

FUNCTION-BASED RECORDS CLASSIFICATION SYSTEMS.
AN EXPLORATORY STUDY OF RECORDS MANAGEMENT PRACTICES IN
CENTRAL BANKS

by

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Abstract

Records management and archival theory recommends that records classification, as a means to identify and organize the records made or received in the course of business, should be based on an analysis of the records creators' functions and activities and reflect them. However, the purpose of classification, the meaning of the term function, and the methodology for conducting a business analysis are not clearly explained in the relevant literature. Additionally, no studies of actual applications of the functional approach to records classification in real organizational settings exist.

This dissertation addresses the question of how the concept of function and the functional approach to records classification are understood by those who are responsible for the development and implementation of records classification systems as well as by the users of such systems. In order to contribute insights that can enrich the theory and methodology of records classification, an empirical, interpretivist research design, based on an initial survey of potential study subjects and a multiple-case study research, was conducted in four selected central banks in Europe and North America. One of the selection criteria was that the organizational cultures of the case study sites had to be as heterogeneous as possible.

Findings showed that the meanings of function, functional approach, and even classification are subject to various interpretations, that classification developers find functional methodologies confusing, and that users do not usually appreciate the outcomes of their efforts. Furthermore, because the approach to classification was not always consistent with the nature of the records, some of the classification systems examined did not adequately serve either records management or business-related

purposes. The research also provided an explanation of the relationship between organizational culture and the understanding of both records management and business processes.

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To the silent presence always next to me

1. INTRODUCTION

1.1 Overview

This introductory chapter frames the issues at the core of this study, outlines justifications for the approach taken, and presents the hypotheses (or propositions) and research questions that have guided this author throughout her research. It offers an overview of the theoretical framework in which the study is situated, as well as the overall methodology employed. The last paragraph describes the structure of this dissertation by providing a summary of its chapters.

1.2 Identification of the Research Problem

The nature of a record and the relationships among records and between them and the activities from which they result are subjects of continuing debate.¹ The fundamental assumption on which this dissertation is based is that records, as instruments and by-products (or residue) of practical activities, accumulate naturally and necessarily in a specific fashion that is determined by the ways in which the activities originating them are being carried out.² What distinguishes an archives (in the sense of a plurality of

¹ See, among the latest discussions on this topic, Geoffrey Yeo, “Concepts of Record (1): Evidence, Information, and Persistent Representations,” *The American Archivist* 70 (Fall/Winter 2007): 315-43; Id., “Concepts of Record (2): Prototypes and Boundary Objects,” *The American Archivist* 71 (Spring/Summer 2008): 118-43.

² According to the principles of archival theory, what characterizes the nature of records and archives, and qualifies archival science as an autonomous discipline, is this fundamental idea of a record as a ‘by-product,’ in the sense of an unintentional outcome of a practical activity rather than a purposeful product of it. See the definition of record in Luciana Duranti, Terry Eastwood, and Heather MacNeil, *Preservation of the Integrity of Electronic Records* (Dordrecht: Kluwer Academic Publishers, 2003), 11:

“A record is any document created by a physical or juridical person in the course of practical activity as an instrument and a *by-product* of it.”

Similarly, Italian archivist Valenti defines archives as “the *residue* of practical activities.” See Filippo Valenti, “Riflessioni sulla natura e sulla struttura degli archivi,” *Rassegna degli Archivi di Stato* 15 (1981), 22. The relationship between record and activity (or action) is the ground on which American archivist

records) as an organic whole, or *universitas rerum*³, that is, an entity structured according to the contingent circumstances of its creation, from a mere collection or sum of single items, artificially brought together for accomplishing any external purposes, is exactly this original, necessary, and incremental link (known as “archival bond”⁴) existing among all records that belong together because they are originated during, and by virtue of, the same activity or business process.

These tenets of archival science yield some important consequences for the ways in which active records (i.e., the records that are being used to carry out ongoing activities) are, or should be, interrelated and arranged in the records creators’ offices (or ‘living,’ current archives). First, the process of identifying and organizing the records that accumulate in the course of business, for instance, by means of classification, must be determined by the circumstances of records creation. A records classification scheme whose content and structure reflect the specific functions and work processes of any individual records creator allows records to be physically and/or logically aggregated in units (e.g., files, or *dossiers*, or series) that will be capable of revealing the meaning of the relevant records and the actions carried out through them to whoever will be looking at those units.⁵

Schellenberg bases his description of how records aggregate: “Records are the *by-product* of action, and they naturally fall into groups that relate to action.” See Theodore R. Schellenberg, *Modern Archives: Principles and Techniques* (Chicago: University of Chicago Press, 1956), 53.

³ See Giorgio Cencetti, “Sull’archivio come ‘universitas rerum’,” *Archivi IV* (1937): 7-13. Reprint. *Scritti archivistici* (Rome, 1970), 47-55.

⁴ See Luciana Duranti, “The Archival Bond,” *Archives and Museum Informatics* 11 (1997): 213-18.

⁵ The next chapter, dedicated to a review of relevant literature, will describe the origins of classification as an administrative and archival tool. The idea of aggregating records in functional units, so that the original context of records creation can be captured and preserved, was described by British archivist Jenkinson in 1922 as follows:

“The golden rule for the Administrator, so far as concern his papers, must be to have them always in such a state of completeness and order that, supposing himself and his staff to be by some accident obliterated, a successor totally ignorant of the work of the

Second, every records classification scheme is necessarily different from any another, although we can expect some similarities among those records creators that are entrusted with the same functions. In any case, one shall not superimpose any artificial or pre-established classification scheme to an existing accumulation of records, even where such a scheme might improve access to the records, because, by so doing, the records' relationships would inevitably be altered or obscured. This does not mean that retrieval is not relevant to records classification. It is relevant, as a collateral benefit, to the extent that it does not contradict the primary purpose of records classification, which is,

“to place individual records into the aggregates to which they belong, based on the creator's mandate and functions.”⁶

According to archival science, the practice of classifying records comes from the need to make explicit that 'archival bond' that exists among all the records participating in the same activity since the moment of their creation, as well as the broader documentary, procedural, and provenancial contexts characterizing and thus uniquely identifying each record. Through the act of classification, the network of relationships inherent in the nature of any record not only is brought to light, but it is also established and perpetuated. In this way, the meaning of each record in relation to all the others as well as the structure of the whole of records (i.e., the archival fonds) can be understood and transmitted over time.

From what has been said, it emerges that records classification is an important method of procedural control over records creation (thus contributing to the records reliability), as well as a critical means for the identification of records in context over

office would be able to take it up and carry it on with the least possible inconvenience and delay simply on the strength of a study of the Office Files.”

See Hilary Jenkinson, *A Manual of Archive Administration*, 2nd ed. (1937), reprint (London: Percy Lund, Humphries & Co., 1965), 153.

⁶ Duranti et al., *Preservation of the Integrity*, 43.

time and space (thus contributing to establishing and maintaining the records authenticity).⁷ While in the paper world the archival bond could manifest itself through the physical arrangement of the records and, thanks to the numerous signs inscribed on the paper (e.g., annotations, signature, etc.) and other elements of form, a diplomatic analysis could help reveal the context of records creation even after subsequent rearrangements of the archives had occurred, in today's electronic environment the "physicality"⁸ of traditional records and the implicit information conveyed by it do not exist any longer, and this makes records classification an even more essential tool than it ever was in the past. Additionally, by deducing from the primary purpose attributed to classification what a classification system should look like and how it should behave, it appears that a study of the functions and activities of a records creator is a prerequisite for the design of any records classification system. In other words, a functional approach to records classification development is justified by the nature of the records.

However, there has been little theory building on the topic of functional classification⁹ and classification practice demonstrates that the principles that should guide the design and implementation of records classification systems are generally not well understood by those entrusted with such a task, whether they are archivists or records managers. This statement is based on evidence provided by the variety of outcomes of uneven quality that diverse and inconsistent classification methods have produced both in Europe, where the fundamental ideas of records classification and filing

⁷ Ibid.

⁸ David Bearman, "Item Level Control and Electronic Recordkeeping," *Archives and Museum Informatics* 10, 3 (1996): 220.

⁹ For the purposes of this dissertation, functional classification may be defined as:

"The process of devising and applying schemes based on the business activities which generate records, whereby they are categorized in systematic and consistent ways"

See Australian recordkeeping Standard AS 4390 (1996).

have been first formulated, and in North America, where the debate around classification approaches is more recent. The literature review presented in the next chapter will show that the role and characteristics of records classification are often misinterpreted not only by practitioners but also by those who write about those matters for the sake of the latter. It will also reveal that the meaning of function, activity, business process, and the like lack a thorough elaboration and the methodology for analyzing them in organizational contexts is not well described either.

1.3 Research Purpose and Approach Taken

The primary goal of this research was to enhance our understanding of the concept of function and the functional approach as a methodology for the development and implementation of records classification systems. Because any method or means has its justification in the purpose or end that one wishes to achieve through it, an investigation of the purpose(s) of classification in general was also undertaken as a major component of this research.

The study of both meanings – the one of function and the other of classification – involved an in-depth review of the literature concerning the functional approach as a records management and archival methodology relevant not only to records classification but also to appraisal and selection, description and arrangement, and access to information. As the functions and activities that interest this research are mainly those carried out in business environments, this author felt the need to expand the literature review delving into the territory of other disciplines, such as theory of organization, sociology, social-psychology, management science, and theory of administration. Likewise, because library and information science have also explored the topic of

classification, though from a perspective different from the archival one, it appeared relevant to include some ideas on the purpose of classification developed in that area of knowledge as well.

The hypotheses and research questions formulated at the beginning of this study, and which are introduced in the next sections, mostly come from the analysis of the literature mentioned above. In part, they were also inspired by this author's observations of existing functional (or claimed to be as such) classification systems and by her own experiences as a records classification developer.¹⁰

The literature review findings also provide a justification for the approach taken by this researcher to answer the research questions so expressed. The complete absence of empirical studies on the design and application of function-based classification systems in use in real-world organizations convinced her that an inductive, interpretivist approach to the issues at stake would be the most appropriate to try to get new insights. Thus, through an exploration of the adoption and enactment of records management

¹⁰ This author, in her professional capacity as an archivist (a profession that in most countries of continental Europe involves records management responsibilities as well), was entrusted with the task of developing a classification system for the records of both the institutions she has been working for, namely the Province of Bologna in Italy (from 1995 to 2000) and the European Central Bank in Frankfurt am Main, Germany (from 2000 to present). Interestingly, in both cases, her mandate was the same, i.e., to design a function-based classification system; however, due to differences in the juridical and administrative framework, organizational structure, corporate culture, and expectations of the two entities, each experience was unique and very dissimilar from the other. The outcomes of her efforts were indeed substantially diverse not just content-wise (as a consequence of the distinct mandates and functions of either institution), but also structurally. The implementation phase also involved unequal challenges in both organizations, in virtue of their rather dissimilar administrative cultures as well as the different records management skills and attitudes of the respective system users. From these experiences, this author realized how important it is to agree with all the parties involved (e.g., area managers, users, IT experts, and colleagues within the records management and archives department) on the objectives that records classification tools are intended to achieve. The results of any analysis of an organization's functions, activities, and transactions for purposes of classification rest on this understanding. Additionally, she became convinced that the type of organizational settings and cultures (e.g., hierarchical vs. flat; writing-based vs. meeting-based; working according to standardized workflows, routine processes and sequential procedures vs. working according to unstructured or semi-structured procedures and creative processes; service-oriented vs. knowledge-oriented; etc.) has an important impact on the way function and functional analysis are interpreted and applied.

concepts and practices in some selected organizational settings, this author attempted to shed some light on how people interpret and use their functional tools, with the conviction that from such ‘grounded knowledge,’ some new theoretical and methodological understandings of classification and function might emerge. Given the fact that this research is situated in the domain of an applied science, it was expected that, from its exploratory and explanatory aims, some practical outcomes would derive as well, for instance, in the form of recommendations for records professionals on how to design, implement, and use records classification systems that would eventually be able to meet their purposes.

1.4 Research Hypotheses or Propositions

As the section on research methodology included in this chapter will further explain, an interpretivist paradigm, such as the one framing this study, does not usually concern itself with the testing of hypotheses, and new hypotheses, or “working propositions” are expected to be generated from the analysis of the data collected during field work and observations.¹¹ However, as Williamson writes,

“For some interpretivist studies, researchers develop propositions which are similar to research hypotheses. They do not require such precise wording, nor the rigorous testing associated with operational hypotheses. They, nevertheless, can help to provide a similar kind of clarification as hypotheses give to a quantitative study.”¹²

The following hypotheses have to be read against this background, thus considering them as guiding devices that should primarily assist the development of this research, especially in its initial stages.

¹¹ See Kirsty Williamson, ed., *Research Methods for Students, Academics and Professionals. Information Management and Systems*, 2nd ed. (Wagga Wagga, New South Wales: Centre for Information Studies Charles Sturt University, 2002), 26-32.

¹² *Ibid.*, 57.

Hypothesis 1: The way in which most of today's archival literature interprets, describes, and prescribes the 'functional approach' does not help practitioners design and implement records classification systems that work.

This criticism might be extended to the records management and archival formal education that one obtains by attending relevant courses and which would not be effective in teaching how to understand the essential features of real-world organizations and how to conduct a business analysis.

Hypothesis 2: A records classification system does not have to be exclusively based on an analysis of an organization's functions, activity, and transactions; other, 'non-functional factors' that might affect records creation must as well be taken into account.

The message that the archival literature seems to transmit is that the functional criterion is to be applied as an exclusive, absolute principle. On the basis of her experiences and her readings outside the archival domain, this researcher came to the conclusion that the needs of the users, certain organizational structures, laws, regulations and other constraints might influence the ways records accumulate, and this usually is, and should be, reflected in the classification system. It is expected that this empirical study will reveal other, more specific non-functional factors that should be regarded as relevant by classification developers.

Hypothesis 3: Treating every classification issue as a functional one is not appropriate, in that there are realms of human activity that cannot be categorized through functional lenses.

Through her analysis of the literature relevant to the cultures existing in work places, organizational behaviours, and administrative processes in particular, this researcher

supposed that one cannot assume that the way in which work is carried out is, in every instance, so rational and recursively structured that the records professional, like an engineer, would be able to draw a function-based tree where every entry matches perfectly with an actual process or a phase of a process. The social reality would be much more complex and articulated, and human activities much more unpredictable and creative than the one represented in the logically structured hierarchy of business functions and processes described in the archival literature.

Hypothesis 4: The organizational culture characterizing every work setting influences the way in which both the purpose of classification and the concept of function are understood. Such diverse interpretations are reflected in the structure and substance of existing records classification systems as well as in the ways those systems are enacted by the users in every different organizational context.

This hypothesis derives from the observation that, due to the fact that they are insufficiently described, function and classification are both ambiguous concepts and, as such, they would be prone to be interpreted in different ways according to the organizational cultures under examination. In order to ‘test’ this hypothesis, this researcher chose specific organizational settings where to conduct her field work, so that each of them would potentially display a different organizational culture.

Hypothesis 5: The implementation phase of a new, or revised, records classification system (including users’ involvement in testing activities, training, etc.) will have a crucial impact on the system’s acceptance and the ways in which the system will be interpreted and used within the organization.

The importance of users' involvement during system deployment and the issue of training, of learning how and why to use the system in a given way, are emphasized by a certain literature exploring, from a structural viewpoint, the relationship between technology and organization, and are central to this research.

1.5 Research Questions

The study here introduced mainly refers to qualitative methods of inquiry, thus the research questions formulated on the basis of the research purpose and the hypothesis mentioned above will necessarily be broader and more flexible than those that are normally used in quantitative research designs. Marshall and Rossman suggest that, in a qualitative study,

“research questions should be general enough to permit exploration but focused enough to delimit the study. Not an easy task.”¹³

Considering the primary goal of this research, a major operational research question was articulated as follows:

Major Question: How do people in organizations understand the concept of function and the functional approach as a methodology for the design and implementation of records classification systems?

Two broad categories of subjects potentially sharing different views on the topics under examination were identified, namely, the system ‘developers’ (i.e., archivists, records managers, members of project teams, or anyone else entrusted with the task of designing, maintaining, and/or implementing the records classification system in use in the organization) and the system ‘users’ (i.e., both ordinary and specialized users of records

¹³ Catherine Marshall and Gretchen B. Rossman, *Designing Qualitative Research*, 2nd ed. (Thousand Oaks: Sage Publications, 1995), 26.

classification systems, including, among the first group, area managers, experts, secretaries, etc., and among the second group, system administrators, records managers not involved in the development of the system, etc.). Taking this distinction into account, and with the purpose of breaking down the major question into more manageable units, the following sub-questions, or specific research questions, were elaborated.

Sub-Question 1: What knowledge do developers and users respectively have of records classification theory and methods, and what expertise do they have in the practice of classifying?

Sub-Question 2: Do non-functional factors influence the design of function-based records classification systems? If they do, how is such an influence exercised and why? Are developers aware of it and, in case they are, what are their opinions about it?

Sub-Question 3: How is/was business analysis carried out in the organizations under investigation? Can/Could all activities be described in terms of structured business processes, or are there activities that just can/could not fit in?

Sub-Question 4: How are business processes and functions perceived in relation to the characteristics of each organizational setting and culture?

Sub-Question 5: How do users appropriate (i.e., adopt and adapt) the records classification system existing in their organization? How is/was their participation in the design and implementation phases of the system? How is/was user training provided?

Both the major research question and the sub-questions have an operational nature, in the sense that they are asked in order to gain an understanding of the issues under

consideration, to start ‘mapping the unexplored territory’ of this research. Above them, on a more general level, this researcher identified two ‘ultimate questions’ that the answers to the previous questions would ideally allow her to respond to.

Ultimate Question a: Why does the functional approach appear so difficult to apply?

Ultimate Question b: How can records classification possibly be improved in the organizations under investigation, and in general?

1.6 Theoretical and Philosophical Framework

One of the components of the theoretical framework of this study involves the concepts, principles, and methods of archival science, with particular regard to those concerning records classification. These, including the ideas relevant to functional analysis for purposes of classification, which records keepers have been dwelling upon especially in the last few decades, will be thoroughly examined in the context of the literature review of the next chapter.

As to the relationship between theory and practice in the archival (and records management) work, Trevor Livelton suggests:

“It is reasonable to argue that archivists’ ideas inevitably underlie their practice, whether they are aware of it or not. Archivists may not necessarily employ fully developed concepts in their work (although they may); they may not necessarily be aware of those ideas (although they may); and the ideas they do employ ... may have more of a methodological than a theoretical cast. This is not to say that theory, in the full meaning of the term, always underlies practice, but that ideas always do – and ideas are the stuff that theory is made of.”¹⁴

Archival science is an applied discipline and, as such, its “methods, that is, orderly, logical, and systematic modes of procedure, act as a bridge between theory and

¹⁴ Trevor Livelton, *Archival Theory, Records, and the Public* (Lanham, Md. and London: The Society of American Archivists and The Scarecrow Press, 1996), 34-35.

practice.”¹⁵ Although an underlying theory of classification may not have been fully articulated by the archival scholars and practitioners whose writings will later be reviewed, as Livelton observed, methods to organize records in the active phase of their life cycle have nevertheless been developed and used. In particular, the functional approach as a classification method seems to be considered suitable to the nature of records and the purposes of classification by those who have been devising such means. By analyzing the few theoretical works existing on the subject, but also the “discourse about methods,”¹⁶ one can expect to find some enduring ideas about the purpose of classification, the meaning of function, as well as the nature and characteristics of the material being classified.

Nevertheless, the novelty of this study lies in its inductive approach. As already emphasized, the practice of records classification has never been subject to any in-depth examination aiming at exploring how classification is actually understood by those using it in the ordinary course of business, or why a functional approach should be preferred to any concurrent methods (e.g., subject-based, organizational structure-based, record type-based) on the basis of the study of concrete outcomes of its application. By investigating current practices in real-world settings, including the needs and expectations of those developing and using classification systems which are, or at least are claimed to be, function-based, as well as successful and unsuccessful stories of system adaptations and adoptions, new ideas will ideally unfold. Such ideas may contribute to building a new

¹⁵ Terry Eastwood, “The Theory and Practice of Description in the Digital Era” (paper delivered at the Second Meeting on Archival Information Databases, sponsored by the Brazilian Society of Archivists, Rio de Janeiro, March 16, 2007), 2.

¹⁶ *Ibid.*, 3.

theory,¹⁷ or will at least enrich the landscape of the object under investigation by “piec[ing] together observed data, elements drawn from different frameworks ... in order to gain access to the domain to be charted”¹⁸ – in the words of Wolfgang Iser, describing the purpose of “soft theory” (i.e., the humanities and social sciences) in contrast with that of “hard-core theory” (i.e., the physical sciences).

“... the humanities are not a problem-solving undertaking. Instead, their prime concern is to achieve understanding, to assess context-relatedness, to investigate meaning and function, to evaluate [the object of attention (i.e., in this case, records classification)], to address the question of why we need [it].”¹⁹

This study shares the interpretivist approach to reality that goes back to the intellectual traditions of phenomenology and hermeneutics, where the prime *datum* is not the world external to the observer, but the observer’s mental process. Human beings in social processes are constantly creating their world in interaction with others. Thus, there is no “pre-given universe of objects,” but one which is “produced by the active doing of subjects.”²⁰ Such philosophical stance characterizes what Peter Checkland calls “soft systems thinking,”²¹ a holistic way of looking at, and trying to make sense of, the “organized complexity” of social reality, that, since the mid-1950s, has been developed as an alternative to any form of “hard systems thinking” (e.g., systems engineering and systems analysis) with the aim of complementing the reductionism of the positivist approach. “Soft” systems concepts have informed this study, especially with regard to the interpretation of the research findings.

¹⁷ See Kathleen M. Eisenhardt, “Building Theories from Case Study Research,” *The Academy of Management Review* 14, 4 (October 1989): 532-50.

¹⁸ Wolfgang Iser, *How to Do Theory* (Malden: Blackwell Publishing, 2006), 5.

¹⁹ *Ibid.*, 7.

²⁰ Anthony Giddens, *New Rules of Sociological Method* (London: Hutchinson, 1976), cited by Peter Checkland, *Systems Thinking, Systems Practice* (Chichester, West Sussex, UK: John Wiley & Sons Ltd., 1981), 277.

²¹ See Peter Checkland, *Systems Thinking, Systems Practice*.

Another theoretical point of reference that should be mentioned here is Giddens' theory of structuration and, in particular, Adaptive Structuration Theory (AST),²² which draws on the concepts of structuration to examine the interplay existing between human action, social structures, and advanced information technologies. For the purposes of this study, records classification systems and the electronic document and/or records management systems (EDMS or EDRMS) in which the former are usually embedded in today's organizational settings can both be considered advanced information technology in a structurational sense. According to Wanda Orlikowski, technology is one of the possible "instantiations of some of the structural properties of organizations"²³ and, as such, it is both structural and socially constructed. The concept of "duality of technology," that she deduces from Giddens' "duality of structure," allows us to see technology as created and changed by human action (i.e., a product) and, at the same time, as a structure that both facilitates and constraints human action (i.e., a medium).²⁴

In this context, the relationship between technology and organizational change acquires a new, dynamic, and anti-deterministic meaning. Far from discussing the 'impact' of any given technology, AST focuses on the mutual influence of technology and social processes, on the always different outcomes that emerge when technology is enacted by human agents in any specific context. It is this author's conviction that the recursive notion of technology and the emphasis of AST on the role played by the users may enrich our understanding of 'archival technology.' Indeed, as it will emerge

²² See Gerardine DeSanctis and Marshall S. Poole, "Capturing the Complexity in Advanced Technology Use: Adaptive Structuration Theory," *Organization Science* 5, 2 (May 1994): 121-47; Wanda J. Orlikowski, "The Duality of Technology: Rethinking the Concept of Technology in Organizations," *Organization Science* 3, 3 (August 1992): 398-427.

²³ Orlikowski, "The Duality of Technology", 405.

²⁴ See Ibid.; JoAnne Yates and Wanda J. Orlikowski, "Genres of Organizational Communication: A Structurational Approach to Studying Communication and Media," *Academy of Management Review* 17 (1992): 299-326.

throughout the research report presented in Chapter 6, the explanatory power of AST has contributed new insights into the process of ‘appropriation’ with reference to the way in which users influence, and are in turn influenced by, the technology (whether the classification system or the ERDMS) they are using.

1.7 Research Methodology Overview

The methodology employed in the inductive, empirical research here introduced is mainly, but not exclusively, qualitative, and involves fieldwork (i.e., “the study of the phenomena under consideration in their natural setting”²⁵) as a major component.

Besides a survey which was launched at the earliest stage of the project in order to select suitable cases from the chosen population and which consisted of factual and closed questions,²⁶ the main body of this research is based on a multiple-case study design.

Because this study is concerned with ‘meaning,’ with the ways people ‘make sense’ of their world, from the very beginning, an interpretivist case study approach seemed to be the most appropriate means to answer the ‘how’ and ‘why’ questions listed above.

Thanks to the “immersion in the *milieu* of the subjects under examination”²⁷ that it allows, ethnography might have proved to be a more effective strategy for the purpose of collecting data on the unstated practices shared among those subjects (i.e., their ‘tacit knowledge’) and eventually elaborating a “thick description”²⁸ of their cultures (e.g., in the present case, their recordkeeping cultures). However, because of constraints provided

²⁵ Williamson, *Research Methods*, 31.

²⁶ See A.N. Oppenheim, *Questionnaire Design, Interviewing and Attitude Measurement*, new edition (London, New York: Continuum, 1992).

²⁷ G. E. Gorman and P. Clayton, *Qualitative Research for the Information Professional: A Practical Handbook* (London: Library Association Publishing, 1997), 23.

²⁸ Clifford Geertz, “Thick Description: Toward an Interpretive Theory of Culture,” in *The Interpretation of Cultures. Selected Essays* (New York: Basic Books, 1973): 3-30.

by the type of organization under examination (i.e., central banks, which, as it is well-known, have very restrictive access regulations) a full ethnographic approach was not possible to apply. Nevertheless, various opportunities to exploit typical ethnographic techniques, such as, in-depth, unstructured interviewing and participant observation, occurred throughout this study and have thus been integrated in the case study design.²⁹

Case study research is indeed a flexible, though at the same time rigorous, approach that is particularly recommended

“where the experiences of individuals and the contexts of actions are critical ... or where terminology and a common language and set of definitions are not yet clear or widely accepted.”³⁰

As will be evident from the literature review, this is exactly the case with reference to the language of function or the definition of the role of records classification. A detailed description of each qualitative and quantitative method employed in this study and of the comparative approach used for analyzing the data collected is provided in Chapter 3 “Research Design,” being the purpose of this introductory chapter limited to expounding nature, advantages, and limitations of the research approach chosen.

As anticipated earlier in this chapter, within an interpretivist paradigm, any initial hypotheses, research questions, as well as any other ideas derived from the review of relevant literature, have a guiding role in that they help to frame the whole project and to plan how to collect the data. The interpretivist researcher seeks, at the same time, to be totally open to the situations and subjects encountered during the enquiry, trying not to impose any pre-existing expectations. This approach would allow new themes to emerge

²⁹ Examples of the use of ethnographic methods in archival research include: Elizabeth Yakel, “The Way Things Work: Procedures, Processes, Institutional Records,” *The American Archivist* 59 (1996): 454-464; Karen F. Gracy, “Documenting Communities of Practice: Making the Case for Archival Ethnography,” *Archival Science* 4 (2004): 335-65; Kalpana Shankar, “Recordkeeping in the Production of Scientific Knowledge: An Ethnographic Study,” *Archival Science* 4 (2004): 367-82.

³⁰ Williamson, *Research Methods*, 113.

from patterns observed in the data collected *in situ*. To this end, in this project, data analysis has been undertaken throughout the research and not just in its concluding stage, as recommended by several authors.³¹

The emphasis of this research is largely exploratory and explanatory. It is exploratory as it focuses on “phenomena that are thus far little-known or understood”³² (e.g., how the concept of function is interpreted and used in a real work environment; how people in organizations perceive the role of records classification); and it is explanatory by virtue of the attempt made to identify “plausible causal networks shaping the phenomena being studied”³³ (with reference, for instance, to the relationship that seems to exist between specific organizational settings and cultures on the one hand and record-making and -keeping practices on the other).

Because generalization of the kind that only nomothetic, positivist research designs allow (i.e., statistical generalization) cannot be achieved from the observation of a limited number of phenomena, one should not expect predictive explanations to proceed from this research – and actually, accomplishing external validity is not necessary within an interpretivist paradigm. However, several measures have been taken to ensure that the results of this study have the highest possible degree of reliability and external validity.

First of all, in order to check the consistency of findings, different data collection methods (e.g., interviews, observations, analysis of documentation) have been used (methods triangulation). The reliability of findings is further enhanced by having cross-

³¹ See Robert K. Yin, *Case Study Research. Design and Methods*, 3rd ed. (Thousand Oaks: Sage Publications, 2003); Williamson, *Research Methods*.

³² Marshall and Rossman, *Designing Qualitative Research*, 39.

³³ *Ibid.*, 41.

checked for consistency the same information with different people within each participant organization (sources triangulation).³⁴

“... cases are not ‘sampling units’ and should not be chosen for this reason. Rather, individual case studies are to be selected as a laboratory investigator selects the topic of a new experiment.”³⁵

As will be shown in detail in Chapter 3, the selection of suitable case study sites for conducting this research has required careful consideration of the nature of the research questions, the unit of analysis, and expected outcomes. In the literature, this sampling technique, typical of qualitative research, is referred to as ‘theoretical sampling.’³⁶

Under such circumstances, the kind of generalization one may obtain is ‘analytic generalization.’ The hypotheses developed prior to the conduct of data collection are used as a template with which the empirical results of the case studies can be compared. According to Yin, “if two or more cases are shown to support the same [hypotheses], replication can be claimed.”³⁷ This is one of the advantages that multiple-case designs offer in terms of external validity of the research findings. Walsham makes the point that ‘theoretical or analytic generalization’ has the potential to generate the following outcomes: “development of concepts; generation of theory; drawing of specific implications; and contribution of rich insight.”³⁸ Achieving at least the latter is one of the goals of this author.

The case study approach has often been criticized on account of the researcher’s inability to be a ‘neutral observer’ of the reality under investigation. This would “limit

³⁴ See Williamson, *Research Methods*, 36.

³⁵ Yin, *Case Study Research*, 32.

³⁶ See Williamson, *Research Methods for Students, Academics and Professionals*, 32; Eisenhardt, “Building Theories from Case Study Research,” 537.

³⁷ Yin, *Case Study Research*, 32.

³⁸ Geoffrey Walsham, “Interpretive Case Studies in IS Research: Nature and Method,” *European Journal of Information Systems* 4 (1995): 74-81.

the validity of the research findings,”³⁹ although one cannot deny that bias may be inherent in any research strategy. As Sutton notes, “... one can understand something observed only through the tinted lens of one’s own experience.”⁴⁰ Interpretivists have turned this apparent weakness into the strength of their approach by demonstrating how the researcher’s point of view can actually become a source of understanding, as long as there is an awareness of it. In other words, “the concern with researcher objectivity is replaced by a focus on the impact of subjectivity on the research process.”⁴¹ Throughout her study, this author has made the effort to take into considerations her personal characteristics, interests, and background as a potential source of bias, and has continuously tried to use them to interpret her findings in an insightful way, so as to “chang[e] analysed data into a contribution to knowledge and debate.”⁴²

1.8 Summary and Dissertation Structure

The present chapter has provided an overview of the problem being studied and approach taken to deal with it, in relation this researcher’s knowledge of archival theory, her experience as a records classification developer, and the overall goals and objectives of this research. The research hypotheses, or propositions, and research questions identified have been situated within the theoretical and methodological framework of the research.

Chapter two contextualizes this research within relevant literature, which is in turn the source of the hypotheses and lines of enquiry guiding this study.

³⁹ Williamson, *Research Methods*, 113.

⁴⁰ Brett Sutton, “The Rationale for Qualitative Research: A Review of Principles and Theoretical Foundations,” *Library Quarterly* 63, 4 (1993): 425.

⁴¹ Corinne Glesne and Alan Peshkin, *Becoming Qualitative Researchers: An Introduction* (White Plains, NY: Longman: 1992), 6.

⁴² Williamson, *Research Methods*, 300.

Chapter three presents an account of the implementation of the two major components of this research design, i.e., a survey and a multiple-case study research.

Chapter four describes the main characteristics of the population chosen for this study, i.e., central banks.

Chapter five reports on the selection of case study sites by means of the survey and provides an analysis of the initial stages of the case study research.

Chapter six involves a detailed, cross-case report of the findings of the multiple-case research, including discussions of the most relevant findings.

Chapter seven evaluates the outcomes of the empirical research against the objectives of this study, identifies its main contributions to the records management and archival discipline, discusses strengths and limitations of the research design, and outlines future work.

2. LITERATURE REVIEW

2.1 Overview

The purpose of this chapter is to provide an “orientating framework [aiming at] contextualizing the problem that has led to the need for the research.”⁴³ To this end, it will start by situating records classification and, in particular, the functional approach to it, in the context of the relevant archival literature.⁴⁴ ‘Archival literature’ is here used as an encompassing expression which includes what in the Anglo-Saxon tradition is known as ‘records management literature.’⁴⁵ Because in most recent decades the functional approach has become so pervasive that it is used as a pillar of archival methodology throughout the life cycle of the records, reference to archival functions other than records classification (namely, appraisal, arrangement and description, and access to archives) will be made insofar as they may shed light on the meaning of function in archival science. Observations related to this author’s examination of existing accessible classification systems will also be reported in this chapter as an additional argument for

⁴³ John W. Creswell, *Research Design. Qualitative, Quantitative, and Mixed Methods Approaches*, 2nd ed. (Thousand Oaks: Sage Publications, 2003), 30.

⁴⁴ This study looks in particular at the archival literature in English and in Italian, as the former is representative of the Anglo-Saxon and common-law approach to the issues in question, while the latter is representative of the Latin and civil law approach.

⁴⁵ Due to the global influence of the Anglo-Saxon tradition, the distinction between archival science and records management has also gained ground in continental Europe, where, in the context of each national language, it is not uncommon to come across the Anglicism ‘records management’ or ‘records manager.’ In Italy, for instance, the traditional three stages of a record’s life cycle are termed *archivio corrente*, *archivio intermedio* (or *archivio di deposito*), and *archivio storico*. The concept underlying this terminology is that, independently of its status (whether active, semi-active, or inactive), any accumulation of records has archival nature. See Ernst M. Posner, *Archives in the Ancient World* (Harvard University Press, 1972). Reprint (Chicago, IL: Society of American Archivists, 2003). Consistently with this view, the term ‘document’ (in Italian, *documento*) in Latin countries encompasses the Anglo-Saxon terms ‘document,’ ‘record,’ and ‘archival record,’ because the quality of being ‘archival’ is regarded as inherent in any documentary by-product of the activity of a person or organization (in Italian, *produttore d’archivio*). See Giorgio Cencetti, “Sull’archivio come ‘universitas rerum’.”

adopting an empirical research approach. To provide further support to this methodological choice, literature of other disciplines such as organizational theory, sociology, theory of administration, as well as library and information science, will be presented in relation to some of the lines of inquiry followed by this project.

2.2 Review of Archival Literature

In order to give a sense of the developments throughout the centuries of archival thinking on the topic of records classification, as well as to highlight the various contributions provided by different countries and archival traditions to these developments, the following sections (except for the last one, 2.2.8) have, to the extent possible, been organized chronologically and according to examined traditions. Section 2.2.8 stands out as its topic is not records classification but the functional approach in the literature related to appraisal, arrangement and description, and access to archives.

2.2.1 Early Classification Methods: From the Origins to the German System

In the ancient and medieval world, records used to be either spontaneously accumulated as they were sent or received (thus originating so-called “sedimentary archives”) or deliberately selected, always for practical and operational reasons, to make up series consisting principally of legal titles (so-called “treasury archives”)⁴⁶. Both systems coexisted in all European chanceries of the modern era where, however, in order to cope with the growing number of administrative activities, a subdivision based on the records state of transmission had to be introduced with reference to the former type of records arrangement. The categories were “records sent,” “records received,” “internal records,”

⁴⁶ For the definition of “treasury” and “sedimentary” archives, see Valenti, “Riflessioni sulla natura e sulla struttura degli archivi”: 20-24.

and “miscellanea.” Such a system soon proved to be inadequate to control the mass of records produced by a bureaucratic machine that was increasingly becoming more complex and articulated. New types of record aggregations started to appear throughout Europe, such as, for instance, series based on the legal nature of the transaction originating the records (e.g., contracts, deliberations) or on the form of the records (e.g., circular letters, invoices).

Finally, in the course of the 17th and 18th century, the Prussian state, which was renowned for its administrative efficiency, developed a revolutionary method to organize the records made and received by the government. All records related to the same subject, and secondarily to a given business transaction, activity, or procedure, independently of their status of transmission (i.e., degree of perfection, that is, draft, original, or copy), form, or value, would be incrementally put together in discrete physical and logical units, called *dossiers* or files, which would then be in turn aggregated organically according to various homogeneous criteria (e.g., names of persons or corporate bodies, geographic units, subject-matters, dates). This system – also known as *Registratursysteme*⁴⁷ – is the first example of a systematic method of classifying records following a comprehensive, subject- and function-based *Aktenplan* (i.e., file plan). The effectiveness of such a ‘mixed model’ of classification was related to its being a natural way of carrying out administrative work that was itself very rational, linear, and rigorous.

Writers discussing the Italian archival tradition have pointed out that a major flaw in the German system was the fact that it was applied *a posteriori*, ex-post. That means

⁴⁷ See Thea Miller, “The German Registry: The Evolution of a Recordkeeping Model,” *Archival Science* 3, 1 (2003): 43-63; Id., “The German Registratur” (Master’s thesis – University of British Columbia, 1997).

that explicit links among the interrelated records of a business transaction, for example, were established when the activity the records referred to was concluded and the relevant file was transferred to the central registry, rather than concurrently with the creation of the records and the development of the activity generating them. As a consequence – those critics suggest – the ‘original order’ of the records was somehow artificially created for the sake of administrative control.⁴⁸

In fact, the timing of records classification (i.e., throughout the active life of a file, or when the file gets closed) and the responsibility for it (i.e., records creators or staff dedicated to recordkeeping activities) are quite controversial issues. Different trends still exist today, some going back to established archival traditions⁴⁹, others just related to work circumstances. Theorists have investigated the conceptual consequences on the nature of the records aggregations that may derive from those two diverse approaches (including the issue of original order mentioned above).⁵⁰ However, no inductive research has ever been carried out to analyze the practical consequences and actual effectiveness of either method, or to explore why people in organizations adopt one option instead of the other.

⁴⁸ See Elio Lodolini, *Archivistica. Principi e problemi*, 6th ed. (Milan: Franco Angeli, 1992), 76-80; Luciana Duranti, *I documenti archivistici. La gestione dell'archivio da parte dell'ente produttore* (Rome: Pubblicazione degli Archivi di Stato, Quaderni della Rassegna degli Archivi di Stato no. 82. Ministero per i Beni Culturali e Ambientali, Ufficio Centrale per i Beni Archivistici, 1997), 55-58; Maria Guercio, “Principles, Methods, and Instruments for the Creation, Preservation, and Use of Archival Records in the Digital Environment,” *The American Archivist* 64 (Fall-Winter 2001): 238-69.

⁴⁹ For an overview of pre- and post-classification procedures in different archival traditions (namely, those of Germany, England, Australia, and the United States), see Schellenberg, *Modern Archives*. Part II: “Record Management,” 33-110.

⁵⁰ With reference to the consequences on the establishment of the archival bond (which will be touched upon later on in this chapter), see Raffaele De Felice, “In margine ad alcune questioni di archivistica,” *Rassegna degli Archivi di Stato* XXXI, 1 (January-April 1971): 123-42.

2.2.2 Classification under Napoleon and Analysis of the Italian System

At the beginning of the 19th century, the German system had spread through most of continental Europe thanks to the conquests made by Napoleon, whose administrative apparatus adopted and improved it by combining classification and registration capabilities in one single tool. The systematic identification and pre-organization of all incoming and outgoing correspondence was subsequently extended to cover internal records as well. With these adjustments, classification became the heart of the Napoleonic administrative system, which put great emphasis on recordkeeping.⁵¹

In Italy, the twofold system developed by the Napoleonic administration, called *sistema protocollo/titolario* (protocol register/classification system), is still regarded as the core component of those recordkeeping systems which qualify as ‘trusted.’ For this reason, its use is mandatory for all public bodies. Entering a record into the system means to certify the exact moment in which the record is issued or received, to identify it in a unique manner, and to place it, by means of classification, within its procedural and documentary context. Within the Italian juridical system, the described register is considered a ‘public act,’ that is, a record itself, to be preserved indefinitely in virtue of its value as ‘the highest evidence’ before the court.⁵²

The legal value attributed to the act of classifying and registering records (the former always precedes the latter in the Italian system) brings this discussion to the writings of Raffaele De Felice, the Italian archivist who has most extensively discussed

⁵¹ See Lodolini, *Archivistica. Principi e problemi*, 85-90.

⁵² The higher evidentiary value of the Italian ‘protocol register’ (inclusive of classification system) has been established by the Cassazione Penale (i.e., criminal court of appeal) sentence, sect. V, 6 October 1987. The Italian register should be considered in the context of a civil law system which requires that a specific set of formal elements apt to guarantee the certainty of law be provided for any document to be admitted as evidence before the court. See Antonio Romiti, *Le principali sentenze sul protocollo delle pubbliche amministrazioni* (Viareggio, 1995).

the topic of records classification from both a conceptual and a methodological perspective, and whose early works date back to the beginning of the 1960s.⁵³

De Felice's writings on what he used to call "systematic classification by competence"⁵⁴ represent a first attempt to lend theoretical support and provide systematic rigour to one of the functions most neglected by the archival literature. In his view, the design of a records classification system should follow an "organic, logic, and coherent method," based on the nature of the competences attributed by law to any given public authority. By classifying according to the competence criterion, "the purpose and means of each office, or each set of activities, become evident."⁵⁵

De Felice does not define 'competence' which, in his writings, is used interchangeably with activity, function, and office. The definitions provided by the Concise Oxford Dictionary⁵⁶ do not help clarify the relationship between this and other functional terms as well as the diplomatic definition:

"Competence [is] the authority and capacity of carrying out a determined sphere of activities within one function, attributed to a given office or individual."⁵⁷

It is therefore evident that both functional elements ("sphere of activity within one function") and structural elements ("office or individual") coexist in the administrative concept of competence as 'functional responsibility' delegated to a juridical person.

⁵³ See Raffaele De Felice, "La classificazione degli atti negli archivi moderni," *Rassegna degli Archivi di Stato* XXIV (1964): 215-42.

⁵⁴ See Raffaele De Felice, *L'archivio contemporaneo. Titolario e classificazione sistematica di competenza nei moderni archivi correnti pubblici e privati* (Rome: La Nuova Italia Scientifica, 1988).

⁵⁵ Id., "Per la formazione dei titolari di archivio," *Rassegna degli Archivi di Stato* XXVII, 1 (January-April 1967): 74. Translated by this author.

⁵⁶ In *The Concise Oxford Dictionary of Current English*, 9th ed. (Oxford, NY: Clarendon Press, 1998), 271, "competence (also competency)" involves the following applicable definitions:

"**1 a** ability; the state of being competent. **b** an area in which a person is competent; a skill. ... **3 Law** the legal capacity (of a court, a magistrate, etc.) to deal with a matter."

⁵⁷ Luciana Duranti, *Diplomatics. New Uses for an Old Science* (Lanham and London: The Society of American Archivists and Association of Canadian Archivists in association with The Scarecrow Press, Inc., 1998), 90.

Consequently, a classification system structured “by competence” will be ‘function-based’ to the extent that the organizational structure corresponds to the hierarchy of functions and activities attributed to any given entity. This type of classification will necessarily show a low tolerance towards administrative change, because its flexibility is constrained by the organizational setting that actually informs its structure. As a matter of fact, the classification schemes currently used by some Italian public authorities, which were developed, whether explicitly or implicitly, according to a competence-based approach, all reveal a structure closely resembling the creator’s organizational chart.⁵⁸

A closer look at the classification model suggested by De Felice – which until recently, has been regarded as a standard (at least with reference to certain categories of public bodies), although it has rarely been applied literally⁵⁹ – reveals a structure where the highest level of the scheme is fixed and is made of three main headings or “titles” (in Italian, *titoli*):

“[*titolo I*] relevant to the activities concerning the organization and functioning of the offices; [*titolo II*] relevant to the activities aiming at guiding the acts of the administration in general terms; and [*titolo III*] relevant to the specific activities carried out by each office in carrying out any of the assigned competences.”⁶⁰

⁵⁸ The Italian classification schemes examined by this author are the ones of the Province of Bologna (that she contributed to develop in the years 1995-98), State Archives of Bologna, City of Bologna, and Province of Bari.

⁵⁹ De Felice’s model was consistent with the criteria set by Royal Decree no. 35 of 25 January 1900, the first Italian ‘records management’ regulation concerning all central administrative bodies of the State (in Italian, *regolamento per la gestione degli archivi correnti delle amministrazioni centrali dello Stato*). This regulation prescribed, *inter alia*, specific rules for the design of classification schemes. For the impact of this legislation on the understanding of the records management function and the role of the records manager in Italy, see Elena Aga-Rossi and Maria Guercio. *La metodologia per la definizione di piani di classificazione in ambiente digitale* (Rome: Scuola Superiore della Pubblica Amministrazione, 2005); Guido Melis, “Il deposito della memoria. L’evoluzione degli archivi amministrativi nella storia italiana,” *Rassegna degli Archivi di Stato* LXI (2001): 208-25, also available in English translation: “The Profile of the Archivist: Promotion of Awareness,” *Archivum* XLV (2000): 81-96.

⁶⁰ De Felice, “Per la formazione dei titolari di archivio,” 64. Translated by this author.

Thanks to such a tripartition, which was meant to be common to all records creators, De Felice's model would facilitate interoperability but also the identification of the creator's most important policy records (mainly referring to *titolo II*) for purposes of preservation. It should however be noted that – in contrast with the more rational arrangement devised by Schellenberg, which will be examined later – this model involves some unnecessary redundancy, considering that the activities identified under *titolo II* will once again be repeated under *titolo III*, where the individual case files are supposed to be created.

Nevertheless, a part from these technical flaws – which prevented his model from becoming popular – De Felice has the merit of having highlighted important points that make clear that records classification is more than a mere retrieval tool.

“Classification ... allows reducing the multiplicity of the affairs attended to a finite number of hierarchically arranged categories, so that the daily accrual of the archives will result in a logical accumulation [of records] that will faithfully reflect the growth and evolution of any given activity.”⁶¹

The “cognitive act of classification,” De Felice adds, must necessarily be performed at the very moment of records creation “in order to guarantee the correct formation of the series through the rational categorization of the competences of the office.”⁶² By “establishing the archival bond,” thereby determining the internal structure of an archival fonds, classification becomes, in his view, “the only means to accomplish the formation of archives”⁶³.

Some commentators on De Felice's writings have criticized what, in their view, appears to be an overestimation of the role of records classification, because

⁶¹ Raffaele De Felice, “In margine ad alcune questioni di archivistica,” *Rassegna degli Archivi di Stato* XXXI, 1 (January-April 1971): 135. Translated by this author.

⁶² De Felice, “Per la formazione dei titolari di archivio,” 67. Translated by this author.

⁶³ *Ibid.*, 68. Translated by this author.

“the archival bond exists independently of any administrative, cognitive, or cultural operation; archives which are generated without any classification linked to the records have nevertheless the archival bond.”⁶⁴

This is indeed theoretically correct; however, one should not underestimate the risks that may arise from not making the archival bond explicit through classifying the records.

Where there is no evident, stable, expressed relationship among the records (which only classification can provide), their natural, original, and necessary order may get altered at any time, thus making the archival bond impossible to recognize and eventually reconstruct.

2.2.3 Function and Structure in the Time of Modern Bureaucracy

The concept of competence previously examined has already demonstrated how business function and organizational structure may be intertwined to the point that they may coincide, or appear to coincide, both in the reality and in records classification as a representation of that reality. Indeed, this is not only an Italian phenomenon. Most of the classification schemes existing in early bureaucracies, as well as the descriptions of their methodological underpinnings, although function-based in theory, at a closer look, show that they actually reflect the current internal structure of the records creating organizations with their hierarchies of departments, divisions, offices, and so on.

Function, defined in diplomatics as “the whole of the activities aimed to one purpose, considered abstractly,”⁶⁵ is an abstraction and, as such, it needs a structure made

⁶⁴ Donato Tamble’, *La teoria archivistica italiana contemporanea. Profilo storico-critico (1950-1990)* (Rome: La Nuova Italia Scientifica, 1993), 109. Translated by this author. See also Duranti, “The Archival Bond.”

⁶⁵ Duranti, *Diplomatics*, 90. Once again, one of the rare definitions of functional terms in the archival literature comes from diplomatics.

of “rules and resources”⁶⁶ to materialize. Where each function is carried out “without involving more than one organizational unit or department at a time”⁶⁷, the boundaries of either concept (i.e., function and structure) may be so blurred that making a distinction for the purpose of describing only the function, ‘abstractly,’ will almost be impossible. Although one can come across this type of organizational configuration (known as “machine bureaucracy”⁶⁸ or “full bureaucracy”⁶⁹) in any place and at any time, there actually was a time in history when organizations in the western world used to be primarily shaped that way.

From the beginning of the industrial age (end of the 1700) until at least World War II, societal structures used to enjoy a relative stability. Both public and private bodies were characterized by rather simple and rigid hierarchical organizations, rational division of labour, and fixed sets of responsibilities assigned to each office or functional area in accordance with written rules and regulations.⁷⁰ Univocal, downward

⁶⁶ Orlikowski, “The Duality of Technology,” 405. Structuration theory enables an understanding of structure that takes both its social and physical components into account. As a social construction, structure involves “rules” (e.g., hierarchy, delegation of authority, career paths, decision-making processes, etc.), while as a physical one, it is made of “resources” (e.g., people, office spaces, financial assets, etc.). See Anthony Giddens, *The Constitution of Society. Outline of the Theory of Structuration* (Berkeley: University of California Press, 1984); JoAnne Yates and Wanda J. Orlikowski, “Genres of Organizational Communication: A Structurational Approach to Studying Communication and Media,” *Academy of Management Review* 17 (1992): 299-326.

⁶⁷ Michael Lutzker, “Max Weber and the Analysis of Modern Bureaucratic Organizations,” *The American Archivist* 45 (Spring 1982), 124.

⁶⁸ Henry Mintzberg, *Structure in Fives: Designing Effective Organizations* (Englewood Cliffs: Prentice Hall, 1983). See also Gareth Morgan, *Images of Organization* (Beverly Hills: Sage, 1986), 22-25.

⁶⁹ Geert Hofstede, *Culture’s Consequences. Comparing Values, Behaviors, Institutions, and Organizations across Nations* (Thousand Oaks: Sage Publications, 2001), 377. In Hofstede’s analysis of national and organizational cultures, this type of organizational configuration is also called “pyramid model” and is mainly associated with Latin and Mediterranean countries. Although the value of Hofstede’s generalizations may raise some criticism, for the purposes of this discussion, it is interesting to note that the full form of bureaucracy, which has its roots in the time of the industrial revolution, appeared to be still massively present in France, Italy, Spain and other countries around that area throughout the 1990s.

⁷⁰ This mechanistic type of organization has been fully described by Max Weber and Frederik Taylor in their classic writings of organizational theory and sociology. See also Morgan, *Images of Organization*; and JoAnne Yates, “Internal Communication Systems in American Business Structures: A Framework to Aid Appraisal,” *The American Archivist* 48, 2 (Spring 1985): 141-58.

communication flows and linear decision-making processes implied a minimum overlapping of tasks and no need for sharing them. In such self-contained, “mono-hierarchical structures, ... decisions were made at one level and implemented at the next”⁷¹ and the relevant records, “preserved in their original or draught form,”⁷² provided a mechanism for monitoring an individual’s performance and set precedents for future actions.

In the writings of British archival theorist Sir Hilary Jenkinson, one may find evidence not only of the alignment of function and structure typical of early bureaucratic organizations but also of the equally typical reliance on recordkeeping procedures as a basis for good administration.⁷³ It is in this context that statements like the following must be read so that they do not sound as inconsistent as they may appear to be:

“Archive series must always refer to some Administrative Function, because without it they themselves would never have come into existence.”⁷⁴

“... a Class [(i.e., the highest level of a classification system) shall correspond to] ... the division of office work which produced it.”⁷⁵

Similarly, Margaret Cross Norton, Illinois State Archivist between 1922 and 1957, in a paper presented in 1940, writes: “Archival classification is based upon departmental organization,”⁷⁶ a structure-related sentence that shortly precedes her most quoted functional statement: “It is a rule in government that records follow functions.”⁷⁷ As a

⁷¹ David Bearman and Richard H. Lytle, “The Power of the Principle of Provenance,” *Archivaria* 21 (Winter 1985-86), 16.

⁷² Cited in Lutzker, “Max Weber and the Analysis of Modern Bureaucratic Organizations,” 124.

⁷³ See Jenkinson’s “golden rule for the Administrator,” already mentioned in the Introduction to this dissertation, in Jenkinson, *A Manual of Archive Administration*, 153.

⁷⁴ *Ibid.*, 111.

⁷⁵ Hilary Jenkinson, “The Classification and Survey of English Archives,” (1943) in H. Jenkinson, *The selected writings of Sir Hilary Jenkinson* (Gloucester: Alan Sutton, 1980), 201.

⁷⁶ Thornton W. Mitchell, ed., *Norton on Archives. The Writings of Margaret Cross Norton on Archival and Records Management* (Carbondale and Edwardsville: Southern Illinois University Press, 1975), 106.

⁷⁷ *Ibid.*, 110.

corollary, Norton adds that, in order to facilitate the transfer of records from an extinct agency to the one inheriting its functions as a consequence of re-organization, records should be classified on the basis of “the present administrative organization,”⁷⁸ thus demonstrating that, in her view, agencies were organized along functional lines.

Both Jenkinson and Norton acknowledged the relationship to function as a fundamental characteristic of the nature of a record. Nevertheless, the type of administrative reality they were facing was probably not complex enough to make them appreciate the different effects of either approach (i.e., function- versus organization-based) on the management of the records.

2.2.4 Schellenberg and the Functional Analysis

More than ten years later, Theodor Schellenberg, the United States (US) National Archivist from 1950 to 1961, was still writing that “organization frequently corresponds to function”⁷⁹. However, of the three criteria for classifying records he identifies in his manual (i.e., action, organization, and subject matter), the first one, action, is indicated as the one records managers have definitely to privilege, in that,

“Most public records are the by-products of action, and they naturally fall into groups that relate to action.”⁸⁰

Indeed, an important point that Schellenberg raised in his 1956 manual is that the practice of classifying records by subject matter had to be seen as an “exception,”⁸¹ rather than a rule, as his contemporaries seemed for the most part to believe.

⁷⁸ Ibid., 111.

⁷⁹ Theodore R. Schellenberg, *Modern Archives: Principles and Techniques* (Chicago: University of Chicago Press, 1956), 55.

⁸⁰ Ibid., 53.

⁸¹ Ibid., 60.

The situation of recordkeeping in the United States must have been quite dramatic if, already in the 1940s, archivist Philip Brooks, not without concern, had noted: “Filing agents and methods are kaleidoscopic in their variety.”⁸² Due to the exponential growth of organizations in terms of size, complexity, and volume of records handled, and to the simultaneous absence of adequate methods to keep the records under control, post World War II American society was indeed facing an emergency in terms of the organizational and public accountability⁸³ that records should provide. Not by chance, the first part of Schellenberg’s manual is dedicated to the description of corrective measures that organizations are recommended to implement if they are to improve their efficiency and effectiveness. Mainly, these measures aim at the twofold objective of simplifying business functions and rationalizing recordkeeping practices, and consist of standardization of procedures, control of forms, reduction of duplicates and, last but not least, adoption of records classification.⁸⁴

As to classification methods, Schellenberg, who was influenced by the ideas of German archivist Brenneke, besides rejecting the subject-based approach that would only be suitable for reference and information files, emphasizes the importance of starting from the analysis of an agency’s functions, activities, and transactions.

⁸² Philip Brooks, “The Selection of Records for Preservation,” *The American Archivist* 3 (October 1940): 224.

⁸³ See Terry Eastwood, “Should Creating Agencies Keep Electronic Records Indefinitely?” *Archives and Manuscripts* 24, 2 (1997): 264. “Organizational accountability” considers the records in their current environment and refers to the ability of “officers ... to render an account of how they have fulfilled their obligations ...;” while “public accountability” refers to the fact that “records account to the public for the discharge of the duties of its agent ...”.

⁸⁴ See Schellenberg, *Modern Archives*, 44-46. Interestingly, Schellenberg did not believe that a program to control records creation could by itself positively affect an organization whose functions and activities were not conducted efficiently. In other words, he was convinced that rationality of recordkeeping systems does not necessarily entail rationality of decision-making processes.

“Records, as a rule, should be classified according to function. They are the result of function; they are used in relation to function; they should therefore be classified according to function.”⁸⁵

As an alternative, he acknowledges the possibility of referring to the structure of the organization as a criterion for classification, given the usual correspondence between organization and function. However, he admonishes,

“such a division into organizational classes is possible and advisable only in governments whose organization is stable and whose functions and administrative processes are well-defined.”⁸⁶

Schellenberg is the first author who elaborated a set of principles for classifying records and who highlighted the importance of functional analysis, an approach that was unfamiliar to his contemporaries. His classification development rules and, in particular, the hierarchy of functions, activities, and transactions he identified as the basic structure of his functional classification model (also known as “F-A-T model”), became a point of reference for the archival community, and not only in the US. Still today, his concepts and definitions are drawn on as a useful framework for the analysis of contemporary organizations.⁸⁷

Schellenberg’s method consists in an initial division of the whole of an agency’s functions (defined as “all the responsibilities assigned to an agency to accomplish the broad purposes for which it was established”⁸⁸) into two main groups of activities respectively called “substantive” (i.e., “activities relating to the technical and professional work of the agency”) and “facilitative” (i.e., “activities relating to the

⁸⁵ Ibid., 62-63.

⁸⁶ Ibid., 59.

⁸⁷ See, in particular, Elizabeth Shepherd and Geoffrey Yeo, *Managing Records. A Handbook of Principles and Practice* (London: Facet Publishing, 2003).

⁸⁸ Schellenberg, *Modern Archives*, 53.

internal management of the agency, such as housekeeping activities”)⁸⁹. By splitting the structure of the classification into two parts, the first one specific to each agency and the second one potentially shareable among agencies, being made of activities that are common to all, Schellenberg on the one hand, avoided redundancy, and on the other, established a principle of uniformity that anticipated the need for interoperability among agencies that would be emerging in the future.

In his model, all transactions deriving from the breaking down of both categories of activities are in turn subdivided into “policy” and “operational transactions.”

According to Schellenberg, a classification system where all record aggregates belong to either type of transactions facilitates records appraisal and selection on the basis of the higher evidential and informational value of the records supporting policy decisions in comparison to those relevant to the specific individual transactions that follow, or precede, those decisions. Thus, an important methodological suggestion underlying his model is that, when designing records classification schemes, any predictable retention and preservation need should also be taken into account.

