus and asked him questions regarding the meaning of the event. I also learned that he was hired to film the festivity and he had started a small collection of the events he is often invited to film. Our discussion took to form a friendly conversation. The guide was also born into the royal family. He explained to us that there is no organized way to documents these events. The effort is typical individual, and there is no way of knowing what happened to the pictures that are taken, the movies that are filmed and sometimes the artifacts that are lost (as in the case the fire damage at the royal courthouse of a neighboring kingdom). He expressed the desire to see some aspects of his culture spared for posterity, and lament the lack of a concerted effort in preserving the cultural heritage. He showed us a collection of clips he had filmed.

The discussion with the driver took place the following day on the way to the funeral site. The driver was in the mid-thirties. We discussed the financial implication of this particular tradition ceremony and the implications for the preservation of cultural heritage. He revealed to us the religious dilemma that exists in the region regarding this specific tradition. His Late father who was a Christian had instructed his family not to celebrate his funeral which he considered a waste of much needed financial resources. He believed that many young people are against all traditional rites of passages, especially costly funeral. In sum, the voyage provided a baseline environmental scans that take into consideration various parameters that influence cataloguing oral traditions. We were also able to generate several contacts with people in Yaoundé in order to conduct future interviews and perhaps a focus group that will include people who can galvanize the mass around a participatory model of a cultural digital library. It could be said that the field trip was partially successful.
### Appendix 12: Schedule of research activities

<table>
<thead>
<tr>
<th>Regions</th>
<th>Cities</th>
<th>Site Code</th>
<th>Sites</th>
<th>Activity</th>
<th>Date</th>
<th>Informant</th>
<th>Title</th>
<th>Duration of visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Cameroon</td>
<td></td>
<td>DS1</td>
<td>Foto Village</td>
<td>Site observation</td>
<td>March 8th–9th, 2013</td>
<td>Employee</td>
<td>SD1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DS2</td>
<td>Museum of civilizations</td>
<td>Interviews ID of digitalization projects</td>
<td>March 15th, 2013</td>
<td>Decision maker</td>
<td>SY2 Yaoundé’s second site as well as any informant at that specific location</td>
<td>30 minutes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DS3</td>
<td>Royal Palace museum</td>
<td>Interviews ID of digitalization project</td>
<td>March 16th, 2013</td>
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Notes: SD1 stands for site Douala 1 and SY2 Yaoundé’s second site as well as any informant at that specific location.
Appendix 13: Group discussion, French programme

YAOUNDÉ – CERDOTOLA CAMEROUN
10 April 2013
DRAFT DU FORUM

PROBLÉMATIQUE

La question principale de ce forum est la suivante : Comment peut-on passer d’un monologue à un dialogue sur la préservation du patrimoine culturel au Cameroun?

Cette question ouvre un débat très important sur la participation démocratique de tous les membres d’une société dans la préservation de la culture. Elle aimerait déboucher sur un exposé de l’initiative de l’ethnie Bafou à travers son site web www.bafou.org en invitant les ressortissants de cette région à participer à une soirée de discussion sur les rapports entre les communautés et les institutions.

PARTICIPATION

Ce forum interpelle le peuple Bafou ainsi que tous ceux qui seraient intéressés par un débat sur de futurs projets de numérisation des cultures au Cameroun.

La distribution démographique des invités est la suivante:
1. Les responsables Bafou, gardiens de la tradition, notables
3. Les chercheurs, enseignants ou professionnels dans le domaine de la numérisation
4. Des représentants de la politique nationale de la gestion du patrimoine
5. Autres personnes

AVANTAGES POUR LES PARTICIPANTS

Entre autres avantages à tirer de cet événement nous pouvons citer:
1. Avoir un aperçu du développement de la numérisation des cultures au Cameroun
2. Comprendre l’initiative de Bafou.org
3. Comprendre les enjeux d’une numérisation qui inclut les micro-projets (projet de petite taille ou individuel)
4. Mieux comprendre le problème des institutions de documentation, recherche et archivage aussi bien que leurs contributions
5. Comprendre la nécessité d’un dialogue pour le développement de la culture.

AVANTAGES POUR LE CERDOTOLA

1. Prendre conscience de l’existence des microprojets de numérisation par les groupes ethniques
2. Renforcer la coopération avec les groupes culturels afin de faciliter les programmes de numérisation
3. Comprendre les enjeux d’un groupe social précis (le groupe Bafou)
4. Pouvoir réfléchir sur la question du développement d’un projet de collecte de données culturelles en coopération avec les souches ethniques.
5.

ORGANIGRAMME PRÉVU

À la suite d’un entretien avec Mr. Nguezet Mathurin, administrateur du site www.bafou.org, l’idée est venue de concevoir un programme à deux volets. Le premier volet parle de monologue ethnique pour la préservation et le partage de la culture Bafou. Le deuxième traite de la question
d’un dialogue avec les institutions spécialisées dans la documentation, l'archivage, et l’étude des langues africaines.

1ère partie: la sensibilisation culturelle et l'initiative personnelle?
Cette section essaie de trouver des réponses aux questions suivantes:
☐ Qui sont les Bafou et quelle perception ont-ils de leur culture?
☐ Comment s’expriment-ils loin de leur zone d’origine?
☐ L’initiative personnelle, la préservation du patrimoine culturel et l'importance des nouvelles technologies : l'exemple de www.bafou.org

2ème partie: Dialogue pour une approche documentaire institutionnelle
☐ Quels sont les préjugés en matière de préservation d’une culture entre les personnes et les institutions au Cameroun?
☐ Comment les Bafou ont-ils pris conscience de l'existence des institutions spécialisées dans la documentation?
☐ Quel serait le canevas d'une collaboration avec le CERDOTOLA?
☐ Comment anticiper l'impact de cette collaboration?
Les réponses à ces questions seront utilisées pour développer un mode de communication qui pourrait faciliter ou améliorer la collecte des données.

Forum’s active contributors (Bafou.org)
1. Entrepreneur, tribal Elite 1, Scholar 1, Tribal elite 2, Administrator, student 1, student 2
Map of Cameroon. Location of the study encircled.