Schellenberg also has the merit of having clarified that classification and filing are two distinct activities. While for the former a functional approach is recommendable, the way records should be grouped into files depends on the nature of the transaction. “All transactions – he explains – relate either to persons, or corporate bodies, or places, or topics.”⁹⁰ This is an insight that tends to be neglected by today’s practitioners who wish to develop so-called ‘business classification schemes’ and believe that everything (both classes and files) ought to be functional.

⁸⁹ Ibid., 54.

⁹⁰ Ibid.

As to the purpose of classification, Schellenberg makes reference neither to the nature of the records nor to any other theoretical considerations (such as, the need for establishing and perpetuating the original context of records creation), but pragmatically writes:

“Records must be put away in an orderly and accessible manner to be quickly retrieved when they are wanted.”⁹¹

On the same vein, he concludes that, because “the purpose of classification is to facilitate the location of records when they are needed ... records should not be overclassified.”⁹²

A good suggestion which, however, may clash with the complexity of affairs and does not take into consideration that different people may have different views of the same issue. This implies that classification may not be such a neat and straightforward matter like Schellenberg’s rules seem to posit.

2.2.5 Theory and Practice of Functional Classification in Canada

Until the 1980s, in Canada like in the United States, subject-based systems were the rule. The first attempts to a functional approach to classification can be found in the systems developed by the Provinces of British Columbia and Nova Scotia, respectively called ARCS (Administrative Records Classification System) and ORCS (Operational Records Classification System), and STAR (Standard for Administrative Records) and STOR (Standard for Operational Records) respectively.⁹³ Thanks to the physical divide between

⁹¹ Ibid., 47.

⁹² Ibid., 63.

⁹³ Government of British Columbia. *ARCS Online: Administrative Records Classification System* (2003 ed.), available online at <http://www.bcarchives.gov.bc.ca/arcs/index.htm> (accessed on 05/05/2007); Id., *ORCS: Operational Records Classification Systems*; Government of Nova Scotia. *STAR: Standard for Administrative Records* (2006 ed.), available online at <http://www.gov.ns.ca/nsarm/star/> (accessed on 05/05/2007); Id., *STOR: Standard for Operational Records*. The Canadian system is also known as “block numeric system” as it is “based on the assignment of blocks of numbers to represent the main groups, primaries and secondaries”. See Duranti et al., *Preservation of the Integrity of Electronic Records*, 44.

records resulting from common administrative activities (corresponding to Schellenberg's facilitative activities), which are included in one system shared across all government agencies, and records resulting from the distinct operational functions of each agency (i.e., Schellenberg's substantive activities), the overall system is very flexible and allows for interoperability. ORCS and STOR, which are unique for each agency, also share a common structure, thus providing a basis for further standardization across the country.

The major advantage of the above mentioned systems derives, in our view, from the fact that the classification is fully integrated with a preservation plan, by associating each lower level of the classification with relevant retention rules expressing how long each identified record series is supposed to be retained first in the creator's office (active stage) and then in a records center (semi-active stage). Retention information also specifies when the series are supposed eventually to be either disposed of or transferred to an archival repository for purposes of further preservation.⁹⁴ Thus, the retention mechanism facilitates the management of the life cycle of the records by guiding them through an established chain of responsibilities and by working as a 'filter' which takes into account the operational, legal, and potential long-term values attributed to the records. In other words, it is a sort of pre-appraisal.

The challenge of integrating classification and retention considerations lies in balancing the prospective, analytic function of classification with the retrospective, evaluative view which is implicit in any form of records appraisal. This involves looking at the functions and related records not only in terms of actual business and records

⁹⁴ See Duranti's analysis of the BC and NS classification systems in Duranti, *I documenti archivistici*, 73-76.

management needs, but also in terms of the significance of the records for purposes that might be different from the business ones (e.g., research or cultural purposes). From a methodological viewpoint, letting retention – which is not a primary objective of classification – influence the classification design might result in a scheme that both sacrifices current to potential future needs and imposes an order on the records that does not correspond to the one dictated by the requirements of business.

An in-depth analysis of the Canadian classification schemes reveals that the declared functional approach is, in some instances, subordinated to retention requirements. Headings like “Policies” or “Contracts,” for example, which are not related to any specific function, seem to be meant to create typologically homogeneous series for purposes of preservation. Overall, one may say that the British Columbia systems and their Nova Scotia counterparts are definitely effective thanks to the number of functionalities they provide within one integrated tool. However, neither of them really constitutes a good example of the outcome of functional analysis in the proper sense. In fact, several classification criteria may be recognized in these schemes: record type (e.g., “Contracts”), structure (e.g., “Committee”), subject-matter (e.g., “Equipment and Supplies,” which in turn nestles “Clothing,” “Fuel,” etc.) and function (e.g., “Issuing of Permits”) are all mixed up at any classification level.

Apart from this content-related issue, a structural issue also needs to be addressed at this point. The headings of the lower levels of the classification schemes under examination are listed in alphabetical order, instead of being arranged according to the sequence of activities, or stages, that usually occur when carrying out a function. Obviously, only the latter order allows displaying correctly the way in which given affairs or matters grow and develop, i.e., the workflow. The alphabetical arrangement of

subclasses is fundamentally inconsistent with a functional approach, and may be attributed to a lack of conceptualization with reference to the meaning of functional components.

A Canadian archivist who has reflected on records classification methods and has analyzed existing ‘functional’ models criticizing their foundation is Paul Sabourin. At the end of the 1990s, as an archivist of the National Archives of Canada (NA – today Library and Archives Canada – LAC), Sabourin participated in a project for the review of the NA’s records classification system known as *Subject Classification Guide*. After the adoption of new disposition authorities called MIDAs (*Multi-Institutional Disposition Authorities*), which were based on a fully functional appraisal methodology known as macro-appraisal,⁹⁵ the old subject-based classification system had become an obstacle to the effective application of the functional categories identified in the MIDAs. That was the strong impulse for a change in the classification system as well.

The first issue faced by Sabourin and colleagues was that of defining what a function is. After several years of structural-functional analysis in the context of the macro-appraisal approach, the NA agreed on the following “working definition”:

“A function is (1) any high level purpose, responsibility, task, or activity which is assigned to the accountability agenda of an institution by legislation, policy, or mandate; (2) typically common administrative or operational functions of policy development and program and/or delivery of goods and services; (3) a set or series of activities (broadly speaking, a business process) which, when carried out according to a prescribed sequence, will result in an institution or individual producing the expected results in goods or services that it is mandated or delegated to provide.”⁹⁶

⁹⁵ See Terry Cook, “Mind Over Matter: Towards a New Theory of Archival Appraisal,” in *The Archival Imagination: Essays in Honour of Hugh A. Taylor*, ed. Barbara L. Craig (Ottawa: Association of Canadian Archivists, 1992): 38-70. The macro-appraisal model will be discussed later on.

⁹⁶ Paul Sabourin, “Constructing a Function-Based Classification System: Business Activity Structure Classification System,” *Archivaria* 51 (Spring 2001): 144.

It is understood – Sabourin explains – that the term function may be used with all three characterizations in mind or only one, according to the purpose for which it is used (i.e., description, appraisal, or classification). The one that better fits with the *Business Activity Structure Classification System* (BASCS)⁹⁷ that came out from the NA’s project appears to be the third part of the definition, which describes a function as a business process and each process as a cyclical, sequential series of fixed steps.

The methodology for designing a functional classification system like BASCS rests on the assumption that the sequence of procedural steps as it is described in, and often prescribed by, legislation or other regulatory instruments potentially makes up the structure of a given kind of activity. With the expression *Activity Structure* included in the acronym BASCS, its developers meant exactly the decomposition of functions and activities according to both a hierarchical and a sequential order (not an alphabetical one!), down to the elementary units that correspond to the steps, or transactions, generating the actual files. According to this approach, the latter would thus reflect the natural (either prescribed or logical) development of each activity carried out by an agency.

There is no doubt that this methodology is indeed very logical and purely functional. At first glance, one may even think that, with the implementation of such activity-based system, one could achieve the full integration of business processes and documentary procedures, which is considered by archival theory one of the fundamental methods to ensure records reliability in a trusted recordkeeping system.⁹⁸ However, if

⁹⁷ BASCS structure and guidelines for its implementation are available on the LAC website at <http://www.collectionscanada.gc.ca/government/products-services/007002-2089-e.html> (accessed on 05/01/2009).

⁹⁸ See Duranti et al., *Preservation of the Integrity*, 42-43.

applied systematically and exclusively, the approach described by Sabourin may result in some sort of abstract and self-referential system, a classification that would mirror the functions of the organization, yet would be totally unable to capture the actual ways of carrying out work in a real office. This shows just one of the limitations of a strict interpretation of the functional approach to classification.

A second shortcoming refers to the fact that not every single activity behaves as a structured, repetitive process. There are areas of human endeavour (e.g., academic research, teaching, or artistic performance) that, on the contrary, have the characteristic of being creative and unpredictable, so that the relevant activities do by no means follow any pre-established, linear, or cyclical sequence of steps. Such a ‘freedom of action’ – which, following the “soft systems thinking approach,” is related to the nature itself of human beings, who “can always decide to act otherwise”⁹⁹ – may as well enter in any work procedures, even the most bureaucratic ones. This would imply that a fully functional approach to classification is destined to fail due to its own abstractness and ‘perfection.’

A last, record-related consideration inspired by the Canadian model is that, in a real work environment, not every step that makes up a process is bound to generate a distinct transaction file, as assumed by BASCS. Some offices may find it more convenient for the purposes of their business, for instance, to keep all of the records originated by an entire process, or even an entire function, together in one single file. In such a case, the higher activity level, not the transaction level, should be tagged as the entry point for file creation. Where the main driver for classification design is the

⁹⁹ Peter Checkland and Jim Scholes, *Soft Systems Methodology in Action* (Chichester, West Sussex, UK: John Wiley & Sons Ltd., 1999), 2.

workflow, rather than being the records flow or the user needs, the lower levels of the scheme tend to become too detailed and as such, they may cause excessive fragmentation of files. As a consequence, users may find the classification complicated to apply and record keepers may have difficulty in maintaining it up-to-date.

Actual results of the adoption of the BASCS model and relevant appropriation modes have never been analyzed critically. This looks like a gap in the literature that this author addresses at the conclusion of her review of the Canadian classification approach.

2.2.6 The Australian Approach to Recordkeeping: from Maclean to Records Management Standards

The Australian archival tradition is an outgrowth of the British one. As Schellenberg explains, in the 1950s and 1960s, incoming and outgoing correspondence used to be registered in logbooks where links among the records belonging to the same files used to be annotated as well.¹⁰⁰ At that time, Ian Maclean was leading the Australian public records administration. His ideas have been very influential for the developments of recordkeeping in the country. In particular, he had the intuition of the continuity existing between records management and archives. Therefore, it was natural for him to pay particular attention to records classification, which he described as “the foundation of the study of modern records administration,”¹⁰¹ but also to filing, as an important activity whose principles and rules have been rarely addressed in the archival literature.

¹⁰⁰ Schellenberg, *Modern Archives*, 72. Specifically, he writes:

“Under the present-day registry system, generally used both in Commonwealth and State governments, inward and outward documents are brought together into files just as in England.”

¹⁰¹ Ian Maclean, “Trends in Organizing Modern Public Records, with Special Reference to Classification methods,” *Archives and Manuscripts* 3 (1956): 17.

According to Maclean, files are usually created for two purposes, that is, either to carry out business (i.e., “transaction files,” that he defines as “file[s] that contain the sequence of papers deriving from a particular piece of business”) or to support the “action records” relevant to that business (i.e., “subject files,” containing “background information records”).¹⁰² Taking this distinction into account, he formulated the following “rules of efficient recordkeeping”:

“first ... draw a clear line of demarcation between files established for the two different purposes; ... and second ... [strictly observe] the principle of respect for the sequence of administrative action.”¹⁰³

Maclean implicitly draws attention to the fact that not every records creating action is to be treated as a business transaction. There are in fact records that are put together just to support a given function or activity, and may therefore be arranged according to subjects or any other criteria useful to the records creator. However, is the difference between subject and function clear? Maclean admits that the way the words are used may be confusing:

“Sometimes ... [subject] means function or activity, sometimes the transaction that is the subject of a file, sometimes the event about which the department is taking action, sometimes the abstract subject that is the subject of documentation...”¹⁰⁴

In order to find out which criterion is most suitable to file a record, Maclean suggests that record keepers should analyze the specific purpose of the activity generating that record. Additionally, in line with Jenkinson, he stresses the importance of making the original order of the single acts comprising an administrative action or transaction evident to

¹⁰² Ian Maclean, “Australian Experience in Records and Archives Management,” *The American Archivist* 22, 4 (October 1959): 393.

¹⁰³ *Ibid.*, 395.

¹⁰⁴ *Ibid.*, 408.

anyone who looks at the relevant file. He does not specify though, in the article here analyzed, that it is through the classification that such sequence can be fixed and secured.

Almost forty years after Maclean's words, the National Archives of Australia (NAA) published the first edition of a recordkeeping manual known as DIRKS (Designing and Implementing Record-Keeping Systems).¹⁰⁵ The DIRKS Manual provides a rigorous and structured eight-step methodology designed to ensure that "records and information management is firmly based on the business needs of the organization." The business-driven approach of the DIRKS methodology is already shown in its program foreword. As a further evidence of this approach, it will be enough to mention that, among the factors that concur to determine the recordkeeping requirements that are appropriate to each organizational context, DIRKS identifies the "accountability agenda of the organization," which is based on a systematic analysis of its legal and regulatory obligations, business requirements, and broader community expectations, together with an assessment of the exposure of the organization to risk if those requirements are not addressed.

The link between accountability and recordkeeping is a key issue in the administrative culture of Australia. Since the 1980s, when a series of accountability crises occurred in numerous government bodies, Australian archivists have been reflecting on their responsibilities towards their institutions and the society at large, as well as on the interdependence of administrative and recordkeeping practices.¹⁰⁶ It is against this background that one has to look not just at the DIRKS Manual but also at the

¹⁰⁵ National Archives of Australia, *Designing and Implementing Record-Keeping Systems – The DIRKS Manual: A Strategic Approach to Managing Business Information* (Commonwealth of Australia, September 2001, revised July 2003), available online at <http://www.naa.gov.au/records-management/systems/DIRKS/index.aspx> (accessed on 21/11/2008).

¹⁰⁶ See Sue McKemmish and Frank Upward, eds., *Archival Documents. Providing Accountability through Recordkeeping* (Melbourne: Ancora Press, 1993).

comprehensive recordkeeping framework, made of several standards, policies, and regulations, that the Australian archival community has been able to build in the last few decades.¹⁰⁷

The first two steps of the DIRKS methodology are those leading to the design of a Business Classification Scheme (BCS), that is, “a conceptual model showing an organization’s functions, activities, and transactions in a hierarchical relationship.” Organizations that intend to establish a new recordkeeping system, or to improve an existing one, should first engage in a “preliminary investigation of the business, social, and legal contexts” in which they operate through collecting relevant information by means of documentary sources and interviews with internal and external stakeholders on what the organization actually does. The second step, i.e., “the analysis of the organization’s business activities and processes,” involves identifying the “largest units of business activity” and then breaking them down into a set of logical sub-parts by means of a top-down functional analysis. To know how organizations carry out their business in detail, the manual suggests that “process analysis,” which presupposes a bottom-up examination of all steps involved in each activity or transaction, be conducted.

It should first be noted that the DIRKS Manual uses various functional terms (e.g., function, business activity, process) but never defines them, thus confusing the reader. Additionally, in the same way as the Canadian BASCS, the Australian BCS fails to acknowledge the existence of any other type of functions besides those that are structured, sequential, and routinized. Furthermore, the DIRKS Manual does not include

¹⁰⁷ See the web site of the National Archives of Australia at <http://www.naa.gov.au/recordkeeping/default.html>, which aims at providing “detailed, practical information to help Australian Government agencies improve their recordkeeping, following best practice approaches developed by the National Archives.”

in the discussion of classification design any examination of existing records, files, or recordkeeping procedures until later in the methodology. One may therefore argue that the Manual underestimates the amount of functional knowledge that may be gathered from a bottom-up analysis of record-related issues. In other words, the Australian BCS model seems to be the outcome of a mere, though very articulated, functional analysis process, and as such, it is again very close to the Canadian model. The only difference may be its wider focus, as the design of a BCS includes an investigation of the broader social context, or “ambient function,”¹⁰⁸ which an organization’s goals and strategies ultimately depend on. However, there is no indication in the DIRKS Manual of how to conduct such complex analysis of the wider environment of recordkeeping.

In another section of the NAA’s recordkeeping strategy, the BCS is described as the “logical model” that archivists, or whoever in the organization is responsible for the relevant function, draw on to design “classification tools for records management.”¹⁰⁹ It seems therefore that the BCS is not itself a records classification tool, although the difference between that and a records classification, or a thesaurus (which is considered equivalent by NAA), would only emerge at the transaction level, i.e., at the point where records may happen to be created. In practice, the methodology recommends to translate the functional terms of the BCS into “topics and/or subtopics” to serve the “purpose of records classification ... [that is,] to title the record for searching and retrieval.” Like Schellenberg, this approach reasons that the primary purpose of classification is records retrieval. It ignores the more substantial need to make explicit and fix the relationships among records in series and files.

¹⁰⁸ Chris Hurley, “Ambient Functions – Abandoned Children to Zoos,” *Archivaria* 40 (Fall 1995): 21-39.

¹⁰⁹ See National Archives of Australia, *Overview of Classification Tools for Records Management*, available online at <http://www.naa.gov.au/recordkeeping/control/tools.html> (accessed on 05/05/2007).

Besides highlighting the above mentioned terminological issue, the manual does not elaborate on how to adapt the conceptual representation of business processes typical of a BCS into a workable records classification tool responsive to the requirements of the records creators. It only suggests that contents can be attributed to topics at the lower level of the classification. These contents could actually be anything: record type, subject-matter, transaction, the output of a small group of tasks, and so on. Thus, the records classification appears to be a hybrid tool in comparison to the purely functional BCS.

These arguments bring us to discuss the idea of ‘terminological control’ (as a hierarchical and logical expression of predictable relationships) as opposed to the idea of ‘contextual control’ (as a non-hierarchical, contingent description of observed, unpredictable relationships), both of which have been formulated by Australian archivist Chris Hurley in his analysis of ‘contextual’ or ‘recordkeeping metadata.’ According to Hurley, because “records are time-bound ... [in that] they evidence an event locked in time,”¹¹⁰ the metadata relevant to circumstances that are contemporary to the making of the records, and are captured in record-keeping systems (by means, for instance, of records classification), require “external validation”¹¹¹ once the facts the records refer to have become ‘historical.’ Contextual control is what provides ‘ambience,’ i.e., the broader context that is needed to give meaning to any given body of records. Such high-level knowledge, also known as ‘ambient function,’ is inherent in any recordkeeping situation; however, there, it does not need to be articulated. The place where contextual knowledge must be made explicit is archival description. At the moment of records

¹¹⁰ Hurley, “Ambient Functions,” 22.

¹¹¹ Ibid., 24.

creation and classification, the focus is on ‘business function,’ which requires terminological rather than contextual control. All this seems to be consistent with the attention paid by NAA to issues of terminology like those noted earlier and, in particular, to the thesaurus as a means of classification.

As anticipated, records classification design and thesaurus building are, in the DIRKS Manual, treated in the same way. Organizations, it is expressly said, are free to choose, according to their retrieval preferences and needs, between the hierarchical structure of a “Records Classification Scheme” and the flat, alphabetical structure of a “Functional Thesaurus.” The thesaurus acts in a sense as an index to the BCS – which is the source of both records classification and thesaurus – and, thanks to the flexible approach it allows, offers more powerful retrieval capabilities. This method seems to confuse the purposes of records classification, on the one hand, with thesaurus or controlled vocabulary construction, on the other. Nevertheless, the issue cannot be dismissed without exploring the terms of a discussion that, since the end of the 1990s, has inflamed the Australian community of information professionals.

A remarkable controversy started with a polemical paper by Maggie Exon criticizing *Keyword AAA*, a functional thesaurus released in 1995 by the Archives Authority of New South Wales and later on extensively implemented in most Commonwealth Government agencies.¹¹² *Keyword AAA* is a thesaurus of administrative terms widely used in Australia designed for the purpose of classifying, titling, and indexing any kind of information, and in particular records, by virtue of the

¹¹² See Maggie Exon, “Contemporary Recordkeeping: The Records Management Thesaurus,” *Informaa Quarterly* 13, 4 (November 1997): 14-22. The response to Exon’s paper by Catherine Robinson and Janet Knight from the State Records NSW is available online at http://www.records.nsw.gov.au/recordkeeping/contemporary_recordkeeping_the_records_management_thesaurus_response_10470.asp (accessed on 05/05/2007).

acknowledged special relationship existing between records and functions.¹¹³ Exon's criticism was mainly related to the fact that *Keyword AAA* is not a thesaurus in the generally understood use of that term. Besides mere technical issues (e.g., how consistent functional thesauri and business classification schemes ought to be, being the latter the source of the former), the main controversial point was the actual ability of *Keyword AAA* to assist records management. However, in our view, the discussion appears to be primarily on information retrieval capabilities, which is not really at the core of the archival discourse. The real issue, as pointed out by Stephen Bedford, is that only a hierarchical classification can serve properly the purposes of record management.¹¹⁴

As Barbara Reed states, "records ... are agents of action, active participants in business activity that can only be described through a series of parallel and iterative processes."¹¹⁵ One of these processes is classification, which identifies the business activity while it is being carried out and in the context of the higher function of which that activity is a component. To achieve the objective of revealing the functional context of the records, a records classification scheme must only display meaningful hierarchical trees of functional terms. Functional thesauri, on the contrary, thanks to their alphabetical arrangements and multiple entry points, allow connecting broader and narrower terms in

¹¹³ State Records Authority of New South Wales, *Keyword AAA*, 1st ed. (1995), available online at http://www.records.nsw.gov.au/recordkeeping/keyword_aaa_424.asp (accessed on 05/05/2007).

"[Keyword AAA] covers terminology common to business functions and activities in most organizations and is normally used in conjunction with a thesaurus of functional terms relating to the organization's specific or core business functions, to provide comprehensive controlled vocabulary coverage."

¹¹⁴ See Stephen Bedford, "The Thesaurus is Dead," *Informaa Quarterly* 19, 2 (May 2003): 12-15.

¹¹⁵ Barbara Reed, "Metadata: Core Record or Core Business?" *Archives and Manuscript* 25, 2 (November 1997): 218-241.

combinations that may make no sense. Reed has named this the “loss of context” problem.¹¹⁶

The discussion on the aims of records classification seems to be endlessly open.¹¹⁷ Retrieval, the most obvious of these aims – yet just a secondary one, according to the traditional archival viewpoint – appears to be the only purpose recognized by a stream of literature that does not really qualify as archival in the proper sense. An example of this hybrid literature, which may be placed between library/information science and records management/archives, is a recent qualitative study of information seeking behaviour of electronic records management systems (ERMS) users conducted in Australia. One of its findings is that “none of the four organizations interviewed promoted or trained users to use their respective classification schemes to seek information in the ERMS.”¹¹⁸ As a consequence, “users are not using the classification scheme to conduct their information seeking in the ERMS”¹¹⁹ and prefer to refer to other metadata elements instead. The researchers conclude their article by making recommendations to improve the implementation of classification schemes as retrieval tools. While the utility of classification for information retrieval should definitely be promoted, it is not the only benefit of which records users should be made aware.

¹¹⁶ Cited in Stephen Bedford, “The Thesaurus is Dead”, 13. The problem identified by Barbara Reed is the following. In alphabetic thesauruses of three or more levels, broader and narrower term relationships are only drawn to one level. In this way, a term at the second level of the hierarchy can have many broader terms and many narrower but not all these broader terms make sense with all the narrower terms. On the contrary, in records classification schemes, relationships span more than one level, i.e., terms at a third level depend on the broader function-activity pair. Such schemes spell out the hierarchy of terms in their allowable combinations only; therefore, they preserve the context of the terms by presenting the entire classification string from broadest to narrowest term.

¹¹⁷ One of the loci of this discussion is the Australian Standard T21-09 Subcommittee that was established in 2002 to examine the issue of functional classification. Its ultimate objective is to produce a technical report on the construction of records classification tools compliant with the international standard ISO 15489 on records management.

¹¹⁸ Pauline Singh, Jane E. Klobas and Karen Anderson, “Information Seeking Behaviour of ERMS Users. Implications for Records Management Practices,” *Human IT* 9, 1 (2007), 173.

¹¹⁹ *Ibid.*, 172.

The international standard for records management ISO 15489-2001¹²⁰ recognizes that classification establishes “linkages between individual records which accumulate to provide a continuous record of activity.”¹²¹ Although it does not mention the qualities of such ‘linkages,’ this sentence can be regarded as consistent with the tenets of archival science. The Australian origin of the standard emerges though in the emphasis it puts on the classification of business activities “as a powerful tool to assist the conduct of business and in many of the processes involved in the management of records.”¹²² Overall, the way of tackling the issue of classification shows that the standard is rather business-oriented, instead of focusing on the records.

Additionally, although it embraces a functional approach, the standard does not suggest that the only way to classify records is by function. In its definition of classification, one reads:

“Classification is the systematic identification and arrangement of business activities and/or records into categories according to logical structured conventions, methods and procedural rules represented in a classification system.”¹²³

However, in the section describing the design and implementation methodology for record systems, the whole discussion of classification refers to business classification schemes, which ought to be based on a hierarchical arrangement of business functions, activities, and transactions.

What is remarkable is that ISO 15489 clearly distinguishes classification from other kinds of retrieval tools. Vocabulary controls, indexes, and thesauri are mentioned in

¹²⁰ International Standard Organization, *ISO 15489: Information and documentation - Records management. Part 1: General; Part 2: Guidelines*, 1st ed. (September 2001). ISO 15489 derives from the Australian standard AS 4390-1996 and is the basis on which the DIRKS Manual is built.

¹²¹ *Ibid.*, 13.

¹²² *Ibid.*, 13.

¹²³ *Ibid.*, 4.

the standard, but just as additional aids that may be implemented in complex organizations to support their business/records classification schemes. Nevertheless, classification is not considered a mandatory aspect of recordkeeping systems.

2.2.7 Records Classification in the Most Recent Archival Literature. The Role of Classification in an Electronic Environment

If one understands classification as a mere retrieval tool, then its role in the context of electronic records systems may seem somehow outdated or even superfluous, given the highly sophisticated search engines which are usually embedded in those systems. Thus, it is even more important today than it was in the past for archivists to stress that classification has other ends and values and that the intellectual control it exercises over the records is necessary and irreplaceable.

In Italy, for instance, Maria Guercio, who has been writing plentifully on this topic¹²⁴, has emphasized that classification is a unique means to enable the systematic, logical, and functional organization of all kinds of records, whatever their medium. Thus, far from being an old-fashioned archival tool, classification – according to Guercio – can become

“an essential instrument for the qualified management of meaningful contents on the web ... against the risk of losing the notion of archives, structures, relationships in favour of an indistinct and unqualified ‘information’ dimension.”¹²⁵

¹²⁴ See Aga-Rossi and Guercio, *La metodologia per la definizione di piani di classificazione in ambiente digital*; Maria Guercio, “Modelli efficienti di gestione documentaria nella società dell’informazione. Il ruolo della classificazione d’archivio,” *Archivi & Computer 2* (2005): 3-12. Guercio has chaired a project aiming at devising integrated models of functional records classification for a digital environment with the purpose of facilitating interoperability among specific types of organizations in the public sector (e.g., Universities, Regions, and Provinces).

¹²⁵ Maria Guercio, “Records Classification and Content Management: Old Functions and New Requirements in the Legislation and Standards for Electronic Record-Keeping Systems,” *Proceedings of the DLM-Forum* (Barcelona 2002): 438.

What makes of classification a crucial tool in the electronic environment – more fundamental than it was in the paper world – is primarily the fact that it provides essential information about the contexts of records creation and use, information that would otherwise be unattainable. The fact that, through the classification, it is also possible to manage records retention, assign access privileges, protect records confidentiality, retrieve records in context, manage the work flow, etc. – as records management standards like ISO 15489 stress and EDRMS software vendors like to repeat – simply adds further benefits to the primary one, that is, by using Hans Hofman’s words, to express the “logical boundary”¹²⁶ (or archival bond) that determines the structure of an archives. In other terms, the process of assigning the same classification code and file number to all records participating in a given activity achieves the purpose that the elements of form and the physical arrangement of records used to fulfill in a traditional paper environment, that is, to link each individual record to the activity originating it and to the other records resulting from it. Classification, at the same time, makes the archival bond (i.e., the necessary link existing among all records belonging to the same file or series) evident and stable.

MoReq2,¹²⁷ the revised and upgraded version of the “Model Requirements for the Management of Electronic Records” (MoReq) first issued by the European Commission in 2001, without explicitly mentioning those concepts, draws on them when it states that “the classification scheme lies at the heart of any Electronic Records Management

¹²⁶ Hans Hofman, “Dealing with Electronic Records: Intellectual Control of Records in the Digital Age,” *Janus* 1998, 1: 155. “A record is no longer a physical entity, but physically fragmented, kept only together by a logical boundary.”

¹²⁷ European Commission, *Model Requirements for the Management of Electronic Records. MoReq2 Specification* (Brussels, March 2008) is available online at <http://www.moreq2.eu> (accessed on 01/02/2009).

System (ERMS).”¹²⁸ This European *de facto* standard, despite its rather technical, anti-theoretical approach, builds on a significant body of archival knowledge shared not only at a European level.

The first requirement that any classification scheme must fulfill, in the digital as well as in the paper world, is “to reflect in its internal organization the hierarchical structure of business functions.”¹²⁹ MoReq2 does not go further in the elucidation of this statement, nor does it dwell upon methods of functional analysis. It is also not within its scope to explain the meaning of business function. One of its main concerns is that of ensuring that the internal integrity of an ERMS is guaranteed and maintained at all times. To this end, a number of control mechanisms and user access restrictions are identified and described in detail. By technically limiting the authority to make changes to any critical metadata – including classification code – to the system administrator, MoReq2 requirements ensure that content, structure, and contextual relationships of records and files are kept unaltered, thus providing a framework to establish the authenticity of an ERMS’s contents.

Since the end of the 1990s, The National Archives of the United Kingdom (TNA – formerly, the Public Record Office), has promoted the use of function-based classification for the management of electronic records.¹³⁰ The main advantage associated with a functional approach would be that of “mak[ing] the relevant records easier to identify and relocate during times of administrative change.”¹³¹ More recently, however, TNA has slightly modified its view and recommends a “hybrid approach,”

¹²⁸ Ibid., 6.

¹²⁹ Ibid., 18.

¹³⁰ See United Kingdom, Public Record Office, *Management, Appraisal and Preservation of Electronic Records, Vol. 2: Procedures*, 2nd ed. (Kew: Public Record Office, 1999).

¹³¹ Malcolm Todd, *Business Classification Scheme Design* (Kew: The National Archives, 2003), 22.

where only the higher levels of the classification are function-based, while sub-classes are subject-based. A hybrid approach is considered “more achievable” than a “purist functional” one, which anyway can never be applied as such because “a degree of compromise” is always necessarily brought in. The main difficulties refer to the fact that, first, “users do not understand and dislike [function-based classification schemes] because they are hard to use;” and second, “a strict functional approach will not support case files well.”¹³²

One may assume that the first weakness attributed to the functional approach (i.e., being not user-friendly) comes from feedback that TNA got from its government client-base. In fact, the absence of empirical studies about user acceptance is one of the conclusions of this review of the literature. As to the case file issue, the arguments supporting the claim that ‘particular instance papers’ (as case files are traditionally called in the UK) are not suitable to be classified by means of a function-based system do not sound very convincing. The fact that case file contents are often cross-functional and refer to individuals or other subjects should not be a problem, especially in an electronic environment. Actually, Elizabeth Shepherd and Geoffrey Yeo’s textbook (referring back to Schellenberg’s F-A-T model) offers several examples of how to classify “instances of a process” by function.¹³³

Shepard and Yeo strongly support function-based classification as the most appropriate means of classifying records. They also present a rather detailed examination of the methods that can be drawn on to develop functional classification schemes, i.e.,

¹³² Ibid., 3.

¹³³ Shepherd and Yeo, *Managing Records*, 53.

“top-down analysis,” and “system (or process, or business) analysis.”¹³⁴ Both methods can be used together, as the DIRKS methodology had already explained. As to the bottom-up approach, Shepherd and Yeo recommend records managers to employ “system or process modeling,” a technique developed by systems analysts, to represent individual business transactions and the relationships among them. One may wonder, though, whether records professionals actually possess such knowledge, considering that, in general, current study curricula for records managers and archivists hardly contemplate any notions of business analysis, systems engineering, and the like.

This British textbook also describes how to exploit the functionality of computers to enhance classification capabilities. Because in electronic systems storage is random, the use of folders “imitating” the records physical arrangement would no longer be essential. Instead of “translating the logical model of functions and processes into a hierarchy of folders and sub-folders,” contextual metadata from an authority file listing the various functional levels would be added to the records to allow a more flexible, virtual, faceted classification.¹³⁵

“Any aggregated record of a particular process or activity can be assembled on demand in response to a user’s search. The record series become virtual, as it is derived purely from metadata applied at item level.”¹³⁶

The “multidimensional approach to contextual metadata”¹³⁷ advocated by Shepherd and Yeo, together with their ‘atomistic’ interpretation of records management, may however expose one of the fundamental characteristics of the records (i.e., the necessary and

¹³⁴ Ibid., 58-64.

¹³⁵ Ibid., 95. Similarly, Bearman wrote: “because electronic records do not have the physicality associated with ... paper records, aggregation is unnecessary.” See Bearman, “Item Level Control and Electronic Recordkeeping,” 220.

¹³⁶ Ibid., 96.

¹³⁷ Ibid.

determined nature of their relationships) to serious risk. This author believes that the creation of virtual files “on demand” should not replace the ‘fixed’ arrangement that provides evidence of the way records had originally accumulated in the course of business.

Another point that should be raised is that, while discussing the meaning of functional terms (which is something uncommon in the archival literature), this textbook may also generate confusion, as the specific use made of some of those terms does not correspond to the traditional one. For instance, ‘process’ is seen as ‘activity’ in the abstract, and what distinguishes activity from function is scope and hierarchical interdependency, as well as the fact that actions are time-limited, while functions are not. A study that would produce a taxonomy of functions has already been called for by many authors in the past,¹³⁸ however only very few examples exist and they are not really satisfactory as they have not been planned to serve archival purposes.¹³⁹

From their analysis of functional terminology, Shepherd and Yeo draw the conclusion that “most organizational activities are of a broadly repetitive nature: they are instances of a process that will recur many times.”¹⁴⁰ The idea that emerges is that the instrumental rationality described by Max Weber, typical of bureaucratic systems that – as Mary Douglas would say – “try to reduce uncertainty by means of abstraction and routinization,”¹⁴¹ seems still to be a characteristic of our society. Furthermore, the authors claim that, despite their relative unpredictability, even “creative activities are

¹³⁸ See Chris Hurley, “What, if anything, is a Function?” *Archives and Manuscripts* 21, 2 (November 1993): 208-18; and Bearman and Lytle, “The Power of the Principle of Provenance,” 14-27.

¹³⁹ See Getty (The), *Art and Architecture Thesaurus On Line*, The Paul Getty Trust (2000). Available online at <http://www.getty.edu/vow/AATServlet?find=activities&english=N&logic=AND&page=1¬e=facet> (accessed on 05/05/2007).

¹⁴⁰ Shepherd and Yeo, *Managing Records*, 53.

¹⁴¹ Mary Douglas, *How Institutions Think* (Syracuse, NY: Syracuse University Press, 1986), 93.

mostly instances of types of activity that can be expected to recur.”¹⁴² This observation bears interesting consequences with reference to functional classification development; however, its validity has not yet been proved empirically.

The only inductive study investigating functional classification this author is aware of is Stuart Orr’s master’s thesis.¹⁴³ The main objective of Orr’s study was that of understanding whether the functional approach is indeed “a practicable method of classifying records.”¹⁴⁴ To gather such understanding, he employed the Delphy method,¹⁴⁵ which allowed him to obtain the views of experts, and a questionnaire survey of records management practitioners in Australia, Canada, and the UK. The main findings of Orr’s research are that, although both academic experts and practitioners seem to agree that function-based classification is a valuable way of classifying records, there exists no common model saying how functional schemes should look like, and records managers find them difficult to understand and to apply. Thus, Orr confirms that there are clearly usability issues around functional classification. From his study it also appears that the experts are more convinced of its claimed benefits than the practitioners.

The Delphy method seems to be an appropriate instrument to bring knowledge and insight to complex issues, thanks to the ‘guided dialogue’ among experts that it elicits. It is therefore a good learning tool. However, being primarily based on opinion

¹⁴² Shepherd and Yeo, *Managing Records*, 55.

¹⁴³ Stuart A. Orr, “Functions-Based Classification of Records: Is it Functional?” (Master’s thesis – Northumbria University, 2005). Available online at: http://public.archiefschool.net/C8/Publicaties%20door%20derden/Document%20Library/Orr_Functional%20Classification.pdf (accessed on 02/03/2007).

¹⁴⁴ *Ibid.*, 15.

¹⁴⁵ Linstone and Turoff describe the Delphy method as:

“a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem.”

Harold A. Linstone and Murray Turoff, eds., *The Delphy Method: Techniques and Applications*, (Reading, Ma: Addison, 1875), 3. Cited in Orr, “Functions-Based Classification of Records.”

questions measured by a Likert scale, Orr's study could not take advantage of more in-depth data like those that unstructured interviews or direct observations allow to collect. Additionally, misunderstandings deriving from the ambiguity of some of the concepts under investigation could not be avoided due to the limitations inherent in the written form of communication. The latter problem also affected to an even higher degree the part of the study involving practitioners. Due to the rather low response rate to the questionnaire, this part may be said to have only partially fulfilled expected outcomes. Field work in this area appears therefore necessary, and this research aims at being the first attempt to fill in such a gap identified in the literature.

2.2.8 The Functional Approach in the Literature on Appraisal, Arrangement and Description, and Access

Appraising records for the purpose of selecting those to be preserved is a 'necessary evil' that archivists have to face. It is not only a question of resources; rather, appraisal is fundamental to leave a good record of the activities undertaken by each entity in society for any kind of secondary use, including evidence, and research purposes. It is a tenet of archival science that records cannot be appraised at an item level, and not only because of their number, but mainly because that would break the necessary link existing between them. This is the reason why functional classification schemes, with their classes identifying groups of files that are instances of the same activity, are particularly suitable to be integrated with retention information (which should be seen as a form of *ex-ante* appraisal), as showed by many of the classification models examined earlier.

Additionally, by anticipating the judgement of the records' value to the moment of their creation, archivists are closer to that context which lights up the meaning of the record.¹⁴⁶

As opposed to a “pertinence-based” (a.k.a., content-based) approach to appraisal, which focuses on the information contained in the records, a “provenance-based” (a.k.a. function-based) approach assesses “the purposes the record served and whether those purposes were ephemeral or lasting.”¹⁴⁷ However, until a few decades ago, the latter approach still involved a bottom-up analysis, in the sense that archivists used to study directly the meaning of the actual accumulations of records to understand their value. The idea of shifting drastically the focus of appraisal from the actual records to the functions generating them originated in North America, in the 1980s and '90s, when several appraisal and acquisition models based on a functional principle have been developed and have more or less successfully been implemented.

Following American archivist Gerald Ham's cry for a new role for archivists as “active documenters”¹⁴⁸ of their society, Helen Samuels, leader of an appraisal project at the Massachusetts Institute of Technology (MIT), devised an acquisition method called “documentation strategy.”¹⁴⁹ Samuels was inspired by the functional investigations

¹⁴⁶ See Brooks, “The Selection of Records for Preservation.”

¹⁴⁷ Terry Eastwood, “Towards a Social Theory of Appraisal,” in Barbara L. Craig, ed., *The Archival Imagination: Essays in Honour of Hugh A. Taylor* (Ottawa: Association of Canadian Archivists, 1992), 82. See also Angelika Menne-Haritz, “Appraisal or Documentation: Can We Appraise Archives by Selecting Content?” *The American Archivist* 57 (Summer 1994): 528-42.

¹⁴⁸ Gerald F. Ham, “The Archival Edge,” *The American Archivist* 38, 1 (January 1975): 13. Ham addressed the need for a drastic change in appraisal methods and archivists' attitudes in general, if the latter “are to provide the future with a representative record of human experience in our time.”

¹⁴⁹ See Joan K. Haas, Helen W. Samuels, and Barbara Trippel Simmons, *Appraising the Records of Modern Science and Technology: A Guide* (Cambridge, Mass: Massachusetts Institute of Technology, 1985); Id., “The MIT Appraisal Project and Its Broader Applications,” *The American Archivist* 49, 3 (Summer 1986): 310-14.

carried out by the Joint Committee on Archives of Science and Technology, whose final report, also known as JCAST report, was published in 1983.¹⁵⁰

The JCAST and MIT studies on the records of modern science and technology, as well as Samuels' later work on colleges and universities' records,¹⁵¹ all lack practical details with reference to their respective methodologies, and show an inconsistent use of the concept of function. In particular, the editor of the JCAST report, Clark Elliott, writes that, in order to make informed appraisal decisions, "archivists have to know how and for which purposes records were produced." Accordingly, he gives the following definition of "functional values:" "the functions of records while they were used by the creator."¹⁵² This definition is perfectly in line with the meaning of provenance-based approach provided above; however, later in the report, the term function is used in a different sense, so that in the end, it becomes an undifferentiated subject term.¹⁵³

In short, none of the early attempts of 'functional analysis' (including the one proposed by Samuels in *Varsity Letters*, which will later be analyzed in detail for its novelty) explains how to proceed in such analysis, that is, how to identify core and supporting functions of an institution (or type of institutions), how to derive from each identified function its component activities, and so on. As a matter of fact, Samuels, who claims to refer to the "definition of functional analysis adopted by anthropologists,

¹⁵⁰ Clark A. Elliott, ed., *Understanding Progress as Process: Documentation of the History of Post-War Science and Technology in the United States: Final Report of the Joint Committee on Archives of Science and Technology* (Chicago: Distributed by the Society of American Archivists, 1983).

¹⁵¹ See Helen W. Samuels, ed., *Varsity Letters. Documenting Modern Colleges and Universities* (Metuchen, NJ and London: Society of American Archivists and the Scarecrow Press, Inc., 1992).

¹⁵² Elliott, *Understanding Progress as Process*, 12 and 18.

¹⁵³ Other interesting conclusions drawn by Elliott, but unfortunately not followed up in the report, may be summarized as follows: 1) "having an understanding of the process of scientific research and technology innovation (i.e., knowledge of the organizational mission and functions, but also of the actual practices) is important in order to understand what is useful to preserve;" 2) "preserving the 'top-of-the-iceberg' documentation [like in the Schellenbergian approach] may not be enough; it is therefore necessary to analyze all levels' functions and programmes;" 3) "different settings have different awareness of preservation needs." *Ibid.*, 24.

sociologists, and business managers” (i.e., “a descriptive technique to facilitate the examination of patterns across structures and cultures”¹⁵⁴), merely presents a list of seven functions which are supposed to be common to all higher education institutions in the United States, without really elaborating on her methodology.¹⁵⁵ Interestingly, in 1999, British archivist Elizabeth Parker published a function-based classification model relevant to the same type of institutions (though in the UK), and her top-levels differ in several aspects from those identified by Samuels.¹⁵⁶

According to Samuels, the way her contemporaries were used to approaching the analysis of organizational functions was “synonymous with structural analysis,” because the question archivists were usually interested in was “what is the function of a given office?” And she adds:

“The traditional focus on administrative structures may be increasingly obsolete in light of the changing nature of modern institutions ... Today, [the traditional pyramid] has been replaced by organizations that are differentiated not vertically, according to ranking and role, but flexibly and functionally.”¹⁵⁷

¹⁵⁴ Ibid., 8.

¹⁵⁵ Ibid., 18. Samuels actually claims to have derived the “minimum set of functions” she identified from an “examination of the literature on higher education and particularly the vocabularies the academic community uses to describe itself,” as well as from “categories and concepts familiar to the archivists responsible for these records.” In other words, she appears to have conducted nothing more than a literature review and to have drawn on her own experience.

¹⁵⁶ Elizabeth Parker, *Study of the Records Life Cycle: Report by Elizabeth Parker*, (Emerson Consulting Ltd., for TFPL Ltd for JISC, 1999). Available online at: <http://www.kcl.ac.uk/projects/srch/reports/function.pdf> (accessed on 5/12/2008).

This observation confirms one of the points made in Orr’s thesis, i.e., that “the subjectivity in creating classifications creates problems.” Orr, “Functions-Based Classification of Records,” 71.

¹⁵⁷ Samuels, *Varsity Letters*, 20. Italic added for emphasis by this author.

David Bearman, in an article published in the same year as Samuels’ book, had similarly pointed out that a hierarchical analysis is not applicable where power and decision making cut through organizations rather than being concentrated at the top. In his view, post-WWII society has dramatically changed our perception of the internal dynamics of bureaucracy, due to the introduction of irrational and conflicting elements that “have transformed a stable framework into an inchoate type of organizational structure.” See David Bearman, “Diplomatics, Weberian Bureaucracy, and the Management of Electronic Records in Europe and America,” *The American Archivist* 55 (1992): 168-81.

As a consequence, Samuels claims that “appraisal methods must include the analysis of the functions of an institution *no matter where they occur*.”¹⁵⁸ The advantage of this purely functional method, absolutely independent of any structural constraint, would possibly be that of achieving an ‘integrated approach’ to documentation. In the context of documentation strategy, functional analysis becomes the tool that supports archivists in their search for the “activities that are to be documented” (i.e., what should exist, in whatever form or medium, and wherever, about a given “issue, function, or geographic area”).¹⁵⁹ It is however evident that, in this way, the conceptual boundary between function on the one hand, and subject, topic, or theme on the other, gets completely blurred.¹⁶⁰

Giving her insightful appreciation of the nature of modern bureaucracies, one may have expected Samuels, for instance, to suggest that, because existing analytical methods seem to have become inadequate to capture the complexity of today’s organizations, archivists should develop (or refer to) more sophisticated techniques of analysis. Instead, she addresses a method, called “institutional functional analysis,” which indirectly recalls the notion of ‘functional provenance’ as it was elaborated by David Bearman and Richard Lytle with reference to provenance-based access points to archives. In 1985-86, they had written:

¹⁵⁸ Samuels, *Varsity Letters*, 24.

¹⁵⁹ Id. See also Helen W. Samuels, “Improving Our Disposition: Documentation Strategy,” *Archivaria* 33 (Winter 1991-92): 125-40.

¹⁶⁰ Italian archivist Elio Lodolini pointed out that it is not unlikely to run across the phenomenon of ‘de-contextualization’ when function and structure are split and the only criterion of arrangement of an archival fonds is the function. Although it may look as an attractive solution, in that functions are definitely more stable than organizational structure, in reality an arrangement by administrative function may lead to a subject-based arrangement, where “the subject is the function.” Lodolini refers to the massive re-arrangements operated by Peroni in Milan at the end of ‘700-beginning of ‘800 as an example of such deleterious subject/function-based operations. See Lodolini, *Archivistica: Principi e problemi*, 56.

“It is probably more important to relate the records to a particular function than it is to relate them to an organizational component because there may be no relationship between the organization and the function. Functions are independent of organizational structures, more closely related to the significance of documentation than organizational structures, and both finite in number and linguistically simple.”¹⁶¹

It seems to this author that splitting function and structure, and giving the primacy to function over structure, not only annihilate any difference between function and subject as seen before, but also contradicts the inseparable unity of the two concepts in the intellectual construct of ‘provenance,’ which is in fact to be seen as a representation of both an organization’s functions and its authority relations (i.e., structure). The latter are inherent in the organization design and manifest through its processes and roles (in structural terms, they are part of the ‘structural properties of organizations’). The delegation of authority that establishes ‘functional responsibilities’ or ‘competences’ (in the meaning explained earlier in this chapter) is what brings conceptually together structure and function in any existing organization. These notions, which should be very clear to archivists not only when dealing with appraisal issues but also when arranging and describing archival holdings, are unfortunately often misinterpreted in the theory as well as in the practice.

The weaknesses of Samuels’ argument did not pass unnoticed to Canadian archivist Terry Cook who, at the same time, recognized the validity of documentation strategy as a supplementary step after the appraisal of records according to their provenance, i.e., with reference to one single institution at a time. Cook’s method, known as ‘macro-appraisal,’ focuses on

¹⁶¹ Bearman and Lytle, “The Power of the Principle of Provenance,” 22. Actually, not the term but just the concept of “functional provenance” does appear in the Bearman-Lytle’s article; the term as such has been used for the first time by Angelika Menne-Haritz in 1993. See Angelika Menne-Haritz, ed., *Symposium on the Impact of Information Technologies on Information Handling in Offices and Archives* (New York, 1993).

“certain characteristics of the records creators and the record-creating process likely to produce records of high value before the resulting records themselves are actually appraised using more traditional criteria.”¹⁶²

The top-down approach of the first part of the macro-appraisal model aims at assessing the structural-functional circumstances which led to records creation with the purpose of identifying the agencies whose functions or programmes are the most relevant to society.

The idea that “the interaction of structure and function together articulates the corporate mind (or programme) of the records creator”¹⁶³ is an outcome of Cook’s readings of Giddens’ structuration theory. This theory offers indeed a number of interesting insights with reference to the dialectic process of production and reproduction of social structures (including recordkeeping system) in social life. The structural analysis of organizational dynamics could greatly assist archivists in their investigations of the functions and structures of their institutions. However, this author thinks that Cook’s conceptual elaborations on the nature of agents and acts and on the interrelationships between them do not yield operational outcomes that adequately correspond to the theory. The ranking of agencies and programs that the macro-appraisal approach would facilitate does not actually seem to be influenced by any structural concepts. The same goes for the second step in the methodology, that is, the identification of the “points of sharpest interaction of the structure, function, and client,”¹⁶⁴ the “hot spots” where key functions, and thus key records, are likely to be found. How the theory of structuration is going to assist this process does not appear to be clearly addressed in Cook’s writings.

¹⁶² Terry Cook, “Documentation Strategy,” *Archivaria* 34 (Summer 1992): 185. On the macro-appraisal approach see also Catherine Bailey, “From the Top Down: The Practice of Macro-Appraisal,” *Archivaria* 43 (Spring 1997): 89-128.

¹⁶³ Terry Cook, “Mind Over Matter,” 46.

¹⁶⁴ *Ibid.*, 50.

The macro-appraisal model has a precedent in the appraisal strategy elaborated by archivists Sante and Rohr in Germany after World War II and which was grounded on nearly the same principles. Decisions on the offices to be targeted were based on the “significance of an agency’s function,” which, at that time, meant: the higher the hierarchical position of an agency, the most relevant the records. Unavoidably, such a criterion for selection was soon interpreted as “whatever comes from the State possesses inherent value.”¹⁶⁵ In a similar way, the “theory of societal image formation” that underlies macro-appraisal also reflects a particular *Weltanschauung*, i.e., the one of Cook and the Canadian society of his time.¹⁶⁶ Therefore, despite the body of research that, according to Cook, must precede appraisal (which includes studies of administrative history, organizational structure and functions, decision-making process, records creating procedures, etc.), it appears that there is a high likelihood to fall into ideological traps when it comes to establishing criteria for value standards that are external to the records, like in the case of function-based appraisal.

‘Playing with functions’ has inspired a number of variations to the macro-appraisal *à la* Terry Cook, all basically deriving from the consideration that because “there are altogether too many records ‘at the bottom’ for archivists to appraise,”¹⁶⁷ the traditional empirical approach would be unfeasible. Victoria Lemieux, for instance, through an analysis of Mintzberg’s theories,¹⁶⁸ suggests a method that would allow

¹⁶⁵ See Hans Booms, “Society and the Formation of a Documentary Heritage: Issues in the Appraisal of Archival Sources,” *Archivaria* 24 (Summer 1987): 99-102.

¹⁶⁶ According to Cook, archivists must be especially interested in circumstances where citizens consciously interact with the agency and have room for intervention and influence on the decisions made, and where therefore there is evidence of changes or distortions between an agency’s original goals and the actual results of a given programme. Also, where marginalized groups find a voice is a signal that should raise archivists’ attention. See Cook, “Mind Over Matter,” 50.

¹⁶⁷ Cook, “Mind Over Matter,” 42.

¹⁶⁸ See Mintzberg, *Structure in Fives*.

archivists to move away from evaluating record creators' business functions towards evaluating record creators' 'functionalities.' On the basis of the organizational configurations identified by Mintzberg, one could determine which functions are "organizationally significant" without the need to analyze the actual functions, and that would lead to the identification of the "sites of archivally significant records."¹⁶⁹ No practical implementations of Lemieux' approach has been attempted yet.

The PIVOT project,¹⁷⁰ launched in the Netherlands at the beginning of the 1990s, is another example, this time a concrete one, of the application of macro-appraisal ideas with the purpose of achieving a "mass reduction" (one of the project's keywords) of the overwhelming quantity of records accumulated by the Dutch administrations since World War II and not yet processed. Unlike the Canadian model, which provides for the testing of any hypotheses made on the basis of macro-appraisal criteria against the actual records by means of traditional appraisal techniques (also known as 'micro-appraisal'), the Dutch project completely eliminates any bottom-up analyses of the records. The project was based on two major assumptions, one being that

"the vast majority of modern records are of a transactional nature and do not provide any knowledge of government policy and activity."¹⁷¹

Only those records that derive from the main programmes put in place by government agencies, with particular reference to "those functions that show the highest contribution

¹⁶⁹ Victoria Lemieux, "Applying Mintzberg's Theories on Organizational Configuration to Archival Appraisal," *Archivaria* 46 (Fall 1998): 32-85.

¹⁷⁰ Project Implementation Reduction Transfer Period (PIVOT in Dutch). The project was launched by the Dutch National Archives as a sort of 'emergency plan' following the entering into force of a new archival law that would accelerate the public access to archives from 50 to 20 years after records creation. See Peter Horsman, "Appraisal on Wooden Shoes. The Netherlands PIVOT Project," *Janus* 2 (1997): 35-41; Roelof C. Hol, "PIVOT's Appraisal of Modern Records: A 'Floody' Tale from the Dutch Experience," *South African Archives Journal* 38 (1996): 5-15.

¹⁷¹ Horsman, "Appraisal on Wooden Shoes," 37.

to the attainment of some important output in society,”¹⁷² are thus worth being preserved, as they would be capable of transmitting a representative image of society. The second underlying assumption was that “the evidential value of the records derives from the value of the function.” As a consequence, an appraisal of functions and actors (i.e., structure, agencies) should be sufficient to decide on the fate of the records “... without their having been given a glance.”¹⁷³

The PIVOT project was indeed quite effective and efficient as to its stated objective of reducing the records by nearly 95% in ten years. However, scholars in general and historians in particular, afraid of the blind destruction of important sources, soon pointed out its drawbacks. It was certainly a limitation of the PIVOT methodology that of believing that bureaucracy is, in any instance, a rational system governed by laws, regulations, and clear procedures. Modern theories of organization show that the reality of bureaucracy is, on the contrary, that of a social system with unwritten rules and self-set goals, where a permanent tension “between interest, conflict, and power ... [is] resolved through political means.”¹⁷⁴

However, the above mentioned criticism can possibly be extended to all current attempts to apply a function-based approach to any archival activity, not just to appraisal. It is this author’s conviction that all archivists share an oversimplified, naïve idea of bureaucracy, being the actual business processes characterizing today’s “poly-hierarchical, flattened, matrix, networking organizations”¹⁷⁵ mostly unknown to those who are in charge of managing the records (often unknown also to those who create

¹⁷² Ibid., 38.

¹⁷³ Ibid., 40.

¹⁷⁴ Morgan, *Images of Organization*, 148.

¹⁷⁵ Bearman, “Diplomatics, Weberian Bureaucracy,” 173.

those records). As far as appraisal is concerned, the location of the ‘significant functions’ and relevant record series identified by means of macro-appraisal is anything but a straightforward exercise, once one realizes that a plurality of offices and records systems may have been involved in the same decision making process. Additionally, we have no guarantee that the records supporting an important function will actually contain valuable information. In particular, e-business transactions, virtual team work, and all sorts of interactive and dynamic ways of conducting business enabled by present information and communication technologies make reality extremely complex and difficult to analyze, also because of the rudimentary analytic techniques that currently are at records professionals’ disposal. From this analysis of the relevant literature, one may conclude that, of all archival functions, records appraisal is probably the one that has appropriated the most the functional language and the idea that everything has to be done through a top-down analysis, without a deep examination of what such analysis would involve.

The relationship between structure and function is a factor that complicates the management of records not only during the earlier stages of their life cycle but also at the point of their arrangement and description. Actually, the issue there becomes even more problematic in that the passing of time triggers a dynamism that affects both authority relations and functional relations, but in different ways.¹⁷⁶ Because of their different life-span, records creators on the one side, and records systems, together with the functions they relate to, on the other, may present an inextricable puzzle that the simple application of the principle of provenance may be unable to solve. While records creators (whether juridical or physical persons) usually display a rather unstable nature due to continuous

¹⁷⁶ See Terry Eastwood, “General Introduction,” in Terry Eastwood, ed., *The Archival Fonds: From Theory to Practice* (Ottawa: Bureau of Canadian Archivists, 1992): 1-14.

changes in their internal structure and authority relations, high level functions tend to persist unaltered. Based on the principle according to which “records follow functions,”¹⁷⁷ the sets of activities those functions are made of, together with the records supporting them, get allocated to new agencies or agents subsequently to the transfer of relevant functional responsibilities. Besides - or better, inside¹⁷⁸ - the history of the institution, one can also see another history, that is, the “history of custody, control and use of the records,”¹⁷⁹ which may further complicate the identification of an archival fonds.¹⁸⁰ Not to mention the remarkable adaptability that recordkeeping systems show: even in the presence of changes to functions, they “simply continue, shedding old functions and absorbing new ones with surprising flexibility.”¹⁸¹

The first reconsideration of the principle of provenance from which a new method of archival arrangement and description derived took place in Australia at the end of the 1960s-beginning of the 1970s. The country was undergoing a series of tumultuous administrative changes, which had of course an impact on the archives of affected government agencies. The challenge involved in dealing with ‘multi-provenance series’ suggested to Peter Scott the idea of abandoning the concept of fonds as a principle of

¹⁷⁷ Margaret Cross Norton’s famous sentence, canonically defined as principle of “functional sovereignty” “lends – in the words of MacNeil – a measure of continuity and stability to administrative activity and the records generated from them.” Heather MacNeil, “The Context is All: Describing a Fonds and Its Parts in Accordance with the Rules for Archival Description,” in Terry Eastwood, ed., *The Archival Fonds*: 207.

¹⁷⁸ Whether the history of the institution and the “history of the purely archival vicissitudes” that any fonds is subject to in the course of the centuries or decades are two different histories or the second is part of the first one is an issue that raised quite some debate within the Italian archival community in the 1970s. In particular, the clash involved Elio Lodolini and Filippo Valenti. The latter was convinced of the autonomy of the “history of the fonds” suggested by German archivist Brenneke, a hypothesis that Lodolini would later firmly reject. See Lodolini, *Archivistica. Principi e problemi*, 160.

¹⁷⁹ Eastwood, “General Introduction,” 7.

¹⁸⁰ An archival fonds may be defined as “the whole of the records of a given body, including the whole of the relationships among its parts.” See Cencetti, “Sull’archivio come ‘universitas rerum’,” 9. Translated by this author.

¹⁸¹ Peter J. Scott, C.D. Smith, and G. Finlay, “Archives and Administrative Change: Some Methods and Approaches (Part 4),” *The Journal of the Australian Society of Archivists* 8, 2 (December 1980): 527 (reprint *Archives and Manuscripts*). See also *ibid.*, “Archives and Administrative Change: Some Methods and Approaches. (Part 2).” *The Journal of the Australian Society of Archivists* 7, 4 (April 1979).

physical arrangement. The integrity of the records' original order would then be maintained at the level of the series, being the latter an "independent element not bound to the administrative context,"¹⁸² while the integrity of the whole fonds would be preserved at the intellectual level only by means of various descriptive sheets and inventories of series for each relevant creating agency.

The Commonwealth Record Series (CRS) system, built on Scott's ideas, represents the Australian solution to the issues of archival control.¹⁸³ Initially, the system emphasised a provenance-based method of information retrieval, thus priority was given to the identification and description of agencies, persons, and series. However, it soon became clear that functions may usefully be drawn on to enhance retrieval. The "functions concept" prompted the development of "function indexing terms that index agencies by terms describing major responsibilities and functions" and a "*Functions Thesaurus* ... with authorized terms allocated at agency level."¹⁸⁴ As will be mentioned later in this section, access to archives is the area of archival studies where the function-based approach seems to have so far produced the most useful results.

What should be added here is that, through the CRS system, archival arrangement and description became the natural extension of the recordkeeping processes (starting

¹⁸² Peter J. Scott, "The Record Group Concept: A Case for Abandonment," *The American Archivist* 29, 4 (October 1966): 497. Scott's definition of series is:

"a group of records that are recorded by the same agency (or agencies) and that are in the same numerical, alphabetical, chronological or other identifiable sequence; or result from the same accumulation or filing process and are of similar function, format or informational content."

Ibid., 505. By separating description from physical arrangement and by linking all contextual information to the series level, Scott failed to appreciate the value of description as a top-down process (i.e., from the fonds, to the series, to the single items).

¹⁸³ See Chris Hurley, "The Australian ('Series') System: An Exposition," in Sue McKemmish and Michael Piggott, eds., *The Records Continuum. Ian Maclean and Australian Archives First Fifty Years* (Melbourne: Ancora Press in association with Australian Archives, 1994): 150-72.

¹⁸⁴ Mark Wagland and Russell Kelly, "The Series System. A Revolution in Archival Control," in Sue McKemmish and Michael Piggott, eds., *The Records Continuum*: 144.

from the accumulation of records in series) taking place in the creating agencies. This concept, that was echoed in the United States by Bearman's considerations on recordkeeping systems as "the locus of functional provenance,"¹⁸⁵ later developed into the Australian 'records continuum' theory.¹⁸⁶ In opposition to the traditional stages identified by the life cycle model, the idea of the continuum is that of an uninterrupted, dynamic, and multi-layered process that provides the record with continuing contextual links to all the dimensions it participates in, and that makes any intervention on it (whether classification or appraisal or description) happen "at a number of points, at various times, and to different levels of aggregation."¹⁸⁷ In this way, "records are in a constant stage of becoming"¹⁸⁸ and recordkeeping and archives become multidimensional. From this short outline of continuum concepts, it clearly emerges the influence of post-modernist and structuralist ideas.

Against this background, the role of 'contextual' or 'recordkeeping metadata' (i.e., the metadata connecting the record with information describing the actions surrounding its creation and use, also known as 'process metadata') acquires particular significance. As examined earlier in this chapter with reference to Australian classification, Chris Hurley elaborated the idea of 'ambient function' (as opposed to

¹⁸⁵ David Bearman, "Record-Keeping Systems," *Archivaria* 36 (Autumn 1993): 22.

¹⁸⁶ In the Australian interpretation, the idea of the 'records continuum' moved away from its original meaning and intents. In the '80s, Canadian archivist Jay Atherton had in fact contrasted the life cycle model (implying a clear-cut separation of responsibilities between records managers and archivists) with a new model based on a continuum of caretaking activities, thus fostering the integration of records management and archives. See Jay Atherton, "From Life Cycle to Continuum: Some Thoughts on the Records Management-Archives Relationship," *Archivaria* 21 (Winter 1985-86): 43-51.

¹⁸⁷ Barbara Reed, "Records," Chapter 5, in Sue McKemmish et al., eds., *Archives: Recordkeeping in Society* (Wagga Wagga NSW: Charles Sturt University. Centre for Information Studies, 2005): 107.

¹⁸⁸ See Frank Upward, "Structuring the Records Continuum. Part One: Post-Custodial Principles and Properties," *Archives and Manuscripts* 24, 2 (1996): 268-85.

‘business function’) to characterize the socio-historical context which represents the “context of provenance”¹⁸⁹ of the record.

In another article where he investigates the meaning of function in the context of archival description, Hurley, in line with Scott’s observation of the different life-span of records systems and agencies, suggests the separation of the description of functions (which leads directly to the records) from that of the records creators. This would avoid the repetition of functional information for each agency entrusted with the same functional responsibilities. It would also allow concentrating all data about records and agencies that are linked to a given function in one single point, that he calls “functional unit of description.”¹⁹⁰ The International Standard for Describing Functions (ISDF),¹⁹¹ recently published by the International Council on Archives (ICA) with the purpose of providing “guidance for preparing descriptions of functions of corporate bodies associated with the creation and maintenance of archives,”¹⁹² is based on the same understanding. Despite their retrospective approach, functional descriptions provided by findings aids that standards like ICA-ISDF help to develop may be also beneficial to prospective approaches like that of classification.

The language of functions has only recently attracted archivists’ full attention. Such an interest may be related, on the one hand, to the new capabilities offered by automated retrieval systems, and on the other, to the increasing public nature of archival description that fosters easier access to archival resources. Traditional archival finding

¹⁸⁹ Hurley, “Ambient Function,” 25.

¹⁹⁰ Hurley, “What, if anything, is a Function?,” 214.

¹⁹¹ See International Council on Archives. Committee on Best Practices and Standards, *International Standard for Describing Functions*. First Edition (Paris: International Council on Archives, May 2007). Available online at: <http://www.ica.org/sites/default/files/ISDF%20ENG.pdf> (accessed on 15/01/08). ISDF aims at complementing ISAD(G) and ISAAR(CPF), which are well-accepted standards for the description of records and the preparation of authority records respectively.

¹⁹² *Ibid.*, 7.

aids and provenance-based inventories require indeed a knowledge of archival methods that is not common within the general public. On the other hand, content-based indexing is not suitable to archival material. Functional access, which involves “function terms providing access to *why* records were created,”¹⁹³ has certainly the potential to become the most powerful access point in archives, as it would assist not only retrieval, but also classification, appraisal, and description.

A controlled vocabulary of functional terms like the one provided by the *Art and Architecture Thesaurus – Functions Hierarchy*,¹⁹⁴ which is the outcome of several years of research in this area conducted by librarians and other information professionals in the United States, may be usefully drawn on also by the archival community. However, the basic issue here is again that our knowledge of functions, not in abstract terms but with reference to the way functions manifest and are enacted in the real world, is still not sufficiently developed to properly assist any standardization efforts. The fundamental question we should ask ourselves is, by borrowing Hurley’s words:

“Is it our task, by observation, to discover and delineate what is there or to artificially construct an orderliness which is not real?”¹⁹⁵

By examining the reality out there one may realize that, for instance, although functions are likely to be more stable than organizational structures, they “do evolve and change.”¹⁹⁶

¹⁹³ Alden N. Monroe and Kathleen D. Roe, “What’s the Purpose? Functional Access to Archival Records,” in Toni Peterson and Pat Moholt, eds., *Beyond the Book: Extending MARC for Subject Access* (Boston: G.K. Hall and Co., 1990), 157. *Italic added for emphasis by this author.* See also Monica Scott and Flavia Fonseca, “Methodology for Functional Appraisal of Records and Creation of a Functional Thesaurus,” in H. J. Williamson and M. Hudson, eds., *Classification Research for Knowledge Representation and Organization*. New York, Elsevier, 1992, 127-34.

¹⁹⁴ Getty (The), *Art and Architecture Thesaurus On Line*.

¹⁹⁵ Hurley, “What, if anything, is a Function?,” 211.

¹⁹⁶ *Ibid.*

In this respect, reference should be made to another attempt to standardization – though this time focused on business processes and documentary forms – that was different in its reasoning from previously examined taxonomies. In 1985, a project called “Commentaries on Sources” was launched in the Netherlands with the objective of identifying and describing the procedures and record types used by Dutch government bodies during the 19th century to carry out their mandates.¹⁹⁷ Although the outcomes of the project are limited by the specificity of the sample selected, and thus hardly generalizable, the approach taken is quite interesting. Researchers focused on trying to identify recognizable patterns of actions starting from a diplomatic analysis of the records, rather than relying on a logical breakdown of functions and activities identified through a study of the organizations’ mandates without examining any actual aggregations of records. This author is convinced that a bottom-up, empirical approach like the one here briefly presented, supported by the use of contemporary diplomatics, might generate new insights that could enhance not just descriptive standards but also the theory and practice of classification.

2.3 Review of Organization Studies and Library Literature

The following four sections provide an account of theories, concepts, and methods that have been developed in the context of other disciplines such as theory of organization, sociology, social-psychology, management science, and theory of administration, which the present study draws on in its attempt to understand organizational or business functions and how people interact with them in real-world situations. The fifth and last section is dedicated to some notions derived from the library and information science

¹⁹⁷ See Peter Sigmond, “Form, Function and Archival Value,” *Archivaria* 33 (Winter 1991-92): 141-47.

literature on classification. Some of the ideas here presented have already been touched upon in previous sections where they have been used to discuss the theory of archival science in a new light.

2.3.1 Organizational Culture and Different Views of Organization

‘Culture’ is defined by sociologist Geert Hofstede as:

“the collective programming of the mind that distinguishes the members of one group or category of people from another.”¹⁹⁸

Thus, culture is a ‘mental program,’ a ‘construct,’ which, as a collective phenomenon, may refer to any kinds of aggregation of human beings, from the most basic ones (e.g., families) to the highest complicated systems (e.g., societies). In his book, which reports the findings of an empirical study conducted in IBM firms in more than 50 countries during a period of time of four years, Hofstede is particularly interested in manifestations of ‘organizational’ and ‘national’ cultures and in the relationships among them.

According to his interpretation of research findings,

“cultural differentiations among countries have consequences for the functioning of and theorizing about organizations.”¹⁹⁹

Cultures are extremely stable over time. National cultures are characterized by deeply rooted ‘value systems’ that the people belonging to the same country introject since their childhood days. Such shared values become evident in individual and collective behaviours, as well as in the symbols, heroes, rituals, and other practices that, together, build the culture of a nation or – where people act as members of an organization – a specific organizational culture.

¹⁹⁸ Hofstede, *Culture’s Consequences*, 9.

¹⁹⁹ Ibid., 10. As to “theorizing,” Hofstede discusses the cultural relativity of management theories in: Geert Hofstede, “Motivation, Leadership, and Organization: Do American Theories Apply Abroad?” *Organizational Dynamics* 9, 1 (Summer 1980): 42-63.

Hofstede identifies five main ‘dimensions’ (i.e., power distance, uncertainty avoidance, individualism vs. collectivism, masculinity vs. femininity, long-term vs. short-term orientation) along which value systems can be ordered and which determine the ‘character’ of any human groups. As far as organizations are concerned, ‘power distance’ (PD) and ‘uncertainty avoidance’ (UA) are the crucial dimensions. PD is that which answers the question of “who decides what.”²⁰⁰ In other words, it defines hierarchical relationships in organizations: the larger the PD, the higher the concentration of authority. UA is related to the question of “how one can assure that what should be done will be done.”²⁰¹ In organizations, UA manifests in technology, rules, and rituals, which are all means potentially capable of reducing internal uncertainty caused by people’s behaviours, keeping people together, and exercising control on the future.²⁰² In

²⁰⁰ Power distance is defined as:

“the extent to which a society accepts the fact that power in institutions and organizations is distributed unequally. ... [PD measures the] degree of inequality underlying each human society.”

See Hofstede, “Motivation, Leadership, and Organization,” 45.

²⁰¹ Uncertainty avoidance is defined as:

“the extent to which a society feels threatened by uncertain and ambiguous situations and tries to avoid these situations by providing greater career stability, establishing more formal rules, not tolerating deviant ideas and behaviours, and believing in absolute truths and the attainment of expertise. ... [UA measures the] degree to which a society tries to control the uncontrollable.” (Ibid.)

²⁰² Among the rituals, Hofstede mentions “business meetings, management training programs, writing and *filing* of reports and memos, accounting, planning and control systems.” Hofstede, *Culture’s Consequences*, 382. [Italic added for emphasis by this author].

Classification systems and any other records management and archival tools may therefore be regarded as both rational and symbolic means used to enhance UA in organizations. One may draw interesting parallels with what Hofstede writes about accounting:

“Accounting is the handling of symbols that have meaning to the initiated in the business only ... Objectivity in accounting is a myth ... Accountants are the priests of business ... The less an activity is determined by technical necessity, the more it is ruled by values and thus influenced by cultural differences. Accounting is a field in which the technical imperatives are weak. ... So it is logical for the rules of accounting and the ways they are used to vary along national cultural lines. ... In strong UA countries, accounting systems will contain more detailed rules as to how to handle different situations; in less strong UA societies, more will be left to the discretion of the organization or even of the accountant.” (Ibid., 382-83.)

short, while PD measures the authority of people, UA measures the authority of rules; PD relates to centralization, UA to formalization.

Both dimensions have been used by Hofstede to categorize organizations in four basic types which are most likely to be associated with different countries.²⁰³ These types are:

1. Personnel bureaucracy, or family model (characterized by large PD and weak UA, and typical of China, Hong Kong, Singapore, and other Asian countries);
2. Full bureaucracy, or pyramid model (characterized by large PD and strong UA, and typical of, *inter alia*, Latin and Mediterranean countries);
3. Workflow bureaucracy, or well-oiled machine model (characterized by small PD and strong UA, and especially present in, *inter alia*, German-speaking countries and Finland); and
4. Implicitly structured, or market model (characterized by small PD and weak UA, and most likely found in Anglo-Saxon countries, Scandinavia and the Netherlands).

Hofstede's categorization is consistent with Mintzberg's fivefold classification of organizational structures,²⁰⁴ although the methods of analysis employed by either sociologist as well as the conclusions they respectively reach differ in many aspects.

Mintzberg sees organizations containing up to five parts (i.e., operating core, strategic

The latter considerations have been taken into account when selecting the case study sites for this research. It was expected to find higher interest in records management and better developed records-related rules and tools in countries with a high UA than in countries with a low UA.

²⁰³ *Ibid.*, 375-77.

²⁰⁴ See Henry Mintzberg, *Structure in Fives*. Mintzberg identifies the following five configurations:

1. Simple structure (corresponding to Hofstede's personnel bureaucracy);
2. Machine bureaucracy (corresponding to Hofstede's full bureaucracy);
3. Professional bureaucracy (corresponding to Hofstede's workflow bureaucracy);
4. Divisionalized form (which is a mix of all four Hofstede's types); and
5. Adhocracy (corresponding to Hofstede's implicitly structured model).

apex, middle line, technostructure, and support staff). Additionally, organizations coordinate activities in one or more of five mechanisms (i.e., mutual adjustment, direct supervision, standardizing of work processes, standardizing of outputs, and standardizing of skills). Most organizations show one of the five configurations he identified because the part that, at each given time, is 'key part' in the organization is usually characterized by a work style that corresponds to one specific coordination mechanism (e.g., the operating core favours standardization of skills; the strategic apex achieves control and coordination through direct supervision; etc.). However, the key part may change at any time within one organization, and specific circumstances may require the adoption of different coordination mechanisms. An effective organization depends on developing a cohesive set of relationships between the internal factors (e.g., structural design, age, size, technology of the organization) and the external conditions in which it operates. Thus, Mintzberg's model is more dynamic than Hofstede's, and allows more configurations to be contemporaneously present in the same place.

The necessity and predictability that Hofstede ascribes to the way in which "dominant value systems affect human thinking, feeling, and acting, as well as organizations"²⁰⁵ has been criticized by various authors who have questioned the validity of his generalizations.²⁰⁶ In particular, Hofstede's tendency to identify cultures with nations shows an over-simplified understanding of both concepts, especially considering the global character of most of today's nations and organizations. Nevertheless, his equation has been usefully drawn on by a number of studies. For instance, information management implications of the different organizational types identified have been

²⁰⁵ Ibid., 12.

²⁰⁶ See, among the harshest critics, R. F. Baskerville, "Hofstede Never Studied Culture," *Accounting Organizations and Society* 28, 1 (2003): 1-14.

discussed by Bearman with reference to recordkeeping issues, Davidson and Jordan with reference to the implementation of information systems, and Oliver with reference to the interaction of organizational culture with information culture.²⁰⁷ This author's study as well has referred to Hofstede's categorizations in order to frame its scope and to establish a basis for comparison. The questionnaire employed for the selection of case study sites did include two questions explicitly referring to the PD and UA indicators. However, as will be discussed in a later chapter, it was not among the objectives of this research that of verifying, or falsifying, Hofstede's conclusions.

By examining the concept of organizational culture in more detail, one realizes that, in Hofstede's view, national cultures and organizational cultures are in fact phenomena of a different order. Because the *learning* of organizational culture occurs in adulthood and people usually do not live in 'total institutions,' what an organization "is," or "has,"²⁰⁸ does not reach the depth and richness of the socially shared understanding typical of the cultures studied by anthropologists. Also, "at the organizational level, – Hofstede claims – cultural differences reside mostly in practices and less in values."²⁰⁹

Thus,

*"shared perceptions of daily practices should be considered the core of an organization's culture."*²¹⁰

²⁰⁷ See David Bearman, "Diplomatics, Weberian Bureaucracy"; R. Davidson and E. Jordan, "Cultural Factors in the Adoption and Use of GSS," *City University of Hong Kong Working Paper* (1996); Gillian Oliver, "Investigating Information Culture: A Comparative Case Study Research Design and Methods," *Archival Science* 4 (2004): 287-314.

²⁰⁸ According to Hofstede, there is no consensus about the definition of organizational culture. Some authors treat it as something an organization *is* (which he calls "synthetic approach"), others as something an organization *has* (according to an "analytic approach"). Hofstede, on the basis of his definition of culture, provides the following definition of organizational culture:

"Organizational or corporate culture is the collective programming of the mind that distinguishes the members of one organization from another."

Hofstede, *Culture's Consequences*, 391.

²⁰⁹ *Ibid.*, 394.

²¹⁰ *Ibid.*

One may derive from this insight that recordkeeping, as a practice, is a factor that contributes to shape the culture of the organization. This attaches a certain importance to the role of records managers and archivists in organizations, an importance though that gets rarely recognized.

“Organizations are symbolic entities: they function according to implicit models in the minds of their members.”²¹¹

Hofstede seems to value particularly the minds of top managers, as they are the ones who may change an organizational culture to adapt it to a new strategic vision. They can do so, for instance, by changing the structure or the control system of the organization. However, as culture is hard to change not only because it exists in the “collective mind” of people, but also because it is “crystallized in the institutions these people have built together,”²¹² any attempts to change it take time. Hofstede’s deterministic approach to organizational culture does not contemplate the possibility that unexpected outcomes may emerge from managers’ actions, or that external or other uncontrollable factors may shape the organization in unplanned ways.

Gareth Morgan, who examined the image of “organizations as cultures” as one of the possible metaphors that may be used to describe organizations, has a different opinion with regard to managers’ ability to mould an organization’s culture. He writes:

“Our understanding of culture is usually much more fragmented and superficial than the reality. ... Like organizational structure, culture is often viewed as a set of distinct variables, such as beliefs, stories, norms, and rituals, that somehow form a cultural whole. Such a view is unduly mechanistic, giving rise to the idea that culture can be manipulated in an instrumental way. ... Managers can influence the evolution of culture ...

²¹¹ Ibid., 383.

²¹² Hofstede, “Motivation, Leadership, and Organization,” 43.

but they can never control culture in the sense that many management writers advocate.”²¹³

Morgan’s view of organization is that of a phenomenon which is “generally complex, ambiguous, and paradoxical.”²¹⁴ Most people (organizational theorists, managers, but also archivists, as seen before) try to override such a complexity by assuming that organizations are ultimately rational phenomena to be understood with reference to their goals or objectives. This, according to Morgan, is not the right approach if one truly wishes to understand an organization. His method of analysis is multi-perspective and relies on metaphors as a powerful means to ‘read’ a situation, in that they allow being “creative and disciplined at the same time.”²¹⁵

Morgan’s analysis involves the following metaphors: organizations as machines, organisms, brains, cultures, political systems, psychic prisons, flux and transformation, instruments of domination. Each image is characterized by specific relationships among the internal components of the organization (e.g., structure, functions, people, and technology) and between the organization and its external environment. Each has its strengths and limitations, and has been implicitly or explicitly drawn on by various theorists of organization, sociologists, and philosophers. Morgan presents all these different views not to support any of them but rather to say that “organizations can be many things at one and the same time.”²¹⁶ Insights provided by the metaphors can also be used prescriptively:

²¹³ Morgan, *Images of Organization*, 139.

²¹⁴ *Ibid.*, 17.

²¹⁵ *Ibid.*

²¹⁶ *Ibid.*, 321.

“As we understand an organization through the lens provided by a particular metaphor, we are shown a way of managing and designing the organization in accordance to a particular image.”²¹⁷

Effective managers and professionals are those who have the ability to read any given situation from different angles and to choose the most appropriate action suggested by those different views. This may be valid not only for top managers or the units in charge of organizational planning. Records professionals have also to make decisions that require a great deal of organizational understanding (e.g., how to design a classification system). Being supported by a wide and varied range of viewpoints about the social reality is certainly an asset to them. The problem is that both records managers and archivists may not know any other ways of reading the situation around them besides the ‘classic’ Weberian one, which they learn in the course of their formal education and which permeates most of their literature.²¹⁸

2.3.2 Systems Approaches to the Study of Organizations

A system may be defined as “a set of elements connected together which form a whole.”²¹⁹ Each element in a system shows properties that are properties of the whole, rather than properties of its component parts. Types of ‘wholeness’ exist both in the natural sciences and in the social sciences; however, the “organized complexity” (which is another way of describing a system) that characterizes the latter is not subject to any of the principles developed by scientists to cope with it, i.e., reductionism, repeatability, and

²¹⁷ Ibid., 331.

²¹⁸ Michael Lutzker had already in the ‘80s pointed out that “archivists keep on referring to a traditional, Weberian image of bureaucracy” which would prevent them from grasping how contemporary organizations actually work. See Lutzker, “Max Weber and the Analysis of Modern Bureaucratic Organizations,” 125.

²¹⁹ Checkland, *Systems Thinking, Systems Practice*, 6.

refutation. The “‘messy’ nature of social phenomena,”²²⁰ which does not allow generalizations or predictions on the pattern of the natural sciences, is related to the fact that one of the components of social systems involves individual human beings, who have self-consciousness and thus freedom of choice. This implies that, in any social facts or acts, there is always a mix of intended and unintended effects. Of course, social scientists have always been trying to bring the same kind of order and predictability of the natural sciences to their areas of interest. But evidence shows that they have not been very successful.

Management science is one of those areas where both scholars and practitioners have the tendency to apply ‘hard’ systems methodologies to ‘solve’ problems existing in organizations. Systems engineering and systems analysis are just two of the most popular methods. Both proceed according to a similar problem-solving, goal-oriented approach: the problem and the desired outcome are given, and alternative ways of achieving that outcome are studied in order to select the best one to meet the identified need.²²¹ They both build models as simplified representations of the reality under examination and focus on optimizing such models. At the end of the process, the solution that is regarded as being the most effective, and possibly also the cheapest, is transferred into the real world.

So much of current approaches to electronic document and/or records management systems (EDMS or EDRMS) development and implementation reminds of the engineering methodology! It is then not by chance that statistics and reports published in the last few years address the issue of the failure of several EDRMS

²²⁰ Ibid., 68.

²²¹ See *ibid.*, 128-37.

projects. Some cannot be completed because of difficulties encountered in the implementation phase; others are ‘boycotted’ by the end-users who either refuse to use or misuse the new system. The same may apply to records classification design and implementation; the only difference is that the results of these projects usually do not get published. At a closer look, the standards lately developed to support the records management function (e.g., ISO 15489, MoReq, DIRKS), though they might be ‘optimal models’ of the reality, do not seem to offer a viable ‘solution.’ Indeed, even the records management program best compliant with a given standard may be ineffective in practice, because it may not align sufficiently with the needs of business, may not solve a perceived problem, or for some other reasons that are not system related. By trying to ‘engineer’ records management, EDRMS project managers as well as classification systems and standards developers implicitly apply ‘hard’ systems methodologies to “problem situations” that, being fundamentally unstructured, would require a different approach.

In “human activity systems” (i.e., systems that “feature human beings in social roles trying to take purposeful actions”),²²² the primary uncertainty relates to the definition of the ‘problem’ and the precise objectives to be met.²²³ To this purpose, no mechanistic and goal-oriented method can be effective. ‘Soft’ systems methodology (SSM) presents itself as an alternative, holistic way of dealing with ill-structured problems, not with the goal of ‘solving’ them, but rather of gaining understanding and,

²²² Checkland and Scholes, *Soft Systems Methodology in Action*, 24.

²²³ While structured problems are problems that can be explicitly stated and for which a solution exist (in the world of ‘hard’ systems thinking), unstructured problems manifest in a feeling of unease but cannot be explicitly stated without this appearing to oversimplify the situation. In other terms,

“A problem relating to real-world manifestations of human activity systems is a condition characterized by a sense of mismatch, which eludes precise definitions, between what is perceived to be actuality and what is perceived might become actuality.”

Checkland, *Systems Thinking, Systems Practice*, 155.

ideally, improving the ‘problem situation’ concerned. Peter Checkland describes the basic idea of SSM in these terms:

“to formulate some models which hopefully will be relevant to the real-world situation, and to use them by setting them against perceptions of the real world in a process of comparison.”²²⁴

So SSM is also interested in model building, yet in a way that is different from that of ‘hard’ systems thinking. First of all, we are not talking of one model only, but of as many models as the viewpoints that exist of the situation to be improved. The conceptual models of SSM are not ‘models of’ any given reality; rather they are ‘models relevant to a debate’ about a situation that is perceived as being problematic. They are constructed in order to explore perceptions of the real world, perceptions which are collected throughout the SSM exercise. Basically, what the researcher who embraces SSM is supposed to do is to try to find out as much as possible about the situation under examination, to “build up the richest possible picture,”²²⁵ without imposing any particular structure on it. Thus, SSM, as a means to provide an “ordering framework for problem-solving,”²²⁶ involves a process of continuous learning. Its objective is that of generating debate about possible changes together with the participants in the problem situation.

SSM has been briefly introduced here not because the present study is designed according to its features. Actually, it is in action research that SSM finds its natural place as a research methodology. The reason for considering SSM, as part of the ‘soft,’ interpretive strand of thinking in the information systems world, relevant to this study is

²²⁴ Checkland and Scholes, *Soft Systems Methodology in Action*, 177.

²²⁵ *Ibid.* 165.

²²⁶ *Ibid.* 61.

that its emphasis on the “irreducible complexity of real-world situations”²²⁷ may help us obtain a richer picture of the concept of an organization than the conventional one. Instead of experimenting with metaphors like in Morgan’s example, with SSM we learn to ‘lend our ears’ to all the different voices that, in an organization, have a viewpoint on a given problem situation. Through this learning process, we may elaborate explanations of why our ‘models of’ the organizational reality, once they are translated into practice (whether as an EDRMS or classification system or records management standard), do not have expected outcomes. Also from the perspective of system development, SSM may provide a conceptual framework to make the shift in focus necessary to improve our records-related tools. While traditional engineering or requirement approaches focus on the “system that serves” (i.e., any information or records system as a system that serves and supports decision making in organizations), SSM prioritizes the “system served,” the real world.²²⁸ Rather than perfect solutions that only work on paper, we may then achieve less perfect but practicable solutions that people can ‘appreciate’ (i.e., take into their “appreciative systems”²²⁹) and use.

²²⁷ Ibid. 90.

²²⁸ Peter Checkland and Sue Holwell, *Information, Systems and Information Systems. Making Sense of the Field* (Chichester, West Sussex, UK: John Wiley & Sons Ltd., 1998), 109-18.

²²⁹ The notion of “appreciation” is here used in the specific sense in which sociologist Vickers employs it. According to Vickers, our previous experiences create for us certain standards or norms which lead to the readiness to see (or appreciate) only certain features of the reality. These features or aspects of the reality are organized into “appreciative systems” which create for all of us, individually and socially, our “appreciated world.” The appreciative settings condition new experiences but are also modified by the new experiences in a recursive way that is similar to that of the theory of structuration. See G. Vickers, *The Art of Judgement* (London: Chapman and Hall, 1965).

2.3.3 Understanding Technology and Organizational Change through the Theory of Structuration

As mentioned in Chapter 1, structuration theory is part of the theoretical framework this study is built on.²³⁰ Within the so-called post-modernist trend in the archival studies,²³¹ Giddens' ideas have often been drawn on as they provide a more dynamic view of the records and the interactions between them and the records creators. The present study has particularly been inspired by one of the outgrowths of such a theory, known as Adaptive Structuration Theory (AST),²³² which focuses on technology as a specific subset of social structures. Arguably, any records management or archival tool can be considered 'technology,' with reference not only to electronic records management tools but also, for instance, to classification as a *τέχνη* (in Latin characters, *techné*, i.e., craftsmanship or art, as a rational method which implies knowledge of principles and is oriented to practical outcomes) that helps us to do certain things in a given way and that embeds the ideas we have about its features and function.

The theory of structuration offers an alternative way of conceiving the social reality that reconciles the long-standing opposition between objective and subjective

²³⁰ See Anthony Giddens, *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis* (Berkeley, CA: University of California Press, 1979); Id., *The Constitution of Society*.

²³¹ See Terry Cook, "Electronic Records, Paper Minds: The Revolution in Information Management and Archives in the Post-Custodial and Post-Modernist Era," *Archives and Manuscripts* 22 (November 1994): 300-28; Id., "Fashionable Nonsense or Professional Rebirth: Postmodernism and the Practice of Archives," *Archivaria* 51 (Spring 2001): 14-35; Frank Upward, "Structuring the Records Continuum. Part One"; Id., "Structuring the Records Continuum. Part Two: Structuration Theory and Recordkeeping," *Archives and Manuscripts* 25, 1 (1997): 10-35; Sue McKemmish et al., eds., *Archives: Recordkeeping in Society*; Mark A. Greene, "The Power of Meaning: The Archival Mission in the Postmodern Age," *The American Archivist* 65 (Spring-Summer 2002): 42-55; Heather MacNeil, "Trusting Records in a Postmodern World," *Archivaria* 51 (Spring 2001): 36-47.

²³² See Orlikowski, "The Duality of Technology"; DeSanctis and Poole, "Capturing the Complexity in Advanced Technology Use"; Marshall S. Poole and Gerardine DeSanctis, "Use of Group Decision Support Systems as Appropriation Process," *Proceedings of the Hawaii International Conference on Information Systems* (1989): 149-57; Ibid., "Understanding the Use of Group Decision Support Systems: The Theory of Adaptive Structuration," in J. Fulk and C. W. Steinfield, eds., *Organizations and Communication Technology* (Newbury Park, CA: Sage, 1990), 173-93.

understandings of it. Instead of considering social structures (i.e., the organization, in Giddens, or the technology, in AST) as either an external force that shapes and determines human actions (as the ‘decision-making school’ believes) or a product, a construction of human agents (as the ‘institutional school’ has it), structuration theory incorporates both views by recognizing that human actions are enabled and constrained by structures, yet these structures are the result of previous actions.²³³ Structure must be understood as the “structural properties of social systems”²³⁴ consisting of the rules and resources human agents draw on in their everyday interactions. These rules and resources mediate human action while, at the same time, they are reaffirmed through being used by human actors. This concept, also known as “duality of structure,” becomes in AST “duality of technology,” to signify that

“technology is created and changed by human action, yet it is also used by humans to accomplish some action.”²³⁵

The ‘structurational model of technology’ developed by AST acknowledges the mutual interaction existing between human actors and technology, thus considering the latter as both structural and socially constructed. In other terms, there would be a dialectic interplay between the structures that are embedded in a given technology and the structures that are brought about every time people use that technology. Thus, all technologies are always potentially modifiable, and there is nothing deterministic in any organizational change related to the introduction of a new technology.

It is this author’s conviction that, not differently from when they refer to outdated concepts of bureaucracy or apply ‘hard’ systems approaches, when it comes to describing

²³³ DeSanctis and Poole, “Capturing the Complexity,” 121-25.

²³⁴ Orlikowski, “The Duality of Technology,” 404.

²³⁵ *Ibid.*, 405.

the reality of organizational change, records professionals still tend to see any external force as something that is beyond their control and that exerts a one-way, necessary impact on their world. The “technological imperative model”²³⁶ of the decision-making school is indeed very much present in most of the archival literature discussing the ‘impact’ of the new technologies on archives,²³⁷ but one may also find it in the workplace. However, as a justification for this tendency, one should see that the recursive relationship between technology and action may be difficult to recognize especially where technology design is separated in time and space from technology use. In such cases, it is normal for users to perceive technology as a ‘black box.’ Orlikowski calls this phenomenon “interpretive flexibility of technology,”²³⁸ which means that different degrees of interaction are possible according to the characteristics of the material artifact (e.g., its age), the characteristics of the human agents (e.g., their reflexivity), and the characteristics of the institutional context (e.g., social and historical circumstances). Following this explanation, one may assume that a recently developed classification scheme has a greater potential to be challenged by its users who will try to modify it as much as existing circumstances allow.

“Structuration is the process by which social structures are brought into action ... [that is,] they are produced and reproduced in social life.”²³⁹

Through the regular use of a technology, patterns of interactions become established as standardized practices in organizations. Over time, habitual use of such practices eventually gets institutionalized, forming the structural properties of organizations. These

²³⁶ Ibid., 400.

²³⁷ See, for instance, Charles Dollar, *Archival Theory and Information Technologies: the Impact of Information Technologies on Archival Principles and Methods*, in Oddo Bucci, ed. (Macerata: University of Macerata, 1992), 45-49; and Menne-Haritz, ed. *Symposium on the Impact of Information Technologies*.

²³⁸ Orlikowski, “The Duality of Technology,” 407-09.

²³⁹ DeSanctis and Poole, “Capturing the Complexity,” 128.

are drawn on by humans and such use reinforces the institutionalized properties.

However, ‘reproduction’ does not necessarily mean ‘replication.’ The recognition that human actors are “knowledgeable and reflexive”²⁴⁰ is a central premise of structuration.

These qualities imply that when enacting a technology, users discuss or at least think within themselves about how to use certain features, and they may, intentionally or unintentionally, change those features as they are using them. Thus, when the social structures of a technology are brought into action, they may take on new forms.

“Appropriation” is the process by which

“a group [of users] makes judgements about whether to use or not use certain [technology] structures, directly uses (reproduces) [them], relates or blends [them] with another structure, or interprets the operation and meaning of [the technology structures].”²⁴¹

The insight that users actively choose how to use the structures of a technology may explain why the results of the implementation of the same artifact (e.g., an EDRMS) may differ from organization to organization, and more generally, why it is impossible to predict how the implementation of a new technology is going to change an organization.

Desired outcomes are not guaranteed, as human beings can always choose ‘to act otherwise.’ “Unintended consequences of technology”²⁴² is an expression that well captures this ‘getting away’ of the technology from its official, promoted use.

The way people adopt and adapt any given technology depends on a series of factors, some related to group attitudes, some to the organizational environment, some to specific “appropriation moves.”²⁴³ Among these, AST notes that technologies can be either ‘faithfully’ or ‘unfaithfully’ appropriated. Faithful appropriations are consistent

²⁴⁰ Orlikowski, “The Duality of Technology,” 406.

²⁴¹ DeSanctis and Poole, “Capturing the Complexity,” 129.

²⁴² Poole and DeSanctis, “Use of Group Decision Support Systems as Appropriation Process,” 152.

²⁴³ *Ibid.*, 153-54.

with both the spirit and the structural feature design, whereas unfaithful appropriations are not. Unfaithful appropriations are not ‘bad’ or ‘improper’ but simply not in line with the spirit of the technology. The latter is described as “the general intent with regard to values and goals underlying a given set of structural features.”²⁴⁴ An interesting finding of AST research is that users system trainings in organizations mostly address structural features (i.e., the capabilities offered by the system) while the spirit of the system is hardly communicated to the users. Examining training material as well as how users get involved in the implementation phase of a new system appears therefore to be crucial to a study aiming at getting an understanding of the actual uses – or non uses – of classification systems in organizations.

Structurational studies of the role of information technology (IT in a broad sense, from typewriters to cell phones) in ‘organizational transformation’ (i.e., “a shift in the way that work is done within a chartered collective”²⁴⁵) reveal that the perceived causal relationship between the introduction of a new IT and radical changes in the organization of work is just “a widely held societal myth.”²⁴⁶ The reality of ‘organizational transformation’ is that of a social process that unfolds gradually, over time, sometimes showing unexpected or inconsistent outcomes, and under the influence of non-technological factors (such as, social, political, economic, and cultural forces) as well. The book on this topic edited by Yates and Van Maanen focuses not only on work practices, but also on the social structures supporting those practices, and the “ideologies

²⁴⁴ DeSanctis and Poole, “Capturing the Complexity,” 126.

²⁴⁵ JoAnne Yates and John Van Maanen, eds. *Information Technology and Organizational Transformation. History, Rhetoric, and Practice* (Thousand Oaks, CA: Sage, 2001), xii.

²⁴⁶ Susan J. Winter and S. Lynne Taylor, “The Role of Information Technology in the Transformation of Work. A Comparison of Post-Industrial, Industrial, and Proto-Industrial Organizations,” in Yates and Van Maanen, eds., *Information Technology and Organizational Transformation*, 8.

and meaning systems”²⁴⁷ that more or less legitimate them. The first part of the book collects studies that examine how IT gets adopted in organizations, including its intended and unintended consequences, from a historical perspective; the second part deals with the rhetoric of IT and organizational transformation; the third and last part concerns the practices that emerge when a new IT is made available to organizational members. The overall purpose of the book is that of

“[raising awareness of] the multidimensional and ambiguous character of organizational change as well as the numerous uses to which IT can be put.”²⁴⁸

Researchers must develop a special sensitivity to be able to appreciate what is below the surface of what may look like ‘technological progress,’ or ‘a story of success.’ The present research design does neither involve a series of longitudinal studies that would allow observing the interweaving of technology and human use throughout different socio-historical circumstances, nor does it employ ethnography, a methodology that would be ideal to make unstated meanings and invisible patterns emerge. Within the limitations of a case study research approach, this author will aim nevertheless to take advantage of the methodological suggestions derived from the examples collected by Yates and Van Maanen. In particular, a historical perspective may be obtained through asking informants and collecting material about previous arrangements and the history of the project that brought to the implementation of the system under investigation. Insights related to the rhetoric of the system may be elicited by engaging in discussions where the informants’ views are confronted with those of the researcher, so that networks of interpretations may emerge and reveal beliefs, disappointments, and other perceptions

²⁴⁷ Yates and Van Maanen, eds. *Information Technology and Organizational Transformation*, xii.

²⁴⁸ *Ibid.*, xvi.

about the system. As to studying shared practices and the interpersonal relationships formed around them, this researcher may try to ‘immerse’ herself in the daily work of the office examined within a quasi-ethnographic approach.

2.3.4 Organizational Behaviour and Related Issues

In his discussion on the process of decision-making from the point of view of social psychology, Herbert Simon criticizes previous works in the area of theory of administration because of their separation of the world of ‘deciding’ from that of ‘doing’ and exclusive focus on policy-making. On the contrary, Simon states,

“the task of ‘deciding’ pervades the entire administrative organization quite a much as the task of ‘doing’.”²⁴⁹

By saying so, he invites us to analyze “purposive behaviours”²⁵⁰ (i.e., behaviours oriented towards goals and objectives) at all levels in an organization.

Although there is a hierarchy of decisions as there is a pyramid of goals, these are not perfectly integrated in any actual behaviour. Diverse and sometimes conflicting objectives make decisions hard to take, especially because not all possible alternatives are available under any given circumstance. Therefore, decision is always a matter of compromise, and organizations can never be perfectly rational due to the limited information-processing abilities of their members. In contrast to the assumptions made in economics about the optimizing behaviour of individuals, Simon concludes that individuals and organizations settle for a “bounded rationality” of “good enough” decisions based on simple rules of thumb and limited search and information.²⁵¹

²⁴⁹ Herbert A. Simon, *Administrative Behaviour. A Study of Decision-Making Processes in Administrative Organizations*, 4th ed. (New York: The Free Press, 1997), 14.

²⁵⁰ *Ibid.*, 15.

²⁵¹ *Ibid.*, 23.

Morgan places Simon's view of organization under the 'brain metaphor,' that is the idea that organizations are information-processing brains.²⁵² Everything in organizations, from departmental and job divisions, to hierarchies of authority, policies, programs, rules, standard operating procedures, exists for the sake of simplifying organizational reality in order to make it manageable to individuals.

Among the accepted "principles of administration" elaborated by the theory of administration with the aim of enhancing organizational efficiency (principles that Simon demolishes one after the other)²⁵³, one is particularly suitable to the topic of this research.

The principle reads:

"Administrative efficiency is increased by grouping the workers, for purposes of control, according to a) purpose, b) process, c) clientele, or d) place."²⁵⁴

The analogy with the terminology referring to the transactional level of classification schemes according to an archival tradition that goes back to Schellenberg is evident.

Simon's remark refers indeed to the ambiguity of key terms like 'purpose' and 'process.'

To start with, he provides the following definitions:

"'Purpose' may be roughly defined as the objective or end for which an activity is carried on; 'process', as a means of accomplishing a purpose."²⁵⁵

Thus, the same activity may actually be described as purpose or as process: it depends on the point in the hierarchy of purposes you look at the issue. Purposes form a hierarchy,

²⁵² See Morgan, *Images of Organization*, 81-84.

²⁵³ Simon, *Administrative Behaviour*, 29-30. Simon highlights the inherent ambiguity and insufficiency of each principle. His conclusion is that

"Mutually incompatible advantages must be balanced against each other in the design of administrative organizations, as over-all efficiency must be the guiding criterion." (45).

One may say that the same works with reference to the design of records classification systems, although the efficiency criterion may not be the only relevant one.

²⁵⁴ *Ibid.*, 36.

²⁵⁵ *Ibid.*, 38.

each sub-purpose contributing to some more final and comprehensive end. In other words, there is no essential difference between purpose and process, but only a distinction of degree. The same can be said with regard to the distinction between function and activity levels in a classification scheme. Here is how Simon reformulates the two concepts:

“A ‘process’ is an activity whose immediate purpose is at a low level in the hierarchy of means and ends, while a ‘purpose’ is a collection of activities whose orienting value or aim is at a higher level in the means-end hierarchy.”²⁵⁶

Administrative gurus recommend arranging organizations by ‘major purpose’ so that all those who are dedicated to render a particular service can work together in a single large department. However, Simon asks, what is a particular service? His conclusion is that

“there is no such thing as a purpose, or a *unifunctional* (single-purpose) [department]. What is to be considered as *a* single function depends entirely on language and techniques.”²⁵⁷

Simon’s insight confirms the difficulties that are inherent in the language of functions and that make any classification work arduous.

The means-end relationship mentioned above is used by Simon as a criterion to judge the correctness of administrative decisions:

“An administrative decision is correct if it selects appropriate means to reach desired ends.”²⁵⁸

“Rationality – he adds – has to do with the construction of means-ends chains.”

However, these chains are seldom completely integrated and connected. Often the link between organizational activities (means) and ultimate objectives (ends) is obscure, or these ultimate objectives are either incompletely formulated, or there are contradictions

²⁵⁶ Ibid., 39.

²⁵⁷ Ibid., 38.

²⁵⁸ Ibid., 56.

between the ultimate objectives and the means selected to obtain them. Once again, Simon stresses the fact that the “bounded rationality” of human beings is a limitation to rational decision-making and, in actual situations, it is usually impossible to separate completely means from ends.

Simon provides a categorization of ‘rational behaviour,’ where rational is defined as something that serves a useful purpose. In particular, he states that

“Rationality is concerned with the selection of preferred behaviour alternatives in terms of some system of values whereby the consequences of behaviour can be evaluated.”²⁵⁹

Another interesting point he makes refers to the analysis of the role played by habits and routines in organizations. Habits and routines are also the outcome of decisions (‘once and for all’ decisions). Besides serving their purposes effectively, they help to “conserve scarce and costly decision-making time and attention.”²⁶⁰ For this reason, a very large part of an organization’s activities is likely to proceed according to established rules and routines.

Simon recognizes that, in today’s information society, “the critical scarce factor in decision-making is not information but time, attention.”²⁶¹ The quality of decision-making can be enhanced by “searching systematically, but selectively,” among potential information sources to find those that might be most useful. Thus, although he does not explicitly mention the role played by information or records systems in supporting decision-making, Simon seems to hint that, for the sake of administrative efficiency, good retrieval capabilities are the most valuable functionality those systems should provide.

²⁵⁹ Ibid., 86.

²⁶⁰ Ibid., 102.

²⁶¹ Ibid., 123.

2.3.5 Classification in Library and Information Science

In the studies of Bowker and Star, classifications are seen as “powerful technologies”²⁶² which are embedded in all aspects of life, sometimes in invisible ways. “Classification schemes ... literally saturate the worlds we live in.”²⁶³ The stealthy presence of classification, once brought into light, may be used as a device for understanding the ethics, politics, hidden motivations, in one word, the cultures of any given societies. Anthropologists, who are used to studying classifications in these terms, are also well aware that

“classifications arise from systems of activity and, as such, are situated historically and temporally.”²⁶⁴

Classification, “the sleeping beauty of library and information science,”²⁶⁵ not only is shaped by the culture of the social reality it represents, but is in turn responsible for shaping that culture. Bowker and Star provide the following definition of classification system:

“A classification system is a set of boxes, metaphorical or not, into which things can be put in order to then do some kind of work – bureaucratic or knowledge production.”²⁶⁶

Classification, in the sense of grouping things systematically, is therefore a basic human activity. Aristotle is claimed to be the first who stated the characteristics of systematic classification. In his “classical theory of categories,” the categories forming the classification scheme were arranged hierarchically, from the general to the specific, and a

²⁶² Geoffrey C. Bowker and Susan Leigh Star, “Invisible Mediators of Action: Classification and the Ubiquity of Standards,” *Mind, Culture, and Activity* 7, 1-2 (2000): 147.

²⁶³ *Ibid.*, 157.

²⁶⁴ *Ibid.*, 149.

²⁶⁵ Susan Leigh Star and Geoffrey C. Bowker, eds., “How Classifications Work: Problems and Challenges in an Electronic Age,” *Library Trends* 47, 2 (Fall 1998), 185.

²⁶⁶ Geoffrey C. Bowker and Susan Leigh Star, *Sorting Things Out: Classification and Its Consequences* (Cambridge, Mass.: The MIT Press, 1999), 10.

category was described as “an abstract container with things either inside or outside the container.” What defined the category were “the properties the things inside the container had in common.”²⁶⁷ In more recent years, a non-hierarchical type of classification, called ‘faceted classification,’ has been developed in order to provide more flexibility to the scheme. The suitability of the faceted method in records management and archives is questionable however for the same reasons presented earlier with reference to virtual files and multidimensional approaches to contextual metadata.²⁶⁸

The properties of an ideal classification scheme have been described by Bowker and Star as follows:

- “- Each system should be based on a single classificatory principle;
- The classes should be mutually exclusive;
- The system [should provide] complete coverage of the world it describes.”²⁶⁹

However, the authors admit that they have never seen a system that fully meets this ideal. Although not explicitly stated, the typical classificatory principle one may come across in libraries is the subject-based one.

As to the reasons for classifying recorded information, librarians and information scientists seem to agree on the following main purposes of classification:

- “- To allow items to be arranged logically on shelves in order to:
 - Help users identify and locate items;
 - Group related items together so that users benefit from related items being co-located;
- To allow a link to be created between items on shelves with entries in a catalogue or index.”²⁷⁰

²⁶⁷ A.G. Taylor, *The Organization of Information* (Englewood: Libraries Unlimited, 1999), 174.

²⁶⁸ See Shepherd and Yeo, *Managing Records*.

²⁶⁹ Bowker and Star, *Sorting Things Out*, 10.

²⁷⁰ See A. Maltby, *Sayer's Manual of Classification for Librarians*, 5th ed. (London: Andre Deutsch, 1975); L.M. Chan, *Cataloguing and Classification: An Introduction*, 2nd ed. (New York: McGraw Hill, 1994); and J. Rowley and J. Farrow, *Organizing Knowledge: An Introduction to Managing Access to Information*, 3rd ed. (Aldershot: Ashgate Publishing, 2000). Cited in Orr, “Functions-Based Classification of Records,” 32.

Thus, classification in librarianship qualifies as a practical, retrieval-oriented technique that has nothing of the necessary-ness, or determined nature that characterizes archivists' concept of classification. This makes the classification design definitely more straightforward in a library than it can ever be in an archives. The same may be said with regard to standardization efforts, which are strongly encouraged in the library community, much less in the archival one. American archivist Margaret Cross Norton expressed the different complexity that library and archives classification respectively entail in these terms:

“The librarian has only to fit the books he is classifying into a preconceived scheme, but the archivist has to construct his classification scheme anew to fit the different types of records kept by each department.”²⁷¹

However, library classification has its difficulties and shortcomings too. In particular, with regard to its effectiveness, several authors, mostly quoting Spärck Jones who was writing in 1970, have pointed out that

“for information retrieval (IR), theories of classification are inadequate and have not been sufficiently considered. ... a substantive theory of classification is needed but does not exist.”²⁷²

IR experts seem to oscillate between two schools of thought, a “pragmatic” one, which sees classification as “a response to an objective,” and a “positivist” one, according to which classification is “an abstract process.”²⁷³ The pragmatic method is based on the consideration that a classification is always required for a purpose; however, “whether

²⁷¹ Mitchell, ed., *Norton on Archives*, 91.

²⁷² Birger Hjørland and Kartsen Nissen Pedersen, “A Substantive Theory of Classification for Information Retrieval,” *Journal of Documentation* 61, 5 (2005), 582. See also K. Spärck Jones, “Some Thoughts on Classification for Retrieval,” *Journal of Documentation* 26, 2 (1970): 89-101; Rick Szostak, “Classification, Interdisciplinarity, and the Study of Science,” *Journal of Documentation* 64, 3 (2008): 319-332; Birger Hjørland, “Core Classification Theory: A Reply to Szostak,” *Journal of Documentation* 64, 3 (2008): 333-42.

²⁷³ Hjørland and Nissen Pedersen, “A Substantive Theory of Classification for Information Retrieval,” 584.

that purpose can be stated formally is quite another question.”²⁷⁴ Authors who follow this school emphasize the “investigation of goals, purposes, interests, and values.” On the opposite side, positivists tend to “keep to pure observations, logical deductions, and formal models,” while ignoring issues related to “interpretation and meaning as well as goals, purposes, and values.” In practice, according to the ‘positivist method,’ “classification of any kind of objects [should be] based on the properties of those objects.”²⁷⁵ The interpretivist argument that the supporters of the other school invoke against the positivist method is that the properties of any objects are not ‘facts;’ rather, they “are only available to us on the basis of some descriptions,” and those descriptions may vary from one observer to another, or they may be theory-dependent.²⁷⁶

These considerations are indeed quite appropriate to frame the archivists’ problem with classification as well. On the one hand, it seems that the purpose of records classification is so confused that a pragmatic approach becomes inapplicable. On the other hand, archivists in the post-positivist time may find it difficult to state dogmatically that classification should be based on the properties of the records, assuming that everybody shares the same understanding of those properties and that any other factor external to them is irrelevant.

2.4 Summary

The account of the literature of archival science and other disciplines provided in the previous pages demonstrates that the areas of functional and records classification knowledge deserve an in-depth re-examination, which should start ‘from the bottom,’

²⁷⁴ Ibid., 585.

²⁷⁵ Ibid.

²⁷⁶ Ibid, 586.

that is, from an analysis of actual instantiations of function-based classification systems in real-world organizations.

In particular, the review of the archival literature has highlighted that, although a functional approach not only to records classification but also to any other archival endeavour is greatly promoted as the only or principal means of managing records and archives, the concept of function does not seem to be thoroughly understood. Nor are the nature and purpose of classification clearly and consistently stated throughout the literature. Drawing, implementing, and maintaining a function-based classification scheme appears to be more an art than an established methodology. Such a lack of clear guidance confuses the practitioners, as an examination of actual outcomes of their efforts generally shows. Additionally, the absence of empirical, situated studies does not allow drawing any conclusions as to the relationship between specific organizational settings and cultures, and the representations of those organizations' functions and activities.

The literature concerning organizational studies confirms that there are many factors influencing the ways in which people in organizations carry out their activities and, in particular, interact with the tools and technologies that are meant to facilitate their work (including classification systems). An approach that takes those social and cultural factors into consideration, together with a multi-perspective understanding of the phenomenon organization, seems to be missing in the landscape of archival studies.

On a theoretical level, the reasons for this research are supported by the gap identified between the overall limited, oversimplified archival understanding of the functioning of organizations and the complex, dynamic, multi-dimensional, and even incoherent view of social reality that emerges from the various human activity systems studies examined. By bridging that gap through the application of inductive reasoning

based on empirical evidence, rather than through the deductive approach usually employed in archival research, this author hopes to contribute rich insights to the archival theory. On the practical level, this work is justified by the need for some clarification on the design of functional classification systems and, more generally, on the role these systems play, or should play, in organizations. Again, a direct analysis of the actual ways in which ‘things get done’ in real-world settings will reveal why records classification is such a difficult issue and will ideally provide some suggestions on how to do it better.

3. RESEARCH DESIGN

3.1 Overview

This chapter provides a detailed account of the implementation of the interpretivist, inductive methodology adopted for this research. The main features of the methodology, including its theoretical underpinnings, advantages, and limitations, have already been outlined in the introductory chapter to this dissertation. The first section of the present chapter is dedicated to the survey-based approach used for the selection of the sites where the case studies that are at the core of this research strategy would be conducted. This section will also provide an initial characterization of the specific population chosen. It will be followed by a section describing the methods employed to carry out the multiple-case research design, including data analysis and reporting techniques. The third and final section will deal with the ethical issues concerning this research and the way they have been resolved.

3.2 Selecting Suitable Case Study Sites

Selection of suitable sites for conducting case study research requires careful consideration of the objectives the researcher aims to achieve. Thus, the sampling technique employed did not follow the logic of random sampling, but it was a “non-probability sampling” technique of the type known as “purposive” or “theoretical sampling.”²⁷⁷ Yin suggests that each case involved in a multiple-case study should be

²⁷⁷ Williamson, *Research Methods*, 231; Yin, *Case Study Research*, 31-33; Eisenhardt, “Building Theories from Case Study Research,” 537.

considered like an “experiment.”²⁷⁸ This insight implies that the researcher will approach the selection of cases according to “replication” logic.

“Each case must be carefully selected so that it either (a) predicts similar results (a *literal replication*) or (b) predicts contrasting results but for predictable reasons (a *theoretical replication*).”²⁷⁹

Considering the hypotheses and research questions formulated by this author with particular regard to those aiming at exploring the relationship between different organizational cultures and recordkeeping approaches, the logic that applies to this study is that of theoretical replication. As mentioned in the methodology overview included in the Introduction, through this approach, “analytic generalization” (as opposed to “statistical generalization”) of the research findings may eventually be claimed.²⁸⁰

3.2.1 Selection of Study Population

Gillian Oliver (whose research on information cultures shares with this study the reference to Hofstede’s categorization of organizations as a basis for comparison among cases) recommends “select[ing] an organization type that is represented, and which will have similar functions, in each subject country.”²⁸¹ Similar functions is a criterion that particularly suits a study like this one, which addresses issues of functional analysis and is interested in exploring how, keeping the variable of function stable, different environments conceive and construct their function-based classification systems. The researcher’s familiarity with the central bank environment oriented her choice towards this class of organizations, which has an established presence in every country of the European Union and in North America (i.e., the two targeted areas) and has more or less

²⁷⁸ Yin, *Case Study Research*, 47.

²⁷⁹ Ibid.

²⁸⁰ Ibid., 32.

²⁸¹ Oliver, “Investigating Information Culture,” 299.

the same functions, though national differences in the types of activities involved do exist.

Goals, functions, and legal framework characterizing central banks as a very special type of financial institutions, including relevant recordkeeping and archival issues, are described in the next chapter. Here, it will be sufficient to mention that another reason for choosing them as study population is that, unlike commercial banks, investment banks and other financial intermediaries, central banks have a research component that may qualify them as ‘think-tanks.’ Like universities, research centers and other institutions sharing a similar mission, central banks perform research functions in the field of economics and finance, an intellectual work that is not necessarily oriented towards practical applications. This influences organizational behaviour, modes of accomplishing certain activities, work relations with internal and external customers, and types of services offered to the society in a specific way.²⁸² Central banks are therefore supposed to be a good ‘laboratory’ for observing activities that are unstructured or unique, or at least, do not share the characteristics of linearity and repetitiveness which are typical of most business processes.

Oliver notes that “conducting case studies of one’s own organization will rarely be appropriate because of potential problems with reliability and objectivity.”²⁸³ Besides that, where the researcher is affiliated with the organization to be investigated, almost all interactions will be based on prior acquaintance and shared existing knowledge, thus the exploratory aims of the research might be frustrated. Thus, this author refrained from including her own work place among potential study subjects. Nevertheless, she took

²⁸² See the analysis of “organizations as brains” in Morgan, *Images of Organization*, 77-109.

²⁸³ Oliver, “Investigating Information Culture,” 300.

advantage of her familiarity with the functions and the records management needs of the organization type under examination. Such ‘insider knowledge’ allowed her to take an informed approach to her interviews, observations, and analyses of findings, and this has considerably reduced the time she had planned to spend in each case study site.

Additionally, being already part of the central banks’ business environment undoubtedly facilitated the initial phases of the project and expedited the researcher’s admittance in the banks, which, in general, are notoriously quite restrictive when it comes to access to their premises and files.

3.2.2 Survey Design and Administration

The sampling of cases from the chosen population involved the design of a web-based questionnaire.²⁸⁴ The main advantage of a self-administered questionnaire is that it allows the researcher to reach a large number of subjects who are widely distributed geographically, and in a relatively short time.²⁸⁵ A link to the survey was sent via email to thirty recipients identified as the person, or one of the persons, responsible for the records management and/or archival function in each of the thirty central banks selected for the study, i.e., the central banks located in North America and those belonging to the so-called European System of Central Banks (ESCB), except the European Central Bank (ECB) for the reasons mentioned above. The identification of survey recipients was greatly facilitated by the researcher’s ‘insider’ knowledge. The online questionnaire was administered for the first time at the end of September 2007. About two weeks later,

²⁸⁴ The researcher used the online survey tool Zoomerang, kindly offered by Dr Cenfetelli from UBC - Sauder School of Business. A static copy of the questionnaire (and attached invitation letter) is included in Appendix 1.

²⁸⁵ Williamson, *Research Methods*, 236.

reminders were sent to those who had not replied yet. The survey was considered closed at the end of October 2007.

The questionnaire was developed in English as a pre-requisite that potential research subjects had to meet to be selectable. It should be noted that all central banks which are part of the ESCB use English as a working language to communicate with each other, especially in the context of inter-institutional committees, working groups, and task forces. Of course, this does not mean that everybody in the banks speaks English. In order to make sure that the language factor would not be a hindrance to the conduct of fieldwork, the Invitation Letter enclosed with the online survey made explicit that

“participants in interviews must be able to communicate in English or Italian with the investigator.”²⁸⁶

A second criterion put before potential subjects for purposes of pre-selection was expressed, again in the invitation letter, in the following terms:

“organization[s] must be using, or be in the process of designing, implementing or reviewing, a corporate records classification system as a means to identify and to organize the records made or received in the course of business.”²⁸⁷

The survey included structured questions, mainly of the types known as “factual” and “closed” questions. The former type is suitable to obtain straightforward answers (e.g., yes/no); while the latter, by providing “frames of reference” that guide respondents’ replies, is meant to help clarify the concepts used.²⁸⁸ Indeed, the ambiguity of some of those concepts (e.g., classification based on function, rather than subject, organizational structure, or record type; power distance and uncertainty avoidance) made it necessary to

²⁸⁶ See Appendix 1, 1.

²⁸⁷ Ibid.

²⁸⁸ Williamson, *Research Methods*, 237-38; and Oppenheim, *Questionnaire Design*.

provide some explanation of the terms used in order to achieve a base for common understanding. Two questions aiming at eliciting opinions about types of authority relations and degrees of bureaucratization in the organization (both measured by means of Hofstede's dimensions 'power distance' and 'uncertainty avoidance')²⁸⁹ were constructed by using a Likert scale.²⁹⁰

Questions were developed on the basis of specific criteria considered appropriate for the envisaged theoretical sampling. The review of the literature and the hypotheses and research questions thereby identified are to be regarded as the sources for the following primary criteria:

- Selected organizations must use records classification systems that they perceive as being function-based;
- Selected organizations must display characteristics (in terms of degrees of 'power distance' and 'uncertainty avoidance') from which one may assume that each of them belongs to a different type of bureaucracy according to Hofstede's categorization.²⁹¹

The latter criterion enables the researcher to compare diverse organizational cultures and work styles, including relevant recordkeeping practices, and eventually to reveal the characteristics of the function-record relationship in each different setting.²⁹²

Other criteria considered less determining though still important for the success of the case studies were the following:

²⁸⁹ Hofstede, *Culture's Consequences*, 373-421.

²⁹⁰ Williamson, *Research Methods*, 237.

²⁹¹ Hofstede, *Culture's Consequences*, 373-421.

²⁹² Taking into account the criticisms Hofstede's ideas have also been subject to, it should once again be noted that his categorization has only been used to frame the design and scope of this research project and to establish a basis for comparison. In case of inconsistencies between that general model and the findings of this research, the latter, not the former, have been used for any purposes of this study.

- The design and/or implementation or revision of the records classification system has to have happened fairly recently or, ideally, be ongoing;
- The person or the team responsible for developing and implementing the records classification system must still be at the organization;
- Selected organizations must manage their records by means of an EDRMS which embeds the classification system.

The first criterion has been inspired by Orlikowski's notion of "interpretive flexibility of technology," according to which, the younger is a technology, the greater the potential for changing it.²⁹³ This implies that, by observing a newly developed or recently revised classification system or one whose implementation is ongoing, users' "appropriation moves" would be better visible, or at least it would be easier to engage the users in discussions about the system.

Survey procedures and overall purpose of the research were explained in both the email used to send the questionnaire and the invitation letter enclosed with the online survey. Both covering letters also contained information on the consent process and confidentiality of the data. These topics will be further analyzed in the last section of this chapter, which deals with ethics-related issues.

3.3 Case Study Design and Implementation

A case study has been defined as

"an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident."²⁹⁴

²⁹³ Orlikowski, "The Duality of Technology," 407-09.

²⁹⁴ Yin, *Case Study Research*, 13.

The research here presented involves a multiple-case design as the researcher's intention was that of investigating a particular phenomenon (function-based records classification) in diverse settings. As mentioned earlier, each case has been selected to produce contrasting results for predictable reasons ('theoretical replication'), that is, to show that, given different organizational cultures, the understanding of functions by the people in the organizations, as well as their approach to classification based on those functions, would differ accordingly. To have sufficient evidence for comparison, this researcher decided to select four organizations on the basis of the above-mentioned criteria.

Selected organizations were contacted by email. The invitation letter attached to each individual email contained a brief presentation of the researcher and the research project, as well as a note on the possible benefits the organization would receive from participating in the proposed study.²⁹⁵ A more detailed description of the research objectives and methods, proposed timeframe and nature of the case participants' involvement in the project, and specific measures taken to ensure confidentiality of collected data were included in the Consent Form, which was also attached to the email of initial contact.²⁹⁶

Through the Consent Form, selected organizations were made aware in advance of the juridical persons (i.e., positions or collections of natural persons) considered most significant for the purposes of the study (i.e., records managers, archivists, classification system users, managers in charge of the records management function, people involved in the EDRMS project, and any relevant offices). They were also asked to nominate a 'contact person' (usually the recipient of the invitation email) who would assist the

²⁹⁵ Copy of the case study invitation letter is included in Appendix 3.

²⁹⁶ Copy of the Consent Form is included in Appendix 4.

researcher in scheduling her visit and, during the case study, in identifying key- individuals or “best informants” (i.e., “those who are in a position to have observed significant events and who are quite perceptive and reflective about them”²⁹⁷). The latter objective was achieved by means of “snowball sampling,” a non-probability sampling technique that consists in asking participants to name other subjects who would be especially helpful to the study.²⁹⁸

The researcher planned to spend between five and ten working days in each participating organization, and to conduct interviews and observations, as well as to collect any documentation relevant to the study. Collection and analysis of background information about each case study site were activities also performed by the researcher prior to commencing any *in-situ* data collection.

3.3.1 Data Collection Methods

Besides relevant documentary information, the main sources of evidence drawn on in this empirical research were interviews and observations. Both have been conducted keeping the characteristics of ethnography in mind, which means that the researcher has tried as much as possible to get an ‘insider’ (or emic) perspective of the reality she was immersed in, although, as pointed out in the Introduction, the research timeframe and characteristics of the selected population did not allow for a full adoption of an ethnographic methodology.

²⁹⁷ W. F. Whyte, “Interviewing in Field Research,” in R. N. Adams and J. J. Preiss, ed. *Human Organization Research* (Homewood: Dorsey, 1960), 358.

²⁹⁸ Williamson, *Research Methods*, 231.

The approach taken for the interviews was one known as “in-depth interviewing,” whose purpose is “to capture the respondent’s perspective on a situation or event under study”²⁹⁹. In line with the precepts of interpretivism,

“the respondent is allowed, in fact, encouraged to talk expansively on the main subject raising topics within it in any order s/he wishes.”³⁰⁰

Interviews thus were conducted in a conversational style, with informants leading the conversation, in order to enable the collection of extensive data from them. However, instead of using mainly “unstructured interviews,” like in an ethnographic study,³⁰¹ the researcher prepared an Interview Guide listing the topics to be covered in the interviews and including some open-ended questions, mainly to remind herself of priorities and lines of inquiry.³⁰² The Interview Guide was piloted within the researcher’s organization before starting the case studies in order to test the effectiveness of the approach, as well as to gain a little practice with the difficult art of interviewing. Thus, interviews were “semi-structured,” but more similar to guided conversations than to structured queries. As a matter of fact, the Interview Guide was mainly used where informants expressed a preference for a more formal setting.

The researcher engaged in “focused interviews” as well, which are shorter (less than one hour) interviews on a specific topic, but still conducted in a conversational style and with careful avoidance of leading questions. The purpose of this type of interviews is “to corroborate facts already established.”³⁰³ However, taking into account the interpretivist paradigm this research refers to, the researcher felt it also appropriate to

²⁹⁹ Constance Mellon, *Naturalistic Inquiry for Library Science: Methods and Applications for Research, Evaluation, and Teaching* (New York: Greenwood Press, 1990), 55.

³⁰⁰ Margaret Slater, “Qualitative Research,” in Margaret Slater, ed. *Research Methods in Library and Information Studies* (London: Library Association, 1990), 114.

³⁰¹ See James P. Spradley, *The Ethnographic Interview* (Orlando: Holt, Rinehart and Winston, Inc., 1979).

³⁰² Copy of the Interview Guide is included in Appendix 5.

³⁰³ Yin, *Case Study Research*, 90-91.

make focused interviews with subjects that might have raised opinions contrary to any ‘established facts,’ with the aim of getting a richer picture of those facts, as recommended by Soft Systems Methodology.

Along with the interviews, the researcher engaged in “direct observations” of the environment and the people acting in it.³⁰⁴ The location and furnishing of an office may indeed be quite revealing of one’s job status in the hierarchy of the organization. This type of observation is also very helpful to understand the actual use of a technology at work. Practical demonstrations of the functioning of EDRMSs have indeed been offered spontaneously by the research subjects in every organization. In most of the cases, some of the objectives of “participant observation” (i.e., the observation method used in ethnography, which involve active participation of the observer in the daily routines of the setting) have been met.³⁰⁵ Not only could the researcher develop collegial relations with the people in the various settings (e.g., she was invited to join lunch breaks, birthday parties, and other social events), but in some instances she was asked to provide her advice on records-related issues as if she were a consultant. These circumstances enabled her to perceive the reality under investigation from the viewpoint of someone ‘inside’ the case study, in a situation similar to the ‘process of immersion’ required by ethnography. An Observation Guide had also been developed by the researcher again as an *aide-mémoire*.³⁰⁶

All interviews have been recorded by means of a digital device and following interviewees’ explicit authorizations. Field notes have been taken during both interviews and observations. The use of multiple sources of evidence and different data collecting

³⁰⁴ Ibid., 92-93.

³⁰⁵ See James P. Spradley, *Participant Observation* (London: Thomson Learning, Inc., 1980).

³⁰⁶ Copy of the Observation Guide is included in Appendix 6.

methods (also known as triangulation) contributed to enhance the validity and reliability of the findings, as already mentioned in the Introduction.

3.3.2 Data Analysis Methods

Following the recommendations of the literature with reference to case study research, ethnography, and grounded theory, in this research, interview transcripts and field notes were analyzed as close as possible to the time when the interviews and observations took place, in order to “create a sort of interplay between data collection and data analysis.”³⁰⁷ Any theme generated through this continuous and iterative process was then explored through further (focused) interviews, observations, and documentary analyses.

Identifying recurrent themes is what ethnographers usually do in order to get a better understanding of the general pattern of a culture. In that context, a “cultural theme” is defined as

“any principle recurrent in a number of domains, tacit or explicit, and serving as a relationship among subsystems of cultural meaning.”³⁰⁸

The present multi-case research has tried to adapt that idea within the limitations of a research design that is not meant to facilitate any sort of incursions in the ‘tacit’ knowledge of people. The researcher mainly looked for assertions that, once repeated by various individuals in different circumstances, could reveal some deep beliefs and help to draw an image of an organizational culture.

In parallel to ‘in the field’ note-taking, the researcher used to write extensive memos during and after each case study in order to fix any emerging themes or ideas. Memo writing took especially place throughout the transcription of the recordings.

³⁰⁷ Williamson, *Research Methods*, 118.

³⁰⁸ Spradley, *Participant Observation*, 141.

As an analytic strategy specific for case study research does not seem to exist,³⁰⁹ this researcher has been looking at many methods of fieldwork data analysis to find the one that would better meet her needs. Coding, as “the analytic process through which data are fractured, conceptualized, and integrated to form theory,”³¹⁰ is one of the most popular techniques and is especially used in grounded theory.³¹¹ In the initial coding phase, researchers look for what they can define and discover in the data; then, they look for leads, ideas, and issues in the data themselves. Categories and sub-categories are subsequently developed to label, sort, and organize the data. Current researchers who intend to use this technique are typically assisted by software for qualitative data analysis. This option was excluded not just because of the amount of data accumulated during the research, which did not justify the purchase of a specific software, but also because of this researcher’s preference for manual instead of automatic data manipulation. It is her conviction that, by reading through notes, memos, and transcripts many times and with different questions in mind, one triggers a learning process that is not comparable with the quick scanning allowed by a machine. Furthermore, the coding technique itself did not convince this researcher of its usefulness, and she preferred to adopt other, more flexible analytic techniques.

Eisenhardt identifies two main methods of analyzing data in multiple-case study research. The first consists in detailed case study write-ups for each site, in order to become intimately familiar with each case as a stand-alone entity. Coupled with this method, known as “within-case analysis,” is “cross-search for patterns,” which involves

³⁰⁹ “The analysis of case study evidence – writes Yin – is one of the least developed and most difficult aspects of doing case studies.” Yin, *Case Study Research*, 109.

³¹⁰ Anselm J. Strauss and J. Corbin, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 2nd ed. (Thousand Oaks: Sage Publication, 1998), 3.

³¹¹ See Barney G. Glaser and Anselm L. Strauss, *The Discovery of Grounded Theory: Strategies of Qualitative Research* (New York: Aldine de Gruyter, 1967).

examining the data across all cases in many divergent ways (e.g., by comparing selected dimensions, looking for differences and similarities between pairs of cases, dividing the data by data source).³¹² The latter method seemed to this author the most appropriate, considering that, after the initial rounds of readings, the findings of each of the four case studies appeared to align along a rather similar structure.

Thus, the analytic strategy adopted by this research consisted in the following steps. First, each individual case study was treated as a separate study. The researcher looked for themes and any other element useful to get as rich a picture as possible of the situation under examination, at the same time drawing on ethnographic methods and on the type of multi-perspective analysis suggested by Soft Systems Methodology. Through a coordinated analysis of interview transcripts, field notes, and memos for each case, issues or categories that seemed particularly relevant (such as, purpose of classification, meaning of function, role of records management in the organization, etc.) were identified and data were grouped accordingly. Then, the cross-case analysis started. Common issues could be identified and the evidence derived from all four cases was categorized under them. This aggregation of cross-case data enabled differences and similarities among cases to emerge, and themes to be compared. The fact that some of the data could not be fit under any of the dimensions identified was also analyzed as a significant finding.

The idea at the core of “building theory from case studies” is that researchers constantly compare emerging concepts and data, iterating toward a theory which closely fits the data (that is, an empirically valid theory).³¹³ In order to strengthen internal

³¹² Eisenhardt, “Building Theories from Case Study Research,” 540.

³¹³ Ibid.

validity, Yin suggests “pattern matching,” which consists in comparing empirically-based patterns with predicted ones.³¹⁴ Wider external validity and higher conceptual level can be obtained, according to Eisenhardt, by further comparing emerging concepts, theories, and hypotheses with the extant literature.³¹⁵ Both analytic techniques have been followed in this research.

All authors sharing a concern in the ‘analytic generalizability’ of case study findings agree with Eisenhardt’s conclusions:

“the final product of building theory from case studies may be concepts, a conceptual framework, or propositions or possibly mid-range theory.”³¹⁶

It is with these objectives in mind that this researcher carried out her analytic strategy, being at the same time aware that any outcome of an interpretivist research is necessarily going to be the researcher’s interpretation of the informants’ interpretations of their reality.³¹⁷ The consequences of this position of the researcher as an observer with her/his own biases, research interests, and background have been analyzed in the Introduction.

What should be here further specified is that the method of analysis chosen has also influenced the reporting method. Instead of presenting “multiple narratives ... about each of the cases singly,”³¹⁸ which is one of the possible options in multiple-case research designs, this researcher decided to be consistent with the cross-case analysis of the data. Thus, each section of the analysis of the findings chapter is devoted to a separate cross-case issue or category, and the information from the individual cases is dispersed throughout each section. In this way, the reader is prompted to focus on the most

³¹⁴ Yin, *Case Study Research*, 116-19.

³¹⁵ Eisenhardt, “Building Theories from Case Study Research,” 544.

³¹⁶ *Ibid.*, 545. See also Yin, *Case Study Research*, 32; and Walsham, “Interpretive Case Studies in IS Research,” 79.

³¹⁷ See Shankar, “Recordkeeping in the Production of Scientific Knowledge,” 373.

³¹⁸ Yin, *Case Study Research*, 147.

relevant findings. Additionally, this reporting technique enables the comparative approach of this research to become a prominent aspect of the whole dissertation, instead of being relegated to a final chapter following disconnected individual case study reports.

3.4 Ethical Issues

This research complies with the UBC Behavioural Research Ethics Board (BREB)'s requirements.³¹⁹ They involve several areas of concern with reference to research dealing with human subjects, including a rather detailed consent process, and issues related to confidentiality and anonymity of the data.³²⁰ Given the fact that the present research consists basically of two parts and that each part presupposes a different type of involvement of research subjects, the researcher made two separate applications to UBC-BREB, one for the survey and one for the case study research.

All the organizations invited to fill out the online questionnaire were informed about the background of the whole research and the researcher, the objectives and procedures of the survey, as well as the use that would be made of any collected data. The researcher was aware that her affiliation with the ECB, which holds a position of authority over a consistent part of the study population (specifically, all of the central banks belonging to the ESCB, with a greater impact on those that have joined the euro area, also known as 'Eurosystem'), might have been perceived as a factor of coercion. Thus, she used all means to assure the approached subjects that the ECB had absolutely no involvement in the study and that any information resulting from the survey would be kept strictly confidential.

³¹⁹ Copies of the UBC-BREB's Certificates of Approval are included in Appendices 7, 8, and 9.

³²⁰ For more information, see the UBC-BREB's *Guidance Notes for the Application for Behavioural Ethical Review*, available online at <http://www.ors.ubc.ca/ethics/behavioural/b-forms.htm> (accessed on 05/05/2007).

All subjects invited to participate in the case study research were provided with information on the background and purposes of this part of the research project through both the covering letter and the Consent Form attached to the email of initial contact. The Consent Form, in particular, contained a detailed account of the methods and procedures involved in the proposed study, as well as statements guaranteeing confidentiality and anonymity of the data throughout the research and in any published report of the findings. Before each of the interviews and observations, subjects were invited to take note of, and to agree with the Consent Form contents. They were also asked whether, in each specific instance, they would allow the researcher to record what was being said by means of a digital device.

As it is well known, banks are, for obvious reasons, quite disinclined to allow access to their premises, employees, and documentation. Therefore, besides mentioning the usual confidentiality precautions, this researcher took care of specifying that she had no interest in the actual content of any of the documents she would come across during her field study, as her focus was on how information is processed and structured, how individuals interact with classification systems, and other similar matters. In fact, in light of the special relationship existing between the ECB and the central banks located in Europe, the latter were willing to accept as valid the ‘agreement of non-disclosure of confidential information’ that this researcher is requested to sign yearly in her organization. It was later ascertained that such privileges would not work in North America, where this researcher would have to undergo the security clearance necessary for accessing Governmental offices and other bank-specific procedures.

This researcher fulfilled the anonymity requirement set for this research by ensuring that the subjects interviewed or observed during the study, as well as the offices,

units and departments visited, and the participating case study sites themselves would all be mentioned in non-identifiable form. To this end, each subject was attributed a number, each central bank a letter, and the names of organizational areas were made generic so that it would not be possible to identify them univocally. However, considering the relevance of organizational cultures to this study, and the relationship that, following Hofstede, they would entertain with national cultures, to achieve meaningful outcomes, a reference to, at least, the geographic area where participating organizations are located had to be made. As central banks are institutions which have the characteristic of being unique in each country, being more specific than this would not have been possible.

3.5 Summary

The two parts that make up the design for this research, i.e., a quantitative online survey and a qualitative multiple-case study, may be seen as sequential stages of the overall research here expounded. Individual case studies build on the outcome of the survey, not only with reference to their selection, but also because the insights gained through the analysis of the answers to the questionnaire in every respect became one of the sources of evidence used in the case studies, together with any relevant documentation, interviews and observations. Data collection and data analysis in interpretivist research designs are indeed an iterative process, with the various elements influencing each other.

The analytic strategy of this research has been defined as ‘cross-case analysis’ in that it focuses on discovering regularities or patterns, as well as divergences, not within single case study data, but across all cases. This study may be said to be an adaptation of the grounded theory approach, although without relying on coding techniques in order to

account for the insights that might emerge from multiple readings of the whole text of an interview.

The nature of the class of organizations selected for this study implies a special attention on the part of the researcher to issues related to confidentiality and anonymity of the data. Stronger validation or falsification of Hofstede's ideas about the consequences of national cultures might have been obtained by revealing the names of the participating countries (or the central banks, as either would have sorted the same effect). However, testing Hofstede's assumptions was not among the purposes of this study. This could actually be one interesting idea for future research.

4. STUDY SETTING CHARACTERIZATION

4.1 Overview

In order to characterize the class of organizations chosen for this study, the present chapter describes goals, functions, and *raison d'être* of central banks, starting from their origins in the 17th century up to the most recent views of modern central banking. Special attention will be dedicated to the changes that have occurred in the global central banks' landscape following the establishment of the European Central Bank (ECB), as a significant portion of the sample of the overall population selected for this study (i.e., the central banks of the Member States of the European Union) is directly affected by such changes. In this context, the concepts of accountability and transparency will be analyzed with reference to an ongoing debate on central bank independence that has recently become particularly inflamed and that seems to split the world of economy into two parts.

4.2 Goals and Functions of a Central Bank

Central banks have not always been the type of public institutions devoted to the preservation of a country's banking and monetary system to which we have become accustomed. The second part of this section will show that, when the first central banks were founded (the first one being the Swedish Riksbank in 1668), they were actually not intended to perform the functions of a modern central bank. An introduction to what these functions are today will thus precede a brief historical excursus, in order to facilitate any comparisons.

4.2.1 The Principles of Modern Central Banking

Commercial banks and central banks are the two principal types of banks in the modern industrial world. While the former are typically private-sector firms, and accept deposits from, and make loans to individuals and businesses, the latter deal mainly with their sponsoring national governments and other institutions, and in particular maintain accounts for, and extend credit to, commercial banks. So they neither do business with the general public nor are they profit-oriented banks, their main function being that of regulating the size of a nation's money supply, the availability and cost of credit, and the activities of commercial banks.

Central banks can do so because they traditionally have the exclusive right to issue paper currency in a nation (or community of nations, like in the case of the ECB). This monopoly endows central banks with significant market influence as well as a certain revenue stream, also known as 'seigniorage'.³²¹ By altering their money stock, central banks have an effect on rates of spending and inflation, thus determining the health of the whole economy of a nation. The power they exercise on the banking and the financial systems is especially evident if one thinks that they can influence the fate of individual banks, or the banking industry of a country as a whole, by granting or refusing assistance in their role as 'lenders of last resort'.³²²

³²¹ See "bank" in *Encyclopaedia Britannica* (2008). Encyclopaedia Britannica Online: <http://search.eb.com/eb/article-273049> (accessed on 12/11/2008).

³²² The role of central banks as 'lenders of last resort' was first outlined by British economist Walter Bagehot. In his book *Lombard Street* (1873), he emphasized that such banks, thanks to their currency monopoly, have critical responsibilities during episodes of financial crises, and suggested that, in the interests of the economy as a whole, they should keep open lines of credit to other solvent but temporarily illiquid banks. Bagehot's idea became one of the principles of modern central banking, so that still today, central banks offer financial assistance to individual banking firms in order to prevent them from failing but also to prevent a general loss of confidence in the public at large, as the latter could trigger widespread runs on a country's banks. Ibid.

Although authority, autonomy, functions, and operating modes may vary (as will later be discussed), everywhere modern central banks share the following basic objectives: to promote economic stability and growth, by preventing wide fluctuations in price levels, interest rates, and exchange rates, as well as by maintaining monetary and credit conditions conducive to a high level of employment and production; and to defend the international value of the currency. In short, central banks are operated for the public welfare. Typical functions include: acting as fiscal agent of the government, supervising the operations of commercial banks, clearing checks, ensuring the smooth operating of payments systems, and participating in international currency arrangements designed to help stabilize or regulate the foreign-exchange mechanism of participating countries.³²³

Central banks can control national money stocks in various ways (e.g., by limiting their issues of paper currency); however, monetary control is mainly achieved by altering available supplies of bank reserves. For instance, when a central bank purchases government securities, foreign exchange, or other assets in open-market operations, it increases banking system reserves. Open-market asset sales have the opposite effect. Two other important instruments of monetary control are changes in mandated bank reserve requirements (i.e., minimum legal ratios of bank cash reserves to deposits of various kinds) and changes in the discount rate (i.e., the interest rate that a central bank charges on loans made to commercial banks). In order to perform efficiently these functions, central banks must permanently monitor and analyze what goes on in the money and financial markets of countries all over the world. This is why, besides economists, bankers, and finance experts, they usually employ statisticians, market

³²³ See “central bank” in *Encyclopaedia Britannica* (2008). Encyclopaedia Britannica Online: <http://search.eb.com/eb/article-9022076> (accessed on 12/11/2008).

analysts, researchers, and increasingly academics with expertise in global monetary economics and finance.

Another element that characterizes central banks is their need to embrace monetary targets and financial strategies which have a longer time-horizon than those that might derive from the often self-interested, short-sighted views of politicians. This is one of the arguments used by those commentators who favour a higher level of independence of central banks from their governments. The opposite argument stresses the fact that central bankers, who are usually seen as disinterested technicians, have actually to forge and maintain a widely-based political consensus for the main thrust of their policies. Thus, by becoming independent, central banks would need to justify their actions to a much greater extent, and this would eventually entail a less independent status.³²⁴ However, the current trend (which in Europe, is reflected in the politics of the European Union) seems to be that central banks should avoid as much as possible to be influenced in their operations by their national governments. In any case, the level of “instrumental independence”³²⁵ achieved by most central banks today is already enormous in comparison to that enjoyed by the same institutions from the beginning of their existence until recently.

³²⁴ The pros and cons of central bank independence here mentioned are discussed by Goodhart, a convinced opponent of that idea. See C.A.E. Goodhart, “Central Bank Independence (1994)” in Goodhart, *The Central Bank and the Financial System* (Houndmills, Hampshire and London: Macmillan Press Ltd., 1995): 60-71. See also, Jan Kleineman, ed., *Central Bank Independence. The Economic Foundations, the Constitutional Implications and Democratic Accountability* (The Hague: Kluwer Law International, 2001).

³²⁵ In the discussion about central bank independence, an important distinction has been drawn between “goal” and “instrumental independence.” The former, described as “the ability of the central bank to set its own goals for monetary policy,” should be avoided if the central bank is to be accountable. Any institutional commitments, such as the one to price stability, should rather come from an explicit, legislated mandate that the government (or, in the case of the ECB, the Treaty of Maastricht) would provide the central bank with. How to pursue price stability as its overriding, long-run goal should be up to the central bank to decide. Where this is the case, commentators talk about “instrumental independence” as “the ability of the central bank to independently set the instruments of monetary policy to achieve [its] goals.” See Frederic S. Mishkin, “What Should Central Banks Do?” *Federal Reserve Bank of St. Louis* (November/December 2000), 5.

4.2.2 Overview of Central Banks' History

The first central banks (i.e., Swedish Riksbank, Bank of England, and Banque de France, all founded between the second half of the 17th and the beginning of the 18th century) were actually the king's banks, being established by the government of the day as the main commercial banks in the country.³²⁶ Thus, besides a normal profit motive, these banks had special privileges derived from their original Charters, which made them different from the other commercial banks. The most relevant of such privileges was the monopoly of the note issue in certain areas. Naturally, the government wanted something in return for that. Not only were large amounts of the initial capitals of both the Bank of England and the Banque de France invested in government bonds, but, especially during war times, when it is typical for a country to experience financial difficulties, the central bank was expected to make additional loans to the government.

Given their favourable position, the central government banks were able to limit and prevent competition from other privately owned commercial banks. It has been argued that a system of "free banking" (free in the sense of not being constrained by the existence of a specially chartered bank) would have been advantageous to the development of affected countries.³²⁷ During the 19th century, most of the smaller, provincial banks came to hold their own reserves in the form of deposits with the stronger central banks. This phenomenon, known as 'reserve centralization,' contributed to enlarge further the power of the central banks to the point that, over a period of time,

³²⁶ The Bank of Sweden, that was initially founded as a private institution, in 1668, passed under the authority and supervision of the Swedish Parliament, so it was actually independent from the Crown. See Goodhart, "What do Central Banks Do? (1989)" in Goodhart, *The Central Bank and the Financial System*, 206.

³²⁷ See Vera C. Smith, *The Rationale of Central Banking* (Westminster: P.S. King and Son Ltd., 1936). Reprinted as *The Rationale of Central Banking and the Free Banking Alternative* (Indianapolis, IN: Liberty Press, 1990).

they had acquired the primary responsibility for the maintenance of the 'Gold Standard' (i.e., the commitment to the continued convertibility of all banknotes and deposits from the whole banking system of a country into gold).

The twofold conflict of interests (between the profit-oriented motivation of the central bank and its responsibility for managing the banking system on behalf of the national welfare; and between the commercial activity of the central bank and its authority over the other commercial banks with which it was competing) was eliminated in the second half of the 19th century, when central banks became non-commercial, thus turning into true central banks. From using their privileges to compete with the other banks, now central banks started using their power to strengthen the financial system (by operating as 'lenders of last resort') and to increase the ability of that system to facilitate industrial growth.

What did not change was the difficult relationship of central banks with the government, as they were still supposed to provide it with financial support, although this would conflict with their macro-economic objectives. During and after the two World Wars, various central banks were pushed by their governments to abandon the convertibility commitment and to vary the external exchange rate in order to achieve an internal balance between real demand and supply. The goal to defeat unemployment had the effect to relegate monetary policy to the role of a secondary function, while fiscal policy rose as the main instrument of 'demand management,' a strategy that in the long-run would have provoked high levels of inflation in many countries in Europe and North America. Only in the early 1980s were central banks allowed to re-focus on establishing monetary targets and long-term programs with the purpose of decreasing monetary

growth. Monetary policy, with the medium-term goal to attain internal price stability, thus became the first priority of most central banks.

However, due to various financial crises that followed at short distances between the end of the 1980s and the 1990s, economic analysts came to the conclusion that more flexibility and greater central bank intervention in markets was necessary. At present, the prime objective for which central banks adjust short-term interest rates remains the control and limitation of inflation. However, thanks to their ‘instrumental independence,’ they may do so in different ways. Basically, the two main trends in central banking strategies today may be distinguished as follows: on the one side, most of the Anglo-Saxon or Anglo-American countries follow a logic of “direct inflation targeting,” which consists in stating explicit short-term objectives and the means put forward to achieve them; on the other side, the countries of the euro area have endorsed a “stability pact,” which involves maintaining an inflation rate between 0 and 3 percent as their long-run goal. This means that, within the 16 countries of the European Union that currently participate in the so-called Eurosystem, the maintenance of price stability must always be given priority over any other objectives (including financing government expenditures, combating unemployment, and regulating interest rates). This, in the short-run, might create some rigidity in comparison to the more flexible approach adopted, for instance, by the Federal Reserve Board.

4.3 The European System of Central Banks (ESCB)

The idea of establishing an economic and monetary union in Europe goes back more than half a century. It was a vision of the political leaders who, in the 1950s, founded the European Economic Community (EEC), which consisted of six countries (Belgium,

France, Germany, Italy, Luxembourg, and the Netherlands). This network of relationships strengthened over the years and more countries joined the EEC which, in the 1990s, became the European Union (EU) and now includes 27 Member States. Since the 1980s, a single market was established to facilitate trades among Member States; however, it was soon understood that the full benefits of a single market could only be reaped with the introduction of a single currency. The European Monetary Institute (EMI) was then created to prepare technically the way to the monetary union, and in June 1998 its competences were transferred to the European Central Bank (ECB) as a supranational, central authority responsible for the definition and implementation of the monetary policy for the new single currency, the euro.

Countries wishing to adopt the euro as their currency must fulfill several ‘convergence criteria’ and other requirements designed to ensure that only countries with stability-oriented economic policies and a track record in price stability are admitted to participate in the euro area.³²⁸ From January 1, 1999 until present, 16 Member States have joined the so-called Eurosystem.³²⁹ By submitting their national central banks to the

³²⁸ The convergence criteria have been established with the Treaty of Maastricht (signed in 1992), which includes, as an annexed Protocol, the *Statute of the European System of Central Banks and of the European Central Bank* (ESCB Statute). See C.C.A. Van den Berg, “The Making of the Statute of the European System of Central Banks. An Application of Checks and Balances” (PhD thesis – University of Amsterdam, 2004).

³²⁹ The 11 Member States that in 1999 replaced their national currencies with the euro (although euro banknotes and coins entered in circulation only in 2002) were: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. Greece joined this first group in 2001, Slovenia in 2007, Cyprus and Malta in 2008. On January 1, 2009, Slovakia became the 16th participant in the Eurosystem. Two countries, namely Denmark and the United Kingdom, have decided to ‘opt out’ (i.e., have notified the EU Council that, for the time being, they do not intend to join the euro area) and are thus called ‘Member States with a special status.’ All other EU Member States which are not yet fully compliant with the Maastricht requirements (i.e., Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, and Sweden) are ‘Member States with a derogation’ (or ‘pre-ins’), which means that they are exempted from some, but not all, of the provisions that normally apply to the countries which are fully integrated in the euro area economy. The national central banks of all EU Member States, independently of their status (i.e., whether they are ‘ins’, ‘pre-ins’, or ‘outs’) are, together with the ECB, part of the ESCB. See Chiara Zilioli and Martin Selmayr, *The Law of the European Central Bank* (Oxford and Portland, Oregon: Hart Publishing, 2001).

governance of the ECB, these countries have implicitly limited their sovereign rights in the field of monetary policy, a field that, in the euro area, has been – some commentators say – ‘denationalized’ and ‘depoliticized.’³³⁰ The first adjective refers to the transfer of national competences to a supranational level, while the second is a possible interpretation of the new degree of central bank independence that all the 28 entities that are part of the ESCB (i.e., the national central banks of the 27 EU Member States and the ECB) are committed to achieve. Article 107 of the Treaty of Maastricht (corresponding to Article 7 of the ESCB Statute) states:

“... when exercising the powers and carrying out the tasks and duties conferred upon them by this Treaty and this Statute, neither the ECB, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body. The Community institutions and bodies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the ECB or of the national central banks in the performance of their tasks.”³³¹

The next two sections will examine the consequences for the national central banks of the centralization of some of their functions in the hands of the ECB and the terms of the

³³⁰ Zilioli and Selmayr, *The Law of the European Central Bank*, 13, 34.

³³¹ This article has been renumbered as Article 108 in the Treaty of Amsterdam. See “Treaty of the European Union,” *Official Journal of the European Union* C 191 (29 July 1992). It should be noted that the ECB is not (yet) a ‘Community institution.’ There are currently five EU institutions which govern the Community, i.e., the European Parliament, the Council of the European Union, the European Commission, the Court of Justice of the European Communities, and the European Court of Auditors. Being independent means in this case that, although all Community institutions and bodies operate on a common legal basis, the ECB is not subject to any of the regulations in matter of internal organization that affect all the above mentioned institutions. As a consequence, not only has the ECB its own archives, but it also enjoys a certain freedom in establishing its own rules with reference to the administration of its records and archives. With reference, for instance, to public access to records which are less than 30 years old, the ECB has issued “Decision No. ECB/2004/3 of the European Central Bank of 4 March 2004 on Public Access to European Central Bank Documents,” *Official Journal of the European Union* L 80/42 (18 March 2004), which is in line with “Regulation No. 1049/2001 of the European Parliament and of the Council of 30 May 2001 regarding Public Access to European Parliament, Council and Commission Documents,” *Official Journal of the European Union* L 145/43 (31 May 2001), though, in theory, it could have been different.

debate on central bank independence, whose relevance goes beyond the boundaries of the ESCB.

4.3.1 The Relationship between the ECB and the National Central Banks

The question of the role of the national central banks after the establishment of the ECB is still under debate and has found several, divergent answers. Between those who say that the national central banks have now become ‘superfluous,’ and those who consider the ECB the ‘daughter’ of the national central banks, which would use it as a mere coordinating secretariat, there are various centralistic, de-centralistic, and federalist views of the organizational structure of the ESCB, each emphasizing different aspects of a relationship that is probably still in search of proper connotations.³³² What one may deduce from an analysis of the ESCB Statute is that, within the sphere of competences attributed to the ESCB, the national central banks are indeed legally subordinated to the ECB. The decision-making bodies of the ECB (i.e., its Executive Board, Governing Council, and General Council)³³³ are solely responsible for taking monetary policy decisions and for determining how to implement them. Some authors argue that such “decisional centralism” would have deprived the national central banks of the very essence of central banking.³³⁴ In any case, it has definitely altered their portfolio of competences as well as their freedom in carrying out those competences.

³³² See Zilioli and Selmayr, *The Law of the European Central Bank*, 54-82.

³³³ The members of the ECB’s Executive Board are its President and six of the governors of the national central banks that have joined the Eurosystem. The same people, together with all other governors of the ‘ins’ countries, make up the Governing Council. The General Council extends the Governing Council composition to the governors of those EU countries that have not yet adopted the euro as their currency. See European Central Bank, *The European Central Bank. The Eurosystem. The European System of Central Banks* (Luxembourg: Imprimerie Centrale s.a., 2008).

³³⁴ Zilioli and Selmayr, *The Law of the European Central Bank*, 67.

The implementation of the ECB decisions may be carried out either directly by the ECB or, as it is mostly the case, indirectly through delegating relevant tasks to the national central banks. As this has an impact on the functions and activities of a substantial portion of this study population, the matters for which the ECB has, at the moment, opted for an indirect form of implementation are here listed:

- monetary policy operations (which means that all open-market operations of the ECB are conducted through the national central banks);
- implementation of the ECB minimum reserve requirements;
- operating of payments systems;
- production of euro banknotes, in accordance with technical specifications decided in detail by the ECB;
- making of statistics, through reporting agents established in each national central bank; and
- monitoring of the application of the ECB laws intended to produce external legal effects (i.e., ECB regulations, decisions, recommendations, and opinions) in any relevant countries.

The ECB adopts legal instruments (namely, guidelines and instructions) with the purpose of ensuring a uniform and efficient implementation of monetary policy decisions throughout the Member States participating in the single currency. Thus, according to this interpretation of the Statute, the national central banks act as “the operating arms of the ECB.”³³⁵

³³⁵ Zilioli and Selmayr, *The Law of the European Central Bank*, 12. To be precise, considering the different degrees of integration existing between ‘ins,’ ‘pre-ins,’ and ‘outs,’ only the national central banks of those countries that have adopted the euro as their currency may be seen as “agents of the ECB.” Both the Member States with a derogation (‘pre-ins’) and those with a special status (‘outs’) retain their powers in

In some other authors' opinion, despite their integration into the ESCB, national central banks remain primarily national authorities which still exercise national competences. This is certainly true with reference to those functions that are not mentioned in the ESCB Statute, although the latter appears to be rather comprehensive.³³⁶ Additionally, considering the provisions of Article 107 mentioned above, which limits considerably the influence of the governments of the Member States on their central banks, one may conclude that the political and the economic authorities in each EU country are indeed "functionally disconnected" and the national central banks are much more dependent on the ECB than they are on their respective governments.³³⁷

4.3.3 Accountability and Transparency of the 'Independent Central Bank'

"One potential objection to a completely independent central bank is lack of democratic accountability."³³⁸ This observation is at the centre of a debate that, since the promulgation of the Treaty of Maastricht and annexed ESCB Statute, has enflamed the political and economic arena, and not just within Europe. As seen earlier, one of the requirements that central banks have to fulfill in order to be eligible to join the

the field of monetary policy according to their national laws. However, they still have to observe the framework set by the ECB, which implies that they must treat their exchange rate policy towards the euro as a "matter of common interest" and must pursue their monetary policy in accord with the primary objective of price stability. *Ibid.*, 174-79.

³³⁶ Actually, the only function outside the scope of the ESCB Statute seems to be prudential supervision (i.e., the monitoring of commercial banks activities), where the ECB has a mere advisory role. It should however be mentioned that, as a consequence of the series of financial crises that have been hitting the European and North American banking systems in 2008-09, the hypothesis to allocate centrally this function as well is under discussion.

³³⁷ Zilioli and Selmayr, *The Law of the European Central Bank*, 77. For instance, with regard to international relations, the national central banks may continue to participate in international meetings and fora as well as to maintain work relationships with international organizations, such as the World Bank and the Bank for International Settlements. However, it is the ECB that decides where and how such participations should take place, and the decision of external representation of the ESCB is also made centrally by the ECB Governing Council. Only the central banks that do not yet participate in the single currency have more freedom in that.

³³⁸ Jakob De Haan and Sylvester C.W. Eijffinger, "The Democratic Accountability of the European Central Bank: A Comment on Two Fairy-Tales," *Journal of Common Market Studies* 38, 3 (September 2000), 394.

Eurosystem is to be organizationally, financially, and politically independent from their governments. This “unprecedented degree of statutory independence”³³⁹ might be conducive to some ‘democratic deficit’ as it would conceal the central bankers’ acts from public scrutiny.

“The traditional meaning of that word [accountability] is, of course, that those giving the account are under the ultimate control of those to whom they are accountable ... Such control is the antithesis of independence.”³⁴⁰

This seems to be the opinion shared by most Anglo-Saxon commentators, who obviously do not consider appropriate that Article 107 has *de facto* eliminated the override mechanism that used to allow Member States’ governments to influence central bank behaviour as they could be held responsible for such behaviour in front of their national parliaments.³⁴¹

Other authors, mainly coming from continental Europe, have argued that, on the contrary, “accountability is the reverse side of the coin of central bank independence.”³⁴² Where the objectives of monetary policy are clearly specified, measurable, and given (i.e., they are not self-settled as, in a democratic society, central banks should never be goal independent), and where not only final policy decisions but also explanations of the reasoning behind them are provided to the public, a central bank may be said to be

³³⁹ James Forder, “Interests and ‘Independence’: The European Central Bank and the Theory of Bureaucracy,” *International Review of Applied Economics* 16, 1 (2002), 51.

³⁴⁰ *Ibid.*, 55.

³⁴¹ With reference to the ECB, this relationship would be directly with the European Parliament, which should have the opportunity to review the performance of the ECB with regard to monetary policy on a regular basis. For the time being, the only obligation that the ECB has towards the Parliament relates to the presentation of the annual report of its activities. British economist Buiter, who accused the ECB of pursuing a policy of non-transparency, writes:

“It is essential that the European Parliament act as an effective watchdog over the ECB. The legitimacy of the ECB will depend on the extent to which it is effectively accountable to the European Parliament.”

W.H. Buiter, “Alice in Euroland,” *Journal of Common Market Studies* 37, 2 (May 1999), 200.

³⁴² Otmar Issing, “The Eurosystem: Transparent and Accountable or ‘Willelm in Euroland’,” *Journal of Common Market Studies* 37, 3 (September 1999), 509. At the time when he wrote this article as a rebuttal of Buiter’s accusations, Issing was one of the Executive Board members of the ECB.

accountable. Key channels of accountability would for instance be the statutory reporting requirements that the ESCB entities all meet through publishing their annual reports and monthly bulletins.³⁴³ Since the “actual internal policy process” is not less relevant than the outcome of such a process, all commentators seem to agree that central banks need to improve the ways in which they communicate with the outside world.

“The very purpose of a monetary policy strategy is to provide a *clear and coherent framework to structure information* and the decision-making process internally and to explain monetary policy decisions externally. Transparency extends beyond mere openness, but requires a degree of clarity that in fact enhances the public’s understanding of monetary policy.”³⁴⁴

It is a global phenomenon that central banks are striving to become more understandable and transparent. There was a time when Alan Greenspan, governor of the Federal Reserve, would declare

“Since I’ve become a central banker, I’ve learned to mumble with great incoherence. If I seem unduly clear to you, you must have misunderstood what I said.”³⁴⁵

This time is apparently over, as demonstrated by various studies that, besides providing some indicators to better measure the qualitative concept of transparency, show that the

³⁴³ In its attempts to enhance transparency, the ECB has decided to publish its bulletins more frequently than required (i.e., monthly instead of every four or six months, as it is the case in most central banks), as well as to hold press conferences after each Governing Council meeting to explain publicly why certain decisions have been taken. No matter how effectively the ECB informs the public, the point is that it is not obliged to do so. See De Haan and Eijffinger, “The Democratic Accountability of the European Central Bank,” 339-400.

³⁴⁴ Issing, “The Eurosystem,” 517. Italic added for emphasis by this author. It will not pass unnoticed to an archivist that, though without mentioning the role of recordkeeping in supporting an organization’s accountability, the words of German economist Issing contain an implicit recognition of the importance of contextualizing information to make it meaningful to both internal and external users. In particular, the mention of a “clear and coherent framework to structure information” seems to refer to the classification instrument, which indeed serves purposes of transparency and knowability of both the outcomes and the processes of decision making, thus contributing to enhance a records creator’s accountability.

³⁴⁵ Alan Greenspan, as quoted in the Wall Street Journal, September 22, 1987. See Petra M. Geraats, “The Mystique of Central Bank Speak,” *International Journal of Central Banking* 3, 1 (March 2007), 37.

central banks' public communication of monetary policy has, in the last few years, generally improved.³⁴⁶

The economic consequences of greater transparency of monetary policy have also been investigated. Findings seem to confirm that, as once pointed out by the Bank of England's chief economist Vickers,

“there is surely information relevant for policy-making that is simply incapable of being put in the public domain. ... optimal monetary policy cannot be absolutely transparent, nor totally boring [i.e., predictable].”³⁴⁷

Thus, transparency is not always beneficial and there may sometimes be sound reasons for a central bank not to reveal everything. Some ambiguity, especially with regard to its tactics in the short run (e.g., foreign exchange market interventions and open-market operations), may be necessary for a central bank to be effective. Central banks' long-term strategies should, on the contrary, be totally transparent to the financial markets.

In this respect too, there seems to be a difference in thinking about the preferred degree of transparency in central banking between the Anglo-Saxon and continental-European traditions. On the one hand, inflation-targeting banks, like the Bank of England and the Federal Reserve, are more inclined to be accountable and transparent, and run the risk of revealing some of their tactics. On the other hand, stability-oriented banks, like those that have joined the ESCB, are more reluctant to be accountable and transparent, with the danger that they may hide some of their strategies.³⁴⁸ This once again suggests that the trade-off of central bank independence and accountability would differ between

³⁴⁶ See Sylvester C.W. Eijffinger and Petra M. Geraats, “How Transparent are Central Banks?” *European Journal of Political Economy* 22 (2006): 1-21.

³⁴⁷ J. Vickers, “Inflation Targeting in Practice: The UK Experience,” *Speech at the Conference on Implementation of Price Stability, Frankfurt, 11-12 September 1998*. Reprinted in *Bank of England Quarterly Bulletin* 38, 4 (1998): 368-75. Cited in Issing, “The Eurosystem,” 507.

³⁴⁸ De Haan and Eijffinger, “The Democratic Accountability of the European Central Bank,” 406.

these two groups of countries. Taking this finding into account might be relevant to the purposes of this study.

4.4 Summary

After this overview of central banking concepts and features, the setting of this study may possibly look less homogeneous and unproblematic than one might be prone to think considering the classic image of central banks as static, conservative, and closed environments. We have seen that the functions of a central bank have evolved throughout the years and continue to change, sometimes involving radical turns. As Morgan's metaphor of organizations as organisms suggests, given the role they play in the society, central banks seem indeed to be one of those types of organizations that "need to be more organic than others,"³⁴⁹ in the sense that, for their actions to be effective and for their own survival, they have to be particularly capable of adapting to any changes happening in the external environment.

Central banks differ in their philosophies and operating modes also synchronically, as the distinction between Anglo-Saxon and continental-European understandings of central banking shows. Because this research design privileges differences over similarities as far as organizational cultures are concerned, having at least one representative of the Anglo-Saxon tradition among the cases to be analyzed will increase the possibilities to discover meaningful patterns and develop some explanations. The various statuses of the central banks belonging to the ESCB (i.e., 'ins,' 'pre-ins,' or 'outs') were not considered among the criteria for case study selection as this might have

³⁴⁹ Morgan, *Images of Organization*, 55. Morgan calls "amoeba organizations" those "organizations ... [that are] able to sense and scan changes in the environment, to bridge and manage critical boundaries interdependencies, and to develop appropriate strategic responses" (Ibid., 74).

jeopardized participants anonymity. Nevertheless, the fact that the European banks of this study are likely not to be a monolithic group, and that all of them did recently undergo some structural and functional changes (which were in some cases more dramatic than in others) makes the current moment ideal to study the emergence of new recordkeeping practices or the adaptation of old ones to the new situation.

Finally, the discussion on accountability and transparency, as interrelated attributes that even the most independent central banks appreciate as being extremely relevant to their credibility, revealed the various nuances these concepts may assume. It also provided a sense of the important role that recordkeeping seems to play (or better, should play) in organizations where the ‘structuring of information,’ the explanation of ‘how’ decisions were arrived at, appears to be valued more than the single, unrelated piece of information or the published decision itself.

5. SURVEY RESULTS AND CASE STUDY PRELIMINARIES

5.1 Overview

This chapter reports on the outcome of the survey questionnaire launched for the purpose of selecting the cases to be investigated. It also provides an account of the very initial phases of the multiple-case study research, including an analysis of the banks' reactions to the invitation to participate in the study and some notes on the arrangement of the researcher's visits to the banks that had accepted to become her study subjects. These preliminary analyses, together with the survey findings are meant to give the reader a first impression of the various approaches to records management and perceptions of organizational culture of the business environments investigated.

5.2 Analysis of Survey Results

Considering the reserved, secretive nature of the selected population, the response rate to the online survey can be considered satisfactory. Of 30 emails sent out, 14 completed questionnaires were returned (almost 50%).³⁵⁰

The online survey tool used to administer the questionnaire allows monitoring the status of the responses of each recipient in real time. When the survey was closed, two questionnaires were still showing a partially completed status, so they could not be included in the final sample. One of the recipients opted out of the survey from the very beginning due to the involvement of the organization in a project that would not have allowed records managers to take part in the proposed study. It may be interesting to note

³⁵⁰ The results of the online survey are presented in the form of aggregated data in Appendix 2.

that the quickest respondents were among the countries that have most recently joined the European Union, and whose central banks thus are ‘new entries’ in the ESCB.

5.2.1 Records Management-Related Questions

The most important question included in the survey was that related to the type of records classification system in use at the participating organizations (see Q2 in the table inserted later in this section). Statistically, function-based classification scored the highest percentage (i.e., 43%, corresponding to six respondents), thus confirming the popularity of that method and of the terminology used to describe it. An equal number of respondents (three) declared to be using either a classification based on the structure of the organization, or a ‘mixed’ type, that is, a classification system where none of the suggested methods (i.e., by function, by organizational structure, or by record type) is predominant. Only one respondent stated to have a subject-based classification system in place, while none chose the record type-based classification option. One respondent did not refer to any of the categories provided, and used the ‘other’ option to specify that their classification was “by records series as set out in records schedules”. As it was not mentioned whether records schedules and relevant records series had been identified according to processes, or rather record types, or any other pure or mixed methods, it was not possible to draw any conclusions as to the main criterion used for grouping the records.

Respondents were provided with brief descriptions of each classification type. However, given the inherent ambiguity of the terminology referring to functions, subjects, and structures, and the fact that the concept itself of classification may be subject to different interpretations – as shown by the literature review with reference to

both issues – one cannot say anything about the actual characteristics of the classification systems employed at the examined organizations. On the other hand, in the context of an interpretivist study, what really matters are the perceptions that the people using a tool have about its nature and functions.

The majority (60%) of the respondents declared that their classification system was more than 10 years old (see Q1). Nevertheless, the person or team responsible for its development, implementation, and/or revision was still employed at all responding organizations but one (see Q6). These results somehow counterbalanced each other. On the one hand, most classification systems seemed to be rather established, that is, no longer in that ‘dynamic phase’ in which users tend to challenge and eventually to modify the ‘official’ way of using them. According to Adaptive Structuration Theory, when systems get ‘institutionalized’, users are less reflexive in their appropriations, thus they might also be less keen on discussing the system features and procedures with an external observer. On the other hand, the presence of the system developer gave the researcher a good chance to meet at least one person who was supposed to have a specific interest in classification.

In 11 organizations out of 14, records were managed by means of an electronic records system (see Q4), and in most cases (8 out of 11), classification was embedded in the system (see Q5).

Almost all organizations, whether with or without an EDMS or EDRMS, appeared to have implemented records management as either a ‘semi-decentralized’ (which was the most popular option) or a ‘centralized’ function (see Q3). None of the respondents described the records management function in their respective organizations as being ‘decentralized’. Only one respondent, who stated that her/his organization had

no EDMS or EDRMS in place, chose the option that actually corresponds to an extreme form of decentralization, and that in the questionnaire was worded as follows: “Records management is not recognized as an autonomous function and every user is responsible for managing her/his own records”.³⁵¹

Records management, being an organizational, administrative practice, is – as already stressed – one of the components of the organizational culture of any work place, even where its role is underestimated or neglected. Therefore, the responses to the above mentioned question were coupled with those that had specifically been designed with the objective of finding out which organizational type or configuration each of the participating organizations would possibly belong to.

³⁵¹ Besides the option mentioned in the text, the other three alternatives presented in the questionnaire were described as such:

- 1) Records management is centralized (i.e., one department/unit is responsible for managing all records of the organization);
- 2) Records management is decentralized (i.e., each business area is responsible for managing its own records, and there is no central unit with coordinating and/or supervising responsibilities);
- 3) Records management is semi-decentralized (i.e., each business area is responsible for managing its own records, but there also is a central unit with coordinating and/or supervising responsibilities).

Actually, in legal terms, the concept of a ‘semi-decentralized’ function would properly be defined as ‘delegated’. The difference may be clarified by considering the following definitions, which certainly also apply to lower levels of authority relations:

“Decentralization [is] the transfer of authority and responsibility for public functions from the central government to subordinate or quasi-independent government organizations and/or the private sector”;

“Delegation consists of the transfer of the mere exercise of a competence from one body or organization to another. The distinctive features of the delegated competence are that it is exercised in the name and under the responsibility of the delegating body”.

Francisco Javier Priego and Fernando Conlledo, “The Role of the Decentralization Principle in the Legal Construction of the European System of Central Banks,” in European Central Bank, *Legal Aspects of the European System of Central Banks* (Frankfurt am Main: European Central Bank, 2005), 191-92.

This research has nevertheless used the term ‘semi-decentralized’ that, being part of the records management jargon, was assumed to be immediately understood by the survey recipients.

5.2.2 Organizational Culture-Related Questions

The two questions concerning issues directly related to organizational cultures and configurations, and placed at the end of the questionnaire were based on a Likert scale including three values: 'high', 'moderate, and 'low' (see Q7 and Q8). The dimensions being measured were those that Hofstede identified as best indicators of certain bureaucratic types, i.e., 'power distance' (PD) and 'uncertainty avoidance' (UA).³⁵² Unfortunately, the responses to these 'opinion questions' were not as meaningful as the researcher had expected. Interrogated on their views about the 'concentration of authority' (measured through the PD indicator) and the 'formalization', or 'bureaucratization' (based on the degree of UA) of their organizations, the vast majority of the respondents opted for the middle way, i.e., 'moderate' (71 and 79% respectively).

Interestingly, two of the few responses displaying 'high' with reference to either dimension correspond to organizations located in Latin-Mediterranean countries, as predicted by Hofstede's matrix, although 'full bureaucracies' should score 'high' in both values, which here is not the case. Additionally, in both of these countries, the records

³⁵² Both concepts were explained in these terms in the questionnaire:

Q7: PD measures the 'concentration of authority' in your organization; it answers the question of who decides what. PD is high in hierarchical organizations, where decisions are taken at one level and implemented at the next, and communication flows one-way only and top-down. Where also medium-level management is allowed to take decisions and authority relations are more flexible, PD is moderate. A low PD characterizes non-hierarchical or flat organizations where, below the highest managerial level, relationships among people are not strictly prescribed and communication flows in all directions.

Q8: UA measures the level of 'formalization' or 'structuring of activities' in your organization; it answers the question how one can assure that what should be done will be done. Bureaucratic organizations are characterized by high UA, i.e., work processes tend to be rigidly prescribed, either in formal rules or in traditions. Where work processes which are flexible coexist with more structured ones, UA is moderate. Organizations where bureaucratic procedures are reduced to the minimum, either because of a strong direct supervision over the work flow or due to some kind of mutual adjustment between the parts, are characterized by low UA.

Hofstede's analysis of both dimensions, as well as the matrix where the organizational types identified are matched with national cultures, are available in Hofstede, *Culture's Consequences*, 373-421.

management function was described as centralized, which is a characteristic in line with that type of bureaucracy.

The other three 'high' values show up in organizations belonging to countries that Hofstede had not included in his sample, i.e., Eastern European countries, formerly part of the Soviet block. One may infer that, as a heritage of their recent past, these countries' cultures might be characterized by something in between a 'full bureaucracy' and a 'personnel bureaucracy' (typical, the latter, of China and other Asian countries), which again would confirm Hofstede's assumptions.

Both responses displaying a 'low' value with reference to PD and UA respectively would again be consistent with Hofstede's matrix, the first corresponding to a country that is actually part of a group where the 'workflow bureaucracy' or 'well-oiled machine' would be the main organizational configuration, and the second related to the 'market model' of the Anglo-Saxon tradition.

It is difficult to say anything more than that from an analysis of responses which were not striking, and, on top of that, considering the researcher's ethical obligation not to identify participating organizations. However, if this survey had, among its goals, that of proving that there indeed exists a relationship between national cultures on the one hand, and organizational and recordkeeping cultures on the other, and that such a relationship has an impact on a number of other factors (including the interpretation of classification and the one of function), further questions, specifically designed for that purpose would have been added to the questionnaire. The 'moderate' reaction of the majority of the respondents to two questions that were not only rather dense, but that also touched upon issues of power, hierarchy, bureaucracy, and fear of the uncertain, is understandable. The deep psychological reasons for these responses could actually be the

subject of another study. It is time to remind the reader that every explanatory ambition of this research is situated within the more complex design of the case study research. The objective of the present exercise consisted in identifying those cases that represent an ideal combination between a given type of classification system and organizational cultures that should ideally be as much inhomogeneous as possible.

5.2.3 Looking for the ‘Ideal Combination’

Reassured by the (partial) validation of Hofstede’s assumptions through the few outstanding responses to her last questions, this researcher decided to redistribute her sample according to a combination of geographic areas and recognized political/cultural influences. Such broader areas would still be able to match Hofstede’s categorizations, and, furthermore, any of the countries included in each area would be assumed to share similar characteristics in terms of organizational culture. In this way, a meaningful discussion on the actual nature of such cultures was postponed to the moment of analysis of the case study findings. Areas were identified as follows:

1. North America (including those European countries representative of the Anglo-Saxon culture) – corresponding to Hofstede’s implicitly structured, or market model;
2. Northern Europe – as above, though kept separated from North America for the reason explained later;
3. Western/Central Europe – corresponding to Hofstede’s workflow bureaucracy, or well-oiled machine model;

4. Eastern/Central Europe – for the purposes of this study, considered as something in between the full and the personnel bureaucracy (or family model) as characterized by Hofstede; and
5. Southern Europe – corresponding to Hofstede’s full bureaucracy, or pyramid model.

Table 1 provides an overview of the questionnaire outcome where names of participating subjects have been erased and the order in which they are presented reflects that of the areas just identified (i.e., the first sector in the table, separated from the second by a thicker line, refers to subjects located in North America and Anglo-European countries; the second sector to subjects located in Northern European countries; and so on).

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1	10+	Mixed	Semi-decentralized	Y	Y	Y	Moderate	Moderate
2	10+	Rec. schedules	Semi-decentralized	Y	Y	Y	Moderate	Moderate
3	Rev.	Subject-based	Centralized	N	N/A	N	Moderate	Low
4	1-10	Function-based	Semi-decentralized	Y	Y	Y	Moderate	Moderate
5	10+	Mixed	Semi-decentralized	Y	N	---	Moderate	Moderate
6	1-10	Function-based	Semi-decentralized	Y	N	Y	Low	Moderate
7	Rev.	Org-based	Semi-decentralized	Y	N	Y	Moderate	Moderate
8	1-10	Function-based	Centralized	Y	Y	Y	High	Moderate
9	---	Mixed	Autonom. Function	N	N/A	Y	Moderate	Moderate
10	10+	Org-based	Semi-decentralized	N	N/A	Y	High	Moderate
11	---	Org-based	Semi-decentralized	Y	Y	Y	Moderate	High
12	---	Function-based	Centralized	Y	Y	Y	High	Moderate
13	10+	Function-based	Semi-decentralized	Y	Y	Y	Moderate	Moderate
14	10+	Function-based	Centralized	Y	Y	Y	Moderate	High

Table 1: Questionnaire outcome sorted out by geo-cultural/political areas

Given the purpose of the study, the type of classification system adopted in the organizations (Q2) was taken as key variable to determine which organizations would be suitable for selection. This researcher decided to consider only the function-based and mixed types, as it was assumed that the latter would likely contain some functional elements. Targeted organizations were therefore those that had stated to be using a functional or a mixed classification system *and* that belonged each to a different geo-cultural/political area. This combination was expected to reveal how the same phenomenon (records classification based, or partly based, on functions) was interpreted and enacted in contexts (central banks) that were similar abstractly (i.e., as to their mandate and functions) but that were assumed to be different with reference to the values and practices shared by the people making those contexts real.

5.3 Initial Reactions of Selected Organizations and their Consequences

It should now be mentioned that initially, the North American and Northern European areas were considered as one for two reasons, one theoretical and one practical. The theoretical reason is that both areas have been included by Hofstede into the same organizational type. From a more practical point of view, the present research intended to focus on four cases, so having four areas to choose from would have been ideal.

However, as it often happens when the ideal encounters the reality, the original plan had to be adjusted to the circumstances that unfolded when the organizations supposed to be best candidates were contacted.

Within the Eastern/Central European area, neither of the potentially selectable organizations replied to the individual letters inviting them to join the case study research

as a continuation of the survey they had enthusiastically embraced. The reader may recall that those were the organizations that first had returned the completed questionnaire. Splitting the Northern parts of the ‘old’ and the ‘new’ continent into two separate entities was the solution adopted by the researcher to overcome the inconvenience caused by the withdrawal of the East.

Fortunately, the only selectable respondent within the first sector of Table 1 had no hesitations. The invitation letter was accepted in a fortnight and the researcher’s visit to the selected bank with the purpose of carrying out her fieldwork was scheduled for a few weeks later. So this actually became her first case study. Thus, from now on, this central bank will be referred to as organization ‘A’. What is interesting about organization A is that, in the course of the negotiations preceding the researcher’s visit, it emerged that the mixed classification system that was indicated in the survey as the system currently in use was actually going to be replaced pretty soon by a ‘true’ functional one. In the words of one of the researcher’s counterparts in organization A:

“... we are kind of in a transition where we are not using a true function-based records classification system but are doing some things to move us in that direction.”³⁵³

As to the Northern European area (second sector in the table), the option that seemed to be more interesting by virtue of the function-based classification in place did not come back to the researcher when invited to be one of the cases for her study. The second option did not turn the researcher down – if it did, that would have been unfortunate, as only two possibilities were available in that area. Actually, after having exchanged a couple of emails with the researcher’s point of contact in the organization that will be

³⁵³ Email message from subject A2 on June 24, 2008.

hereafter called ‘B’, the case looked much more promising than it appeared from the survey results.

Based on the information about the research objectives contained in the Consent Form, the archivist who had filled out the questionnaire realized that s/he had misunderstood the meaning of classification as in her/his country, the same term is used in the context of archival description. Once clarified that the target of the proposed study was not the system for the ‘classification of archival records’ but rather the one used for classifying current records, a new set of answers to the questionnaire was put forward by the researcher’s counterpart. The new answers changed fundamentally the picture of the situation of records management in organization B. First of all, the records classification in use was not a ‘mixed’ type (that was actually the ‘archival classification’) but rather a function-based one. In this respect, it is relevant to report the point of contact’s actual words, as they reveal some perceptions about the system that will return in the course of the case study:

“Question 2: We have tried to set up a function based system, but I’m not sure that we have succeeded in that. The system doesn’t function anyway.”³⁵⁴

The response to question 1, relevant to the classification system’s age, changed from ‘more than 10 years’ (obviously referring to the archival system) to ‘2 years’. This was once again a change for the better, as it increased the chances for the researcher to be confronted with a still ‘malleable’ technology and with active, ‘reflexive’ users of it.³⁵⁵

The new answer to question 5 clarified that the classification was indeed embedded in the EDRMS. The archivist of organization B also wanted to specify that the latter was

³⁵⁴ Email message from subject B1 on July 10, 2008.

³⁵⁵ See Orlikowski, “The Duality of Technology,” 407-09.

actually an electronic document management system (EDMS), and that s/he was involved in the EDMS project team that, *inter alia*, has been tasked to develop the current classification system (so the answer to question 6 from ‘no’ became ‘yes’).

The misunderstanding here reported is the nth proof of the ambiguity of archival terminology. Nothing can be taken for granted, especially when the knowledge base of the parties involved in a communication act may be dissimilar. The researcher had indeed provided detailed explanations of the various classification types, but the “corporate records classification system” itself was just described once (in the invitation letter opening the questionnaire) and as “a means to identify and to organize the records made or received in the course of business.”³⁵⁶ A more extensive description would have served better the purposes of this study.

The third sector of Table 1 (Western/Center Europe area) involved two organizations, of which one was not suitable to be selected. Fortunately, the organization whose classification system was claimed to be function-based favoured immediately its participation in the suggested case study research. What should here be mentioned about the initial interactions with this organization (hereafter called ‘C’) is that, before this researcher had even started providing some more details about her intentions, she was already presented with a “tentative program”³⁵⁷ concerning her visit, a daily program highlighting timing, people’s names, and topics of each of the meetings that the point of contact considered appropriate for her to “attend” on the basis of the information included in the Consent Form.

³⁵⁶ See Appendix 1, 1.

³⁵⁷ Email message from subject C1 on June 16, 2008.

On the one hand, such a thoughtful offer facilitated – as it was meant to do – the organization of the case study, certainly to the hosting organization, but also to this researcher, in that the organizational roles of potential interviewees and the meeting topics seemed indeed to be both quite relevant to her research. The drawback (which was obviously not evident to the counterpart) was that a business-like program, such as the one suggested, might have imposed some rigidity and formalism to a study that aspired to be exactly the opposite. Not by chance, organization C would belong to the category defined as ‘workflow bureaucracy’, or ‘well-oiled machine model’ in Hofstede’s matrix, and which would involve a ‘low’ power distance (as confirmed by the response to question 7) and a ‘high’ uncertainty avoidance indicator, a characteristic not directly supported by the response to answer 8, but definitely proved by the formal, cautious attitude manifested from the very beginning of the research project.

The researcher decided to adapt to the style of the organization and willingly to follow the program provided, not only because she did not want to disappoint the organization but also because that was the methodologically correct approach. In interpretivist research designs, the leading role is supposed to stay with the subjects of the study and the researcher should aim at seeing the social reality under investigation through her/his subjects’ *Weltanschauung*.

Finally, with reference to the last sector of Table 1 corresponding to the South of Europe, the researcher had just too much to choose from, as all three potential cases equally claimed to be using a function-based classification system. In her evaluation process, she considered that the two organizations that had responded with a ‘high’ to either question 7 or 8 were supposed to show stronger evidence of the characteristics attributed to the ‘full bureaucracy’ type. Additionally, both had described their records

management regime as ‘centralized’, thus different from any other selectable case. The researcher contacted both organizations and the course of events decided that it had to be the one with an indication of ‘high’ degree placed on power distance (instead of the one where the ‘high’ value was on uncertainty avoidance) to become organization ‘D’. The point of contact for the alternative option regretted that, because the bank was involved in a complex project for the review of its whole records management program, they would not have been able to receive appropriately the researcher at their premises.

5.4 Summary

The first part of this research project, consisting in a survey of 30 central banks, besides meeting its instrumental purpose of facilitating the selection of the four most suitable cases to be further investigated in the second part of the project, offered a sketch of records management practices in a representative sample (almost 50%) of a population about which not much is known.³⁵⁸ Thus, with all the limitations of a quantitative study,

³⁵⁸ In Europe, the archives of central banks, private banks, national banks, and other financial institutions may become members of an association called European Association for Banking and Financial History e.V. (EABH) which was founded in 1990 with the objective of

“promoting dialogue between European bankers and financiers, academics and archivists, and providing a network for the exchange of ideas and experiences within the interrelated fields of banking and financial history.”

See the EABH web site at: <http://www.eabh.info/start1.html> (accessed on 02/02/2009).

The focus of the association is mainly on banks’ ‘archives’, also known as ‘historical archives’, thus entities understood as the physical and conceptual space where inactive records are kept to fulfill any secondary purposes. Thus, by participating in the meetings and workshops organized by the association and by browsing through the EABH publications, one may learn a great deal about the history of the European banking and financial system, as well as the history of the respective archives, however, any issues related to the management of the banks’ current records are basically neglected, although some of the archivists who take part in the association in fact are the records managers of their institution as well. Having said this, in 2006, the EABH distributed a questionnaire among its members (thus not only central banks) with the aim of collecting some quantitative data about the dimensions, activities, and priorities of their archival services, eventually “to build a profile of archives in banking and financial service.” What motivated the EABH to launch the survey was the unavailability of such basic information. In the words of the editors of the EABH publication reporting the findings of the questionnaire,

“... the EABH and its members have been somewhat shy about giving details of the practices and priorities of individual banks and financial institutions. Perhaps this is inevitable in an industry where confidentiality is always given special priority.”

this survey might be regarded as a complete study by itself. The criteria identified for selecting the case study sites turned out to be appropriate, although some adjustments to fit in with Hofstede's matrix had to be made. Due to circumstances beyond the researcher's control, such as the unavailability of potential subjects to participate in the second part of the project, the 'ideal combination' did not always materialize. Nevertheless, the researcher managed to have three of the four configurations identified by Hofstede represented in her sample. Additionally, follow-up communications with the chosen case study subjects clarified some issues and provided additional, qualitative, data which helped the interpretation of the questionnaire findings. Actually, some of these initial exchanges of information modified substantially the landscape that had emerged from the survey with reference to the type of classification applied by two of the contacted organizations. In the end, three out of four cases appeared to be using a function-base system and one was in the process of replacing the current mixed type with a fully functional one. In the light of these explanations, the four selected cases looked indeed like good 'laboratories', all potentially capable of generating interesting results.

Edwin Green and Francesca Pino, eds., *Banking and Financial Archives: Priorities for the Future* (Frankfurt am Main: Adelman for the European Association for Banking and Financial History e.V., 2007), 5. One may incidentally note that the response rate to the EABH questionnaire was exactly the same as the one of this survey (i.e., 47%).

6. COMPARATIVE ANALYSIS OF CASE STUDY FINDINGS

6.1 Overview

The present chapter is organized around the main common issues that have guided the cross-case analysis of the data collected throughout the multiple-case research conducted in the four selected organizations. Some issues, in particular those concerning the main lines of inquiry of this research project, may be considered as pre-determined, in that they were used to structure the interview and observation guides, which were in turn based on the hypotheses and research questions formulated at the beginning of the study. Others emerged during the fieldwork conducted *in situ*, at the case study sites. The findings of each case study are presented and commented, both individually and in a comparative way, following the order given to the identified issues, that is, from the more general ones, setting the framework in which each case was situated, to those that refer to the principal topics this research focuses on, i.e., records classification and function.

For each issue, narrower categories were identified when specific aspects of the issue analyzed needed to be highlighted. Both issues and relevant categories were grouped into two sections, corresponding to two broad topical areas (i.e., records management and archival framework, and classification and functions). The sequence of issues and categories does not follow the same pattern in either section; what is however similar is that both sections end with a part that summarizes the main findings, and

especially the common themes, that have emerged through the discussion of the issues involved in each section.

6.2 Records Management and Archival Framework

The findings grouped under this topical area refer to general issues and categories whose purpose is to give the reader a sense of the different environments in which each case study was situated. Although, due to ethical constraints, contextualization cannot be detailed enough to discuss particular legal framework components, organizational structures, roles and responsibilities, present and past arrangements of the records management and archival functions, including specific technological choices or references to national archival traditions, distinctive features of each organizational setting and culture under examination are expected to emerge from the characterizations provided.

The three parts in which this section is organized follow dissimilar approaches and pursue different objectives. The first part, by examining the role played by the records management and the archival function(s) in the organization, including the main concepts underlying the electronic document and/or records management system (EDMS or EDRMS) adopted or under development, as well as issues related to specific organizational cultures and regulatory environments, sets the scene for each individual case. With the twofold aim of exploring more in-depth some of the records management concepts and methods discussed in the first part and highlighting differences and similarities across cases, the second part involves a comparative analysis of records management operations, which prepares the ground for the examination of classification issues in the following section. Finally, the third part, while summarizing the main

findings of each case, discusses some of the patterns that have emerged and the themes characterizing all or some of the cases analyzed.

6.2.1 The Role of Recordkeeping within the Organization. A Case-By-Case Analysis

Perceptions of the value that an organization attaches to its records can be captured from various direct and indirect sources of evidence. Besides explicit statements about functions, conceptual paradigms, and strategies that the unit, or units,³⁵⁹ entrusted with recordkeeping responsibilities pursue, and besides any opinions expressed by both the providers and the users of records-related services, the location and furnishing of the offices where records managers and archivists sit, as well as their behaviour toward colleagues, may hint at the ranking of their professional role and the actual consideration of their function within the organization.

The way in which the records management function was organized and conceived in each single organization is, wherever possible, described separately from the characteristics of the archival function, on the one side, and the EDRMS project,³⁶⁰ on the other, within the same context. This distinction, which is reflected in specific categories identified within the analysis of each case, is just a matter of convenience, as in many realities the roles of those three entities are not so clearly separated. However, it has been introduced here not only because in some of the cases examined such a

³⁵⁹ The terms 'unit,' 'sub-unit,' 'service,' 'office,' 'department,' and 'business area' are used throughout this findings report as generic terms to make the specific organizational structures investigated (e.g., departments, divisions, sections, etc.) unidentifiable.

³⁶⁰ EDRMS project is the general name given to the team that, in each organization, was in charge with the design and/or implementation of the system for the management of the organization's electronic documents and/or records. It will be clarified in the course of the report the extent to which such a project was actually involved in the development of a system (rather than being just concerned with the purchase of a software) and whether the focus of the project was indeed documents and records or just one of the two objects.

tripartition did exist, but also because it enables the relationships among various, non-necessarily convergent, records philosophies to emerge.

As to the structure of this part, the reader will notice that the narrower categories specifying the components of the main issue (i.e., the areas mentioned above and an additional category concerning the legal and regulatory framework characterizing each organization) are, in some instances, named slightly differently in order to account for configurations that are case-specific.

i. Organization A

Records Management: Organization, Concepts, and Strategies

Beginning the series of her case studies with this organization was, to say the least, encouraging for this researcher. She neither had to look for the *locus* where the records management function resided nor to try to identify among all employees those in charge of managing the active records of every single office. A unit exclusively dedicated to the “management of the corporate records throughout their life cycle”³⁶¹ was there, clearly indicated in the organizational chart, well-known to everybody in the bank, its core part occupying almost a complete floor of a large, impressive building. The unit has existed as such for almost a decade – though a central archives and a repository for semi-active records were established many years before – and is highly structured. Before describing each component of the unit under examination, it should be specified that, on the one hand, there was a clear-cut separation between the management of paper-based records (which still was the only accepted medium in the archives) and the management of

³⁶¹ Interviewee A1. To protect their anonymity, interview subjects are identified by an assigned alphanumeric code. Generic indications about the interviewee’s ranking or role are added wherever such information is considered useful to contextualize better relevant citations.

electronic records and, on the other hand, a project for designing and implementing a more comprehensive electronic records management concept had been set up. So the situation observed by the researcher was bound to change soon and those involved in the EDRMS project had high expectations with reference to the new, forthcoming order of things.

A first, large sub-unit was dedicated to the management of active paper records and was organized as

“satellites out with certain clients providing front-line services to our clients, that is, active paper files management, search and retrieval services, *advice and guidance*.”³⁶²

The service offered by such records centres was, according to the unit’s management, in the process of shifting from the old concept of managing a temporary storage “where people shuffle their stuff ... what we call ‘the boxes in the basement’”, towards “managing the corporate records, whether paper or electronic ...”

“not so much as us managing the corporate records but making the clients understand their responsibilities in managing them. So, in that area we are moving away from what I call ‘the library service’ – checking in checking out, finding stuff – towards providing *advice and guidance* to our clients: what is a corporate record, what is the value of the record, how to maximize, optimize the management of the files.”³⁶³

‘Giving advice and guidance,’ ‘educating the clients,’ ‘advising, guiding, and coaching,’ ‘doing awareness’ are expressions that recur constantly in the interview transcripts of organization A, signalling its strong intention to “make everybody in the bank understand that they have a role to play from a record point of view.”³⁶⁴

³⁶² Interviewee A3, one of the unit’s senior managers.

³⁶³ Ibid.

³⁶⁴ Interviewee A5, one of the unit’s managers.

This objective was further demonstrated by the fact that the second pillar making up the recordkeeping system under investigation – a central sub-unit entrusted with coordination and strategic functions, and where the EDRMS project was located – together with special cross-organization working groups, were expressly tasked with the preparation of policies, guidelines, standards, and various educational materials. Indeed, training and dissemination of records management knowledge may be referred to as a *leitmotiv* of organization A, the ultimate purpose of all those efforts being that of “getting records management embedded in the business process, which is a great challenge.”³⁶⁵ The idea shared by the “records people” involved in the EDRMS project was that the most effective training consisted in showing the system users that records management was part of their daily work, that doing certain actions in the system implicitly supported administrative efficiency.

At the time of the interviews, the role of the first sub-unit was however still that of providing decentralized storage facilities and records management services to the various offices of the organization. This basically meant that, as far as paper-based material was concerned, a well-established network of records centres situated nearby people’s offices was in place, with the task of classifying, filing, retrieving, distributing, suggesting for further retention or disposal, in one word controlling, both physically and intellectually, the paper records resulting from any ongoing business in the bank. Thanks to their proximity to the people carrying out the bank’s core functions, the ‘satellite’ records managers, all working with the same electronic records system, according to one logic and to very similar procedures, were indeed impressively knowledgeable about the

³⁶⁵ Ibid.

bank's business, and were appreciated by their clients for the quality of the service offered.

“You have to first ‘learn the bank,’ and then your records centre.”³⁶⁶ That was the ‘secret’ to becoming good “analysts of records.”³⁶⁷ As a matter of fact, most of the people assigned to clusters of business areas to attend their records management activities had learned the job ‘on the spot.’ From the records management point of view, they were assisted by the central sub-unit with coordinating functions and a rather extensive manual of procedures; as regards their understanding of the business, they could always rely on the availability of their clients to explain any complex matters.³⁶⁸ All of the records managers interviewed stressed the good relationship they all enjoyed with their clients: “they know who we are, and they *trust* us.”³⁶⁹ Having a number of years of experience in the bank, combined with the routine nature of the vast majority of the business activities, was, in most cases, considered sufficient to get a good grasp of the purpose of each piece of information. In any case,

“... our clients do not expect us to know everything, so they help us by writing in the corner what a document is about. ... *Our clients are more aware of records management than ever before.* Before they knew they

³⁶⁶ Interviewee A6, records manager in charge of one of the most complex and articulated business areas in the bank.

³⁶⁷ Interviewee A1, records manager working as a records analyst in the second sub-unit, i.e., the one identified as the coordinating hub of the recordkeeping system of organization A. Before joining the central structure, A1 was for decades the records manager of a business area too.

³⁶⁸ In this respect, interviewee A6 made the following remarks:

“We have our procedure manual, which is quite good. But what I always say is: ‘the manual can keep you working all day, but will not make you smarter.’ It is there for reference, it is not really a learning tool. The knowledge of your business area is something that comes on the job, gradually, in stages.”

³⁶⁹ Interviewee A1, who also stated:

“We say sometimes that the clients do not know records. That is not true: they know records, because it is their business. You are just discussing their business. ... If you could have a good relationship with your clients, that is like gold. We do not know as much as they do. We have some idea of what goes on but we do have to rely on their knowledge.”

had to give us everything but they did not understand why. Now they understand and they *respect* our profession.”³⁷⁰

Various factors appeared to contribute to enhancing the visibility of the records management function in organization A. The records managers’ “forefront position” was certainly among them. Additionally, thanks to work carried out to prepare for the implementation of the new EDRMS, people had “started talking more about the concept of corporate record.”³⁷¹

Actually, due to the well-established tradition of paper-based records management, which was feeding the archives of the bank (i.e., the third pillar, or sub-unit of the system under examination), there was still little awareness that the ‘stuff’ people were ‘dumping’ in the current EDMS had potentially the quality to be corporate record as well. Besides the system administrators, who had mainly the technical role of liaison with the IT department, but were also providing training and assistance to the EDMS users in their daily operations, nobody else in the central unit was actively involved in managing the ‘non-records’ of such a system. The EDMS was indeed conceived as an “electronic storage space ... with no records management functionalities.”³⁷² Documents created in the EDMS could be deleted and modified at any time, no audit trail was embedded in the system, and individual folder structures were set up and maintained by every department or business area. Initially, there was almost no control over the system and every single user could create folders and sub-folders *ad libitum*, i.e., “according to the needs of the moment.”³⁷³ Control improved when an ‘administrative group’ was set up in each department to monitor closely the situation, and ‘naming conventions’ were

³⁷⁰ Ibid.

³⁷¹ Ibid.

³⁷² Ibid.

³⁷³ Interviewee A9.

introduced to normalize record and folder titles. However, nothing was done to ‘impose’ a common logic to the whole EDMS structure, or to link it somehow to the ‘well-oiled machine’ of the paper-based system. According to one of the system administrators, “right now, the EDMS is a big mess;”³⁷⁴ nevertheless, this person had to make sure that, in case of emergency, the system was accessible from a remote site, as it was considered a “critical system” by the organization.

From the top managers to the analysts, the ‘records people’ of organization A seemed all to believe that adding rules to a system soon to be replaced, especially if the rules were inflexible or capable of being misunderstood, would not work in an organizational culture like theirs.

“We try not to come to the table with the attitude ‘you must.’ If you do that, you will never be invited to the table again. What we are trying to do ... is to demonstrate to our users the value we add to their records.”³⁷⁵

In line with such anti-authoritarian credo, the strategy adopted by this unit to enforce compliance with any existing rules and regulations was again education, that is, “making the reason why we are here as easy and transparent to the clients as possible.”³⁷⁶

Experience had demonstrated that explaining their *raison d’être* and being available where required made other departments increasingly realize that they actually needed records management expertise, and with reference to a number of matters. Thus,

³⁷⁴ Ibid.

³⁷⁵ Interviewee A2, EDRMS project leader and records analysts.

³⁷⁶ Ibid. The message to the clients sounded like this:

“We are obliged to comply with Information Legislation, and you have a responsibility to help us be compliant. ... We are here to provide services that will help you determine the value associated with the information you need to satisfy your business objectives. ... We work to ensure that you can get the information you need in a timely fashion for decision-making. ... We guarantee that the information you need now or in 5-10 years time is available and accessible. ... [In this way] you bring the clients from viewing you as a burden to viewing you as somebody who actually helps them doing their work and, at the same time, helps the bank comply with its obligations.”

“we are invited to the table more and more ... Part of being invited is also related to ensuring that you are *ingrained in core processes* at the bank, such as procurement and contracting processes, project management, access to information, security, and so on.”³⁷⁷

Going back to more operational aspects, probably the area where the records management unit had in the last few years invested most energy was that of records retention and disposal. Through the involvement of the bank’s lawyers, whose task was to identify any legal requirements for keeping the records, and the people in the business areas, who were asked to verify the legal requirements against their operational ones, a detailed and comprehensive retention schedule for corporate records had been put together. The schedule was applied at the ‘series’ level and new series were continuously added or refined, sometimes following clients’ inputs. The main difficulty for the records analysts of the coordinating sub-section was to map the series to the classes of the classification scheme. We are of course referring to the paper world as, in the EDMS, there was no policy, no systematic practice concerning the elimination of records, and that was a major concern for the whole unit.

“The paper goes away because we have got the retention, while the electronic stays. ... Documents in [the EDMS] are not supposed to be printed out and submitted on paper; however, some have made it to the file. So, we have the problem that the paper might get disposed of, while the electronic is still there, still accessible for an access to information request.”³⁷⁸

The overall impression that this researcher had of the records management function in organization A was that of a ‘mature system,’ with a solid conceptual structure, where the importance of both keeping and destroying, and the risks associated with not performing either activity appropriately, was deeply understood by those carrying out

³⁷⁷ Ibid.

³⁷⁸ Interviewee A1.

such a function. As a further confirmation of this impression, it should be mentioned that a special working group had been set up to develop

“an overarching Information Policy for the bank ... [which], in the end, would *reconcile* all other policies and standards [i.e., procedures, guidelines] that impact with the way information is managed at the bank.”³⁷⁹

As explained by the chair of the working group, the work done on the Information Policy was very much “principle-based,” in the sense that various different sets of policies from “the library world, records world, data world, etc.” were being reviewed to identify the basic principles and concepts that were “cutting across”. The outcome of that analysis was expected to be “something like an *accountability framework*.”³⁸⁰

What was particularly interesting about this working group is that it involved a cross-representation of many professional cultures within the bank (from records managers, archivists and librarians, to economists, web administrators, security management experts, and those in the bank dealing with access to information and privacy issues), as one of its goals was that of “*reconciling* the use of terminology.”³⁸¹ Part of its work was dedicated to the “identification and definition of the metadata that are applicable to any area,” in order to promote interoperability among systems and to build rules that would allow the automatic capturing of some mandatory metadata, so as to “guarantee minimal user impact.”³⁸²

³⁷⁹ Interviewee A2.

³⁸⁰ Interviewee A4.

³⁸¹ Ibid.

³⁸² Ibid. Given the primary interest of this researcher, it was a little disappointing for her to hear that, with regard to the work on a common set of mandatory metadata,

“Classification is not part of this, not from a record point of view. We are still discussing whether we need some kind of system generated number. For instance, if we want to link the documents in the document management system [i.e., EDMS] with those in the records management system [i.e., the paper-based system], we might need some kind of identifier or a field that will allow us to do that... But a classification number, we did not feel it was necessary. I know that in the records world the classification number can

EDRMS Project: Concepts and Strategies

The terms ‘reconciliation’ and especially ‘integration’ emerge from all the discussions this researcher had with those involved in the project that was envisaged to turn the current EDMS (“just a repository for electronic documents”) into a fully-fledged EDRMS. Numerous different types of ‘integrations’ may actually be spotted through analyzing the interview transcripts. The first concern refers to the gap existing between the paper and the electronic world:

“We are certainly looking at *integrating* our [electronic] document management and our [paper] record management systems ... so that we can apply our core processes consistently to all records regardless of their format. We are not doing our due diligence if we are only destroying paper records and electronic copies of those records remain. We cannot say that we have actually destroyed the corporate record.”³⁸³

Second,

“We want to have an *integrated* system where we start to manage electronic documents at their source, from creation throughout the whole life cycle to the final disposition.”³⁸⁴

In other words,

“Ultimately, we want this *integrated* approach to documents, records, and archives, so that the whole life cycle is being managed... behind, that is, not on the people’s face, because we do not expect people to have time to classify their documents.”³⁸⁵

perform multiple functions; especially in the archival world, where you need to know the relationship between the pieces. Since we do not have an integrated EDRMS, part of the recordkeeping metadata is in [the system for managing paper records], part is in [the system for managing electronic documents].”

It should now probably be mentioned that the chair of the working group dealing with Information Policy and metadata standards had a library background.

³⁸³ Interviewee A2.

³⁸⁴ Interviewee A5.

³⁸⁵ Interviewee A3.

Going back to the idea of being “*ingrained* in core processes at the bank” that we have seen before, a further step the project intended to take, after having “put the house in order”³⁸⁶ was

“to look at the many different business systems existing out there and to be *integrated* as well.”³⁸⁷

With regard to this ‘external’ integration with the surrounding business environment and, specifically, with the clients operating in that environment,

“We should be more at the forefront, as opposed to the traditional view of records centres back into the process. ... We should be *integrated* with our clients’ work: ‘Let us be there at the beginning of your business process, right through the end, and beyond’.”³⁸⁸

Finally, considering the types of records, or data, likely to reside in most business systems at the bank:

“Current [EDRM] systems have mainly been developed for managing unstructured data. We need to think about *integrating* the structured data as well.”³⁸⁹

One of the greatest challenges faced by the project was that of trying to ‘reconcile’ the philosophy underlying the EDRMS – which consisted in “looking at records from a complete life cycle [perspective]” and “taking the principles that we have for the paper

³⁸⁶ Ibid. The metaphor of the house recurs in various occasions. Here, for instance, to justify the delay in applying long-term strategies, the senior manager says:

“The EDRMS view is not only operational, but tactical, and strategic. Because of the circumstances, we really did not have the time to step back and look strategically. It was like us *trying to fix the roof during a hurricane*. You do not do that while you have got the hurricane. You fix it in summer when the weather is nice...” Question of the interviewer: “Do you mean that now the hurricane is over?” Answer: “No, no, the hurricane will continue for ever. These are the people doing the daily operations. But we have now people who look at that long-term vision, rather than working on the immediate issues. ... We are looking at Enterprise Content Management, which means *integration*, collaboration. What we need to do is really to *put our house in order*, to come out with good practices right now. Before we can build, we have to make sure we have got the *solid foundation*, which relates to the system, relates to the folder structure ...”

³⁸⁷ Interviewee A2.

³⁸⁸ Interviewee A5.

³⁸⁹ Interviewee A2.

records system to the electronic” – with the priority of “making it very easy for the users.”³⁹⁰ Taking into consideration the clients’ current experiences with the EDMS and the records centres, both contributing to make their life as records creators indeed quite easy, it was difficult to imagine how the change could be introduced seamlessly.

When talking about the fundamental element the new system had ideally to be based on, the subjects of this study had all in mind

“a good, *functional* folder structure that can be applied to any systems in the bank. ... That structure is going to give us the *solid foundation* because functions are not changing all the time in a central bank.”³⁹¹

The choice of the functional approach as the method for building the folder structure of the EDRMS under development – a folder structure that, as the next section dedicated to classification issues will clarify, would not necessarily equate to the organization’s classification system – was only partly justified by the recognized benefits of such a method or any other records-related issues. By reflecting on the specific organizational circumstances in which that decision was taken, one may draw the conclusion that in fact it was a ‘political choice.’ “The bank goes function”³⁹²: this expression recurred like a slogan in most of the conversations held by this researcher in organization A and appeared to be the actual trigger of the ‘functional turn’ the records management unit intended to pursue.

“There is an initiative to re-align the departments along functional lines at the bank. ... this will force us to take another look at the classification system and maybe to say to ourselves: it is time to develop *a truly function-based classification system*. ... When I talk functional, it is a very popular term at the bank these days because of this realignment.”³⁹³

³⁹⁰ Interviewee A5.

³⁹¹ Interviewee A3.

³⁹² Interviewees A1, A2, A6, and A9.

³⁹³ Interviewee A2.

Thus, because now, all of the sudden, everybody was ‘talking functional,’ those involved in the EDRMS project felt “it [was] the perfect timing to deliver a new, fully functional concept of records management.”³⁹⁴ It was indeed a sheer coincidence that, considering the topic of this study, the functional theme had to be so prominent within the overall organizational culture of this case.

Archives: Role and Relationship with Records Management

Another challenge that the EDRMS project had not underestimated was expressed in these terms: “How do we deal with electronic corporate records deemed to have archival value?”³⁹⁵ The bank had no experience with preserving electronic material, as its archivists had always been dealing with paper records only. Besides this limitation, it should also be mentioned that, despite the fact that it was formally part of the same unit, the archives appeared to be rather disconnected from the records management function. The longed-for integration was still far to come, and in the archivist’s view, “people in records management tend to forget that I exist.”³⁹⁶ The feeling of not being fully understood, or even accepted, paralleled the physical location of the archivist’s office on a different floor and the extremely limited resources at her/his disposal. Frustration (“I think we are dismissed far too often;” “archives is not taken seriously”) and fear (“I feel like my job is in jeopardy”) pervaded most of the discussions with the person responsible for the service, who also admitted that s/he would not feel comfortable dealing with electronic records. Her/his involvement with the development of the structure and

³⁹⁴ Interviewee A3.

³⁹⁵ Interviewee A2.

³⁹⁶ Interviewee A8. It should be noted that this person appeared to be the first professionally trained archivist working for organization A, and s/he was hired very recently. Additionally, in comparison to the large number of people involved in records management, the staff of the archives was very small. The Anglo-Saxon traditional focus on the first part of the life cycle may be regarded as a justification for such unbalanced condition.

concepts embedded in the new system was minimal (“only at the end”) and, with reference to the working groups on Information Policy and metadata standards, s/he could not be as effective as s/he would have wished (“because it is a bank-wide project, my voice is just a little voice”).³⁹⁷

This researcher regretted that she did not meet the archivist earlier than on one of her very last days at organization A. Confronting the opinion shared by the ‘records people’ on their own services and products with the rather dissonant perspectives brought in by this study subject might have yielded interesting results. It should however be reported that the archivist had always been mentioned with great respect and consideration in all the discussions previously had by this researcher (“We always seek for [the archivist’s] view if something is archival, because we are not archivists”³⁹⁸). This partial understanding of the situation proves that a full ethnographic study would be a more suitable approach to explore the true essence of human relationships. However, this aspect was not part of the scope of this research.

Legislative Framework and Internal Regulations

Many instruments to ensure compliance with internal rules (e.g., retention schedules, classification, naming conventions, etc.) were created and kept constantly up-to-date by the records management unit, and business area managers were well-informed about their responsibilities with reference to the records managed by their respective areas.

Obviously, given the fact that managers could always delegate such responsibilities and the central unit “[did] not have that power and authority yet”³⁹⁹ to exercise direct, full control on the records-related activities carried out throughout the organization, expected

³⁹⁷ This and the previous citations of the last few sentences are from interviewee A8.

³⁹⁸ Interviewee A1.

³⁹⁹ Interviewee A5.

results could not be guaranteed. Another factor to be considered in this respect is the anti-bureaucratic attitude of the whole structure here analyzed (which, by the way, was in line with Hofstede's assumptions about the Anglo-Saxon cultures).

Nevertheless, with regard to the external juridical framework, legal compliance with the laws on access to information and privacy was indeed taken very seriously in Organization A. Thanks to the awareness campaigns of the records management unit, people in the organization were more and more concerned for the possible implications of access requests and records discovery actions.

“What do we do if documents that should not be there are still there? They can take us to Court if they so wish. Then, we really have to dig down deep! Many clients do not think of looking through all they have in their drives... There are so many places where records reside.”⁴⁰⁰

Even without considering the ‘other systems,’ potentially creating and managing records out of any control, everybody seemed to be aware that the current EDMS (where no systematic records disposal could be carried out) and the paper records system (which certainly contained many duplications of what was already in the EDMS) represented by themselves a dangerous coexistence.

The bank's archives, as any government body in the country in question, was bound to follow specific rules established by the local national archives. In particular, no records could be destroyed without that authority's consent. There was however an agreement that excluded any taking over of custodianship on the part of the national archives. So the whole of the archives of organization A was kept and preserved in loco. This in part explains why (as it will be seen later) the archivist had to be very selective on what s/he would accept in the archives.

⁴⁰⁰ Interviewee A1.

ii. Organization B

Records Management and Archives: Organization, Concepts, and Strategies

As the reader may remember, with reference to organization B, the distinction between records management and archives had already caused some problems of interpretation in the context of the questionnaire administered at the beginning of this research. The first thing this researcher was to find out when her point of contact in the organization, i.e., the archivist, introduced her to the place from which she would have conducted her fieldwork, i.e., the archives office, was that there were no persons and no places in the bank expressly dedicated to perform a records management function.

“We have no records management function recognized as such, no people qualified as records managers. Everyone at the bank is the manager of his or her records.”⁴⁰¹

Thus, differently from the previous case, the situation of records management and archives will here be analyzed together.

Despite the fact that the active records were managed “in total *freedom*”⁴⁰² by each department, in theory, the management of the corporate records was a centralized function that, by law, was assigned to the archives of the organization. Because the archivist was alone in the discharge of her/his duties and the electronic system employed to manage the records up to the point of their transfer to the archives did not allow for any kinds of central control, *de facto* the archivist had to limit his/her sphere of competence to the inactive records in his/her custody. People in the business areas would refer to her/him “when they need help to identify those records that will become

⁴⁰¹ Interviewee B1.

⁴⁰² Interviewee B3, user.

archival.”⁴⁰³ For that, the archivist had prepared records schedules, though only concerning a few typologies of records (namely those created to carry out the activities related to international cooperation, public procurement, and standardized project management processes). The attitude that emerged from all the conversations this researcher had with the archivist of this bank could be described with one word: resignation.

“We have no regulations for current records. We only have these retention schedules. On the other hand, it is not my problem how you are creating or managing your records. I know that in other institutions in the world these rules exist; however, we are more *free* [sic], in that you have to decide yourself how to manage your records. The folders in the document management system are meaningful only to those who created them. People do not follow any standards or guidelines. If you are new in the bank and nobody has told you how your predecessor was working, you may not be able to understand anything of that structure. Anyway, I do not feel responsible for that. I think it is not the job of an archivist; don’t you think so?”⁴⁰⁴

To understand the cultural and social circumstances that might have influenced this archivist in her/his judgements, one should consider the overall “policy of rationalization of activities” that this bank has adopted and which involved radical cuts of resources. Without going into details that might reveal the identity of the organization in question, the board of the bank had decided, even before the current financial crisis, the bank had “to provide a message of austerity to the general public.” As a consequence, its policy was that “we have to focus very narrowly on what we are here to do.”⁴⁰⁵

In addition to such political and economic factors, a concept of ‘freedom’ that is typical of the Northern European countries might as well have notably influenced the organizational behaviour of the subjects of this case study. Based on this researcher’s

⁴⁰³ Interviewee B1.

⁴⁰⁴ Ibid.

⁴⁰⁵ This and the previous citations of the last few sentences are from interviewee B5, user.

observations, the most characteristic aspect of that concept seems to be a mix of an absolute respect for the law and a total, light-hearted independence in the areas untouched by the law or any internal rules. So the archivist as well as the most ‘reflective’ users were all fully conscious of their obligations towards

“the *official* management of the documents of the bank, which has of course to follow certain legislative rules about keeping a registry, maintaining an archives, storing documents for future purposes. ... The document management system, which we organize completely by ourselves according to the best way for us to retrieve documents in the system, is not supposed to comply with any of those rules.”⁴⁰⁶

We will see later what features the mandatory registry involved. Here it is sufficient to mention that, between “the rules of the registrars and those set by the archivist ... [which] we have to respect,”⁴⁰⁷ there was nothing, or better, there was a very rudimental electronic document management system (EDMS) with no ambitions for growth.⁴⁰⁸

It is however interesting to note that most of the subjects interviewed were indeed quite sensible users of the records system – which shows that they were taking their responsibilities with unusual seriousness. With some of them, this researcher engaged in discussions on records management concepts that are worth reporting as they provide a ‘richer picture’ of recordkeeping in the organization.⁴⁰⁹

⁴⁰⁶ Ibid.

⁴⁰⁷ Interviewee B3.

⁴⁰⁸ The language of the country of case B did not differentiate between records and documents, so the two terms are used interchangeably in this report. However, the electronic records system here analyzed could indeed be qualified as an EDMS in that it did not contain any of those control mechanisms that, commonly, are regarded as necessary to an ERMS. Interestingly, in that country’s terminology, a difference was made between “non-public documents,” in the sense of documents that are not accessible to the general public because of their incomplete state, and “public documents,” that is, finalized, “official documents” that the public is allowed to see, unless there are specific reasons to keep them “secret.” The two categories would, according to interviewee B1, correspond to the understanding of ‘documents’ (i.e., non-public documents) and ‘records’ (i.e., public documents) in her/his country.

⁴⁰⁹ It should be noted that, while in organization A, given the wide composition of the unit in charge of the records management and archival function, most of the interviewees were people explicitly dedicated to some aspects of that function, in organization B, the voices of those performing records management functions as a side job, or as a necessity, are much more present. Thus, for the variety of perspectives it

Due to scant resources, people in the organization had of course to take care themselves of much of the administrative work of their units, including the filing of records. As much as this might have been unpleasant for ‘narrow experts,’ the advantages of keeping the management of both the business and the records deriving from that business with the same person (the records creator) did not pass unnoticed to one of those experts, who said:

“Judged by itself, it is easier for someone who is an expert in a specific field to classify a document. ... So it is quicker for a narrow expert to file his or her documents rather than to instruct a secretary on how to do it. The secretary can learn that, but this also requires some continuity.”⁴¹⁰

By simply observing the flow of the records from the moment they are registered to the moment they are archived, the same subject argued that having two different sets of rules, one referring, in that specific case, to filing for current records management and one to filing for archival purposes, was somehow misleading. In this view, s/he was in open disagreement with the archivist, who was about to release guidelines for arranging certain types of records before their transfer to the archives. The consideration that existing records-related laws may act as a barrier to achieve a unitary view of a record’s life cycle is also implicit in the following interview excerpt:

“[The archivist] has certain laws and regulations to obey, which are different from those relating to registering documents and keeping them in the offices of public institutions. They are probably consistent, but they contain different provisions....However, these two areas are so connected that it would really be useful to have one single, simple guideline that takes all these aspects into account. Otherwise people get confused: they feel that the central registry of documents in the bank is separated from the final destination of the same documents in the archives. They feel that their relationship with the system only concerns registering documents, not the archiving of documents... Any rules for filing in the archives

contains, the approach taken to conduct this case study may be considered closer to a Soft Systems Methodology approach.

⁴¹⁰ Interviewee B5.

should be at the front end, and should be decisive at the moment of registration.”⁴¹¹

The registry system is conceived as a sort of central mailbox gathering all the incoming correspondence sent to the general address of the bank, either by traditional mail or by e-mail. Its use is mandated by law, but the law does not specify exactly how it has to be applied. In this organization, the two registrars in charge of the service are expected to read the content of the received document and to decide whether it is “important enough to become a case,”⁴¹² that is, to be assigned a number and a brief description in the system. When a letter or email is directly sent to individuals’ addresses, it is up to them to decide whether to request its registration in the system or not. Actually, if they want to do so, they could ask the registrars to register their replies and any internal correspondence as well. So, although the registry appears to be mostly used to assign “case numbers”⁴¹³ (that is, one number for all documents belonging to the same file or dossier), it might also be used at the item level (i.e., one different number assigned to each received or sent document). The registry system does not involve any classification schemes, nor does it contain any form of vocabulary control (“well, you do not need them: you can always search by free text”⁴¹⁴). Another interesting feature is that the content of the registry is online and accessible to anyone in the bank: “our philosophy is that everyone can see everything.”⁴¹⁵

There are no established criteria to decide on the ‘importance’ of the documents. The registrars’ experience of the bank’s business is considered sufficient to perform conscientiously that task. It is thanks to that long-standing experience that they can also

⁴¹¹ Ibid.

⁴¹² Interviewee B1.

⁴¹³ According to interviewee B1, “the 90% of the files have only one record registered.”

⁴¹⁴ Ibid.

⁴¹⁵ Interviewee B5.

identify the right office where to route any received correspondence with no problems. In virtue of their assumed significance, all documents bearing a registration number (either an individual or a collective one) are to be on paper, because only in that form they can be one day transferred to the archives. Thus, emails or any digitally born document has to be printed out and placed in a paper file, if not immediately, at the latest when the file is meant to be closed and archived.

The operations of the registry office have been dealt with in this part of the report because this researcher believes that a great deal of the records management function in organization B relies on that registry. The people in the organization seemed however to have a different opinion about that. Calling the registrars ‘records managers’ appeared inappropriate to them, as their tasks were considered not sufficiently ‘intellectual.’ This researcher had no opportunity to interview either registrar and, from this and other signs, sensed that, overall, that organization was more hierarchical than it thought of itself. On the one hand, one could not deny that people had rather “informal ways of working” there, as often mentioned with pride in interviews and showed, for instance, by “[being] on first-name basis with everybody in the bank, including the governor,”⁴¹⁶ which is indeed not common for a central bank. Also, the organizational structure is pretty flat, in the sense that the internal hierarchy does not look as elaborate as it usually is in that type of organizations. However, statements like the following made this researcher suspicious about the informal nature of that organizational culture:

“The archives is seen as at the bottom of the internal hierarchy. Nobody wants it and where it is presently allocated does not certainly increase its prestige. Nobody in [the department the archives currently belongs to]

⁴¹⁶ Ibid.

understands what I am talking about, therefore I am alone. And the trend is not going to change, I am afraid.”⁴¹⁷

“The bank is rather un-bureaucratic. You have easy access to management and doors are always open. It is easy to do things: you do not need a lot of signatures. ... I think the problem here is not the hierarchy because, as you can see, here it is very easy going. However, there is a feeling – at least this is what I feel – that there is a ‘hidden ranking,’ so to say. Those people working in [economics departments], apart from the management and the Board, they are the people who are most important, and then there is a falling scale. Library and archives, like all administrative services, are at the bottom. The people working in the [EDMS] project were from the IT department, archives, library, and [other business areas]. There was the feeling that it was *just an administrative tool*, so we were not as important as other projects. And this is one of the reasons why people are not happy to use the system, because it requires some extra efforts and it is not a high-profile task.”⁴¹⁸

“People at a higher level should have been involved in the [EDMS] project team, so that there would have been more respect for the product. We were just regular staff.”⁴¹⁹

EDMS Project: Characteristics and Evaluation

Differently from what is the case with the report for organization A, here this category does not refer to an ongoing project but rather to the outcome of a concluded project that was launched a couple of years ago to facilitate the management of electronic records in the organization. So, instead of looking at challenges, this report will focus on objectives set and reached, current uses, and shortcomings of the EDMS project of organization B.

As to the ‘problem situation’ that the system (very much conceived as a piece of software, as it will emerge) was expected to ‘solve,’ informants mentioned the usual difficulties: “documents could not be found easily,” with consequent delays in decision-making; “people had the feeling that they were doing things more than once;” “there was the need to have the files complete;” “because of a high turn over ... there was the

⁴¹⁷ Interviewee B1.

⁴¹⁸ Interviewee B2, librarian.

⁴¹⁹ Interviewee B4, system administrator.

feeling that some knowledge was lost.”⁴²⁰ Purchasing a software that was freely available on the market for most organizations seemed to be the easiest, quickest, and cheapest solution to the project team members.

“The system was not really *chosen*. It was just taken on because it was for free. ... It was not assessed in terms of its functionalities. ... It was explicitly said from the beginning that the system did not have to have any archival functions in it. They just wanted something like that: quick and dirty!”

According to the same subject, involved in the project because of her/his competences as a librarian,

“the IT issues were those that were discussed most in our meetings, that is, technical issues. They wanted to have something *very easy to use*. ... Anyway, this system is very basic, very rudimentary, so it has limitations that you cannot overcome just with education of the users or with customizations. ... Maybe this was kind of a trial. For the future, [we] hopefully will have a new system, with archival principles in it.”⁴²¹

The issue of the users’ involvement in the project, of their training during and after the initial phases of the system roll-out, was perceived in rather different ways within the organization. With reference to the setting up of the EDMS folder structure (or rather structures, as every department had its own), one user put it baldly this way:

“We did it without any directions from above. The project just told us to *keep it simple*, not too many levels. Every department was left *free* to follow its own needs.”⁴²²

This view could not be more in conflict with that expressed by one of the IT people involved in the project:

“The learning curve is very steep. We actually did a *mastodon project* to educate the users on how to use the EDMS, the records management module, and the search engine.”⁴²³

⁴²⁰ Interviewees B2 and B4.

⁴²¹ This and the previous citation are from interviewee B2.

⁴²² Interviewee B3.

⁴²³ Interviewee B6.

The truth was probably somewhere in between, as another user explained:

“Yes, we attended trainings on how to use the system. I think there are even some guidelines on how to name documents. ... The discussion with the people in the project was anyway not enough for me to understand *what the system was about*. Now, after a few years, I understand it better. Today, I would structure the information in a different way.”⁴²⁴

These statements recall what adaptive structuration theory conceptualizes as the opposition between the ‘structural features’ and the ‘spirit’ of a technology, by saying that, where the users are only informed about external, mechanical aspects of a given technology, ‘unfaithful appropriations’ are more likely to manifest than where the values and goals underlying those structural features are discussed with them.⁴²⁵ Indeed, despite the ‘easy-to-use’ philosophy adopted by the project team, the system was perceived as being not enough user-friendly (“people feel that the system is an obstacle to their work”⁴²⁶). The fact that some users were still filing their records in the “old file system” or, as a further alternative, in more flexible “personal web sites connected to the EDMS,” may be interpreted as a clear sign of ‘avoidance behaviour.’ Those who were not circumventing the system had found the way to adapt it to what they were used to:

“We all were used to the file system [i.e., Windows directories] and we tend to use the new system as a file system. So, as you might have seen, the folder structure in the EDMS follows units and divisions, while our idea was to be more functional ...”⁴²⁷

In structurational terms, the technology was ‘flexible’ enough to allow for some ‘interpretive’ deviations from the rules embedded in it. With particular reference to the folder structure, the users’ feeling was indeed that “little by little, the system is *going*

⁴²⁴ Interviewee B7.

⁴²⁵ See DeSanctis and Poole, “Capturing the Complexity,” 126-28.

⁴²⁶ Interviewee B6.

⁴²⁷ Interviewee B4.

back to the old way of thinking.”⁴²⁸ The features that would not allow for any adaptations, such as the “far too numerous” mandatory metadata fields, were simply misused, as demonstrated by the following considerations:

“People do not really understand what those metadata are for. And they are frustrated because it takes them so much time to fill them in. ... We tried to explain that maybe your colleague in another department does not have the same view on the subject how it is filled in by you. That is why we thought we needed to provide them with a kind of structure for the subject, naming conventions ... However, I think that users do not understand the structure anyway. They do not know when to use report, or note, etc. Probably, most people *just choose random the box to tick off.*”⁴²⁹

The outcome of a ‘customer-satisfaction survey,’ conducted internally some time after the system had been rolled out to all departments, identified in the number and granularity of the metadata to be manually filled out the major source of user complaints. The survey also revealed that the departments which had a higher need for collaboration and information sharing seemed to be the most appreciative of the EDMS, whose major strength was indeed that of “making the information transparent and open to everybody.”

“Having more openness was one of our goals from the beginning. The basis of our information policy, or philosophy if you want, is that *everything is open*, unless some restriction is needed for very specific reasons. ... The previous system was organized in a way that you only had access to your own department’s records. Now access is across the institution.”⁴³⁰

Were people actually taking advantage of the sharing opportunities offered by the system? The survey results seemed to highlight that there were areas where collaboration was an asset. Some of this research’s subjects stated however that, because the folder structure of other departments was sometimes very much ‘personalized’ and, on top of that, the search engine of the EDMS did not seem to work properly, they would basically

⁴²⁸ Interviewee B3.

⁴²⁹ Interviewee B6.

⁴³⁰ Interviewee B4.

only look at their documents, exactly like before.⁴³¹ In this respect, the interviewed IT expert, on the basis of her/his experience as a consultant both in other government bodies and in technical firms, noted that technical or production environments are generally more used to doing networking and knowledge sharing than administrative organizations. In her/his view,

“the culture of administrative organizations is way behind the culture of technical, even purchasing organizations. ... When you come to a government agency, you see that they are very much focused on the organizational hierarchical structure. It is very difficult for them to understand the meaning or the purpose of a functional records system, that is, how to use those specific properties in a functional way rather than in an organizational way.”⁴³²

The topic here introduced (i.e., ‘functional way’ versus ‘organizational way’) will be analyzed in greater detail in the section dedicated to classification.

Legislative Framework and Internal Regulations

It may be interesting to notice that, at the very beginning of her fieldwork in organization B, this researcher was immediately provided with copies of all the laws and internal regulations impacting the records management and archival function of the organization. This happened much more gradually and less systematically in all the other cases examined, including those (namely, case C and D) that, according to Hofstede’s matrix, were supposed to show higher degrees of ‘uncertainty avoidance.’

The external legislation basically referred to the law on freedom of information, the law outlining the functions of the registry system, and the archival law concerning public authorities. Based on the latter, the archivist of this organization had elaborated internal archival rules, while, as we have seen, for records management there was

⁴³¹ Interviewee B3.

⁴³² Interviewee B6.

nothing else than the three “kind of appraisal policies,”⁴³³ or, more appropriately, retention schedules, mentioned earlier.

Organization B had an agreement with the country’s national archives concerning the deposit of the oldest part of its archives. However, this did not imply the existence of any further obligations as to the transfer of the bank’s holdings to the national archives. “We are totally independent with regard to the way we manage our records and archives.”⁴³⁴ Thus, although the recommendations of the national archival authority are certainly not ignored by the bank, the former has no supervisory functions, which implies that, for instance, in matter of records disposal, the bank is free to decide on what to keep and what to destroy. This situation is quite the opposite of that of organization A.⁴³⁵

An issue that should not be omitted for the interest it bears on the main topic of this research is that the national archives of the country in question was about to deliver new provisions meant to guide the design of classification systems for all public authorities. The purpose was to “replace the old system for the classification of archives [that needed to] be abandoned because insufficient;” however, the new system, which would “be absolutely, only function-based” had the potential to be applied “to both current records and archival records.” The archivist of organization B was indeed looking forward to such provisions:

“The guidelines and principles of the national archives will definitely influence our future. So, maybe next year, I will have to develop a new

⁴³³ Interviewee B1.

⁴³⁴ Ibid.

⁴³⁵ Just as a matter of curiosity, it may be interesting to notice that the word ‘compliance / compliant’ recurs 22 times in the transcripts of case A, while it only appears once in those of this case. However, this discrepancy might be related to the different linguistic usages of the people involved in either case.

classification system for my holdings, but I want it to be used for the EDMS too.”⁴³⁶

iii. Organization C

Records Management: Organization and Concepts

In the analysis of the findings of this case, the distinction between records management and archives comes back, although the responsibilities for both functions were much more intertwined than in case A. Similarly to case A, records management (though here called document management) was well-known and recognized as a separate phase in the life cycle of a record that needs to be consciously managed. To this end, a unit specifically devoted to ‘document management’ had recently been created and its large office was the one where this researcher was hosted. However, it became soon clear that, although such a unit was technically and conceptually competent with respect to the EDRMS adopted by the organization, the actual responsibility for the ‘records’ was with another unit, which was part of the same department as the previous one and was traditionally assigned, among other responsibilities, the one for the central archives of the organization. Two things should be mentioned here (any other findings related to the archival function being discussed under the relevant category later in this section): first, the unit dealing with the EDRMS and the one including records and archives within its sphere of competence appeared to be absolutely autonomous from each other, and even in disagreement on several aspects of records management. As a consequence, at least with reference to electronic records, there was not really a ‘continuum’ of coordinated actions between the active and inactive phases of the records’ life cycle. Second, the *deus ex machina*, as far as it concerns the conceptualization of the records management

⁴³⁶ This and the previous citations of the last few sentences are from interviewee B1.

function and any relevant (long-term) strategic issue, was not the person appointed as archivist of the bank, rather it was her/his superior, who had indeed very clear and informed ideas about that function, but whose authority extended over quite diverse areas of responsibilities.

This being said, another general observation needs to be made here: in the EDRMS environment, the distinction between document and record did exist, and it was conceived in the usual (IT-like) way. What this involved will be examined later. Now it will be sufficient to mention that

“Document management means collaboration and is used with reference to [group work spaces]. Records management is not called as such here, but what we mean is managing documents that are supposed to become historical.”

Despite the stated intention to manage the electronic repository as an archives, that is, involving some digital preservation plan, for the time being,

“all our electronic records are online. Everything is in one server, since we started using the EDRMS ... There is no separate repository and we do not archive anything electronic. However, we do have a project related to a more powerful backup system for our records [(!). We – well, not we but [the unit responsible for the central archives] – are also thinking of implementing a *real archiving system* for electronic records ...”

These statements provide a clear characterization of the technical standpoint of the examined unit. They also tell the reader that, once again, the central archives of the bank was not yet ready to accept electronic submissions, and the physical and conceptual divide between paper and digital world was still acting as a major barrier to the preservation of the memory of the institution.

“Our message to the people in the bank is: records management is not for long-term, *real archiving*; it is not records management for [the unit responsible for the central archives]; it is not knowledge management; it is not workflow [management]; it is for *storing records with a good set of metadata*, including functional classification.”

Was this message understood in the organization? Before examining individual users' appropriations of the system, the following words wrung out of the person in charge of the document/records management unit did reveal upon first hearing any possible challenges involved:

“Here at the bank, *it is historically impossible to have a common records management system*. ... Records management is a core business for nobody. We try to do our marketing, but we are not always successful. It works better with those departments that are used to managing huge quantities of records. ... What we try to obtain with our guidelines for metadata is the best homogeneity we can reach, if such word makes any sense in this organization.”⁴³⁷

The reader has to imagine that most of the citations here reported were not flowing in the conversational style typical of unstructured interviews. As was indicated prior to this researcher's visit, her study subjects would prefer to come to the meetings with her 'armed with Power-Point presentations' or, in any case, prepared to 'run the show.' For this reason, exploiting emerging themes or deviating from structured and not always relevant discussions was sometimes difficult. As a matter of fact, besides those mentioned above, no other records management concepts emerged from the interviews with the people working in the dedicated unit. They however provided a complete picture of the EDRMS project with reference to its phases, goals, achievements, and shortcomings, as well as a detailed explanation (in the form of a demo) of its features. This information will now be examined as a separate category. We will however return to the discussion on records management concepts and strategies later in this section, and precisely in the context of the analysis of the management of the archival function, where

⁴³⁷ This and the previous citations of the last few sentences are from interviewee C1, manager of the records management unit.

both issues will be looked at from the perspective of the person responsible for the bank's archives.

EDRMS Project: Concepts and Strategies

The first phase of the project, consisting in the purchase and bank-wide implementation of an off-the-shelf EDRM software, had the “goal to provide all entities with a *structured storage space*.” Now, in its second phase, the main objective it intended to achieve was the drastic reduction of the papers created in the course of business by the various offices, “towards a less-paper environment.” Aiming at having ‘less paper’ rather than being ‘paperless’ characterizes very well the tactic pursued by the project, that is, a step-by-step, pragmatic approach to “one issue at a time.” The results were under this researcher’s eyes: indeed, not all, but most of the offices she visited did not have the typical look of administrative places, with tons of papers accumulated over the desks and meters of folders on the shelves.

A second, more complex objective of the project consisted in “having all departments *sharing one work space*.”⁴³⁸ The approach was again gradual, department by department, taking the one where the records management and the archives units were allocated as a ‘model’ for all the others to imitate, if they wanted to. The alternative of involving all business areas in a more direct and systematically planned fashion was unfortunately not a matter for discussion, because it would not be supported by the powerful IT department of the bank. Apparently, after having installed the software on every computer, the latter was not interested in improving its use further, so any adjustments or customizations introduced following the EDRMS implementation were

⁴³⁸ This and the previous citations of the last few sentences are from interviewee C1.

taking care of by the records management unit, with its own resources and within the environment given.

It goes without saying that the software, with all the ‘home-made’ customizations added over the years, had “almost reached its limits.”⁴³⁹ Although some functionalities (such as, search and retrieval) had indeed become more powerful, for the records management side of the EDRMS (i.e., “the long-term storage environment ... for the documents that are finalized”), as opposed to the document management side (i.e., “the collaboration environment ... for the creation and sharing of documents for the short term”),⁴⁴⁰ not much could be done.

“The people [in the records management unit] are doing fantastic things with [the EDRMS], but we have introduced too many ‘tricks’ to overcome the technical limitations we are experiencing. We cannot go on experimenting with [this product]. ... Most of the principles of MoReq2 cannot be applied in this environment, simply because [this product] is a document management system; it is not by nature a records management system.”⁴⁴¹

In other words, the ‘interpretive flexibility’ of the technology had approached its limits. Was it once again the case of blaming the technical limitations of the software, as we have already seen happening in organization B (which, by the way, was using the same product)? In this organization, people seemed to see very clearly that the organizational culture played a major role in keeping the project from achieving its goals (in particular, the goal of having one, uniform records system applied consistently throughout the bank).

⁴³⁹ Interviewee C4, manager of the unit including the archives.

⁴⁴⁰ Both citations are from interviewee C1.

⁴⁴¹ Interviewee C4. Interestingly, one of the departments where the system was implemented first, and which was very happy about it, i.e., a department related to economic research and studies, did not actually use the EDRMS to manage its administrative files, but only its scientific works, publications, and the like. It used to have a subject-based classification scheme and people appreciated the great collaboration features the system could offer. This is a further proof that the software in question was not suitable for records management.

“The problem is not the technology, but the *culture*. The resistance to change is extreme. ... The bank has always had a very much decentralized culture and each entity enjoys great autonomy. We call it ‘silos mentality.’ It is in fact a power game. Information is power, and everybody is very jealous of his or her competences.”⁴⁴²

One subject did even address issues of national culture to explain the low sense of authority of most of the people in the bank, which was perceived as another reason for the difficulties experienced not only by the EDRMS project but by the records management and archival units as a whole.

“We are anarchists by nature. If you say to a [person of the country where organization C was located] ‘here is the rule; you have to follow it,’ that person will laugh. Instead of writing circulars, here you’d better try to convince the people with good arguments and good examples.”⁴⁴³

Considering that, before the introduction of the EDRMS, records management in the organization was totally uncontrolled and ‘anarchic’ until the moment the (paper) records were transferred to the archives, the current situation, where every unit is at least working according to the “same structure”⁴⁴⁴ of metadata, including the classification system, is certainly an improvement. However, one has to see what ‘same structure’ actually meant. The interpretation given to the term structure was indeed very high level. Not only could everybody choose which metadata available in the system to use, but also which meaning to attach to any of them, so that, in the end, probably nobody in the bank was sharing exactly the same metadata profile. Additionally, access restrictions applied plentifully to any levels of the folder structure as well as to individual user profiles further prevented smooth exchanges of information within the bank. The autonomous behaviour that is

⁴⁴² Interviewee C1.

⁴⁴³ Interviewee C4. Considering the type of bureaucracy that Hofstede associated to the group of countries this one belongs to (i.e., well-oiled machine model), one might have expected a higher consideration for rules and formalisms. On the other hand, the low value that such countries would attribute to the other dimension (power distance) is fully confirmed by both these findings and the results of the survey.

⁴⁴⁴ Ibid.

inherent in the culture of the organization and of its members did eventually win against the attempts to create an infrastructure to facilitate communications.

From the users' point of view, the system was not "interactive or dynamic"⁴⁴⁵ enough. What they actually meant was that system integration was not really satisfactory. The system was in fact many systems (i.e., the native software, the customized version of it, and numerous layers of intranet sites that each department and each unit within any of those departments had adopted to "overcome the lack of flexibility"⁴⁴⁶ of the 'official system') and all these systems were not fully integrated with each other. As a consequence, any metadata entered in one application had to be copied again at least twice, but even more times if the document had, for instance, to be posted on the web or sent outside the organization by means of a special system used within the ESCB for secure dissemination of confidential information. Only few automatisms were in place, and because from time to time they would not work properly, users had learned that they should better not trust the system and rather perform manually every operation.

"I just discovered that categories and other metadata are not inherited from top level sites to sub-sites. I do not know whether it is a bug in the system or the people of the IT department or [the records management unit] have altered something. They do not know either what has happened. For the moment, we have to copy and paste everything and not only once where I have sub-sub-sites."⁴⁴⁷

⁴⁴⁵ Interviewee C9.

⁴⁴⁶ Interviewee C4.

⁴⁴⁷ Interviewee C13. This user's frustration emerges again from the following transcript excerpt: "We work with two systems and they are not perfectly integrated. Actually, the [native software] and the [customized version of it] are not linked at all. The categories are different in either site, so if I use category X in [the former system] and then I upload the document to the [latter system], I might get an error if category X corresponds to category Y in there. The computer should have some automatisms to facilitate our work. This does not have them. In my unit, we have not started yet putting our documents on the Intranet, but I expect we will have even more problems when we do so."

Archives: Role and Relationship with Records Management

The central archives of the bank was formally established in the mid of the last century after several decades of totally decentralized and uncoordinated accumulation of records in the creating offices. However, the transfer of material to the central repository was still optional at the time of this research. The departments that were interested in getting rid of their old papers had to meet one requirement, that is, their files had to be arranged according to a classification scheme, which was supposed to be applied ex-post, basically at the moment of the records transfer. Initially, those schemes were drawn very creatively by each department or unit, without any directions from the centre. Only recently, the archives has decided to issue guidelines with the aim of providing all existing classification schemes at least with a “uniform structure.”⁴⁴⁸ Departments are still free to choose their preferred criteria for arranging the material (e.g., by subject matter, by function, etc.) but all classification schemes have to have the same number of levels (i.e., four levels) and each numeric code has to have the same number of digits (i.e., two digits per level). Once again, the concept of uniformity is interpreted in a rather relaxed way.

The unit responsible for the archives appeared to be contented with what they had achieved:

“Twenty years later we can say that all services in the bank do have a classification scheme and do send files to the central archives. Of course, we have no such a thing as a general classification scheme for the whole bank. We actually have more than fifty classification schemes – remember what we told you about the decentralized culture. Even within one department, each service may have its own scheme. However, these classification schemes have all the same four-level structure.”⁴⁴⁹

⁴⁴⁸ Interviewee C4. As we have learned, rules and instructions did not have a great hold in the organization under examination. For that reason, the archivist of the bank was actually offering her/his help to each individual department or unit that was about to create a classification scheme.

⁴⁴⁹ Interviewee C7, bank’s archivist.

We are discussing this classification issue here, rather than under the appropriate category, because the classification(s) created for the purposes of the archives did not succeed to become the “classification used for the files in the dynamic (i.e., active) phase,”⁴⁵⁰ as envisaged by the person we have identified as being the *deus ex machina* of the overall records management and archival function at the bank. This person regretted that the Australian concept of the ‘continuum’ was, in her/his view, inapplicable to “Latin countries.” What s/he meant was (not differently from what we have seen in organization B) that

“Here at the bank, people do not see the link between the moment you receive or create a document and the moment you send that document to the archives. ... I have tried to convince people that archival management starts in the dynamic phase. But we are part of the Latin world... Some departments are very happy with the service we offer, but as far as current records are concerned, they say: ‘no thanks, we do whatever we want’.”

With regard to both records management and archives, the approach of the bank had always been very pragmatic:

“Our system is quite good for the daily functions of the people in the bank, but it is not something I would exhibit as a model. ... Priority has always been given to the operational needs of the departments.”

For this reason, this subject recognized that several compromises between archival theory and the daily, real-world practices had to be made. For instance, one of her/his major concerns referred to the ‘betrayal’ of the principle of original order (“fundamental to understand the meaning of anything”) perpetrated, in her/his opinion, by the EDRM software the bank had chosen.

“The problem is that it is technically possible in [the EDRMS] to assign a class code to a number of records without creating any files. ... What you have in the system is just a *flat list* of documents. To have some structure, I play around with the metadata so that I can create some order, which is

⁴⁵⁰ Interviewee C4.

always my order. I can reconstruct the order I would have had in the paper world, if I want. But this is just an option.”⁴⁵¹

Apparently, apart from the archivist working in her/his unit, nobody else in the organization shared this subject’s concerns about the lack of ‘fixity’ proper of the various virtual views of ‘the’ file allowed by the electronic system.⁴⁵² Most users found that, on the contrary, the flexibility provided by the metadata in the system and the fact that the data were “all together in one big database” represented an advantage in terms of “not hav[ing] to worry about where you put your documents.”⁴⁵³ Even the unit responsible for the records management function had given a very basic outlook to its folder structure (i.e., folders arranged by year under headings corresponding to the internal organizational structure), relying on the fact that, where the necessary metadata had properly been entered in the system, anybody could recreate any order s/he wished to see, including the ‘original’ one, just by selecting the appropriate metadata.

According to the archives people, the departments in the bank that were mainly dealing with technical matters (and the records management unit was one of those) could afford to keep their documents in such an easy-going way. Those that were “administrative in nature,”⁴⁵⁴ like the unit the archives was part of, needed to have a more articulated folder structure, so as to reflect as close as possible the traditional arrangement of the paper files. The outcome of that unit’s efforts was indeed a rather

⁴⁵¹ This and the previous citations of the last few sentences are from interviewee C4.

⁴⁵² The problem identified by this subject is in fact typical of all computer applications (not just of the one s/he was blaming), where the relationships among the data which are stored randomly in the system are contained in instructions that make it possible to visualize those data, for instance, as hierarchies, even though there are only flat data in the computer. So, if the system is fed with the metadata that allow recreating the order the records used to have in the paper world, the electronic files will display that structure. However, neither that nor any other possible structures in the system will have the characteristics of fixity and stability that are necessary to provide the records with context.

⁴⁵³ Interviewee C3, user.

⁴⁵⁴ Interviewee C4.

complex folder structure – which did not look very different from the classification they used for the transfer of their records to the archives – and a rich set of metadata used to refine that structure, so that the original context of the records potentially was in the system. In other terms, with reference to their unit, they did achieve the objective of extending the archival classification scheme to the ‘dynamic’ phase, as well as the one of ensuring that, at least logically, their files were in a good and meaningful order. However, as to the objective of setting an example that hopefully all other units in the bank would imitate, that was still far from being reached.

Legislative Framework and Internal Regulations

Consistently with its interpretation of being an “autonomous government body” and with the claimed ‘anarchic’ nature of its members, even before its independence as a central bank participating in the ESCB was institutionalized, the organization in question was not affected by any existing archival laws (“our rules come all from us”⁴⁵⁵). At a closer look, one could however realize that, although the national archives plays no role with reference to internal disposal procedures, nor has it any other supervisory functions towards the bank, the archivist of organization C is in permanent contact with the archival authority. First of all, in virtue of an ad hoc deposit agreement, the latter has part of the bank’s archives. Second, the bank had recently signed with the national archives “a contract about the thirty-year rule that obliges us to be open to the public.”⁴⁵⁶ As to the possibility for the general public to access documents not yet transferred to the custody of the archives, the organization somehow feels ‘exempted’ from any kinds of freedom of information legislation, by relying on the fact that

⁴⁵⁵ Ibid.

⁴⁵⁶ Interviewee C7.

“Luckily, people trust the bank and are aware of banking secrecy and so on, so they do not ask for access to current files.”⁴⁵⁷

In the course of the years, the archives service has issued various internal regulations, which, however, were conceived and perceived more as suggestions than as rules to be compliant with. As a result, some units seemed to ignore even the fact that a central archives did exist in the bank.⁴⁵⁸

iv. Organization D

Records Management: Organization, Concepts, and Strategies

The description of the record management framework in which the last of the four cases of this study was operating should begin by reminding the reader that we are now dealing with an organizational type categorized as a ‘full bureaucracy’ by Hofstede. In her/his reply to this researcher’s survey, the person responsible for the records management function in the bank – who had no interaction with the archives, which is functionally and organizationally allocated to a different business area – had already indicated that the level of ‘power distance,’ that is the concentration of authority in the hands of the highest ranking persons in the organization, was indeed high. The ‘red-tapism’, i.e., the second characteristic of such bureaucracies, had to become evident to this researcher every morning she entered the bank and had to undergo a lengthy identification procedure.

The way the records management function was organized – that is, with a central unit responsible for developing and implementing both the conceptual records

⁴⁵⁷ Interviewee C4.

⁴⁵⁸ The subjects of one unit in particular (secretaries of an important economic department), when asked whether their documents were regularly sent to the archives, needed to consult with their managers as nobody in the office was sure about that. Finally, the answer was (see interviewee C8):

“Yes, sometimes we send something to them, when we have the time ... Anyway, it is not an obligation; but we do clean our cupboards when we need to free some space.”

management program and the physical EDRMS, and for coordinating the actions of the system users disseminated throughout the organization – was not too different from the configurations displayed by the other cases examined in this study. However, this organization did not recognize itself in the ‘semi-decentralized’ option offered by the survey as all the others did, but rather used the word ‘centralized’ both in written instances (i.e., the reply to the survey and internal documentation) and in oral ones (i.e., case study interviewees). In line with this idea of itself, no opportunity to visit other units (apart from the archives) or to interview the recipients of the services provided by the ‘central office’ was offered to this researcher during her visit.

Signs of the strong presence of bureaucracy in organization D are visible everywhere in the interview transcripts. The citations reported below also highlight the approach taken by the ‘document management unit’ (once again, the term record was not part of the local vocabulary) in performing its role.

“Our mandate was to design *a single solution for the whole bank*... For some areas, this idea of uniformity is difficult to accept. However, in general, *people in here have no problems in complying with rules and policies*.”⁴⁵⁹

“People use the [EDRM] system because it is *mandatory*, and because they understand that the system is necessary to have *control* over the official documents of the bank.”⁴⁶⁰

“Our initial objective was to *standardize* as much as possible all the business processes in the units involved in the pilot project.”⁴⁶¹

The unit in question was established quite recently following a long period of non-management of the current records, while the archives (exclusively paper-based until now) boasted a prestigious tradition going back to the origins of the bank. The reason for

⁴⁵⁹ Interviewee D1, manager of the records management unit.

⁴⁶⁰ Interviewee D4, records manager responsible for developing the classification scheme.

⁴⁶¹ Interviewee D1.

creating a new entity with the specific task of setting up a comprehensive program that would “cover the whole record life cycle”⁴⁶² was the introduction of a system for the management of the electronic records of the bank. The EDRMS project, whose development and characteristics will be examined later, was basically conceived as a ‘pilot project’ by the consultants who had been hired to buy the software and make it run in a few business areas. So, the unit that had inherited the functions of the project was still dealing with issues of implementation and roll-out, besides being involved in an in-depth review of some of the concepts and products delivered by the consultants (including the classification scheme).

As the system was “designed to be used directly by every single user,”⁴⁶³ the records management unit had adopted a step-by-step strategy consisting in deploying the EDRMS to one department, or portion of a department, at a time, and being very attentive to the expressed and unexpressed needs of each counterpart. Yes, the system had to be one and had to be uniformly applied; yet the unit’s team was aware that what they needed to focus on were the system’s underlying principles and long-term goals. For the time being, consenting to, and trying to accommodate users’ wishes – even the most bizarre ones – seemed to be the only way to achieve a twofold objective, i.e., “mak[ing] the users happy because they have the impression they still work as they used to do in the paper world” and, at the same time, maintaining “control and supervision over their work.”⁴⁶⁴

Considering that being immobile and resilient to change is part of the nature of full bureaucracies, one should not be surprised that the unit under examination was

⁴⁶² Interviewee D5.

⁴⁶³ Interviewee D1.

⁴⁶⁴ Ibid.

investing a great deal of time and resources in marketing its message and providing any potential and actual users with customized training and assistance. They could do so and be rather effective in that because, although being a very small unit in comparison to the enormous size of the organization, they were a ‘team’ (in the proper sense) that appeared to have very little in common with the rest of the organization. They are all rather young people, almost all new to the bank, and some with experiences as consultants in the records management and archival field. But the most interesting feature of this team is that it is a “multi-disciplinary” one, the manager and some other members being “‘pure’ archivists but with a lot of experience in electronic records management,”⁴⁶⁵ and the others ranging from information and communication specialists to engineers. This composition is ideal, first of all, to keep motivation and enthusiasm despite a sometime hostile environment, and secondly, to be able to tackle a wide range of issues (from records’ diplomatic analysis to business process re-engineering) and to do it always from different angles, without being afraid of disagreements and, to the extent possible, trying to experiment with new ideas. The next paragraphs will provide specific examples of such multi-perspective approach, which will anyway emerge in most findings of this case.

With regard to marketing their services and putting the users at the centre of their attention – both considered number one priorities by the newly established team – an online training tool, accessible from the organization’s intranet and providing a step-by-step, interactive guide through the EDRMS features, had been developed. That was only the first step. The team was aware that

⁴⁶⁵ Ibid.

“talking about files, records, classification, etc. does not make any sense to the people in the bank. ... We soon realized that we had to change ourselves if we wanted to change the others. ... The first thing we had to do to become more effective was to *change our way of communicating*.”⁴⁶⁶

Consequently, in order to communicate their most important message (i.e., the ‘why we are here’), they put together a very attractive video clip made of a series of brief extracts from popular commercial movies, all somehow related to the topic of managing records in the office. After having showed the video clip for the first time, the number of the system’s users doubled and the visibility of the unit experienced a tremendous increase.⁴⁶⁷

This outward flexibility was coupled with a focused attitude towards unequivocal definitions and solid concepts shared within the team. The clear identification of the phases of an administrative process, the understanding of the ‘form’ of a document, and the precise definition of terms like ‘original’ and ‘copy’ in an electronic environment, ‘responsible for the process’ and ‘responsible for the documentation,’ and so on, were all elements suggesting an in-depth re-elaboration of diplomatic concepts by the team members.

“I am convinced that we could manage electronic records much easier if the records were more ‘structured.’ ... The creation phase is not controlled enough. By imposing a structure to the *form of the records* that are created we could manage much better the whole life cycle. We could for instance capture automatically most of the metadata. ... By studying the *phases of the administrative process*, which is usually quite structured, one knows which records need to be captured in the course of such a process and, at the same time, one may be able to simplify the various business processes. ... *Diplomatics* should become again the basis of records management and archives.”⁴⁶⁸

⁴⁶⁶ Interviewee D5.

⁴⁶⁷ See interviewees D2 and D3.

⁴⁶⁸ Interviewee D1. This researcher was positively surprised by the interest of this unit in diplomatics, an interest that, besides explicit statements like the one reported in the text, she could sense in many actions

A final aspect characterizing this case's approach to records management is the tight link existing between the documentary and the legal and administrative contexts in which the organization was situated. As we have seen, standardization and simplification of the administrative processes were among the stated objectives of both the consultants hired to carry out the pilot project and the current team leading the project. Besides that, the latter was entrusted with the task of contributing to prepare the organization for the forthcoming enactment of a new law that will require all public bodies in the country to interact exclusively online with the citizens and with each other. The bank, being rather "conservative and old-fashioned," had still a long way to go before being fully compliant with the law's prescriptions. For the unit under examination, this task involves not only "the design and implementation of an electronic registry system for all the incoming and outgoing correspondence," but also an analysis of each of the concerned business processes in order to identify "the technical and functional requirements" that the EDRMS and any other "systems managing document-based relationships"⁴⁶⁹ have to fulfill. Thanks to its engineering component, the team felt well equipped to conduct that analysis and was eager to adapt its activities in the most effective way to accomplish the assigned task, that is, to move from an organization-based to a function-based approach.

"In the beginning [of the project], we were focused on all the processes of one single unit; now the [new law] forces us to change our approach. We are analyzing process by process, and this sometimes involves studying more units at a time. So our project has become more *transversal*."⁴⁷⁰

and discourses about the records system under examination. She was not surprised to find these references in organization D, as diplomatics is traditionally part of the archival education programs of Latin European countries; but she did not expect that, in a business environment, people would engage with her in diplomatics-related discussion with reference to the design and implementation of an EDRMS.

⁴⁶⁹ This and the previous citations of the last few sentences are from interviewee D5.

⁴⁷⁰ Interviewee D1.

The observations just made could be read as part of the following category as well, in that, in the present phase, it is still through the EDRMS project that this records management unit is performing its functions.

EDRMS Project: Concepts and Strategies

Surprisingly, the typical distinction between document and record did not show up in any of the discussions with the team. Nevertheless, the EDRMS did consist of several environments, differently structured and implying diverse degrees of protection of their respective contents.

The general, common work space that all the departments in the bank will eventually share one day for the management and storage of their administrative records has a “process-based structure” and involves a number of mandatory metadata of which some have been adapted to meet individual users’ needs. Only the pilot areas (selected in order to be “very different from each other [and belonging to] the core business of the bank”) were actively using the system; however, at the time of the case study, many other units had already been analyzed for the twofold purpose of “standardizing as much as possible their business processes” and “establishing a classification scheme.” The latter was conceived as a common, functional framework (we will see later what that meant) and was developed and maintained centrally according to an idea of uniformity that was indeed *substantial*, that is, not just concerning the number of levels (as we have seen in organization C), but also the design criteria, naming of classes and subclasses, and any other structural feature.

“The advantage of our solution is that you can organize all documents in the same way throughout the bank, so you are *transversal*, you can share documents between units, and you can enter rapidly into the work of any unit. Improving document sharing and transparency was indeed one of the

goals of our project. The problem is that people, in [this bank], are not used to share work.”⁴⁷¹

It did not escape the people in the team that, given the non-sharing culture of the organization, their system was inevitably to be perceived by the users as being

“too rigid for the dynamic nature of active information, for the effective management of corporate records, for being the system that everybody in the bank should use.”⁴⁷²

The typical users’ complaints (e.g., limited flexibility of the system in comparison to the old folder structure in the Windows shared drives; too many metadata to fill out; slow performances of the system) recur in the findings of this case study as well. Nevertheless, in this specific case, the system was indeed made “to impose some structure” and intentionally “to limit the freedom of the users,”⁴⁷³ otherwise the desired control would have been hard if not impossible to achieve.

Within the team, there were voices that favoured a more user-friendly approach from the technical point of view as well, that is, beyond the areas of training and communication which, as mentioned before, were already covered exemplarily. In particular, one team member, who had previously been working in a core business area of the bank and was now permanently in contact with the users in her/his role of classification system developer, made interesting observations:

“I personally became more flexible than I was. Working with the users helped me to *see things from a different angle*. When you start working with the users, you realize that you do not know what they actually do and they do not know what you do. You have somehow to try to find a *middle way* that satisfies both.”⁴⁷⁴

⁴⁷¹ This and the previous citations of the last few sentences are from interviewee D1.

⁴⁷² Interviewee D4.

⁴⁷³ Interviewee D1.

⁴⁷⁴ Interviewee D4.

Without probably knowing it, this person was explaining the essence of Soft Systems Methodology, that is, looking at the ‘problem situation’ from the perspectives offered by different *Weltanschauungen* and then trying to find an ‘accommodation’ leading to a change that is ‘desirable’ and ‘feasible’ for all parties involved.⁴⁷⁵ S/he also made the following comments, which, besides the flexibility issue, touch upon the idea – expressed *inter alia* by sociologist Simon – that routines represent the largest part of an organization’s activities.

“I think we could be more effective, if we were sometimes a bit more flexible. For instance, when the users open sub-folders, the number of sub-folders allowed and the relevant [metadata] are predefined. I would give them more freedom, not with reference to the number of levels, but with reference to opening as many sub-folders as they want, and naming them as they want. In the end, probably, they would open the same sub-folders all the time because *most processes are very much standardized*. ... When I was with [a bank’s business area], we had a directory with very regular, boring folders (meetings, agendas, item 1, item 2, etc.) because, at the end of the day, people work in a very structured way and usually follow some criteria all the time. They need to do the same things over and over again because this is how work can be accomplished. Changing procedures or criteria every time would be inefficient. So, for some people, having automatic sub-folders works well; however, I would be in favour of giving them more freedom, which also means more responsibility.”⁴⁷⁶

The business analysis conducted by the consultants at the beginning of the project had highlighted the need for creating a separate work space for the documents created by committees, working groups, task forces, and the like. The common features characterizing these groups were that, first, they were used to involving people coming from different functional areas, and, second, their structured way of working was generally different from that of a typical department. In other words, instead of being

⁴⁷⁵ See Checkland, *Systems Thinking, Systems Practice*.

⁴⁷⁶ Interviewee D4.

process-based, they were meeting-based, and this difference had to be reflected in the structure of their work space.

A third environment supported by the EDRMS was a shared work space where internal business-related communications could be exchanged within the bank and between the bank and its agencies “in an easy, fast, and semi-automatic way,” and, as an additional advantage, without clogging the email system. The use of this application was mandatory, but, in this case, users had no complaints because it was almost effortless. Apart from the identification number assigned automatically by the system to each sent document, the only metadata required was the addressee name(s), as for the rest, the “documents in the system [were] neither classified nor grouped in any other ways.” The records management unit was fully conscious that this ‘unorthodox’ practice might have jeopardized file completeness (“what is missing is the link, through the classification, between these communications and the files [existing in the other work spaces]”).⁴⁷⁷ However, that was a ‘quick win,’ and projects sometimes owe the achievement of longer-term objectives to these little, probably undeserved, successes.

Archives: Relationship with Records Management

The only aspect of the archival function that emerges from the findings of this case study concerns the relationship between the archives and the records management unit, and it mainly refers to the latter’s point of view. The archives was perceived as “the missing piece of the puzzle.”⁴⁷⁸ Closed in their paper-world, the archivists (“more classic-minded than we [records managers] are”⁴⁷⁹) would apparently refuse to participate in any discussions regarding the life of the records prior to their transfer to their custody. They

⁴⁷⁷ This and the previous citations of the last few sentences are from interviewee D2.

⁴⁷⁸ Interviewee D1.

⁴⁷⁹ Interviewee D5.

certainly had an interest in the electronic environment, but since “it [was] not their present,” they would not take a proactive approach towards the challenges involved in the preservation of electronic records, as the fact that “for the time being, they [were] accept[ing] all kinds of formats and anything electronic [was] usually kept on CDs”⁴⁸⁰ demonstrates.

Nevertheless, unlike the other cases examined, the issue of the integration of two ‘sides of the coin’ was not really debated as a priority in this organization. The feeling that this researcher developed was that, from both sides, there was a tendency to identify records management, including the electronic archives that was being built within the EDRMS, with the administrative aspects of the life of the organization, and the (historical) archives with the cultural aspects of it. The Schellenbergian dichotomy has indeed had a lasting tradition in the area where organization D was located. To return to an assumption made by one of the subjects of the previous case study (that is, that the concept of the continuum would not be applicable to Latin countries), the term ‘continuum’ was never mentioned by this case’s subjects, while, whether in the Australian sense or as a dynamic, non-segmented interpretation of the records life cycle, it appeared in the transcripts of the other organizations examined, even if just to say that the application of the concept of the continuum was a goal not yet achieved.

Legislative Framework and Internal Regulations

In line with the characteristics of its bureaucratic type, the environment in which this organization was operating appeared to be hyper-regulated. As will be discussed later, almost all entries at the transaction level of the adopted classification system

⁴⁸⁰ This and the previous citation are from interviewee D2. Interestingly, more than one interviewee made reference to the lack of topics related to the areas of electronic records management and digital preservation in the study curricula offered by the education system of the country under examination.

corresponded to some existing administrative procedures defined by specific laws and regulations (“our processes are almost hundred per cent defined by the law”⁴⁸¹). People in the organization would talk about such procedures just by naming the figures (number and year) of relevant acts and referring similarly to articles and commas, as it was assumed that everybody would know them by heart.

On the other hand, thanks to its special independence, power, and authority position, the bank has always regarded itself as being allowed to “interpret the law in very particular ways.”⁴⁸² So, with regard to, for instance, the new regulation aiming at transforming all government bodies in entities capable of establishing electronic relationships with the outside world, some subjects openly stated their scepticism about expected outcomes.

In relation to the above mentioned law and to a ‘culture of trust’ typical of civil law countries, the unit interviewed was also examining the possibility of implementing digital signature technologies in the organization. A ‘light’ electronic signature system (that is, a procedure to authenticate electronic communications consisting of a mechanism of identification stronger than a normal password but not involving asymmetric cryptography) was already used within the bank. To be able to interact properly with the citizens (“who ask for the digital signature, as they only trust signed documents”⁴⁸³), this ‘stronger’ form of authentication had to be made available to the users, despite the severe issues related to the preservation of digitally signed documents, of which this unit was fully aware.

⁴⁸¹ Interviewee D4.

⁴⁸² Interviewee D1.

⁴⁸³ Interviewee D5.

As to its relationship with the national archives, the bank, as an independent institution, is not subject to any form of control or supervision by, nor has it ever transferred part of its holdings to, the archival authority. One of the study subjects' comment was: "They cannot come and audit us because we are an autonomous body. I do not know whether this is good or bad."⁴⁸⁴

6.2.2 Records Management Processes. A Cross-Case Analysis

Of all the cases that are part of this research, the most elaborate records management configuration seemed to be the one displayed by the first case examined. Being a representative of that Anglo-Saxon tradition which had discovered the importance of managing the active records of an organization before the archivists of continental Europe started broadening the area of their responsibilities beyond the boundaries of their archival repositories, might be one of reasons for the precocious interest in records management showed by organization A. Without revealing too much of its identity, one might also relate the existence of a records management system for paper records – unique example among our cases – to the fact that this was the youngest of all organizations participating in this research, thus it could easier afford to divert some attention from the inactive to the active material. Additional factors that might positively influence the role attributed to the records management function in organizations, one may list the early introduction of computers, which increases the need to get control over records production, and a work environment that is not too hierarchical, as the opposite would involve neglecting all that is not core business. Both factors apply to the present case, as the first one may be assumed from the technological development of the area

⁴⁸⁴ Interviewee D1.

where organization A is located, while the second (a.k.a., low power distance), besides being consistent with Hofstede's predictions, has emerged from previous analyses of these findings.

The advanced state of records management in case A is also demonstrated by the importance the organization attaches to the early evaluation of records for purposes of selection, a function that is facilitated by records scheduling. The other organizations were still too preoccupied with setting up the foundations of their records systems to be able to develop some systematic strategy to eliminate the material that was not necessary to keep in those systems. On the contrary, in organization A, also thanks to a more comprehensive consideration of the records life cycle (which one may call 'continuum' approach and refer again to the Anglo-Saxon culture), records were classified, filed and, at the same time, linked to 'series' that would qualify them for a determined retention period, followed by destruction or, in case their long-term value needed to be assessed, by transfer to the archives. As we have seen, this mechanism involved various responsibilities and was regarded as a great asset in terms of enabling the organization to be compliant with the external legislation in matter of access to information, although the fact that it was not yet applicable to electronic records had augmented the area of risk ("the paper system and the electronic system ought to come together ... This gap is just exposing the bank to a high risk"⁴⁸⁵). What this researcher wishes to show at this point is the relationship existing between series and classes, in that it may be revealing of the whole concept of records classification as it was interpreted in this organization.

"The relationship between series and classes is not one-to-one. Series are big grouping of files, not necessarily belonging to the same class. ... Classification is sort of related, but you really have to know your records

⁴⁸⁵ Interviewee A9.

to say what series they belong to. You may have a [class] corresponding to hundreds of files all with the same retention, that is, they all fit into the same records series. But if we see that a class involves some records that have different legislative requirement and business value, then we prefer to open up a new class.”

By reading through these and the next words, it appears that, up to a certain extent, retention considerations were guiding class creation.

“We try as much as possible to come up with groupings of same types of records in terms of their value. If records [with the same value] belong to different files, it is not a problem at all, because you can have series that are all over the place. Records series are so broad... Every series has a number, and we also indicate if it is a case or a subject file.”

The definitions of case and subject file were actually based on the actions that either file type would involve in terms of retention:

“Case file is usually something that has a trigger date, such as, for instance, a project, a contract, legal files, files related to system maintenance, etc. A case file has what we call a ‘condition.’ ... Subject file is something with a fixed end-date, otherwise it would continue forever. We decide when to close subject files, and normally we find it not convenient to keep them open for more than two years.⁴⁸⁶

The concept of a file was well established in organization A and, unlike organization B and C, where no filing procedure was in place for electronic records, such a concept had somehow been transferred to the electronic world too. However, the latter did not present any of the control mechanisms or business rules existing in the paper world, as such features would have required specialized users in order to be applied consistently. For instance, with reference to projects and contracts (i.e., two of the most common series handled in any organizations), the records managers operating in the records centres followed certain conventional procedures taking into consideration ownership, size, and value of relevant files. Given the rather routine nature of most projects, a common

⁴⁸⁶ This and previous two citations are from interviewee A1.

template was used to manage their life cycle, although some discretion was still necessary to accommodate specific business area needs. While projects were generally classified functionally (except for those which were short-lived), contracts were not physically linked to the activity they referred to; rather, they were filed all together in a “big bucket, with no distinction by topic or by function.”⁴⁸⁷ Only when a contract was part of a project, an agreed upon rule required that it be filed with the project.

“Each contract is a case file on its own and, apart from the contracts referring to projects, any other contract bears the same class code. This seemed to us easier than having to go to each function to get the contracts made under that function. ... Having contracts scattered everywhere was not appealing to us. Their value is the same, so why not keeping them all together?”⁴⁸⁸

Each contract was indexed in the paper records system, in order to provide any necessary conceptual bond with its documentary and administrative contexts, as well as to facilitate retrieval. On the basis of their experience, the “power users”⁴⁸⁹ working in the records centres could easily manage such a network of relationships. The records management training ‘on the job,’ together with the knowledge of the business acquired through the daily contact with their clients, and probably the ‘physicality’ of the records as well, had made them so skilled that they knew exactly when, how, and why to apply any established procedure. They were for instance aware that classification, however detailed it may be, would not be sufficient to guarantee efficient retrieval.

“[Classes and sub-classes] are not enough to find stuff. Because classification is too general, we are used to indexing most of what we get, not only the contracts as they do in other areas. Without indexing, retrieval may be hard.”⁴⁹⁰

⁴⁸⁷ Interviewee A6.

⁴⁸⁸ Interviewee A1.

⁴⁸⁹ Interviewee A2.

⁴⁹⁰ Interviewee A6.

Thus, in the paper world, the function of specific metadata (i.e., indexing), as opposed to the one of classification, seemed to be quite clear. Nevertheless, this concept, as well as the rather articulated, partly function-based scheme used to classify and determine the retention of the records, was not transplanted into the system for managing electronic records that, as we have seen, at a certain point in time, started to be used in parallel to the paper records system. According to the ‘records people,’ “right now, all of the electronic documents [were] *not classified*.”⁴⁹¹ What they meant by this was that, although the existing EDMS did involve some kind of folder structure and basic metadata, the mechanism to “manage the life cycle” of electronic records, i.e., a classification system mapped against a retention schedule, was completely missing.⁴⁹²

What is interesting to notice is that having an established tradition in records management did not seem to impact substantially the features and underlying concepts of the EDMS currently used by case A, a system which overall did not really look more sophisticated or ‘archivally’ better than any of the EDMS or EDRMS adopted by the other cases examined. It seems that, independently of how good or bad an organization has been managing its paper files, because “we are still in a transition phase” and the

⁴⁹¹ Interviewee A1.

⁴⁹² Case A’s understanding of classification as a means to manage records retention and disposal influenced the way in which its EDRMS project envisaged the ‘truly’ function-based system that was under development at the time this study was conducted and that will be examined in the following section. With the previous paragraphs, this researcher wanted to stress the importance attached to the retention process by that organization – an attitude which certainly was consistent with the archival tradition of the country under consideration. The idea that classification would primarily serve the purpose of supporting records retention was so rooted in the practice, that the meaning of file as a record organizing device had become weak in some of the study subjects. See for example how interviewee A1 was reflecting on features of the new system:

“We are trying to find the best way to classify [(i.e., identify the value of the records)] without having to create a hierarchy of classes, so that we can say this document type corresponds to this file number or, better, this records series... I have the feeling that we will go to the records series way, rather than the file number way, because *all those file numbers really do not mean anything* as they are anyway mapped to records series. In the end, *what you need to know is if you keep the document or not.*”

market for such products is not mature yet, “nobody is doing electronic records management well,”⁴⁹³ as pointed out by one of case D subjects. On the other hand, the findings of this research reveal that what may be called ‘first IT revolution’ in records-related matters was generally not a carefully planned process. Urged by their users to modernize and “democratize”⁴⁹⁴ their tools, records professionals would accept the unsatisfactory compromises offered by available technology so as to offer the quickest, easiest, and possibly cheapest, ‘solution’ to a ‘problem’ that still needed to be precisely identified. As a subject of organization B put it,

“When we started our project, we were so *inexperienced* that the product we chose was probably not the best one. However, at that time, it was not easy for us to realize that.”⁴⁹⁵

In order to make the new systems directly available to the users without specialists’ mediation, those involved in early EDMS or EDRMS projects did not see any alternative to heavily mitigating or completely eliminating the ‘archival burden’ that used to characterize traditional paper-based systems. Still, as the findings of all case studies demonstrate, users would perceive the new environments as too inflexible, complex, and time-consuming. A subject of organization A made the following analysis of this phenomenon:

“People expect that when they put something in the EDRMS, because it has a search capability, they should be able to find anything; and when the search does not work, that is a major complaint. ... I also think that since PCs came to the market, people got used to certain ways of working, naming conventions; ... they would set up their own directories and subdirectories, and so on. What happens is that they take the same approach, the same mentality to an EDRMS. ... You have people who look at themselves as computer savvy: ‘I am managing documents, I am

⁴⁹³ Interviewee C1.

⁴⁹⁴ Interviewee A1.

⁴⁹⁵ Interviewee B2.

storing them, I can find them. Why do I need this EDRMS?’ To get them into an EDRMS is almost *re-training*.⁴⁹⁶

Wherever the old shared drives had not been shut down, users would continue using them; or they would recreate the idiosyncratic, uncontrolled structures of the previous systems into the new ones. Such ‘unfaithful appropriations’ were particularly evident where the decentralization of responsibilities was higher and necessary ‘re-training’ – which should be seen as part of an overall change management strategy – did not take place or was not rigorous enough. Exemplary cases in this respect are organizations B and C.

In organization B, the information specialist component of the project team (i.e., the bank’s archivist and the librarian) seemed to suffer particularly the ostracism of the IT component. The latter, with its focus on search and retrieval,⁴⁹⁷ had managed to relegate any archival demands to such a subordinate place in the system that an essential means like classification – which was function-based, and would potentially have been a powerful tool – had *de facto* become totally ineffective. Even the archivist, in her/his role as a records creator, did not know why s/he should make the effort to choose carefully the class to which to assign her/his documents, when the classification metadata was nothing more than a keyword that would not provide the records in the system with any structure.

“Sometimes, I myself do not know how to categorize my documents, so I choose the first best one. I often use the entry ‘Communications’ because it is quite generic. At the end of the day, it does not matter what I choose, because I cannot do anything with that information in the system. ... The

⁴⁹⁶ Interviewee A5.

⁴⁹⁷ See interviewee B6’s comments:

“With a good search engine, information is more transparent. ... [This software] has a search engine that allows you to make search for each property in a complex query. So you do not really need to know *where* you have stored your information.”

classification system in the EDMS has no function at all. Nobody sees the meaning of having that additional metadata field to fill in.”⁴⁹⁸

From the IT perspective, the way records are structured in the system (i.e., the ‘where’) does not really matter.

“It is more important to know *why* you store the information in a certain way than to know *where* the information is actually stored. The best way is probably to store it in *some structured way*. However, the search engine embedded in the system can always point you to the right direction where the document is. If you have an EDRMS with good properties, you can actually *store everything in one bulk* as you will always be able to get the information you need.”⁴⁹⁹

In most of the cases analyzed in this research, the ‘where’ was a folder structure set up by individual users according to current organizational settings, so that storing and short-term retrieval of records could be as easy and intuitive as possible.⁵⁰⁰ The ‘why’ provided by the metadata, i.e., the ‘good properties’ entered in the system (including classification), would enable long-term retrieval and multiple views of the data stored in the system. The implicit tendency of most EDRMS to separate the ‘why’ from the ‘where’ was responsible for the ‘loss of the original order’ that we have earlier discussed with reference to case C. Leaving the folder structure, i.e., the only fixed structure in the system, in the hand of the users was generally not perceived as a way to renounce to providing the records with their functional, original context. Only those with an archival sensitivity were able to recognize that

“if you store your records in this or that folder, it is another way of classifying your material. So the management of the folder structures in each unit should be controlled. This EDMS, by allowing users to add and modify folders as they wish, is working against us.”⁵⁰¹

⁴⁹⁸ Interviewee B1.

⁴⁹⁹ Interviewee B6.

⁵⁰⁰ As the records managers of organization A would put it: “going by department is almost no brainier; it is easy and everybody can do that.” See interviewee A6.

⁵⁰¹ Interviewee B2.

Users in organization B found the system's metadata "very confusing;" however, being the latter mostly mandatory, they would apply them, although with great frustration. An interesting view that is worth reporting comes from a user who appeared to be rather concerned with the contextual information surrounding the records of her/his unit, as

"our work is related to coordinating the work that others do and ensuring that the briefing notes received by the governor are already kind of function-based."

Both the nature of the work carried out by this unit (i.e., meeting-based) and the types of records created (i.e., single documents supposed to summarize complex, cross-functional decisions) seemed to encourage a file-based approach. However, because the system would not allow "aggregating the information in a meaningful way," this subject had instructed the people of her/his unit

"to structure each briefing note as if it were a file, i.e., including some background information, a short summary of the previous history of each topic involved, the positions taken by other areas, and a general description of any controversial issue. ... You will not be able to find the functional relationship in the EDMS, because that meta-information is not stored in the system, and even if it were, you would not be able to find it."⁵⁰²

Other subjects claimed that also contracts had "enough context"⁵⁰³ to be filed individually. From these comments, one realizes that users in organization B were not familiar with the idea that the context that emerges from the spontaneous accumulation of records in a file has characteristics of naturalness and originality that enhance the reliability of its content and that are not present in any purposeful aggregation of contextual information. On the other hand, one should consider that, partly due to its limited resources, this organization had not established any specialized network of

⁵⁰² This and the previous citations of the last few sentences are from interviewee B5.

⁵⁰³ Interviewee B3.

‘power users’ and that people with interests and expertise others than those of records professionals could not be expected to take over their role easily, as one of those experts reminded us:

“After all, people are experts in their business area’s topics. They are economists, financial analysts, and so on. They are very good in their jobs, but they are clearly not expert in records management or archives. Of course, also the very narrow experts have to be educated to fit into the organization, including the management of records and preservation for future purposes. But I believe there is a limit to what people are able and are willing to absorb.”⁵⁰⁴

The lack of coordination of records management activities in case B may be regarded as a consequence of various contingent, structural, and cultural factors. Besides the policy of ‘austerity,’ which had caused the drastic cut of resources we mentioned earlier, the existence of a highly decentralized authority system, and the special atmosphere of ‘freedom’ in which this organization was immersed contributed to reduce the scope of the central archives, as well as to transfer any responsibilities about what to keep and how to the single units. This provoked the creation of self-contained department-based systems, unable to communicate effectively with each other, despite the basic culture of openness typical of the whole information philosophy of the organization.

Very similar results characterize organization C, although, as far as it concerns internal exchange of information and access mentality, it was exactly the opposite of organization B, having a “very closed and secretive culture.”⁵⁰⁵ Apart from sharing the same piece of software – which by itself could not enable interoperability, also because of the unsatisfactory integration of its component parts (i.e., its various interfaces, customized and non-customized work spaces, intranet sites and sub-sites) – and a very

⁵⁰⁴ Interviewee B5.

⁵⁰⁵ Interviewee C2.

high level idea of a ‘common structure’ (with reference to both the electronic and the paper system), the ways of managing records in the different business areas was individualistic and almost completely uncoordinated. Historically, the organization could not agree on a uniform records system, thus all efforts made to achieve a common set of metadata or to reduce the multiplicity of classification schemes in use (more than fifty in the paper world) were destined to be frustrated. Of the twenty-four metadata currently included in the EDRMS, only a few were mandatory, and their meaning was subject to interpretation. Each user could choose a tailor-made sub-set of metadata to be displayed on her/his computer and, because some were compatible only with reference to each work space and not transversally, manual inputs and duplication of work were a rule.

A “function-based classification system” was embedded in the EDRMS, although, like in organization B, not as the primary structure where people would file their records, but as a rather hidden and not so effective metadata field. The folder structure, also called “physical classification” (a name which stresses a certain awareness of the act of classification), was, and needed to be, based on the organizational structure. The reason why it could not have been conceived otherwise was that its essential purpose was “managing access.”⁵⁰⁶ The ‘functional’ classification (which consisted in a rather lengthy list of classes and sub-classes, managed at the department level, and thus reflecting the understanding of function of each individual developer) was used to “allow multiple views of the same records.”⁵⁰⁷ In order to get the most out of this descriptive mechanism (which was just more articulated but not different in substance from the sort of keyword system that we have identified in case B), users could actually choose more

⁵⁰⁶ This and the previous citations of the last few sentences are from interviewee C1.

⁵⁰⁷ Interviewee C2.

than one class to categorize each record. While the people in the records management unit considered this possibility an advantage in terms of the flexibility that it implied, those in the archives expressed more than one concern for the consequences of such a “flat list of metadata” on the ‘original order’ and the correct application of records management processes. With reference, for instance, to the future implementation of a retention mechanism, they had a clear view of the challenges they were facing.

“Retention is not yet in the [EDRM] system, but I do not actually see the way we can implement it, as retention is linked to classes that do not have a one-to-one relationship with the files. This is not only a technical issue. We have to discuss whether retention periods should be linked to classes, files, documents, ... I am strongly against attaching retention periods to documents because this would break the archival principle of the original context. But I do not know how we can do it otherwise, as [this EDRMS] is made for managing documents, not files.”⁵⁰⁸

Visiting different departments gave this researcher a sense of the variety of interpretations of records management and of adaptations of the EDRMS features in different contexts of use. The units belonging to the economics and research area would use the system exclusively for storing the final versions of their records (included any published materials); while all administrative records would still be managed in the old shared drives (“we do not keep them in [the EDRMS] because they are not so important”) or on paper, where records were considered ‘important.’ The classification, completely developed internally (“I have proposed this structure to the economists and they have agreed with it”), was basically subject-based, and this was indeed consistent with its library-like function. However, the main structure, the ‘physical classification,’ was accessed based, like in any other part of the organization. Interestingly, the practice

⁵⁰⁸ Interviewee C4.

of creating meeting files had been discontinued, as they could “always make a search based on the meeting number and other metadata.”⁵⁰⁹

Other areas, like those dealing with international relations and ESCB matters, would use the EDRMS and a number of connected intranet sites for managing all their records. However, with regard to the metadata,

“After a couple of years, we decided to stop filling in all the metadata in the system, because we have full-text search capabilities, so in the end, you are always able to find everything. ... We realized for instance that the [functional] categories were not used at all. We do have a limited number of metadata (i.e., document type, date, and source), but no keywords, categories, or classes to indicate which activity or topic the document relates to.”

This subject was aware that the absence of contextual metadata would entail giving up the possibility to look for the whole file related to a given transaction or topic; however, s/he had taken the decision to simplify the work of her/his unit for the sake of efficiency.

“Sometimes, we have to react very quickly and filling in all those metadata did not really make our work efficient. For me, as a user, a good EDRMS is a system with high performance search functions. That’s it.”⁵¹⁰

This whole area was anyway mainly concerned with managing access to information in a granular fashion and protecting records confidentiality. To this end, the folder structure was organized according to access restrictions and each lower level reflected the security categorization of each typology of records.

On a diametrically opposite position, a department dealing with financial market matters had developed a rather articulated folder structure “based on logic, not on security levels,” with the conviction that “everybody in the bank should be entitled to access anything that is necessary for carrying out his or her job.” The manager in charge

⁵⁰⁹ This and the previous citations of the last few sentences are from interviewee C8.

⁵¹⁰ This and the previous citation are from interviewee C9.

of that department claimed to have indeed a strong interest in records management. The metadata schema s/he had created, and whose management, within that area, was under his/her sole control, “[had] been used as a model for all other work spaces; they [could] of course have less, but nor more.”⁵¹¹ People in that department were encouraged to make full use of all metadata, of which the most significant one was, in the manager’s opinion, the ‘functional’ classification, that s/he had constructed primarily according to the topics and institutions her/his area was dealing with. As a matter of fact, all the administrative work of the department was on the shoulders of a pool of secretaries, because

“executives do not know how to use [the system], and you need training and a lot of passion to be able to use it properly.”⁵¹²

The EDRMS that the last of the examined organizations was in the process of implementing had more ‘traditional’ characteristics in the sense that, besides being conceived as one single system for the whole bank, centrally developed and maintained, it was meant to meet the “need of the users to see in the electronic world the same features of the paper world.”⁵¹³ Not differently from the previous two organizations, the records management function in organization D was not recognized as such until the management of the electronic records became a necessity. However, the bureaucratic machine that for centuries had been governing the bank’s operations did include various implicit rules for the management of paper files, of which some were officially codified in manuals of procedures. Therefore, everybody in the bank was somehow familiar with

⁵¹¹ Interviewee C12.

⁵¹² Interviewee C13.

⁵¹³ Interviewee D1.

the concepts of classification and filing as two separate methods, and the architecture of the EDRMS reflected such a distinction.

While the records management unit was responsible for developing a bank-wide, three-level functional classification to be used as the primary structure for organizing the records, users were the “owners of the file level,”⁵¹⁴ which means that they were entitled to create files as they wanted. Records managers had no access to the actual files and documents created by the users; however, they could exercise some indirect control on them through specific metadata that users had to fill out and whose purpose was “to create a permanent link between each file and the relevant business process.”⁵¹⁵ The point in the whole classification and filing system in which the interests of both parties had to come to an agreement was the so-called ‘series level,’ i.e., the third and last level of the classification system. Establishing and implementing such third-level classes, together with the mechanism to link automatically series and business processes, required an in-dept analysis of both the documentary processes and the work procedures of every single unit in the bank, so a great deal of negotiation was going on in that area.

This detailed, bottom-up analytic work should actually be considered in the context of the design and implementation, functional area by functional area, of the whole classification scheme that, as we have seen earlier, previous consultants had only partly developed with reference to pilot areas. Making suggestions on how to simplify business processes was within the scope of the records employees’ activities as well.

“When we study a business process for its management in the EDRMS, we may detect steps that are redundant or that could be simplified.

⁵¹⁴ Interviewee D2.

⁵¹⁵ Interviewee D4.

However, we can only make suggestions, as it is up to the department responsible for the process to decide what to do.”⁵¹⁶

“Problems may arise when many departments are involved in the same process and, for each step, more options exist. With these processes, it is difficult to design a single solution. We have decided that, in such cases, it is better to *simplify the document process, instead of the business process*. ... We are trying to *adapt to the way people work in the bank* ... otherwise they will not be able or willing to use the system. The fact is that people in the business areas do not have the complete overview of their processes that we, in our unit, have.”⁵¹⁷

This knowledge of the business and the ability to capture it in the EDRMS metadata would also be essential to manage the selection and disposal function, once activated. Like in the paper world, the electronic system allowed users to create “convenient files” for the temporary storage of their personal copies of records that already existed in “official files.” For instance, the legal department, whose work was highly cross-departmental in the sense that their expertise was required with reference to basically any bank’s matter, used to collect all its legal opinions in one physical file. At the same time, the same legal opinions were individually part of specific files existing in each concerned business area, files which would have ideally contained all of the records related to a given matter, event, or action. Only the latter were supposed to make it eventually to the archives, whereas the convenient copies accumulated in the legal department could be eliminated when their usefulness was considered superseded. The same mechanism was now transferred into the EDRMS. Thus, instead of leveraging the possibility offered by the electronic environment to create ‘virtual views’ of the same records, so-called “transversal files” were made of parallel sets of files managed by different units, of

⁵¹⁶ Interviewee D5.

⁵¹⁷ Interviewee D4.

which only one, i.e., the official, function-related file linked to a ‘primary series,’ would receive higher protection throughout its life cycle.

This duplication strategy hints rather explicitly to the actual sharing behaviours of organization D subjects. Once again, we are confronted with a system that, although following a functional logic rather than the usual organization-based one, involved the establishment of closed sectors within the classification system corresponding to each area’s sphere of competences. The fact that records managers could not see directly the actual documents and files created by the users and the latter had only access to the third level of the classification system, which they were not allowed to browse through, is another demonstration of the access restrictions embedded in the system. The stated reasons for such two-way access limitations were the following: on the one hand,

“users do not want that we [(i.e., records management team)] control their work, or impose rules on how to make records, files, and so on,”

and, on the other hand, making the whole structure of the classification system available to the users would have been counterproductive:

“Our aim is to simplify users’ work, not to complicate it. That is why we decided to hide [the higher levels of] the classification system to them. ... Users are only focused on their narrow work and are not interested in our processes. They do not see the *big picture*; they would not be able to understand the classification anyway.”⁵¹⁸

6.2.3 Summary and Analysis of Common Themes

One of the first elements that leaps to the eye when going through the characteristics of all cases analyzed is the absence of an integrated approach to the management of paper and electronic records. None of the examined electronic records systems provided for the management of hybrid files and, despite the efforts to become ‘paper-less’ (or to achieve

⁵¹⁸ This and the previous citation are from interviewee D1.

a ‘less paper office,’ as the motto of organization C had it), paper files would still accumulate, often (i.e., in three out of four cases) outside of any controlled environments. By generalizing these findings, one may argue that, due to their conservative nature and overall cautious attitude, central banks did not aim at being front runners as to the challenge of managing electronic records.

As a corollary, the records management unit, focused on the deployment of an EDMS or EDRMS that, in order to be as user-friendly as possible, had to give up most of the features that would qualify it as ‘records’ system, and the archives, exclusively paper-based, appeared to live two separate lives with little in common. Whether frustrated, resigned, collaborating yet supporting different views, or indifferent, all archivists interviewed seemed to rather keep their distance from the ‘trials’ going on in the records creators’ offices. Consequently, the issue of the preservation of the digital objects stored in the running records systems had not yet found any suitable tables for discussion.⁵¹⁹

The fact that the management of electronic records needed to be a shared responsibility involving the system users as active counterparts was considered unquestionable, not only for reasons of resources, but also because the new model of decentralization of work enabled by personal computers would not have allowed any longer a centralized management of the documentary by-products of that work. With reference to the degree of control still exercised by those in charge of the design, implementation, and maintenance of such systems, our sample seems to split into two major trends.

⁵¹⁹ It may be interesting to report what the manager responsible for the archival function in organization C stated with regard to its concerns for digital preservation (see interviewee C4):

“I know that we should take a closer look at the way we are managing preservation in the EDRMS. Actually, we are not managing it at all. But I cannot stress the risks we are running with the electronic records too much, otherwise the board [of directors (i.e., the highest executive body in the bank)] will panic... and I have no solutions to offer yet.”

On the one hand, we have cases like organizations A (as regards the new functional EDRMS under development) and D, where a recognized unit had been setting up a comprehensive and uniform system to both facilitate and constrain users' actions in a given way. In either system, a function-based structure (called folder structure in A and classification in D) was the primary, fixed means for the organization of any captured records.

On the other hand, one may consider organizations B and C examples of an extreme delegation of responsibilities. Actually, the former had completely decentralized the records management function in the hands of the system end-users to the point that, once the EDMS project had accomplished its mission, no central unit took over its responsibilities. Organization C did conceive its records system as a delegated function, with an established 'hub' to which specialized users (mostly, secretaries) would voluntarily make reference; however, the actual control on the 'satellites' was so limited that nowhere in the bank did the system appear to be used in similar ways. Both B and C had implemented an electronic system (based on the same software) that embedded, as a pre-established set of metadata elements (or keywords), a classification or categorization concerning the functions and activities of the organization. However, the functional classification did not determine the types of aggregations of records in the folder structure, which, in both cases, though for different reasons, was based on the current organizational set-up and, in organization C, on access permissions. Because the way of structuring the system entry point was left to the users' free choice, the various folder structures existing in every business area closely resembled the rather personalized structures of the old shared drives. The functional metadata elements were supposed to provide an alternative way to view the system's content (i.e., kind of function-based

virtual files on demand). However, users seemed not to appreciate such an option and their simple searches through the system were all the time frustrated by some technical deficiencies.

What is important to stress is that the role of metadata in general was unclear to the users in all organizations investigated. As typical reactions, they would fill the metadata fields out without paying due attention or, where the system allowed, they would just refuse to do that. Apparently, the objective of integrating seamlessly records management with the business processes by making its control mechanisms transparent to the users cannot be obtained without transforming the latter in conscious users.

Users' involvement in training sessions and discussions about the system and, in general, the communication between them and the records employees appeared to display the same twofold configuration as above, with organizations A and D showing great interest in those aspects, in view of establishing a truly corporate records system, and organizations B and C definitely less concerned with standardizing records-related understandings and behaviours, given the centrifugal tendencies characterizing their business environments. Nevertheless, users would still raise everywhere the same complaints about their respective EDMS or EDRMS. However much the system was simplified and tailor made to fit in with their needs, it always appeared too complex and time consuming to them.

Similarly, on the issue of information sharing, users and records managers seemed again to stand on opposite sides. Collaboration, that is, one of the enhanced capabilities of the latest generations of software for information and records management, cannot really be said to have been exploited in any of the cases examined. As pointed out by some of this study subjects, because of their hierarchical structure and

rather inflexible division of tasks and responsibilities, government bodies would not be interested in sharing internally their knowledge as much as more technically-oriented enterprises would be. Although we may not agree on assimilating central banks to purely administrative entities, several aspects of their functions being in fact rather technical and intellectual, the confidential, where not secret, nature of large part of the matters handled by these institutions would certainly contribute to creating a non-open environment.

The records managers of our cases, who had all endorsed the message of transparency, openness, and collaboration underlying the newly implemented records management tools, were inevitably going to face the strong resistance of ‘watertight’ departments which were mostly secretive, closed, and self-contained. Could a functional approach – that is, an approach that presupposes going beyond the artificial boundaries of any existing organizational structures and that fosters by itself sharing and communication – be ever applied successfully in such circumstances? The step-by-step, evolutionary strategy adopted by most of the cases analyzed was a first answer to that. Also combining an organization-based folder structure with a function-based classification in the background may be interpreted as a necessary compromise, an accommodation to the requirements for controlled access coming from the users. What was however missing in all these cases was a comprehensive, rigorous change management process that, in order to be capable of affecting the deep structures of an organizational culture, would have required the involvement of more numerous and powerful players in the organization.

As these findings confirm, the records management and archival component of any work environment is hardly ever part of the core business of the organization. At the same time, in the digital world, the processes related to the creation, management, and

preservation of the corporate records can no longer be relegated to a hidden centre of expertise, located outside the current developments of an organization's activities. Establishing themselves as an authority in their area of competence is not an easy endeavour for the records professionals of our time. The signs of frustration that appeared among professional in both records management and archives units in all cases examined, prove that there is still a long way to go before their essential contributions to the conduct of business and to the overall accountability of an organization are fully recognized as such. They also prove that – going back to the first theme and concluding this general section on the records management and archival frameworks of the cases analyzed – an integrated approach, where the records managers with their closer understanding of business processes and flexibility, and the archivists with their sound principles and longer-term view effectively collaborate, is indeed necessary and urgent.

6.3 Classification and Functions

The aim of this section is to provide some insights on the purpose of records classification in general and the understanding of the functional approach to classification in the studied environments. As the findings previously examined have shown, although all cases appeared to share an interest in function-based classification, the outcomes were varying. In order to see in detail differences and similarities among cases with reference to both conceptual and practical approaches, and to highlight the relationship existing between those various outcomes and the specific characteristics of each organizational setting and culture, relevant issues are analyzed separately and findings from every case are grouped under those issues. As a preamble, the reader is reminded of the major distinction that this researcher has made between cases A and D

on one side, and cases B and C on the other, as regards the different roles attributed to the functional scheme in the electronic records systems of the examined organizations.

Additionally, from what has been said before, one may have noticed that, in organizations A and D, the function-based classification system was still under development, while, in organizations B and C, it was already in use for some time. As a consequence, the findings of the first pair were more suitable to investigate the perspectives of the classification developers, while those of the second pair were more revealing of the perceptions of the users of those systems.

6.3.1 Purpose of Classification

The issue of the main functions attributed to records classification, of ‘why we need it’ according to the understanding of this study’s subjects, was dealt with in the course of various discussions held in the selected sites and was also indirectly mentioned in some of the documentation collected. However, because of its pivotal importance for her study, this researcher did not hesitate to ask directly the question of the purpose of classification to her informants, being aware that this might have elicited answers based on their theoretical knowledge of the issue (or influenced by the opinions expressed by the researcher), rather than on their actual experiences.

With regard to organization A, the answer, one and unanimous, has already emerged where the issue of records scheduling for purposes of retention and disposal has been tackled.

“Classification is *the framework for managing records throughout their life cycle*. Through the classification system we identify security requirements and apply safeguards; we identify where personal information resides. Based on the value of the information and its

sensitivity, we know how long we need to keep it and which safeguards are needed for managing it.”⁵²⁰

With these words, this subject, in its role of records analyst and project manager, was describing what the system currently used for classifying paper records was capable of doing. Thanks to the existence of an established tradition of records management, people in organization A had experienced the numerous advantages that could be derived from the application of a comprehensive classification system integrated with retention and access information. So, even those who were in executive positions seemed to have no doubt that classification was indeed a powerful tool that could assist many aspects of records management, thus supporting the management of business in general.

“*Managing the whole life cycle*: that is what classification does. ... It is the whole idea of *putting the story together*... Classification can help *retrieval* by associating related objects.”⁵²¹

“Classification is a link, is a mechanism so that we know what the *retention* is, so that we can *identify* what the record is, and so that we can *keep all that together* and go for more records functions.”⁵²²

Even clearer and to the point were the opinions of the specialized users who were daily managing the paper records in the records centres established in each business area:

“Classification is what gives a *structure*. If you look at something that does not have a classification, it is just a bunch of folders. With the classification, you see *the business how it branches out*; you see how things progress ...”⁵²³

“It is *not for retrieval* that we need classification. Indexing takes care of that. ... With electronic records, retrieval is not a problem because you can search the content anyway. But you still need classification, because classification *supports retention*. ... It is for retention, for being *compliant* that we need classification.”⁵²⁴

⁵²⁰ Interviewee A2.

⁵²¹ Interviewee A5.

⁵²² Interviewee A4.

⁵²³ Interviewee A1.

⁵²⁴ Interviewee A6.

What the role of classification should be in an electronic environment was not an issue that the people involved in the EDRMS project needed to discuss:

“We see classification in the electronic world *just as in the paper world*. We want to take the ideas and concepts that we have in the paper world and apply them to our electronic information. You do not need to re-invent anything. Whether it is a paper record or an electronic record, it is a record and needs to be managed the same way. That’s all.”

However, how to do that, how to implement a system that would take the good concepts existing in the paper records system and merge them with the user-friendly, intuitive features people were used to in the electronic world, was one of the fundamental questions in the agenda of those who were planning the system of the future. As mentioned earlier, the folder structure embedded in the current EDMS was by no means considered equivalent to a classification system. Its entries were “created as we were going along” and had no links to the series of the records schedule. So the EDMS folder structure could not manage any life cycle and, according to the records managers:

“Classification for electronic records has not been done yet.”⁵²⁵

This statement brings up two considerations. First, the idea of transferring the existing classification for paper records – which was compliant with all records management and archival requirements, and was already partly functional – to the electronic world was not regarded as an option by the records employees. The archivist had obviously a different opinion about that:

“I do not understand why the existing file system we have was not put into [the EDMS]. ... The current [EDMS] is just a place where to shuffle documents.”⁵²⁶

⁵²⁵ This and the previous citation are from interviewee A1.

⁵²⁶ Interviewee A8.

However, what s/he might have underestimated was that the complexity of such “file system” could have only been handled by specialized users. The second consideration is that people in this organization were so used to associating classification with ‘the tool that manages the records’ life cycle’ that a simple structure that helps to group records together into aggregates which make sense to those who created that structure would not qualify as a classification scheme. In their view, a folder structure would only serve what they used to call “the file-and-find needs of the users,” and as such it could not fulfill the purposes of classification:

“The way we understand classification is not the way users understand it. Classification serves our purposes in terms of providing a framework for us to manage information through the life cycle. But, from a user file-and-find perspective, it is not intuitive.”⁵²⁷

The characteristics of the new, in-progress folder structure will be examined later. Here, it will be anticipated that the EDRMS project had in mind various possible scenarios with reference to the integration of the purposes of both systems, i.e., the folder structure, whose fully function-based design was already outlined, and the ‘classification,’ which they intended to develop at a later stage. One possibility consisted of using the folder structure itself as a classification system:

“... the folder structure could be the same kind of powerful tool. The only difference maybe refers to *terminology*: users recognize the folder structure because it talks their language.”

An alternative was to “link the folder structure to some sort of classification system in the background.” Whether the linkage would be done automatically or through the intervention of specialized users, it was still to be decided. What was clear to everyone – and not only in this organization but in all cases examined – was that, unless a serious

⁵²⁷ Interviewee A5.

process for changing an organization's culture was put forward, "you cannot ask people to use a functional classification directly."⁵²⁸

The word 'easy' recurs 20 times in organization B transcripts. This indicates what the priority was for the people who had to deploy an EDMS in an organization where "everyone [was] the manager of his or her records."

"This bank will never recruit records managers. So we [in the project team] had to design a system that works for the average user. I do not think that our users would be happy to use a function-base system. I believe it is also a question of culture."⁵²⁹

To "facilitate users' acceptance of the system," the EDMS folder structure was designed to be "as similar as possible to the previous Windows shared drives"⁵³⁰ (that is, according to the organizational structure) and the 'functional' classification code was conceived as one of the mandatory metadata in the system.

"The reason for having the classification was to tell the users: it will help you *finding* your records. That is how we tried to sell it. Now, I am quite sure nobody uses the classification for *retrieval*, because nobody understands the system. ... People mainly use the organizational structure when they look for their records. If you want them to use the classification system for searching, you need to educate them."⁵³¹

So, it appears that the records experts in organization B had quite a different understanding of the purposes of classification in comparison to those in organization A. The latter could however rely on an experience with systematic and comprehensive methods for managing paper records that the former was completely lacking. Furthermore, one should consider the 'question of culture' mentioned above by one of

⁵²⁸ This and the previous citations of the last few sentences are from interviewee A2.

⁵²⁹ This and the previous citation are from interviewee B1. As much as the recurrence of terms can be significant, it may be interesting to notice that the word 'easy' recurs 12 times in case A transcripts. If one adds to it the number of times in which the expression 'file-and-find needs/perspective' recurs, the overall amount makes exactly 20. In case C, the word 'easy' recurs 10 times and only 4 in case D.

⁵³⁰ Interviewee B6.

⁵³¹ Interviewee B1.

our subjects. In this organization, every choice that implied some constraint, some control over an individual's freedom, had to be justified. The need to 'sell' the classification comes from that; and the retrieval argument was most likely the one that could take a hold of the users. In addition to that, the law, which, in this environment, had the greatest power to influence people's behaviour, was on the records experts' side:

“Actually, in the beginning, they [(i.e., the project team members, with the exclusion of the archivist and the librarian)] did not want a classification system at all. The system had to be effort-free for the users in terms of their inputs. Then, one of the lawyers said that, according to this and that rules, you have to have a classification scheme.”⁵³²

The system administrator expressed the functions of classification and folder structure respectively in the following terms:

“The purpose of our classification is *not to organize* the documents; to do that, people use their folder structures. Classification is *to find* documents in a specific way. In daily use, I know where I have my documents; but if I want to know if something has been written earlier on a given topic, or by this or that person at a certain time, then I use the search engine. If I do not have the right metadata attached to each document, including the classification, I will not be able to find them.”⁵³³

The idea that the classification scheme could be implemented differently, by for instance using it to replace the organization-based folder structure, was so remote from the habitual way of thinking of organization B subjects that even the archivist of the bank, who did not ignore the many roles that classification is potentially able to play, would not get the suggestion made by this researcher with reference to the hypothesis just mentioned.

⁵³² Interviewee B2.

⁵³³ Interviewee B4.

“I do not think you can eliminate the organizational structure and replace it with the function-based classification, because you have to store your documents somewhere.”⁵³⁴

Anyway, in the general opinion, the functional metadata embedded in the system as a fixed, mandatory set of keywords, was actually perceived as being totally useless. As evidenced by the customer satisfaction survey recently conducted in the organization, if there was one metadata field the users would eliminate from the system, it was that one (“95 per cent of the people do not understand why they have to put a classification on the records”⁵³⁵). We will see later whether the structural characteristics of this classification might have had an impact on its effectiveness as a retrieval tool. To introduce the comparison with the next case (the most similar to the one presently analyzed), it should not escape the reader that here, although based on the structure of the organization and completely in the users’ hands, the folder structure was assumed to provide the records with an ‘organizing principle,’ a structure that would suit individual ‘file-and-find needs’ (to borrow case A terminology), with no biases, or criteria, on it.

On the contrary, in organization C, the folder structure (also known as ‘physical classification’) had to respect the access rights assigned to each user group.

“The physical classification is only related to *access privileges*. Each individual folder structure is organized on the basis of the relevant (write or read only) access of each group of users or work space.”⁵³⁶

⁵³⁴ Interviewee B1. It was certainly because of the ‘institutionalized’ way of using the classification and the folder structure in the organization that this archivist had become unable to see their mutual roles in a different manner. On other occasions, s/he had quite clearly showed that her understanding of classification was much broader:

“I am quite sure nobody uses the classification to search for their documents.

Additionally, when the classification is not connected to a *preservation function*, what is the meaning of having it? Users do not realize that, but I can ask that question. The good concepts we [(i.e., the archivist and the librarian)] had have not been followed up in the implementation of the system.”

⁵³⁵ Interviewee B6.

⁵³⁶ Interviewee C1.

In the units that were used to handling types of records bearing constantly certain confidentiality labels, users' access privileges were combined with the records' security categorization. The fact that this access-based approach might have caused file fragmentation was not perceived as a problem. As a matter of fact, in most units, the 'files' were just conceived as periodic (e.g., yearly or monthly) groupings of heterogeneous records, all meeting similar access requirements. In order to get meaningful views of the records in the system, people were expected to 'play around with the metadata,' among which there was, or could be (as its use was not mandatory), the functional classification code.

“Through the metadata, I can always *find* what I look for. ... If I want to see the documents related to a certain subject in a long span of time, I search through the functional classification.”⁵³⁷

As we already discussed, the people in the archives knew that these 'virtual views' could not make up for the absence of actual, fixed files reflecting the order in which records accumulated in the course of business. However, when asked about the purpose of classification, they would also stress that, beyond and above any contextualization aims, “classification is for finding back documents and files.”⁵³⁸

Users had anyway very different opinions about the usefulness of the functional classification, to the point that, as mentioned earlier, some departments had decided to eliminate completely the function-based metadata field from their personalized configuration of the EDRMS.⁵³⁹ On the opposite side, there were units working with very articulated function-based schemes.

⁵³⁷ Interviewee C3.

⁵³⁸ Interviewee C4.

⁵³⁹ See interviewee C9.

“Not everybody in the bank uses the functional classification. I consider it very important because it is a logical way to group the records that are related, to *understand the context*. You may use it as a criterion for your *search*, so that documents that are physically stored in different folders can be displayed together. This is the advantage of having classes that are *transversal*.”

According to the same subject, “building a classification tree is a very hard job,” and after you have created it, “the people working with the classification [(i.e., secretaries)] must understand it and be able to use it without supervision.” Additionally, the classification has to be looked after, in the sense that “someone has regularly to keep it up-to-date.”⁵⁴⁰ These would for most people be major deterrents to adopting a functional classification. Some users would just boldly state that they “always look for single documents,”⁵⁴¹ so making connections across folders would not really appeal to them. On the other hand, given the access restrictions the whole architecture of this records system was based on, as well as the lack of coordination in creating the various classification schemes (“each entity is responsible for creating and managing its own classification scheme as it likes”), how ‘transversal’ could those classes be?

Apparently, the concept of sharing did not belong to the culture of this organization. The fact that the same documents might have been stored in different parts of the system and categorized by means of disparate metadata was not only accepted but even valued, as it would allow people “to take different approaches to the same content.” Moreover,

“having duplications for us is not a problem: the volume costs nothing. Also, the need to see the documents of other units does not really exist here.”⁵⁴²

⁵⁴⁰ This and the previous citations of the last few sentences are from interviewee C12.

⁵⁴¹ Interviewee C8.

⁵⁴² Interviewee C1.

We will come back to the issue of ‘duplications’ later. For the time being, we will conclude that, like in organization B, the role of the functional classification in the electronic records system adopted by organization C was reduced to that of a mere retrieval tool. The way in which it was actually used (often, not used) in both the cases in question did not really seem to speak in its favour.

In our last organization, the perspective on classification shared by those who were developing it was completely different from those just examined. In the priority given to the functional approach over any department- or access-based ones as a main method to organize the records, organization D was closer to organization A. However, the former appeared to have resolved the dilemma that the latter was still debating and that regarded the relationship between folder structure and classification. In the world of the records employees of organization D, there was no room for the concept of a folder structure separated from the classification system.

“Classification is very important to us, because the whole structure of our EDRMS is based on the classification system.”⁵⁴³

Classification involved all the functions attributed to it by the people of organization A (e.g., management of the life cycle, retention and disposal, access and security). In addition to that, it constituted *the* structure, the fundamental framework where users were supposed to file their records.

The EDRMS had several metadata in it, but the classification code was not one of them. The act of classifying would come before any selection of metadata from the profiles attached to each document and to each file in the system. It should also be noted that the entities document and file were provided with different sets of metadata.

⁵⁴³ Interviewee D4.

Furthermore, applying the classification was conceived as an act separate from filing. As we have seen, the latter was in the users' domain, while the classification system was created and maintained centrally, although it was meant to be validated by the users, who had always the last say on the third level (also known as series level). What is important to highlight is that, first, in organization D, a file was understood as both a physical and a logical documentary unit, that is, a fixed and mono-dimensional entity which had little to do with the exclusively logical, ever-changing concept of it shared by organizations B and C (the reader may remember that organization C users were even allowed to link each record to multiple functional classes at the same time). Secondly, like in the paper world, files were attached to the classes of the functional classification system – not the other way around.

This researcher did learn from the people developing such a system, and have already reported, that the users had several complaints about it. Both the classification system and the metadata were not easy for them to understand. However, the overarching, long-term goal the records employees wanted to achieve through the application of their solid principles was perceived as being too important to yield to the users' demands for a more flexible approach:

“The purpose of [the EDRMS], with its function-based classification system and its files, is to *put the documents in relation with each other and with the relevant business processes*. ... It is through the classification that we will eventually *form the archives* of the bank.”⁵⁴⁴

From this observation, as well as from the emphasis placed throughout this case study on “identifying, monitoring, and simplifying the business processes at the bank,”⁵⁴⁵ one may

⁵⁴⁴ Interviewee D2.

⁵⁴⁵ Interviewee D5.

conclude that the main purpose attributed to classification was that of allowing the integration of documentary and business processes, in order ultimately to assist the latter.

6.3.2 Descriptions of Functional Classification Systems

With the understanding that the representation of the organization's functions, activities, and transactions (just to refer to the terms commonly used to identify the levels of a function-based classification system) did not everywhere coincide with the primary structure determining the ways in which records would accumulate in a records system, the following pages describe the main features of the functional classification schemes in use or under development in each of the cases examined. The highly decentralized nature of the records management function in cases B and C made it necessary to include the analysis of departmental characterizations of classification as well. On the contrary, with reference to cases A and D, users' voices are silent not only because the responsibility for defining each component of the corporate records system was, in both cases, centralized, but also because the functional classification schemes this study is interested in were both still under construction.

When the fieldwork for this research was conducted, organization A was about to complete the design of the new, bank-wide, fully functional "folder structure" that, as we have mentioned earlier, was meant to "satisfy the file-and-find needs of the users." This product would certainly have a part to play in the integration of records management (which, at that moment, was only referring to paper records) and document management (carried out by means of an EDMS lacking of any records management processes and controls). However, before concentrating on how to achieve that integration, which was one of the primary goals pursued by the EDRMS project, the latter had decided that "it

was the right time” to deliver a filing system that the users could recognize and use right away.

“People are not going to file in a records classification system ... We want to develop a folder structure that the clients are comfortable with and use. The rules will come; now we should focus on *servicing the clients first*. If they do not submit their records to the EDRMS because the classification is somehow confusing to them, then there is nothing to manage and our classification is worthless.”

The reader may remember that the main reason why “it was the right time” to change and, in particular, “to go function” was that the bank’s departments were just in the process of being realigned along functional lines. Besides the impact that such organizational change might have had on any existing classification schemes, thus forcing the records management unit to make major changes to both the paper and the electronic system, the fact that “everybody [was] talking functional”⁵⁴⁶ was interpreted as a sign that the suggestion of a new, fully function-based records system was likely to be accepted and even supported. And so it was.

In comparison to the current EDMS folder structure, the new system was regarded as a step forward in many respects. First of all, it was based on the organization’s functions and activities as they had been re-defined in a recently issued ‘Medium Term Plan,’ that benefited from contributions made by every unit in the bank. Then, its structure was designed to be internally consistent and more rational than the one embedded in the EDMS, which in some areas, had so many levels that it had become almost unmanageable. Such entropic growing would not happen with the new folder structure, thanks to its controlled environment. Finally, once endorsed, the new functional structure would be uniformly applied throughout the bank, thus realizing in

⁵⁴⁶ This and the previous citations of the last few sentences are from interviewee A2.

the electronic world the corporate approach to records management that already existed in the paper world, although without the complexities involved in the existing classification for paper records. The latter, which, according to the records managers, was “already 60 per cent functional” but no longer in line with “how the bank sees itself today,”⁵⁴⁷ was destined to be abandoned in view of the integrated management of paper and electronic records that was envisaged to occur in the near future.

The conceptual view of the corporate folder structure showed four different “roots,” the first one representing the bank’s “core functions” (i.e., its mandated functions, such as monetary policy, financial stability, funds management, etc.), the second one its “enabling functions” (i.e., including corporate housekeeping functions, such as human resources, financial resources, premises management, etc.), the third one its so-called “cross-functions” (i.e., all bank-wide initiatives crossing more functions and that therefore could not be pigeon-holed under one specific function), and the fourth one the “common administrative functions” (i.e., a convenient place for “documents that do not belong to the *raison d’être* of the department,”⁵⁴⁸ such as those related to the internal administration of the department, copies of documents stored elsewhere, etc.).

The latter root was kind of a giving in to a ‘pure’ functional approach, in the sense that it was meant to be like a ‘private space’ where each department could store its ephemerals. Thus, this ‘anomaly’ was convenient for purposes of retention as well. It should also be pointed out that having an organization-based area where people could easily ‘dump,’ and ‘hide’ from other departments, their internal, short-lived materials

⁵⁴⁷ Interviewee A7.

⁵⁴⁸ This and the previous citations of the last few sentences are from interviewee A2.

appeared to be a necessity not just with reference to this but also to other cases, as it will later be shown.

While the first and the second root corresponded to the traditional distinction between operational and facilitative functions that goes back to Schellenberg's manual, the one referring to 'cross-functions' was again another trick to find a spot for those projects and working groups (even short-term ones) that a 'pure' functional approach could not accommodate easily. One should not underestimate the political reasons for preferring to use a 'neutral zone,' instead of assigning a project that involves more business areas, and where the leadership may also be shared, to one specific function. Considering the increasing application of matrix ways of working in all organizations, it is not difficult to imagine that this root of the folder structure might even grow and become more relevant in the future.

As to the levels of the folder structure, apart from those functions and activities that were described in the Medium Term Plan mentioned above and that, as such, were considered fixed and unchangeable ("locked") and were fully under the control of the records management unit, most of the work to identify activities, sub-activities, and any other levels (up to a maximum of five) was still to be conducted. Actually, all the 'non-locked entries' were supposed to be defined together with the clients throughout the implementation phase, yet according to specific procedures established up front. Among the latter, there was for instance a rule saying that, especially with reference to second-level activities, records managers were expected to conduct some preliminary analysis of the activities of certain areas and then to meet "key client representatives" to confirm what should go at that level. Control over these entries of the folder structure was defined as "medium." "Low control" was that over those third- or lower-level entries that were

supposed to involve “a mix of things: subjects, activities, topics, etc.” and to be completed by the clients with “whatever they feel they need to be able to file and find their records.” The records management unit had nevertheless prepared some guidance (“a toolkit of folder options ... common to everybody in the bank”) with the aim of providing consistency around the way folders were named. Folder creation and any changes at whatever level of the scheme were to be centrally managed, whether by the people in the central unit or by “power users” assigned to each business area. In order to avoid the “human tendency to create deeper and deeper folder structures,” users would be encouraged to “start with fewer folders and try to leverage the metadata.”⁵⁴⁹ This was also the key to obtain the flexibility they needed.

Records could be linked to any lower level of the folder structure from the third down, and no distinction was apparently made between folders (as classes of the scheme) and files (as records ‘containers’). So one may conclude that in fact only the roots and the first two levels corresponded to the functional classification scheme (in the sense of a fixed representation of the hierarchy of functions and activities carried out by an organization), while the mixed third level and below might be interpreted as the actual files created by the users according to variable criteria (by topic, by place, by transaction, etc.) and referring to specific instantiations of the activities identified in the upper levels of the scheme. On the other hand, also the entries at the third level were conceived as rather stable entities, thus more similar to fixed classes than to *ad hoc* files.

In general, one may observe that, in an electronic environment, a file in the archival sense seems to have lost its characteristics, due to the ambiguous nature of the folders provided by electronic systems. As we will see in case D, the conceptual

⁵⁴⁹ This and the previous citations of the last few sentences are from interviewee A2.

distinction between classification and filing levels can nevertheless be reproduced through specific rules embedded in those systems. However, case A's EDRMS project, maybe also because of the particular understanding of classification shared among people in that organization, appeared to be moving towards different objectives in the long run in comparison to the other case.

“With today's EDRM software, there is a hundred and one ways you can accomplish all records management processes, not just classification. Maybe just strictly through metadata... *Maybe traditional hierarchical folder structures do no longer need to play a role.* ... These tools allow you to have folders which are tagged with a set of metadata which enable you to create different views. Now, the right metadata is the key. We are trying to implement some controls around folder names and so on. We also have a project working on a metadata standard for the bank. ... What we may want to do with the folder structure is that, when something is submitted to a specific folder, it is automatically tagged with the specific metadata set that define that folder. *Folders are very virtual in nature.*”⁵⁵⁰

This emphasis on metadata suggests that the future of classification in organization A might, conceptually, look somehow closer to the present of organizations like B and C, considering the role played in both by the ‘virtual views’ of the records.

The physical folders in both case B and C were indeed regarded as rather irrelevant from a records management or archival point of view. Case B users candidly admitted that their folder structures were “going back to the old way of thinking,”⁵⁵¹ that is, to the organization-based, personalized frameworks of the Windows shared drives. The promised retrieval capabilities of the function-based classification scheme embedded as a metadata set in the EDMS had not been fulfilled, thus the uprising against it in the customer satisfaction survey was inevitable. Even those who had designed the classification were not so sure any more about the whole worthiness of keeping it

⁵⁵⁰ Interviewee A2.

⁵⁵¹ Interviewee B3.

running and up-to-date, given its ineffectiveness as a retrieval tool and as a means to accomplish any other archival function. As a matter of fact, after the system had been implemented, nobody had looked at it again (“... no maintenance, no updating, no revisions of the system ever since. This is not how it should be.”).

The structure of the classification system was very simple: two levels only, that is, “functions” and “activities.”

“From the very beginning, we understood that we had to base the classification system on the functions of the bank, not the organization because the organization changes all the time. ... We also said from the beginning that we wanted *only two levels* because we did not want to make the classification too complicated. Here, every single person is a user and every functional category is open to everyone in the bank. So *everyone must be able to understand the system.*”⁵⁵²

According to the librarian’s recollections of the initial stages of the project,

“We did not really have a discussion among us about this whole issue of functions or subjects. ... [The archivist] said that her/his standards recommended a functional approach. ... We tried to get away from the organizational structure because people were thinking in terms of what divisions or departments you miss in the classification. We explained that you cannot do that because the organization changes all the time. They bought that.”

It should be mentioned that the project succeeded in keeping the 15 functions identified as the highest level of the scheme away from the internal structure of the organization.

The activities indicated below each function were straightforward and not too articulated, some functions being broken down in only three or four activities. In fact, they were still so high level that choosing the right functional attribute for a record entered in the system was almost automatic for the users.

“It takes ten seconds to put the classification, because you almost always use the same entry. I, for instance, always use ‘Library.’ So I cannot really

⁵⁵² This and the previous citations of the last few sentences are from interviewee B1.

understand people's complaints about the time it takes to fill in the metadata ..."⁵⁵³

Perhaps, with her/his comment, the librarian did not touch upon the actual point of the controversy. One of the users interviewed explained very clearly why s/he was not happy about the functional metadata field:

"I was involved in the project and I actually criticized from the start certain fields saying that they were unnecessary and redundant. There is for instance one field that has to do with functional classification. Almost 100% of what I do has to do with [(one broadly defined activity)] because this is the area where I work, so all my documents are categorized as such. This is *too wide*, it does not say anything."⁵⁵⁴

Similarly to the "cross-functional" root of case A, also in the records system implemented in this organization, a special entry was provided for the filing of "documents related to the various working groups and project teams, independently of the topic or function involved."⁵⁵⁵ However, in this case, the 'convenient box' was not part of the classification system, as the latter, being not concerned with file creation, did not entail any physical constraints. Instead, it was included in the organization-based folder structure, so as to demonstrate that projects, matrix approaches, and other transversal work arrangements, which are nowadays becoming increasingly popular, require special consideration when it comes to accommodate their documentary outcomes in a classification system, whatever the structure of the latter may be. By borrowing a term used in the context of library classification-related studies, one may call these records and files that, as they belong to more functional and organizational areas and satisfy transversal needs, are hard to frame, "boundary objects."⁵⁵⁶

⁵⁵³ This and the previous citation are from interviewee B2.

⁵⁵⁴ Interviewee B5.

⁵⁵⁵ Interviewee B1.

⁵⁵⁶ See Bowker and Leigh Star, *Sorting Things Out*, 296-98. Boundary objects are defined as

As we know, the functional classification adopted by organization C was not meant to create any physical files either. Nevertheless, its structure was, in some instances (as here, unlike the previous case, both the physical and the functional classification were different in every department), rather complex and elaborate. Schemes could have six levels at a maximum. So, in its recommendations, the records management unit did not keep to the rule of the four levels established by the archivist with reference to the classification used by the business areas as a “delivery tool”⁵⁵⁷ for their paper files.

Given the complexity of some functional schemes, the secretaries of each department or unit, who were the actual users of the system (as opposed to the 360-degree openness of case B), would often need to consult with relevant area experts to know what metadata to attribute to the records, not differently from what would happen with the classification of paper records in case A.

“Classes are very detailed, but normally the writer of the document helps us to find the right one. If you are long enough in the business, the first and the second level are quite okay. But if we go three or four levels down, it is the expert who normally tells us how to classify the document. I have the feeling that the system was developed for the paper world and then transferred to the electronic one.”⁵⁵⁸

“those objects that both inhabit several communities of practices and satisfy the informational requirements of each of them.”

⁵⁵⁷ Interviewee C7.

⁵⁵⁸ Interviewee C13. Another user (C8) commented:

“The classification of a document is always decided by the experts. Normally, they write it on the accompanying email or on the document itself, but sometimes we have to ask them. The metadata profile is so detailed that it is impossible for us to fill it in without their help.”

At my question whether experts would be willing to do any of the activities related to the management of their records themselves (i.e., by using directly the system like it was the case in organization B), the same subject (C8) replied:

“No, they would never do so. In theory, they could do it because they know what to put in each metadata field better than any of us [(i.e., department secretaries)], but in practice, it is impossible. Experts may type documents, but filing them in [the EDRMS]

Agreeing on the same list of metadata for the whole bank was ‘historically impossible,’ as it was repeatedly mentioned in the course of many interviews. However, for both the records management and the archives unit, the fact that everybody was using the same basic framework, at least on a very high level, with reference to the electronic and the paper system, was already a success.

As to the classification embedded in the EDRMS, there seemed to be a kind of shared understanding that such metadata field had to be function-based (“to allow the same physical document to be in several functional folders, virtually”⁵⁵⁹). However, free interpretations of what functional approach meant were expected and tolerated (“if you ask the economists what a function is, each of them will come out with a different answer”⁵⁶⁰), and no measures (e.g., training, issuing of guidelines, etc.) were taken to avoid that. As far as this researcher could verify, the economic departments tended to use fully subject-based systems; the one dealing with financial market issues, and whose manager was a rather sophisticated user of records systems, had a classification that, at the highest level, showed all the institutions and bodies that department was dealing with, and below, a detailed list of matters taken from the statutes, laws, or treaties establishing those bodies; other departments had just stopped using their classification schemes. In the end, the only partly function-based trees were those in place in the records management unit and in the one responsible for the archives. In any case, because the way in which the classification system was conceived and implemented was not different from a keyword system, so that “when a document refer[red] to more functions, one

is something that secretaries do. For them, it is just administrative work, that is, a waste of time.”

⁵⁵⁹ Interviewee C1.

⁵⁶⁰ Interviewee C4.

[could] select two, five, ten different classes,”⁵⁶¹ it did not really matter whether those classes were consistently based on the same classificatory principle, mutually exclusive, and comprehensive, as the literature describes the properties of an ideal classification system.⁵⁶²

As to the ‘ex-post classification’ that all departments were expected to apply in order to enable the transfer of their paper records to the central archives, the guidelines issued by the archival unit were not meant to provide any precise or stringent rules. Actually, the only ‘rules’ were those relevant to the four-level structure and the numerical coding of the classification entries, as seen earlier. Also, every classification scheme was supposed to start with “general matters” (i.e., the support functions) and subsequently to display “the activities specific for every entity.” Was then a functional approach the one pushed forward in the paper world? As to the criteria for creating the classification entries, departments were in fact free to refer to functions, subjects, or whatever they felt was useful to them (“what counts is that the classification *works* for the people who have to use it”). The main recommendation regarding the level of detail was: “keep it simple.” However, it seems that even for the unit responsible for the archives, it was difficult to keep to such a principle, when its own classification originally consisted of 100 pages, and was now reduced to 35. Another ‘friendly suggestion’ was: “keep classes and lists of files separated.” What happened was that the unit making that suggestion had itself to “adapt to the circumstances” and, in some cases, “mix classes and files.”⁵⁶³

⁵⁶¹ Interviewee C12.

⁵⁶² See Bowker and Star, *Sorting Things Out*, 10.

⁵⁶³ This and the previous citations of the last few sentences are from interviewee C4.

It should finally be mentioned the attempt made by the unit in question to apply the principles for the paper world to the electronic one, with reference to its work space. The outcome was a little disappointing, as some of those rules – especially the one regarding the separation of classification and filing entries – could not really be transferred to either the classification metadata set embedded in the system or the folder structure.

“... So what we are doing is mixing classes and files all the time. Actually, there are even entries in the classification that reflect sub-files, not just files. From a theoretical point of view, putting files and sub-files in a classification scheme is not correct. But I did not know how to do otherwise. I am obliged to break the rules; otherwise I cannot manage a complex file in an electronic environment. ... [This EDRMS] does not allow me to be compliant with the archival rules.”⁵⁶⁴

Probably, as already pointed out with reference to the previous case examined, it was not the system to be blamed but the way it was implemented. The classification conceived as a keyword set did not involve the creation of any files, so every entry had necessarily to be a class. On the other side, the folder structure was made indeed of folders, which, in the IT sense, are just expressions of logical relationships between the data in the system. So they could at the same time be used as classes (i.e., folders ‘containing’ other folders) or files (i.e., folders ‘containing’ records). However, it is not to be excluded that the software adopted by this organization, which was the same as the one of organization B, had technical limitations that would not allow specific rules to be added in order to make the system more suitable to records management purposes.

Organization D is the proof that having classification and filing as two separate activities, each involving ‘boxes’ (classes and files) of a different nature, is possible in an electronic environment too. The classification, which was one with the folder structure as

⁵⁶⁴ Interviewee C4.

the main entry point to the system, had, in this case, three fixed levels throughout the EDRMS, levels which were centrally defined and managed. To be precise, the function- or process-based classification only referred to one of the three work spaces identified within the system, that is, the general repository, to be used by all departments to file their administrative records. A second work space was dedicated to the management of the records produced by committees, working groups, and task forces, and, as seen earlier, its structure was meeting-based, below a higher level involving the names of all existing committees, working groups and the like (i.e., organization-based). This was the ‘trick’ adopted by the consultants who had initially designed case D records system, with the aim of, at least in part, accommodating the known issue of the classification of cross-functional entities. However, here, as opposed to previous cases, projects and other instances of transversal activities were still treated according to a functional rationale, which means that they would generate files under the function identified as primary function. Duplications of the ‘original’ file were nevertheless allowed in connection with other related functions, to facilitate the management of the relevant records by each business area involved. Sharing the same file among different departments was not yet a reality in this organization either. The third work space consisted of a tool for the exchange of internal business-related communications and did not involve any classifications.

Integrating these three different systems was one of the points in the agenda of the EDRMS project team (“we are defining our requirements for moving the documents from one repository to the other”⁵⁶⁵). However, the project team had other priorities too, which namely were the extension of the first, general repository to all departments, and

⁵⁶⁵ Interviewee D2.

the identification and analysis of all business processes interesting the bank's relationships with the outside world that were affected by the new e-government law examined earlier. Both priorities implied an in-depth revision and completion of the functional classification that, at the time of this research, included four business areas only.

The records manager entrusted with the first of those tasks appeared to be greatly concerned with the consistency and uniformity of the whole classification scheme. At that time, s/he was concentrating on the review of the first two levels of it (i.e., functions and activities), in that "since [they] started using [that EDRMS], many changes that impacted the bank's functions occurred."⁵⁶⁶ The third level, which was called "series" and did not have necessarily to be functional ("it can be a geographic term, a person, a process, etc."), needed "a profound work of normalization." Because this was the level users would link to their files, and was the only one they could access in their daily operations, it had to "satisfy users' needs" first. Thus, the work around the series had been postponed to a later stage, as "fixing the fundamentals of the whole scheme" was perceived as a more pressing demand.

"In the pilot project, users were not asked to validate the classification. So when we went to implement it, they could not recognize their activities."⁵⁶⁷

For each function identified, a "functional table" describing what unit was in charge of that function and what activities it involved had been created for internal use of the records management team only. Likewise, each series was linked to a description of its

⁵⁶⁶ Interviewee D4. The subject was primarily referring to changes in the functions of the central banks of the EU member states following the establishment of the ECB. As to the higher levels of the classification scheme, they were actually called "functional groups" (corresponding to functions) and "functions" (corresponding to activities). This terminology was however under discussion within the team as it was perceived as a potential source of confusion.

⁵⁶⁷ This and the previous citations of the last few sentences are from interviewee D4.

qualifying elements, including any related business process, security information, legal value (as a basis for retention), and other attributes agreed with the users. Interestingly, the team had the intention to enhance these descriptions, so that they could serve archival purposes as well:

“We would like to improve the descriptions of functions and series by adding the time period a given function or process was in charge of a certain department, what it involved across time and departments, and which the hierarchical relationships with other functions or series are. Our aim is to be compliant with the ICA standard on function description.”⁵⁶⁸

Files and sub-files were also linked to comprehensive metadata profiles that were hidden to the users. The file profile included some basic attributes common to all files independently of the series they were linked to (e.g., opening and closing dates, medium, keywords, etc.) and some specific attributes potentially useful to manage the underlying work flow (e.g., business process start and end dates, initiation upon request or *ex officio*, dependencies, etc.). Sub-files, where existing, had to display a fixed sequence in line with the criterion determining their structure, which could be either chronological or by process. In the latter case, the sub-file level (only one level was allowed, in general) would systematically consist of three phases, i.e., initiation, development, and resolution. The influence of diplomatic concepts is evident with reference to the understanding of both files and sub-files.

Given the rather rigid and controlled architecture of the whole system, several concessions to the users inevitably had to be made in terms of both its design and implementation. File names, for instance, had no restrictions and some metadata elements had been adjusted to accommodate individual area's needs. Consequently, an attribute like record type (e.g., agenda, contract, report, etc.) would include eighty

⁵⁶⁸ Interviewee D4.

different options for a given user group and only ten for another one, and the same attributes would have different meanings in either case. As one of the subjects put it, “the quality of our work depends a lot on the people we have to deal with.”⁵⁶⁹ In some instances, the records system had to adapt to the requirements of other pre-existing applications used to manage specific processes. As a result, files were duplicated in both systems and the official one (i.e., the one in the EDRMS) was likely incomplete.

As a rule, duplication of files would occur where ‘transversal’ activities were carried out, such as in the case of legal opinions mentioned in a previous section. ‘Convenient files’ were basically created every time two or more units would collaborate on a given issue. Similarly, under every highest level of the classification, there was an entry for the internal administration of the department, where the people of each department would store their “internal notes about human resources, planning, budget, internal meetings...: in one word, ephemerals.”⁵⁷⁰ The records management team was confident that all these duplications could easily be managed by means of records scheduling. Information determining which series were the official ones to be retained for a longer time (i.e., usually those corresponding to the offices that had primary responsibility over a given matter), and which the secondary ones to be disposed of after a shorter period of time (i.e., temporary series created to satisfy business areas’ needs and deviating from the functional logic of the classification framework), was already in the system. Nevertheless, in the view of the subject dealing with the review of the system’s classes, such non-functional entries represented a problem to be fixed.

“This is the structure made by the consultants, but we are not going to keep it because it is too much organization-based. The consultants made

⁵⁶⁹ Interviewee D5.

⁵⁷⁰ Interviewee D2.

the mistake to place supportive activities under core business functions. The result is that, at the moment, under the entry called ‘human resource management,’ there is only one series for the annual employees’ appraisal. ... We do not like the present structure because administrative and operational functions are confused. But, for the users, the ‘department administration’ entry is very convenient. They like it because it is a big bucket where they can put their holiday plans, meetings, etc. For us, it is just a garbage bin.”⁵⁷¹

How to ensure that the “garbage bin” did actually contain only ephemerals and that the official series was always complete were issues that the team had not yet tackled. The focus of the classification developer was more on eliminating any organization-based residue from the higher levels of the scheme and separating the support from the core functions in a more precise fashion.

What emerges from the analysis of this system is that, because organizational structure and function were somehow confused, the departments felt a kind of ownership towards their series, and therefore, files would not be shared across business areas. Obviously, specific cultural issues were behind this technical choice that now, after some years of experience with a corporate records system, was perceived as being no longer adequate. On the side of the business processes, the ‘functional glue’ was nevertheless guaranteed through the mechanism linking, ideally in a one-to-one relationship, each series with any identified administrative procedure.

“For example, when you participate in a conference, you open a file for your business trip that corresponds to a series which is under your function or department. When someone in another department goes to a conference, the series will be different but the business process behind it is the same. So for us, it is easy to connect all files that relate to the same procedure (e.g., participation in conferences), despite the fact that the actual files may be spread throughout the classification.”⁵⁷²

⁵⁷¹ Interviewee D4.

⁵⁷² Ibid.

It will not escape the reader that the nature of this ‘virtual’ linkage was different from the one provided by the functional metadata of cases B and C. In this case, the files of each instance of the same business process existed as stable, physical and logical entities, and the reason for connecting all of them was to facilitate the management of the underlying administrative process (for instance, in terms of work flow), as well as to allow for the application of retention rules and the overall management of the records’ life cycle.

6.3.3 Functional Approaches to Classification

The focus of this final part of the report of this multiple-case research is on methodological issues, that is, on the ways in which the analysis of the organization’s functions and activities was carried out in each of the studied environments. The findings emerging from the following analysis will ideally shed light on the understanding of what a function is in every specific context.

“It is hard to say that something is *completely functional*. If you try to design your classification system all functional, or all something else, you will always get a bit of something that is not what you want. ... If the restructuring of the bank brings that everything is functional, it might be easier to reflect this in a ‘true’ function-based classification system.”

The reader will have recognized the origin of this citation from the reference to the functional reorganization of bank A. Two motifs may be drawn from the above-mentioned words, motifs that will return like common themes in most of the cases examined. The first one refers to the fact that the goal of building a ‘true,’ purely function-based system may be utopian, given the tendency of non-functional elements to intrude all the time. Classification developers would consciously accept to deviate from their abstract, functional logic whenever the ‘file-and-find needs of the users’ would have the upper hand.

“If you consider how people organize their stuff in [the EDMS], you realize that it is very much based on the way a department is structured, and their personal ideas about how work is accomplished. ... People are going to have resistance to any functional classification, because *function is not easy to comprehend*.”⁵⁷³

However, besides the scepticism towards the possibility to succeed in any attempts to impose the records managers’ functional view over the organization-based and personal views of the users, the other distinctive feature emerging from the climate that this researchers observed especially in organization A was some sort of irrational, collective belief in the ‘power of function.’ The functional thrust coming from the records management and archival literature of the last few decades – in particular from international standards such as ISO 15489 or MoReq2, either or both of which all cases analyzed declared to have somehow followed – appeared to be, in this specific case, further fostered by the general move towards a more function-based organization that this bank had endorsed with special emphasis.⁵⁷⁴ However, nobody seemed to know exactly what this change would imply. In particular, some records managers looked rather

⁵⁷³ This and the previous citation are from interviewee A1.

⁵⁷⁴ The organizational reasons for the bank to ‘go function’ appeared to be related to the governor’s aim to increase efficiency, effectiveness, and transparency:

“The organization has merged throughout the years, so there is no one-to-one relationship between one department and one function any more. In particular, our economic departments are not aligned by functions any more. ... We recently had a new governor coming on board. The idea of realigning the departments by function comes from him. He sees this as a better way to ensure that your efforts are more focused on delivering services related to your core functions, as well as a way to streamline the processes we employ to deliver those services. As opposed to have two departments having a part to play in a specific function, why not bringing those departments together under a single department aligned with that function?”

The citation from interviewee A2 raises a few comments inspired by this author’s analysis of issues related to the theory of administration. In his book on *Administrative Behaviour*, Herbert Simon wrote that “there is no such thing as a ... unifunctional (single-purpose) [department]” (p. 38). In today’s concept of bureaucracy, according to Simon, many specializations would be necessary within each unit of work. Thus, the idea of having departments and functions in a one-to-one relationship seems to recall old-fashioned models of bureaucracy (like the Weberian one). However, a functional realignment of departments might greatly help the development of function-based classification system, in that it would be instrumental for providing the high level of abstraction that the latter exercise requires.

disoriented, yet confident about the advantages that the new system would bring. This attitude may be called ‘functional mysticism.’

“The new system should be better, but it is hard to say as long as you do not have it in front of you.”⁵⁷⁵

The current classification [for paper records] is already kind of function-based ... but it is not the same ‘function’ that they [(i.e., the people in the EDRMS project)] are trying to implement now with this folder structure. The functions [of both systems] are in fact similar, but we do need to change the system because it would be too hard to separate the current functions into the new functions. ... They are trying to simplify the classification, and it will be simpler when the transition is over. In future, we will only have five major functions that will in turn branch out. Well, this is what I have understood... ”⁵⁷⁶

“Being more functional will help us understand the business better. Not only us [(i.e., records managers)], but everybody will benefit from the change [of classification]. ... People know what functions they play or they are under, but under the function you have the activities, and under the activities you have the tasks, and so on. So there is still room for a deep folder structure... I do not know whether the [new] structure will manage to be less complex... It will be functional, that’s for sure. The bank is going function, so it makes sense.”⁵⁷⁷

The developers of the new folder structure did not appear to follow any specific methodology to analyze the organization’ functions. The starting point for the identification of both ‘core’ and ‘enabling functions,’ and of all relevant ‘business line activities,’ was the Medium Term Plan, i.e., the official function paper by which the bank described itself in its new ‘functional clothes.’ It was assumed that, since everybody was familiar with the plan, using its terminology and structural framework would increase the general understanding of the system and thereby its acceptance. Considering in particular the intrinsic ambiguity of all functional terms, referring to the official definitions

⁵⁷⁵ Interviewee A9.

⁵⁷⁶ Interviewee A6.

⁵⁷⁷ Interviewee A1.

included in the plan would “help minimize the debate around what is function and what is activity.”⁵⁷⁸ However,

“The way the bank describes the business in this plan might not satisfy the needs of the clients from a file-and-find perspective. So, as we start implementing this folder structure, we are going to be validating level two, and we might make some changes. Once these changes are made, we are going to lock them down, so that the folder structure will be very stable.”⁵⁷⁹

Thus, being pragmatic and focussing on the users’ needs seemed to be fundamental characteristics of the methodology under examination, more important, for the time being, than the systematic application of a fully-consistent analytical approach. Because the project team wanted to be flexible and adaptable (“agile”⁵⁸⁰), many design and implementation issues had not been planned in advance. However, as already mentioned several times, the records management system of case A was mature enough to be able to predict certain desired outcomes.

“The folder structure we are going to propose might not be still a ‘true’ functional classification based on how DIRKS or [the local National Archives] defines it. But it will be a classification system that users will

⁵⁷⁸ Interviewee A2. The complete citation is:

“If you talk to ten economists, each will have a different perspective on what function and activity means to the bank. The plan basically defines the bank’s priorities and every department has its work plan that is linked to the plan. Therefore people understand, or should understand this document. This is the way the bank defines itself, its functions and activities. So for the purpose of the [new] folder structure and to help minimize the debate around what is function and what is activity, we say that we have developed the folder structure based on the functions and activities as they are defined in the plan.”

⁵⁷⁹ Ibid.

⁵⁸⁰ Interviewee A3. It may be worth citing full sentences from the senior manager of the unit in question, as her/his words echo the ‘mystic’ belief in what functions can achieve as well as the just mentioned pragmatic approach:

“Function is something that is permanent. ... The functional approach is going to help us not only from the initial phase, putting in the creation, but also for the management, the search, the find, and then the disposition. ... You do have to have some recognition of the fact that, in a folder structure, not everything will fit 100% into a bucket; but if it fits 90%, that’s good. ... We have to have that structure in place, so that we are *agile* to respond. The functional approach allows the *agility* that is needed, because it brings the structure up to the higher level. Now the question is: how far down do we want to go? Do we just say three levels and then stop? Some people say: below that level, individual groups can do whatever they like. We have not yet made a decision about that.”

be able to file in, potentially, and through which we will be able to apply our core records management processes to both paper and electronic records.”⁵⁸¹

The circumstances faced by those entrusted with the development of a functional classification system in organization B did certainly not allow the same degree of confidence. As we have seen, there was no internal tradition of corporate records management and the fact that the unit in charge of that function is always ranked rather low in any kind of business enterprise never appeared so explicit to the researcher as it did in this case. In particular, the software purchased to manage the electronic documents of the bank was presented as the result of a casual choice more than of a well-pondered decision, the classification system embedded in the software was perceived as an imposition, a legal requirement to be accommodated possibly in the least inconvenient way for the users, and the two (just two) people involved in the development of the latter system (i.e., the bank’s archivist and the librarian), admittedly, had no experience with records classification design.

“It was very difficult for [us] to build this classification system because we did not know how to do that. ... We knew from the beginning that it had to be function-based, but we did not know how to create such a system, because neither I nor [the librarian] had any experiences with classification systems for current records. ... I went back to all those standards and tried to understand how functional classification is supposed to be, but it was not so easy. [The librarian] was very much influenced by her librarian perspective, which is not exactly an archivist’s perspective. We had a lot of discussions about that.”

An empirical and analytic study of the bank’s functions and activities could not be afforded, given the existing constraints in terms of time and resources. It would also have been a vain toil considering that the final product had to be simple (two levels only) and high-level enough to be applied almost effortlessly by everybody.

⁵⁸¹ Interviewee A5.

“Part of that work done to develop the classification system was a theoretical study. We looked at other banks to see how they had developed their systems and at the records management standards ISO and MoReq. [The librarian] also looked at the Dublin Core. I decided to leave the DIRKS methodology aside because it seemed to be too complicated. We only carried out few interviews in some divisions. ... When we had a draft of the classification system, we presented our proposal to the other members of the project team and, after several months of discussions, this version was approved. We had many discussions about issues like: why is it not organization-based? Why function-based? Some areas did not like that their activities were not particularly represented in the classification.”⁵⁸²

Apparently, one of the most unsatisfied areas was the IT department that, *inter alia*, had an unstated leading role in the project. Without communicating their intention to do so, they just made a last-minute change to the agreed configuration, so that an entry referring to ‘IT support’ would show up under a number of functions instead of being only represented once in the scheme.⁵⁸³

This specific event has been reported not to provide an example of a typical power game, but rather because it is symptomatic of two common behaviours toward classification that may be found everywhere in organizations. First, business areas tend to perceive ‘their’ entries in the classification as the mirror of their presence in the organization, as if the volume of ‘their’ activities which appears in the scheme would be decided on the basis of an evaluation of the importance they hold. To eradicate this attitude, records managers need to be very clear in their explanations of the abstract view of functions taken by the classification scheme. Second, especially in technical areas,

⁵⁸² This and the previous citation are from interviewee B1.

⁵⁸³ The bank’s librarian (interviewee B2) explained the accident with the IT department in this way: “[The archivist] and I thought what we had in the classification system would be enough, but afterwards the IT department added new entries we are not aware of. They said they needed them for their various projects. The IT department is a very big and powerful one. Our assumption was that whatever they do, whatever software they buy or implement, it is to support the functions of the bank. What the system is about should not be the criterion for classification. They had of course a different opinion.”

such as the IT or the economic and research departments, people seem to be inclined to approach records classification according to a subject-based understanding of their activities, which implies the specification of the various matters, or fields of action, that each identified activity focuses on (e.g., with reference to the IT function, ‘IT support to monetary policy,’ ‘IT support to asset management,’ ‘IT support to payment system,’ etc.). These lists are usually never complete and require continuous updating.

Going back to the instrumental purposes to which a classification scheme can be bent, it should be mentioned that the archivist had her/himself used the opportunity offered by the classification to show the presence of the archives in the organization, and s/he did so in a very strategic way. The entry that was meant to cover all the ‘internal services’ (e.g., library, press and communication, etc.) – apart from non being really a functional entry but rather an organization-based one in its substance – struck this researcher because it did not include the archives as an internal service of the bank. The archivist replied candidly:

“I think that the archival function is strategic because you are dealing with the records of the bank. That is why I put it under the entry ‘Strategic and Operational Management.’ It was a *political decision*, I admit.”⁵⁸⁴

Working with a system that, from both a technical and a conceptual viewpoint, was not ‘the best of the worlds possible’ was nevertheless a learning experience for many of its users, including the people who participated in the project that set it up and who today would rather regard it as “a trial.”⁵⁸⁵ The discussion on the proper way of structuring the information, with reference to both the classification system and the folder structure, was an ongoing one.

⁵⁸⁴ Interviewee B1.

⁵⁸⁵ Interviewee B2.

“I think that if today we start all over from the beginning, we probably should have *a more function-based view in the system*. We were not ready for that at that time. Maybe we are more ready for that now. But I also think we will still need areas for the departments, because there will always be information just for the department, especially when it comes to administrative matters (e.g., holiday plans, strategic and planning documents, etc.). I think *you can never get rid completely of the organization-based structure*. But for sure to be more function-based in the future is possible and desirable.”⁵⁸⁶

So, although with less emphasis on the ‘magic of functions,’ this organization seemed to reproduce the two motifs highlighted during the analysis of the previous case, i.e., the belief that the future needed to be more functional, and a certain scepticism about the ability of a perfectly functional system to *work* in the real world. The subject above justified her/his point by referring to an issue that may sound familiar to the reader, that is, the difficulty for a functional scheme to accommodate those activities that would be irrelevant to anybody but the people of the department creating them. As an example, s/he mentioned “internal meetings, those that are done to manage the unit,” and where people discuss a variety of different topics (“who is sitting in which room, who is assigned a new task, information from the governor, etc.”). For these issues, “you cannot ask people to group them under one function” or to make the relevant records accessible to everybody. Despite the openness of this organization’s access policy, there was the feeling that units would “still need to maintain the information for their unit”⁵⁸⁷ in some sort of a ‘private space.’

On a more theoretical level, an area expert interviewed on her/his ways of classifying her/his records raised an issue that touched upon the purpose for managing information and the inevitable subjectivity of any hierarchy of functions. This subject

⁵⁸⁶ Interviewee B4.

⁵⁸⁷ Ibid.

observed that the “purpose” for which s/he would create any records was always one, i.e., to assist the bank in its external relations, independently of the functions that each record brought to a given venue (e.g., an ECB General Council meeting) might perform before and after that event (e.g., monetary policy operations, banking supervision, etc.). In all organizations, especially hierarchical ones, it is not uncommon to find units that work as ‘filters’ between the operational areas and the top executive bodies. The records created by such units in order to facilitate decision-making (which is their ‘purpose,’ while it may be regarded as a ‘process’ from the perspective of the business areas responsible for the contents discussed in the meeting) may indeed be problematic to classify, as each of those records at the same time supports a given function (which is the ‘purpose’ of the business area, but may be perceived as an irrelevant ‘process’ by the unit focused on the preparation of the meeting where those records are discussed).

“If you follow strictly a functional approach, you should put my documents under monetary policy, or banking supervision, or whatever functions. My area, *my function would probably disappear from a function-based system.*”

According to this subject, there would be “different needs in different parts of the organization.” With reference to areas like monetary policy or banking supervision, because of the type of content-related work they do, the functional approach would be “the dominating one,” while in her/his area, primarily interested in collecting documentation for the board members and ensuring that they are properly briefed, knowing where and when the governor had been speaking and what was said in that occasion would be the most important criteria for arranging the information.

“When I want to see the issues that were discussed in the March 2004 meeting of the ECB Governing Council, I go to that folder and I find everything. However, it may be that when nobody remembers when something was discussed, the topic or the function will be more relevant.

But it is difficult to educate people to think this way because we live in the present and we do not concern ourselves with issues like what people may want to retrieve in ten years time.”⁵⁸⁸

The subject recognized that, with proper metadata in the system, s/he could achieve the views of the files that were most suitable to her/his purposes, so that all needs could be satisfied. However, besides any practical solutions to the problem of the multiplicity of purposes that may impinge over a single act, on a more conceptual level, the discussion about the hierarchy of purposes and processes will be continued later, because, as this subject said, “we can argue without end on what a function and what an activity is.”⁵⁸⁹

To comment on the retrieval issue also raised by this subject, we may summarize the thoughts expressed above by saying that there seem to be, on the one hand, short-term retrieval needs that the way records are organized for current use (in this case, an organization- and meeting-based structure) would be able to satisfy, and, on the other, longer-term retrieval needs that may benefit from a different (function-based) arrangement of the material stored in the system. Thus, according to this subject, for any current purpose, the contextual view provided by a functional approach to classification would not be relevant or necessary.⁵⁹⁰

As we have seen, in case C, each department had a part to play in the definition of the ‘functional’ entries of its own section of the classification scheme included among

⁵⁸⁸ This and the previous citations of the last few sentences are from interviewee B5.

⁵⁸⁹ Ibid.

⁵⁹⁰ This subject’s view may be related to the distinction made by Australian archivist Chris Hurley between what he calls “terminological control,” which would characterize recordkeeping systems as long as they are in use and which would be sufficient to understand the context of active records, and “contextual control.” The latter is what provides “ambience,” or the broader context that is needed to make sense of any given body of records when the circumstances relevant to the creation of those records are no longer verifiable. Contextual control would be relevant to the function of archival description, or, in the records continuum model, to the ‘pluralize’ dimension of the life of a record; terminological control, on the other hand, seems to be important in the phase of records classification to achieve any necessary consistency, while any other information would not need to be articulated being contemporaneous with the facts generating the records. See Hurley, “Ambient Functions,” 22-25.

the metadata sets of the system and, because of the lack of central directions, everybody interpreted this task in a different way. So any combination of functions, subjects (e.g., topics, people, geographic areas, institutions), record types (e.g., contracts, letters in/out), and organizational structure was possible. The physical classification of the records, or folder structure, whose purpose was that of managing access privileges and protecting records confidentiality, was on the contrary a carefully and consistently built framework. The idea, one day, of replacing it with a function-based structure could not even be considered in theory, as the strict access rules around information management, and the closed attitude and substantial autonomy of business areas would never allow prescinding from an organization-centred arrangement of the records stored in the system.

It was not really possible for this researcher to explore issues of business analysis for purposes of classification with these case subjects. They all appeared to be rather pragmatic and oriented towards a ‘what-works-best-for-us’ philosophy. Also the unit responsible for the archival function would not hesitate to say “our clients are our priority: when a classification scheme is good for them, it is good for us.”⁵⁹¹ Actually, it was from that unit that the most sceptical views about the viability and the supposed advantages of a functional approach to classification came.

“From an intellectual point of view, a function-based classification is fantastic. But let’s be honest. Archives – in the sense of current archives – have an instrumental purpose, in the first place, for the people who work with the files every day. ... To make a classification scheme, the first thing to do is to ask the people ‘*show me your files,*’ not ‘*tell me what you do.*”

Referring in particular to the classification created for the transfer of the paper records to the central archives (although the same arguments would be valid for the one used to

⁵⁹¹ Interviewee C4.

manage the ‘current archives’ as well), this subject explained her/his methodology in these very pragmatic terms:

“When the outcome of a function is a form (e.g., an authorization or a request form), in the classification scheme, you will find the name of the form. If it is possible to say something about the function that produced that form, I will put it at the highest level of the scheme. But if users prefer to see the name of their department instead of that of the function, that is fine with me.”

Not differently from the subject of case B who stated that those who are contemporary with the making of the records have different retrieval needs from those who would look at them after some time have elapsed, this subject argued:

“If you look at a functional scheme, you see all the processes an organization is doing, you understand everything. That is great, but *it is not the purpose of classification*. The purpose of classification is to find back documents and files. A functional classification might be a wonderful tool for an external researcher who comes here in thirty years time ... But we have to serve our clients first, and *it is proved that internal users don’t usually like function-based classification*. They don’t understand it and they don’t care about any historical perspectives.”⁵⁹²

Additionally, in this organization, as well as in the previous one, each single user seemed to be interested in his or her particular perspective on any given function or activity. To meet this need, besides the possibility to assign more classification codes to every one record, the EDRMS would also allow users to place same records in different folders. As a consequence of the non-sharing behaviour that was so prominent in this organization, the latter was in fact the preferred option of most users.

“Apart from very particular cases ... the purposes for carrying out any activity are almost always different for everybody, so each folder is and must be different. We may work with [another unit] on the same project, but we take care of different aspects, so we cannot share the same folder. ... The functional classification allows the same physical document to be

⁵⁹² This and the previous citations of the last few sentences are from interviewee C4.

in several functional folders, virtually. However, this is very complicated, so we prefer to have duplications.”⁵⁹³

Here we go back to the discussion about the hierarchy of purposes and processes, ends and means, functions and activities, that was introduced a few pages ago. The definitions provided by sociologist Simon should be reported again as they may help clarify the position of the subjects that, in both case B and C, claimed that people may accomplish the same function or activity but, because each individual pursues different purposes, this diversity of ends should be reflected in the way records are organized in a classification system.

“‘Purpose’ may be roughly defined as the objective or end for which an activity is carried on; ‘process’, as a means of accomplishing a purpose. ... A ‘process’ is an activity whose immediate purpose is at a low level in the hierarchy of means and ends, while a ‘purpose’ is a collection of activities whose orienting value or aim is at a higher level in the means-end hierarchy.”⁵⁹⁴

Because of their inherent ambiguity, the terms purpose and process, like the terms function and activity, are in fact interchangeable and the perspective from which one looks at them can reveal what the purpose and what the process is for every observer. Shall we then conclude that making classifications (‘sorting things out’) is so subjective that any effort to provide a hierarchical view of the whole of the functions and activities of an organization is meaningless? Both subjects raising this topic, seemed to believe that, from their ‘lower-level’ perspective (i.e., as area experts), they would understand better where their respective function starts and what it involves. They would therefore

⁵⁹³ Interviewee C1. As a practical example of what s/he meant for having different purposes with regard to the same activity, this subject added the following:

“In this unit, we manage several [documents] whose contributions are made by [another unit]. I do not know how their classification looks like and they do not know mine. This is fine because our business purposes are different. For them, it is very important to know the status of each [piece of information], who did what, etc. For me, only the final version submitted ... is important. *My work starts from the point where their work ends.*”

⁵⁹⁴ Simon, *Administrative Behaviour*, 38-39.

favour departmental schemes against one, shared classification system for the whole bank. One may however argue that, by going down the means-ends chain, there will always be somebody ‘lower’ who sees what appears as a process from a higher point of observation (e.g., preparing a report) as a purpose. This person would introduce even more fragmentation in the classification concerning his or her files.

Indeed, what a classification developer (in the sense of the person entrusted with the task of designing a systematic and omni-comprehensive scheme) needs to have is the ability to see the ‘big picture.’ This will not eliminate subjectivity from corporate classification systems, but will enable to distinguish any higher purposes (functions) – and maybe to group them in even higher constructs (e.g., ‘roots’ or ‘functional groups,’ as they were called in cases A and D respectively) – from the lower purposes or processes (activities) that contribute to each of the functions so identified. The discussion that this researcher had with the classification developer of organization D was largely about this: how to get a sensible, wide-eye view of the highest organizational purposes and, at the same time, keep as much as possible away from any existing constraints (e.g., organizational structures, personal preferences, etc.).

Following a bottom-up approach, that consisted of “making an inventory of all business processes”⁵⁹⁵ carried out in organization D and then identifying the broader activities those processes participated in, the subject in question had created a list of twenty-four “functional groups” that would cover all the high-level mandated and support functions of the organization. S/he also referred, mainly to confirm her/his hypotheses, to published and non-published documentation describing the duties of a central bank in general. Now her/his problem was that the first-level classes identified

⁵⁹⁵ Interviewee D4.

seemed to be too numerous, but s/he did not know how to reduce them. By going through that list, it would not pass unnoticed that, especially with reference to the support functions (including, *inter alia*, ‘Accounting,’ ‘Material Resources Management,’ ‘Human Resources Management,’ ‘Organization and Internal Administration,’ ‘Information Systems,’ ‘Communications,’ ‘Document Management, Archives and Library’), there was a one-to-one relationship between most of them and the departments in the bank. The option of absorbing ‘Communications’ and ‘Document Management, Archives and Library’ into a broader entity called, for instance, ‘Information Management’ sounded plausible to our subject. S/he would however refrain from taking in ‘Information Systems’ as well, because “if you ask [IT people] what they do, it is more the other way around,” in the sense that, if they could, they would rather include all other functions within theirs, as “almost every activity in the bank is done by means of IT systems.” This tendency of the IT department to ‘overestimate’ its role, which shows a misinterpretation of both the function of records classification and the relationship between means and ends, has already emerged in the analysis of case B findings.

The classification developer was aware of, and manifested her/his concern for, “sometimes sticking too much to the organizational structure.” The records management and archival literature on functional methods s/he had consulted did not prove to be very useful when moving from the theory to the practice:

“I have not found in the literature an explanation of *how* to do functions analysis; I mean an explanation of how to do a *system that works*. Sometimes, things work in theory but not in practice.”

In the real world, our subject experienced ‘cases of *force majeure*’ in which the archivist’s logic could not help giving the way to ‘other logics.’ The function corresponding to ‘Research’ was one of these cases.

“Among the core functions of the bank, I have identified ‘Research.’ This is the core business of a specific department, however research is done everywhere in the bank. Supervision, Financial Stability, International Relations, Monetary Policy, Payment System, they all do analysis, monitoring, investigations,... , in one word, research. I think I should put ‘research’ at a lower level in the classification, so that it would show up under each function involving research activities. But I cannot do that because there is a *political issue* here. Research is a very important, very powerful department, so they have to have their own first-level entry in the classification.”

Following her/his “intuition,” this subject knew that s/he had to be rigorous and consistent, but also extremely considerate and tactical in the identification of the main functions and activities of the bank. As s/he put it: “The first and second levels are the most important because *they govern the whole system.*”⁵⁹⁶ At the same time, the design process involved “business areas’ verification” as a final stage before system implementation; thus, s/he had to try to prevent the rejection of her/his proposal by anticipating any imaginable reactions.

Within the overall methodology for the development of the corporate classification system, users’ involvement was assumed to be the greatest at the moment of establishing the series (i.e., third level entries). It was in the records managers’ interest that the series would perfectly match with the business processes as identified through a “study of legislative sources” combined with “interviews of key people in the business areas.”⁵⁹⁷ Although giving the users the last word in the definition of the series and some of their attributes might have yielded peculiar outcomes (of which some have been analyzed earlier), in general, the whole process was very much facilitated by the knowledge of diplomatics on the records managers’ part and the one of administrative procedures on the users’ part.

⁵⁹⁶ This and the previous citations of the last few sentences are from interviewee D4.

⁵⁹⁷ This and the previous citations of the last few sentences are from interviewee D2.

“Here, people are very knowledgeable about processes; however, they only know the processes they work with. So, normally, they understand the series pretty well, but they have difficulty in seeing the broader function.”

This observation confirms the above mentioned distinction between the high-level and low-level perspectives of the reality that would be associated with records managers and users respectively. Especially as far as terminology is concerned, the records managers had learned that users had to feel comfortable with it.

“We are now trying to use the users’ language. Before [(in the classification made by the consultants)], the language was clear to us but not to them. ... The consultants made a very good job, but were not familiar with the language of the bank. Like in all projects run by consultants, they had a deadline to meet, so they could not collect all the data they needed. ... We want our users really to understand what they approve. We do not want to re-do everything when they start working with the system.”⁵⁹⁸

The fact that people seemed to be used to working according to rather established and standardized procedures, made the functional approach particularly suitable to this organization.

“Every instance of a process produces documents that have to be grouped in a folder or file. I think we will not have resistance if we make it mandatory to group in one folder all the documents generated by the same instance of a process.”

Additionally, the records management team was confident that, in the near future, their approach might gain even a stronger support, thanks to the turn-over (“younger people are better than the older generation in using the system”) and to another kind of change that seemed to reproduce spontaneously the ‘functional move’ going on in case A.

⁵⁹⁸ This and the previous citation are from interviewee D5. With particular reference to the language of functions, this subject noted:

“People can talk about processes much easier than they can talk about document management. To facilitate communication, we have mapped the *process vocabulary* with the *document management vocabulary* in order to establish a clear relationship between *process function* and *document function*. For instance: ‘process’ equals ‘series;’ ‘task’ (within a process) equals ‘document’ (within a series).”

“My feeling is that the bank is gradually becoming more function-based. What I mean is that the internal organization is approaching a functional model, in order to work more efficiently. Units are changing to be more connected to a single function. I have observed this in many departments.”⁵⁹⁹

Like in the previous organizations examined, also here the subjects interviewed pointed to the researcher some ‘exceptions,’ some cases that would not fit easily into a functional grid. For example, “meeting files and committees’ documents” would be particularly hard to capture in a function-based classification system, because of the “many functions involved in the same documentation.”⁶⁰⁰ Case D subjects were even able to identify specific professional roles that would be more adaptive to a functional approach than others. Lawyers, thanks to their “very strong administrative education,” and generally “people working in administration” (e.g., accountants, human resource experts, etc.) would be among them. On the opposite side, the category of the economists would be the least cooperative in establishing a common framework for the treatment of the corporate records and the one whose way of working would usually be far too “complex and irregular” to be accommodated in a functional scheme, or in any scheme whatsoever.

“Sometimes, economists do not know the exact procedures... If you ask them to explain how things get done, they do not know where to start. ... They are convinced that structuring the information they manage is impossible.”⁶⁰¹

All cases examined emphasized that the professional culture of economists (who represents not an irrelevant percentage of the whole population of a central bank) would keep away from all that may sound ‘bureaucratic’ to them. A case A’s subject, who felt

⁵⁹⁹ This and the previous citation are from interviewee D4.

⁶⁰⁰ Interviewee D5.

⁶⁰¹ This and the previous citation are from interviewee D4. In this respect, one may quote Vickers, Bank of England’s economist, who wrote:

“Good forecasting generally entails use of off-model information and hence off-model models. Precisely how this is done seems to me to be literally indescribable in detail.”

See Vickers, “Inflation Targeting in Practice.” Cited in Issing, “The Eurosystem,” 515.

disrespected in her/his profession by the way in which economists would ignore her/his advice on how to manage their records, commented:

“Economists should recognize that they are analysts and we [(i.e., records managers/archivists)] are analysts as well, but in a different manner from them.”⁶⁰²

6.3.4 Summary and Analysis of Common Themes

The findings related to the issue of the purpose of records classification may be summarized as follows. The subjects interviewed in organization A, based on their experience of the benefits of classification derived from the records management program adopted for the paper records, shared the view that classification was a powerful tool through which a comprehensive *management of a record life cycle* could be achieved. Experience also taught them that, to satisfy the ‘file-and-find’ purposes of the users of an EDRMS, a less complex structure – though built according to the same functional criteria used to design the classification system – needed to be in place, with the understanding that, one day, the two structures would somehow come together. Both B and C cases perceived the purpose of classification as a means to aid records *retrieval* in a special way, that is, a way that would provide an alternative, more functional view over the records, different from the one provided by the structure used to store the records. Apparently, the latter was perceived as being sufficient to fulfill daily, operational needs, and therefore the meaning of classification was questioned. Finally, in case D, thanks to environmental circumstances favouring a rather structured conduct of business, classification was designed to be the functional framework where the users would directly store and *organize* their records, in order to obtain an integrated

⁶⁰² Interviewee A8.

management of documentary processes and business processes, and eventually to form the archives of the organization.

Independently of ‘how much functional’ the classification schemes analyzed actually were, only those of case A and D (assuming that case A’s folder structure would continue to develop consistently with the principles embedded in the classification) would potentially be able to satisfy the primary purpose that the archival theory assigns to classification, i.e., to establish and fix the original network of relationships that each record entertains with any other related record and with the activity generating them. The ‘secret’ was to position the system of controls allowed by a centrally designed and maintained function-based scheme upfront. In cases B and C, records accumulation was either completely haphazard or along some ‘structural’ logic, corresponding, in the former case, to the ever-changing organizational setting, and, in the latter, to the incidental configuration of the users’ access rights to documentation, which was in turn aligned with the organizational structure and/or the security categorization of given types of records. Thus, the theme of the separation of the folder structure from classification, as opposed to a unified concept of both frameworks, returns as a fundamental aspect for the definition of what classification means in an electronic environment.

As another consequence of embedding classification in electronic systems, the findings of this research show that the distinction between classes and files has become blurred and even more confused than it ever was in the paper world. In the latter, the materiality of the files could always tell where the boundary was. An electronic ‘folder’ *per se* could play both the role of a pre-established, structural element of the classification tree and that of an ad-hoc ‘container’ for the records actually generated by the functions and activities abstractly represented in the classification. Only through

specific rules to be included within the structural properties of any given technology, the act of classifying and the act of filing might still be clearly distinguished. Among all cases examined, only one, case D, appeared to have designed a system where fixed class-folders and variable file-folders were ‘physically’ and conceptually separated. It is not by chance that, once again only in organization D, nobody doubted of the continuing usefulness of providing a hierarchical view of the relationships between the classes of a classification system even in the electronic world.

Across all cases, all records professionals seemed to agree that a functional approach is hard for the users to understand and to apply. For this reason, both organizations A and D had conceived a classification system where only the higher levels (first and second) were as much as possible functional. The ‘blurred area’ (i.e., the ‘third level’ in both cases, although in case A, it might have been interpreted as the ‘first’ file level) was to be decided together with the users, thus, in theory, anything could be there. Case D people were so used to working in a structured way, that their third level would most of the time involve processes or phases of a process. In either case, the terminology of the system was identified as an essential factor to buy users’ acceptance. This implied that, both in the design and in the implementation phases, records managers were committed to adapt their language to the one of the users. Case B offered the system’s users two fixed functional classification levels as well. However, the functions and activities identified were not detailed enough to prove to be useful to create virtual aggregations of the records. Finally, in case C, which was characterized by an extreme decentralization of responsibilities, the nature and degree of elaboration of the classification system depended exclusively on the users’ understanding of function (and of classification).

However, this researcher had the feeling that, throughout her field study, she was accompanied by some sort of a sceptical attitude on the part of the records professionals interviewed with regard to the functional approach to classification, which was world-wide promoted – and mythicized – by the records management literature. In case B and C, what was questioned was the actual *effectiveness* of function-based classification; while in case A, some doubted its *desirability*, considering that a good, pretty functional system was already in use for the paper records and could be adapted to the electronic environment. Some others, echoed by case D, were especially sceptical about the *feasibility* of a ‘true’ function-base classification system.

All subjects shared the opinion that the methodologies and techniques offered by the literature on how to conduct a business analysis for purposes of records classification were unclear or, in any case, not very helpful when it comes to building a system that should *work* in practice. A pragmatic approach was emphasised as the best way to proceed by case A and C subjects, although with the substantial difference that, in the former case, it was a planned method, while in the latter, being pragmatic was just part of the general culture of the work place. Nevertheless, the starting point for the design of case A scheme was a theoretical representation of the business of the bank, a functional plan made for very different purposes from that of classification. Users were expected to recognize their functions and activities in that plan and to provide their inputs in order to complete it or to make it better suitable to their needs. In case D, the development of the classification system involved a much more orchestrated process, at the core of which was an in-depth analysis of the business processes carried out in the bank, both in theory and in practice. Associated to this bottom-up study, a top-down revision of the first two

levels of the classification was also undertaken with the aim of ‘optimizing’ the scheme (i.e., making it more functional).

The latter attempt had anyway to face the limitations that apparently all cases were to experience in carrying out their functional designs, whatever strategy they would follow. First of all, eliminating any residue of the organizational structure from a classification scheme seemed to be beyond human capabilities. Not just average users, but also records managers would be subject to the influence of the structures they dwelt in, so that it would be natural to them to match functional and organizational domains even where such a matching went against any functional logic. Of course, the more an organizational structure tends to approach a functional model (as it was the case in organization A and D), the easier it may be to maintain a consistent approach throughout the scheme. Yet, another difficulty would impinge on the records developer. In order to define a plausible and rational hierarchy of purposes and processes, despite the relativity of both concepts and the confined position that anyone holds in organizations, the person entrusted with that task should be capable of taking a higher perspective, one that would allow the ‘big picture’ of what the organization does to emerge, possibly unbiased. Still, as proved by the findings of this study, some ‘political’ issues that would influence classification developer’s decisions would have to be taken into consideration.

Finally, all cases examined seemed to have encountered similar obstacles to a ‘purist’ approach in the phase of implementing their respective systems. Independently of their openness and transparent behaviour, departments would everywhere claim that they needed some kind of ‘private’ space in the classification where they could store, invisibly from other departments, documentation of mere internal value. The records managers interviewed found this exception acceptable as it would just pertain to records which

were considered ephemeral by nature (e.g., copies of records already filed in functional areas of the scheme; documents having an irrelevant content, such as holiday plans, etc.). In addition to that, anything that had to do with cross-functional activities (e.g., a project involving more business areas), matrix-like structures (e.g., committees and working groups made of people with heterogeneous backgrounds and affiliations), or specific *modi operandi* (e.g., meeting-based decision-making processes), would originate records and files that, due to their collaborative, multiple-source nature, neither a functional nor an organizational structure could easily capture. Making duplicates of those ‘boundary objects’ in several areas of the classification scheme (or folder structure) appeared to be the only possible solution to all of this case study subjects.

In fact, that attitude was revealing of a generalized absence of a ‘true’ functional approach, where ‘true’ does not just refer to a scheme including functional terms only, as the latter might always be subject to ‘structural’ interpretations. ‘True’ functional means that departments or units are not perceived as ‘owners’ of any parts of the scheme and therefore all classes, as well as all files, are potentially accessible and actively usable by everyone in the organization (except for those classes or files that require access restrictions for specific reasons). In other words, what a functional approach in the proper sense cannot tolerate is a non-sharing behaviour, and all the cases analyzed, some more acutely than others, showed similar limitations with respect to the willingness of individuals to share ‘their’ information, including the documentary by-products of any activities. It was certainly not a technical deficiency that which hampered a more collaborative behaviour. On the contrary, the most advanced features embedded in all of the software employed to manage the electronic records of the organizations in question were indeed related to sharing and collaboration. However, those are attitudes, aspects of

the “collective programming of the mind”⁶⁰³ (i.e., culture, in Hofstede’s words) of the people inhabiting organizations, that technology cannot instil or foster by itself. None of the cases examined in this research appeared to have seriously dedicated time and resources to prepare the organization to a new, more transparent, cross-functional way of working. Without this cultural change, the design and implementation of a system that was meant to concentrate on functions rather than structures had to face inevitably a number of compromises.

⁶⁰³ Hofstede, *Culture’s Consequences*, 9.

7. CONCLUSION

7.1 Overview

This chapter will discuss the main findings of this research against the hypotheses and research questions that were formulated at the beginning of the study. The contributions made by this research to the records management and archival discipline – with particular regard to the theory and methodology of records classification – will be part of that discussion. The chapter will then highlight strengths and limitations of the research design adopted and will propose directions for future research.

7.2 Discussion of Research Hypotheses and Questions

The research problem identified by this researcher (i.e., an inadequate understanding of the purpose and characteristics of records classification and in particular of the functional approach to it) appeared to be indeed a central, unresolved issue for all the communities this researcher investigated. Different views of what classifying records means and unequal environmental circumstances (not all favourable to the development of a sound records management program) contributed to generate rather dissimilar outcomes of the classification efforts made by each case. Nevertheless, all subjects interviewed recognized that, in theory, classification is a fundamental component of any records system (though, in practice, some cases would underplay its role) but that, at the same time, its design and implementation according to a functional logic involve several difficulties.

The guidance provided by the existing literature seemed to all subjects insufficient to overcome such difficulties, mainly because it appeared to ignore the issue of translating the universally promoted functional approach into a practicable method. This finding confirms what this researcher had realized through her review of the records management and archival literature, and had instantiated in her first research hypothesis (**Hypothesis 1**).⁶⁰⁴

The hypotheses connected to the first one, which were trying to identify the principal shortcomings in the literature (i.e., its exclusive focus on functional factors – **Hypothesis 2**; its idea that all kinds of activities would be carried out in a structured and regular way, easy to capture in a functional grid – **Hypothesis 3**), seemed to be confirmed as well, although a few remarks should now be added. First of all, this researcher discovered that, among the non-functional factors potentially affecting the design of records classification systems, the cultural factors referring to specific organizational behaviours (e.g., emphasis on access restrictions) or to political aspects of an organization's life (e.g., pressure of power groups) appeared to be greatly influential in all settings examined. So, the answer to the research question relevant to this issue (**Sub-Question 2**) is that the system developers interviewed were all well-aware of the compromises they felt compelled to make in order to satisfy such non-functional needs, and did not hide their frustration for having had to blend their functional classification systems with organization-based elements. The message they all got from the literature in question was that the system had to be 'purely' functional to be effective.

⁶⁰⁴ This insight and what will emerge from the discussion in the next pages have the implicit purpose of answering the **Major Question** addressed by this research, i.e., how people in organizations understand the concept of function and the functional approach as a methodology for the design and implementation of records classification systems.

However, nobody was clear about what the official methodology meant for function, activity, transaction, etc. As a consequence, apart from case D, where apparently working according to a process-based structure was part of the *forma mentis* of every member of the organization, in no other cases people did actually engage in the painstaking exercises suggested by manuals and standards. The question concerning the methods employed to conduct business analyses (**Sub-Question 3**) was most of the time dismissed in the name of a ‘pragmatic approach.’ In fact, the whole issue underlying Hypothesis 3, that is, the fact that human reality would be too complex to be captured in rigidly defined functional hierarchies, did not generate the expected reactions. Overall, research subjects found that activities in their respective organizations were mostly of a structured and repetitive nature. At a closer look, one could however realize that their focus was just on administrative, routine processes, as if classification systems were not concerned, for instance, with the far less standardized work operations conducted by economists. In any case, the functional approach, where actually applied, did not involve any systematic analyses of the reality that was to be represented in the classification (except for case D).

The outstanding position of case D proves quite straightforwardly the assumed influence exercised by specific organizational cultures on the ways in which the concept of function and the purpose of classification are interpreted (**Hypothesis 4** and **Sub-Question 4**). The importance attributed to the establishment of a rational framework for the management of business processes and documentary processes in an integrated fashion, and the great attention paid to the uniformity and consistency of such a framework, are perfectly in line with case D being a representative of a full-bureaucracy type. Although the connection to Hofstede’s categorization was not so evident

everywhere, the other cases also showed similar explanatory relationships between the culture of the work place and the characteristics of both business structures and records systems. Case A was a typical example of the Anglo-Saxon records management culture, as well as of pragmatism and adaptability as two aspects of its market bureaucracy. Case B's culture of 'regulated freedom' was reflected in its open-access policy to records and information, goal-oriented attitude, and absence of excessive constraints as to 'how to get things done.' Not by chance, it was another market type organization. The autonomous behaviour of case C's units and the lack of coordination at both a procedural and a policy level only partly corresponded to the well-oiled machine model this case should have represented. Anyway, the link between such 'anarchic' organizational culture and the complete decentralization of any records management function could not have been stronger.

One may conclude that some organizational cultures would be more conducive than others to successful implementations of corporate records management solutions. Likewise, a function-based approach to classification seems to be facilitated where structured work styles and the tendency to organize departments and specializations according to a functional logic predominate.

Especially with reference to cases B and C, this researcher could observe that different interpretations and applications of the functional approach and classification did exist not only among organizations, but also at the level of individual users, or groups of users (e.g., people working in the same office, specific professional categories). The fact that groups appropriate systems or technologies in special ways would be consistent with the structural ideas involved in the theoretical framework of this study. This consideration brings the discussion to the last hypothesis (**Hypothesis 5**) and sub-

question (**Sub-Question 5**) about ‘appropriation moves.’ Interviews with classification users (in the sense of ordinary, non-specialized users), which only took place in the two cases mentioned above, were indeed very revealing of adaptations of the system to specific units’ needs. Particularly in case C, where the technology was intrinsically more ‘flexible,’ phenomena of ‘unfaithful’ appropriation could easily be identified. To confirm the importance of users’ involvement in the initial phases of any project related to the deployment of a new system, one should notice that these were the cases where the training provided to users seemed to be closer to mere technical assistance. On the contrary, in case A and especially in case D, users’ participation in the definition of some of the system features and the efforts made to ensure that the message related to the ‘spirit’ of the system would pass on to them appeared to be the greatest. It is reasonable to expect that, once fully implemented, the system of these two cases will likely be used in line with the ‘official’ mandate, also thanks to the stringent control mechanisms embedded in it.

As to the question related to people’s knowledge of records classification theory, methods, and practice (**Sub-Question 1**), the findings showing the various understandings of the purpose of classification in the examined organizations demonstrate how crucial this issue is to determine what the system will look like and whether it will be capable of meeting expected outcomes. As we have seen, by interpreting classification as a mere retrieval tool, cases B and C deprived classification of its power and could not come out with a convincing answer about its necessity. Additionally, because the functional classification was implemented as a keyword mechanism, that is, a metadata set with no influence on the way records accumulate during the ordinary course of business, and because the organization-based ‘folder

structure' was *de facto* the element deciding on the primary order of the records in the recordkeeping system, the latter may be regarded as the classification system in use in both those cases. By using a 'positivist' argument (i.e., by referring to the properties of the records to define what classification is),⁶⁰⁵ one may conclude that only cases A and D had a classification system potentially capable of providing the records with the contextual information that would reveal their meaning in relation to each other and to the activities generating them.

In other words, the outcomes of this empirical enquiry seem to confirm that, in order to fulfill the primary purpose that the archival theory assigns to classification, the latter must have a function-based structure. However, meeting this requirement would not be sufficient, in that, to be effective in establishing and perpetuating the 'archival bond' among the records, the functional structure needs to be the organizing principle which determines, once and for ever, how records accumulate in the records system. With the possibility offered by an electronic environment to obtain multiple views of the same records through various combinations of the metadata embedded in the system, this researcher sees two risks. The first is that of losing the notion of a primary, fixed configuration of the records, a configuration that would be more meaningful than any other because it would reflect the original intentions and behaviours of the records creator. Secondly, where the metadata making up the 'physical' folder structure used to file the records follow an organization-based principle or are just left to the users to define and re-define according to their individual needs, the risk is that it might become impossible to understand the meaning of the files so arranged once their current use has

⁶⁰⁵ See Hjørland and Nissen Pedersen, "A Substantive Theory of Classification for Information Retrieval," 582-86.

ended, or to recognize a coherent structure in the archives that are being formed in such casual and highly personalized way.

One aspect that emerged during the case study research and that provided this researcher with new hypotheses, questions, and ‘food for thoughts’ concerns indeed the role played by electronic records systems in the general understanding and use of classification. A research question exploring this issue may be formulated as follows:

“How do classification and filing procedures change with the adoption of electronic document and/or records management systems in organizations?”

As the previous discussion on folder structures and metadata, as well as the one about the ambiguous nature of electronic folders included in Chapter 6 show, new technologies do have an impact on the way classification is designed, implemented, and used; however, there is nothing unavoidable or predetermined in that impact. Assuming that the technology is suitable to perform records management functions, it would always be possible to mould its ‘structural properties’ (i.e., in structural terms, the rules and resources embedded in the system and which human agents draw on in their everyday interactions) so that certain conditions existing in the traditional environment are reproduced in the electronic one. It all depends on the knowledge and experience that people have of classification and filing, their ability to transform their understanding in procedures and control mechanisms to be embedded in the electronic system, and, last but not least, the overall ‘cultural properties’ of every organizational context.

The ‘ultimate question’ concerning the reasons why people would usually experience so much difficulty when trying to apply a functional approach (**Ultimate Question a**), has found a number of answers throughout this research. The inadequacy of existing methodologies is one of those. In particular, what the literature does not explain

is that function is a relative concept and, therefore, establishing a meaningful and applicable hierarchy of functions, activities and transactions – which does not exist as such in the real world – far from being a mechanical exercise, requires a great deal of appreciation of the ‘end-means chains’ that characterize human actions. To be able to judge the different weight of each action, and to interrelate consistently and systematically all of them, the observer of the organizational reality needs to position him/herself at the highest possible level of each hierarchical string of purposes and processes, which is not an easy task. Also, the exploration of functions and activities should not occur in isolation but together with the people who know in detail what they do and how they accomplish their work.

As in the approach recommended by Soft Systems Methodology, the idea of what is ‘desirable and feasible’ to introduce in any given social reality in order to improve it should proceed from comparing any abstract model of that reality with inputs coming from the ‘system served.’ In fact, most of the classification systems encountered in this research appeared to be the result of engineering-like approaches, where at the centre of the developer’s attention is not the reality, but the ‘system that serves’ that reality. The tendency to focus on the model (the classification) to be optimized, as well as the one to talk about functions as ‘mythical’ entities that would not tolerate to be mixed up with other criteria (while, in reality, this happens necessarily all the time), keep developers away from observing the ‘imperfect’ reality around them and trying to ‘read’ it from different angles. As sociologist Morgan writes in the conclusions of his analysis of organizational metaphors,

“People who learn to read situations from different viewpoints have an advantage over those committed to a fixed position.”⁶⁰⁶

To summarize the various insights gained from writing this dissertation with the intent of providing some theoretical and methodological contribution that might eventually help classification developers improve the quality of their work (**Ultimate Question b**), the first thing that may be stressed is the following: the objectives to be achieved by means of a classification system need to be clearly stated and communicated to all involved parties from the beginning. This might involve the gradual introduction of some changes in the culture of the organization – in order to, for instance, remove or smooth resistance against information sharing, being this a prerequisite to the successful implementation of a functional approach. Based on their knowledge of archival theory, classification developers should aim at designing and implementing a stable, ‘primary’ structure for guiding filing activities, a structure that is to be informed by criteria that are respectful of the properties of the records, hence function-based. However, rather than imposing their view, they should allow for the contribution of other perspectives, such as those of the users. In this kind of ‘conversation’ with the situation, records classification developers will have the advantage of seeing the ‘big picture,’ which should enable them to create consistent hierarchies of purposes and processes, and to evaluate in which cases identified non-functional factors, including any accommodations to make classification more user-friendly, would or should be incorporated in the system.

⁶⁰⁶ Morgan, *Images of Organization*, 331.

7.3 Strengths and Limitations of Research Design

This is the first empirical study of records classification practices in real-world organizations. This researcher is convinced that she could not have achieved the primary goal of her research (i.e., to enhance our understanding of records classification and related functional approach) without comparing the theoretical understanding of the issues at stake with the actual implementations of function-based classification, and without immersing herself in a live, sometimes incongruous, 360-degree ‘discourse about methods’ (with reference to both classification as a method to organize records and the functional approach as a method to build classification systems). As archivists know very well, ‘context is all.’ Situating the research topic in different, real organizational contexts was indeed enlightening and the deep, first-hand insights gained through this exercise could not have been replaced by any indirect study of the characteristics of each environment.

Making a careful choice of the sites where to conduct empirical research is essential to its success. Using the matrix developed by Hofstede to frame the scope of this research and to establish a basis for comparison turned out to be a good decision, although the nature of the class of organizations chosen as a study population probably smoothed away some of the sharpest differences identified by Hofstede at the level of national cultures. Central banks, as the highest financial, economic, and monetary authority in a country, have a mission which involves a great deal of secrecy and independence, thus they are, and somehow need to be, ‘impenetrable’ in many

respects.⁶⁰⁷ As shown throughout the analysis of this research's findings, laws, regulations, and similar constraints do not seem to have great influence on the course of action of those working in this type of organizations. Because of their reduced exchanges with the external environment, central banks would not fully display those variations that depend on the surrounding systems of values and that are largely responsible for differentiating one organizational context from the other. Thus, although substantial dissimilarities could be identified and, in most cases, could be led back to Hofstede's assumptions, the analyzed organizations appeared all rather similar in their behaviour. The non-sharing attitude, the generally loose sense of a corporate culture (with reference to the strong individualism of the business areas), and, as far as records management is concerned, the conservative attachment to the paper-based past and cautious move towards the electronic future, are all examples of such common traits.

Being an 'insider' helped this researcher in her approaching and understanding of that closed and non-transparent reality; however, it did not eliminate certain barriers that, as already mentioned earlier, prevented her from applying a full ethnographic approach.

As demonstrated through the comparison of the hypotheses developed prior to the conduct of data collection and the empirical results of the case studies, this research can claim to have achieved 'analytic generalization' of its findings.⁶⁰⁸ However, given the intrinsic limitations of any interpretivist research design, parallels cannot be assumed without further validation of findings in other environments.

⁶⁰⁷ A famous sentence, which reveals the 'sacred' position occupied by central banks in their territory of jurisdiction, is the one pronounced by Jacques Delors, at that time President of the European Commission, in 1992: "Not all Germans believe in God, but they all believe in the Bundesbank."

See the web site of the national central bank of Germany at http://www.bundesbank.de/50jahre/50jahre_pressematerialien_stimmen.php (accessed on 04/03/2009).

⁶⁰⁸ See Yin, *Case Study Research*, 32; Walsham, "Interpretive Case Studies in IS Research: Nature and Method," 78.

7.4 Future Research

The limited knowledge we have of records management practices would certainly benefit from replications of this research design with other types of organizations. As it has happened with this study, by exploring real-world situations, methodological clarifications and new theoretical insights might emerge. Especially in a time of change like the present one, where the traditional knowledge about records seems to be permanently challenged by any advances in technology, taking an inductive, situated approach is necessary and urgent. The gap this researcher has identified in the archival literature is huge and goes far beyond the topic of this study.

Empirical research would also be important at the level of individual organizations. As this study has pointed out, different categories of users – whether distinguished on the basis of their profession (e.g., economists, lawyers, administrative staff, etc.) or on the basis of their affiliation with a given department or office – appear to share distinct record-related needs, which would in turn be reflected in specific behaviours and adaptations of work tools. By applying the qualitative methods of Adaptive Structuration Theory (AST) to the study of groups' enactments of technology (in the sense of a 'records management or archival technology' with or without an IT component), different types of 'appropriations' might emerge, which could explain why expected outcomes from the use of that technology did not occur or occurred in a particular way. For instance, AST would help understand why the adoption of a given EDRMS did not bring the same improvements in the records management performances of every unit of an organization, or why sharing behaviours did not change despite its introduction.

Finally, the issues of what a function is and of how to analyze functions and work processes in complex and interrelated social realities, such as those typical of contemporary organizations, certainly deserve to be further explored. Again the theory of structuration, as well as any 'soft' systems approach would offer precious methodologies and perspectives that might further enhance our understanding of issues that, as we have seen, are indeed fundamental with reference to many, if not all, records management and archival functions.

7.5 Final Thoughts

This study was triggered by this author's realization that a crucial records management and archival instrument such as records classification had not been properly addressed by the literature and that such a lack of clarity about its purposes and methods had been giving rise to very inconsistent and confused systems for classifying and filing active records. With the aim of providing some clarity on the functional approach to records classification (i.e., an approach that, because it takes into consideration the inherent properties of the records, seems to be the most suitable not just to classify records but also to perform any other records management and archival function), an empirical research involving four case studies conducted in different organizational contexts was undertaken. Through the exploration of the relationships existing between specific organizational cultures, on the one hand, and the enactments of business functions and records management processes, on the other, the meaning of function in relation to records classification has emerged. The major theoretical and methodological contribution of this work is an explanation of why we need records classification and how records classification system should be conceived and implemented – in particular

in an electronic environment – to meet their purpose. The insights on the functional approach obtained through this research design are meant to inspire further research, in that – as this author hopes to have effectively proved – understanding the complexity of the reality in which records creators act is a fundamental, ongoing challenge that requires the greatest attention of the records management and archival community.

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APPENDICES

Appendix 1: Invitation Letter and Questionnaire

Invitation Letter

I am a candidate in the PhD program at the School of Library, Archival and Information Studies of the University of British Columbia, Vancouver (Canada), and am carrying out research for my dissertation on records classification systems. As I also work as a senior archivist for the European Central Bank in Frankfurt am Main (Germany), I am particularly interested in how records classification systems are designed, implemented, and used in central banks.

Research plan:

My research design involves a series of case studies to be carried out in a number of central banks during the period from October 2007 to September 2008. I plan to spend about a week at each case study site to conduct interviews and observations. In order to select suitable case study sites, I have prepared the attached online questionnaire which is addressed to the person responsible for records/archives management in your organization. Please direct this invitation to her/him, in case you are not the most appropriate recipient.

Selection criteria:

In order for your organization to be suitable for selection, the following criteria apply: 1) participants in interviews must be able to communicate in English or Italian with the investigator; 2) your organization must be using, or be in the process of designing, implementing or reviewing, a corporate records classification system as a means to identify and to organize the records made or received in the course of business.

Survey procedures:

If your organization meets both the above mentioned requirements, you are invited to participate in this online survey. It is expected that completion of the attached questionnaire will take approximately 15 minutes.

Consent:

Completion of this questionnaire is entirely voluntary and, in case you are selected as one of the case studies, you may refuse to participate at any time in the process.

Confidentiality:

Any information resulting from this research will be kept strictly confidential. Participants will not be identified by name in any reports of the completed study. This survey has been approved by the UBC Behavioural Research Ethics Board.

Contact information:

Should you have any questions or wish to receive further information about this study, you may contact me, Fiorella Foscarini, at fiore@interchange.ubc.ca, or Dr. Luciana Duranti (dissertation supervisor), at luciana@interchange.ubc.ca.

Thank you for your feedback.

Case Study Research on Records Classification – Questionnaire

Question #1

How long has your organization been using the current corporate records classification system?
(select all that apply)

- More than 10 years
- 1 to 10 years
- Classification system is under development
- Classification system is under implementation
- Classification system is under revision
- Other, please specify

.....

Question #2 (mandatory)

What type of records classification system is in place, or under development / implementation / revision, at your organization?

- Classification system mainly based on business functions (i.e., entries reflect, from general to specific, the organization's functions, activities, and actions)
- Classification system mainly based on subject matters (i.e., entries reflect the matters or topics, and sub-topics, the organization deals with)
- Classification system mainly based on the structure of the organization (i.e., entries correspond to the names of the divisions, offices, units, etc. of the organization)
- Classification system mainly based on record types (i.e., records are arranged according to their form or quality: e.g., contracts, internal circulars, invoices, etc.)
- Mixed classification system (i.e., there is no predominance of any of the above-mentioned types)
- Other, please specify

.....

Question #3

How is records management performed in your organization?

- Records management is centralized (i.e., one department/unit is responsible for managing all records of the organization)
- Records management is decentralized (i.e., each business area is responsible for managing its own records, and there is no central unit with coordinating and/or supervising responsibilities)
- Records management is semi-decentralized (i.e., each business area is responsible for managing its own records, but there also is a central unit with coordinating and/or supervising responsibilities)
- Records management is not recognized as an autonomous function and every user is responsible for managing his/her own records
- Other, please specify

.....

Question #4 (mandatory)

Are your organization's records managed by means of a software with records management functionalities (e.g., ERMS, EDRMS)?

- YES NO

Additional Comment

.....

Question #5 (when answer to question #4 is YES)

Is the records classification embedded in the software that manages your organization's records?

- YES NO

Additional Comment

.....

Question #6

Is the person, or (anyone from) the team that is/was responsible for designing, implementing, and/or revising your organization's records classification system still employed at your organization?

- YES NO

Additional Comment

.....

Question #7

How would you define your organization in terms of "power distance" (PD)? PD measures the "concentration of authority" in your organization; it answers the question of who decides what. PD is high in hierarchical organizations, where decisions are taken at one level and implemented at the next, and communication flows one-way only and top-down. Where also medium-level management is allowed to take decisions and authority relations are more flexible, PD is moderate. A low PD characterizes non-hierarchical or flat organizations where, below the highest managerial level, relationships among people are not strictly prescribed and communication flows in all directions.

- High Moderate Low

Question #8

How would you define your organization in terms of "uncertainty avoidance" (UA)? UA measures the level of "formalization" or "structuring of activities" in your organization; it answers the question how one can assure that what should be done will be done. Bureaucratic organizations are characterized by high UA, i.e., work processes tend to be rigidly prescribed, either in formal rules or in traditions. Where work processes which are flexible coexist with more structured ones, UA is moderate. Organizations where bureaucratic procedures are reduced to the minimum, either because of a strong direct supervision over the work flow or due to some kind of mutual adjustment between the parts, are characterized by low UA.

- High Moderate Low

Appendix 2: Survey Results

Zoomerang Survey Results

Case Study Research on Records Classification

Response Status: Completes

Filter: No filter applied

Apr 04, 2008 3:29 PM PST

1. How long has your organization been using the current corporate records classification system? (select all that apply)		
More than 10 years	6	60%
1 to 10 years	3	30%
Classification system is under development	0	0%
Classification system is under implementation	0	0%
Classification system is under revision	2	20%
Other, please specify	0	0%

2. What type of records classification system is in place, or under development / implementation / revision, at your organization?		
Classification system mainly based on business functions (i.e., entries reflect, from general to specific, the organization's functions, activities, and actions)	6	43%
Classification system mainly based on subject matters (i.e., entries reflect the matters or topics, and sub-topics, the organization deals with)	1	7%
Classification system mainly based on the structure of the organization (i.e., entries correspond to the names of the divisions, offices, units, etc. of the organization)	3	21%
Classification system mainly based on record types (i.e., records are arranged according to their form or quality: e.g., contracts, internal circulars, invoices, etc.)	0	0%
Mixed classification system (i.e., there is no predominance of any of the above-mentioned types)	3	21%
Other, please specify	1	7%
Total	14	100%

3. How is records management performed in your organization?

Records management is centralized (i.e., one department/unit is responsible for managing all records of the organization)	4	29%
Records management is decentralized (i.e., each business area is responsible for managing its own records, and there is no central unit with coordinating and/or supervising responsibilities)	0	0%
Records management is semi-decentralized (i.e., each business area is responsible for managing its own records, but there also is a central unit with coordinating and/or supervising responsibilities)	8	57%
Records management is not recognized as an autonomous function and every user is responsible for managing his/her own records	1	7%
Other, please specify	1	7%
Total	14	100%

4. Are your organization's records managed by means of a software with records management functionalities (e.g., ERMS, EDRMS)?

Yes	11	79%
No	3	21%
Total	14	100%

5. Is the records classification embedded in the software that manages your organization's records?

Yes	8	73%
No	3	27%
Total	11	100%

6. Is the person, or (anyone from) the team that is/was responsible for designing, implementing, and/or revising your organization's records classification system still employed at your organization?

Yes	12	92%
No	1	8%
Total	13	100%

7. How would you define your organization in terms of "power distance" (PD)? PD measures the "concentration of authority" in your organization; it answers the question of who decides what. PD is high in hierarchical organizations, where decisions are taken at one level and implemented at the next, and communication flows one-way only and top-down. Where also medium-level management is allowed to take decisions and authority relations are more flexible, PD is moderate. A low PD characterizes non-hierarchical or flat organizations where, below the highest managerial level, relationships among people are not strictly prescribed and communication flows in all directions.

High	3	21%
Moderate	10	71%
Low	1	7%
Total	14	100%

8. How would you define your organization in terms of "uncertainty avoidance" (UA)? UA measures the level of "formalization" or "structuring of activities" in your organization; it answers the question how one can assure that what should be done will be done. Bureaucratic organizations are characterized by high UA, i.e., work processes tend to be rigidly prescribed, either in formal rules or in traditions. Where work processes which are flexible coexist with more structured ones, UA is moderate. Organizations where bureaucratic procedures are reduced to the minimum, either because of a strong direct supervision over the work flow or due to some kind of mutual adjustment between the parts, are characterized by low UA.

High	2	14%
Moderate	11	79%
Low	1	7%
Total	14	100%

Appendix 3: Case Study Invitation Letter

Dear Mr/Ms ...,

Thank you for your participation in the survey on records classification that was submitted to you in September/October 2007.

I am pleased to inform you that, based on your answers to my questionnaire, your Bank has been selected as a suitable case study site for the research on records classification systems that I am carrying out in the context of my doctorate dissertation.

Please allow me to briefly introduce myself again. I am a candidate in the PhD program of the School of Library, Archival and Information Studies at the University of British Columbia, Vancouver, Canada. I also work as a senior archivist for the European Central Bank (ECB) in Frankfurt am Main, Germany. Given my professional background and the specific focus of my doctoral studies on record-keeping issues, I have developed a special interest in how records classification systems are designed, implemented, and used in Central Banks.

If your organization agrees to participate in my research as a case study site, I will get in touch either with you or with the person you will identify as my main point of contact in order to schedule a visit to your organization. Purposes and methods of my study, as well as terms and conditions of my on-site research, including any information regarding confidentiality issues, are specified in the consent form that is attached to this letter and that you are kindly asked to review. You and each person that will agree to participate in my study will be asked to sign a copy of the attached consent form at the time of my visit.

I believe that your organization will benefit from participating in my research in three important ways: 1) having the opportunity to discuss classification and other record-keeping issues with someone from outside the organization who is specializing on those matters; 2) learning the most advanced strategies for managing and preserving your digital records (please note that, besides being a PhD candidate, I am part of the research team of the InterPARES Project, and have recently contributed to the revision of MoReq); and 3) exchanging views and information on topics that are relevant to both your Bank and the ECB (e.g., retention periods for shared record types, standardization of procedures, EDRMS-related issues).

If you require any clarification about any of the details included in this letter or in the consent form, please feel free to contact me at fiore@interchange.ubc.ca. I will be happy to provide that clarification.

Thank you very much for your kind consideration and best regards,

Fiorella Foscarini

Appendix 4: Consent Form

Consent Form

Case Study Research on Records Classification

Principal Investigator:

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Research purpose and methods:

The purpose of this multiple case study on records classification is to examine how function-based records classification systems are designed, implemented, and used in some selected Central Banks as a specific class of organizations sharing similar functions and mission. In the last decades, the records management and archival literature worldwide has recommended a functional approach (i.e., a systematic analysis and hierarchical representation of the functions, activities, and transactions carried out by an organization) as the most suitable methodology for developing records classification systems. To date, however, no substantial research into the ways of actually carrying out function or business analyses for purposes of records classification and using function-based classification systems in real-world organizations has been undertaken to shed light on the meanings attributed to the concept of function, or the perceived benefits and limitations of function-based classification systems.

The specific objectives of the research are: 1) to explore how the concept of function and the functional approach as a methodology for designing records classification systems are understood by those developing such systems; 2) to analyze the role played by non-functional factors (e.g., organizational structure, record-keeping practices, etc.) in the design of those systems; 3) to examine how business processes are analyzed and which difficulties are encountered in carrying out a functional analysis; 4) to explore how users interact with the records classification system in place at their organization and how they participate in the implementation of an electronic document and records management system (EDRMS) that embeds the classification system; 5) to analyze benefits and limitations attached to records classification systems by both groups (developers and users); 6) to compare the findings of all case studies in order to draw some conclusions on the relationship between the ways of understanding and using function-based classification systems, and the characteristics of the environments under examination in terms of organizational setting and culture; and, on the basis of the above, 7) to identify the strengths and weaknesses of current ways of designing records classification systems and to suggest how they might be improved.

The research methods that will be used to accomplish these objectives involve a multiple case study design that will be carried out by means of interviews, observations, and document analyses, and that will also involve comparative analysis and interpretation. Selection of suitable case study sites has been based on the answers to a set of closed-ended questions administered through an online survey tool. In order to get an in-depth understanding of the work practices and interactions characterizing each setting, the researcher will immerse herself in the daily routines of the work places that are the focus of her research. On-site data collection methods include observations, semi-structured interviews, as well as document analysis with reference to classification schemes and other relevant materials. Documentation relevant to the organizations under examination (e.g., information on legal and regulatory frameworks, institutional histories, organizational charts, record-keeping policies and procedures) will be collected and analyzed throughout the research. As a data analysis method, the researcher will mainly rely on content analysis.

Study Procedures:

If the selected organization agrees to participate, the researcher (i.e., the Co-Investigator) will get in touch with the person in the organization identified as her main point of contact in order to schedule her visit. The visit will occur according to any applicable rule in place at the organization (including, for instance, office hours, signing of agreement of non-disclosure of confidential information). It is understood that by no means will the host organization be charged for any costs incurred in any stages of the research. In order to allow the researcher to gather any necessary information, the duration of her presence at the organization's premises is expected to be not less than five and not more than ten working days (i.e., one to two weeks). During that time, the researcher will be granted access to the offices, documentation, and people that are relevant to her research.

With reference to the documentation, the researcher will primarily need to consult the following materials: records classification schemes, record-keeping policies and procedures, documentation related to the EDRMS implementation, business analysis charts, manuals of procedures referring to the activities carried out by the offices, and any other sources of information about the organization's functions, operations, and setting. The actual content of the documents or files circulating or archived in the organization is not relevant to this study, whose focus rests on how information is processed and structured, how individuals interact with classification systems, and other records-related issues as explained in the previous section of this paper.

As to the people, the following roles are considered particularly relevant for the purposes of this research: records manager, archivist, classification system user, manager in charge of the records management function, technical staff and manager involved in the EDRMS implementation and functioning. Participants in the study will be identified by asking knowledgeable individuals in the organization to name those who may provide useful insights. It is particularly important that the individual/team that developed the classification system and/or is responsible for its maintenance is available for interviews at the time of the visit.

Formal interviews will last about an hour each. Key-people (e.g., classification developer, head of the records management unit) might be interviewed more than once and are expected overall to spend an amount of hours equal to one working day in participating in the study. Every effort will be made to ensure that the researcher's presence does not become a hindrance to the usual and ordinary course of business of the organization.

Before any observation or interview takes place, each participant will be asked to give his/her formal consent by signing a copy of this consent form. The researcher will also ask whether, in each specific instance, participants will allow her to audio-tape what is being said. If any of the participants does not wish to have his/her words taped, notes will be taken instead.

Following the on-site study, the researcher may need to approach the organization again in order to get clarifications or additional information on specific issues.

Confidentiality:

All data collected in whatever form during this case study (e.g., audio-tapes, transcripts, summaries, and notes) will only be used in published findings in non-identifiable form. This means that, for instance, interviews will not be attributed to involved participants; names of offices, organizational units, departments, etc. will be made generic so that it will not be possible to identify them univocally; and the name itself of each Central Bank that agrees to participate in the study will never be mentioned in any final report. Furthermore, any means will be employed to avoid indirect identification of the specific organization by inference from its characteristics or the country where it is located.

The audio-tapes and paper transcripts, summaries or notes of interviews and observations will be kept in a locked container in the co-investigator's home and the electronic versions of transcripts, summaries or notes will be kept in a secure directory on the co-investigator's personal hard drive. Apart from the Principal Investigator, nobody else will be given access to any of the above. By no means will any of the data gathered in the course of each interview or observation be communicated to anybody within either the host organization, or the organization the researcher belongs to (i.e., the European Central Bank). Only the person who signed a consent form and thus agreed to be interviewed or observed will be given access to his/her interview transcripts/summaries or observation notes for purposes of review. Finally, the researcher commits herself to destroy any collected data not earlier than five years after completion of her doctoral programme.

Contact for information about the study:

If you have any questions or require any clarification with respect to this study, please feel free to contact the Co-Investigator. Contact information for the Co-Investigator is provided at the top of this letter.

Contact for concerns about the rights of research subjects:

If you have any concerns about your treatment or rights as a participant in this study, you may contact the Research Subject Information Line in the UBC Office of Research Services at +1-604-822-8598.

Consent:

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without jeopardy.

If, for any reason, your organization decides to withdraw from the study before its completion, any collected data will be immediately destroyed and your organization will be excluded from the study.

Your signature below indicates that you have received a copy of this consent form for your own records and that you consent to participate in this study.

Subject Signature

Date

Appendix 5: Interview Guide

Interview Guide

Because the research paradigm I have decided to adopt in my study is an interpretive one, and because the purpose of my case study design is going to be largely exploratory, I will refrain from imposing any rigid structure or any kind of formalism to my data collection methods. The interview format will thus be semi-structured, i.e., I will use predetermined questions, but the order can be modified based on what I determine is appropriate in the context of a specific interview. The wording of questions may be changed and explanations given. For particular interviewees, certain questions may not be appropriate and may be omitted, or additional ones may be added. As I will try to conduct interviews as much in a conversational style as possible, I expect new perspectives to emerge during data collection. Such emerging themes might lead me to formulate new questions in addition to those mentioned in this interview guide. The latter will therefore mainly list the areas or topics to be covered in the interviews, including some open-ended questions to remind myself of important lines of inquiry.

Interview subjects are going to be records managers and/or archivists – including the person or the team that developed the classification system –, the users of the system (both ordinary and “super-users”, i.e., records managers and other users of the EDRMS who received a special training to enable them to support ordinary users), the manager in charge of the records management/archival function in the organization, technical staff and manager(s) involved in the EDRMS implementation and functioning. Subjects will be identified by asking knowledgeable individuals in the organization to name those who may provide useful insights (according to the so-called “snowball sampling” method). I intend to interview 6 to 8 people overall.

Each interview will last about an hour. Key-people (e.g., classification developer, manager in charge of the records management/archives unit) might be interviewed more than once and are expected overall to spend an amount of hours equal to one working day in participating in the study.

Before any interview takes place, I will introduce myself, explain the purpose of my research, and ask each subject to sign his/her consent form. I will also ask each subject whether he/she allows me to audio-tape what is being said. If any of the subjects does not wish to have his/her words taped, notes will be taken instead.

Interview Introduction

- 1) Explanation of the aims of the research project. Any questions?
- 2) Explanation of interview process and follow-up. Any questions?
- 3) Request permission to tape the interview.
- 4) Review of consent process: reminder to interviewee(s) that participation is voluntary and that he/she has the right to withdraw consent at any point. Any questions?

A) General area of inquiry (may involve any category of identified subjects)⁶⁰⁹

1) Analysis of the “history” of the system:⁶¹⁰

- How would you describe the system that was in place before the current one was adopted?
 - How was it administered and used?
 - What were its benefits and limitations?
- Why has the organization decided to change its system?
- What were the expectations attached to the new system?
- Have these expectations been fulfilled and in which way?
- What improvements (if any) have appeared with the introduction of the new system?
- Can you describe disruptions of old routines due to the introduction of the new system?

2) Analysis of the “rhetoric” of the system:

- What are the advantages and disadvantages of a function-based classification system in comparison to a subject-based or an organizational-based one?
- What are the common beliefs shared among your peers with reference to the computerization of records management functions?

⁶⁰⁹ Following the example provided in the book edited by Yates and Van Maanen, I have structured the general part of my inquiry (i.e., the one that refers to issues and questions that may be addressed to any type of informants) in three sections: 1) “History,” with the purpose of situating each case study in its specific socio-historical context; 2) “Rhetoric,” with the purpose of letting networks of interpretations emerge, as well as engaging in a discussion where the informants’ views are confronted with the researcher’s. In this kind of analysis, the researcher’s focus is on the meanings attached to the phenomena under examination; 3) “Practice,” with the purpose of studying shared practices and the interpersonal relationships formed around them. See JoAnne Yates and John Van Maanen, eds. *Information Technology and Organizational Transformation. History, Rhetoric, and Practice* (Thousand Oaks, CA: Sage, 2001).

⁶¹⁰ If not further specified, the term “system” may mean both the classification system and the record-keeping system that embeds the classification system. Its meaning depends on the type of interviewee and the interview context. E.g., the first question of the first set may be operationalized as follows: “How would you describe the classification system that was in place before the current function-based one was adopted?” as well as “How would you describe the record-keeping system that was in place before the current EDRMS was adopted?”

- What are the common complaints about the system (during the implementation phase/now)?
- What do you think about the training you received/provided on the use of the system?
- What about user support (during the implementation phase/now)?
- Do you think that people (IT experts, records managers, users) attach particular symbolic meanings to the system? If yes, which?

3) Analysis of the “practice” of the system:

- How is the system appropriated (i.e., adapted and adopted) by the users?
 - Are there informal ways of appropriating the system (i.e., unorthodox ways of using the system that are implicitly or explicitly recognized and shared among users or groups of users)?
- How much is left to improvisation in your way of using the system?
- Do you ever consciously break the rules (e.g., with reference to the classification system, by creating subject-based files where only function-based ones are allowed)?
- How broad is the dissemination of conceptual knowledge about the system (organizational learning)?
- What is your feeling about the “fit” between the system and your organization/unit’s work practices?
 - With reference to the classification system, are there activities/topics that you would not know how to classify?
- Can you tell me stories of use/misuse/non-use of the system?

B) Special area of inquiry: Specialized Records Managers (includes the classification system developer and the head of the records management/archives unit)⁶¹¹

- B1. In your opinion, what is the main purpose of classifying records?
- B2. How much do you agree/disagree on each of the following assumed benefits of function-based classification systems derived from an analysis of the literature:⁶¹²
- i. Functions are more stable than organizational structures;
 - ii. Because records are created as a by-product of business activities, users will find it easy to classify records according to functions and activities;
 - iii. Decisions on records retention based on the relative value of business functions will allow a better permanent record of the organization to be retained;
 - iv. Focusing records appraisal on business functions allows records retention decisions to be taken at the point of creation;
 - v. Function-based classification can be used to highlight where records should be created;
 - vi. When an organization is restructured or a work is transferred to another organization it is normally a function that is moved. If records are organized functionally it is easier to transfer them;
 - vii. Function-based classification helps avoid duplication of records where functions are spread across several organizational units;
 - viii. The evidential and informational value of the record is increased by linking the record to its business context and therefore to related records;
 - ix. Function-based classification helps in allocating user permissions for access to, or action on, particular groups of records;

⁶¹¹ Part of the questions included in the following two special areas of inquiry (see in particular, questions C7, C8, and D5) may also be addressed to the subjects involved in this special area.

⁶¹² The list of benefits is partly based on Stuart A. Orr, "Functions-Based Classification of Records: Is It Functional?" (Master's thesis – Northumbria University, 2005).

- x. Function-based classification assists in distributing responsibility for management of particular sets of records;
 - xi. Function-based classification assists in ensuring that records are named in a consistent manner over time;
 - xii. Function-based classification assists in determining security protection and access appropriate for sets of records;
 - xiii. Function-based classification assists in distributing records for action;
 - xiv. Function-based classification assists in ensuring consistent titling of files;
 - xv. Function-based classification helps organizations see themselves as a whole and not as silos;
 - xvi. Function-based classification facilitates sharing of information across organisational boundaries;
 - xvii. Function-based classification helps in searching for information;
 - xviii. Function-based classification makes it easier to retrieve older records;
 - xix. Function-based classification makes more sense to the citizens if the records classification is made public (for example under freedom of information legislation);
 - xx. Functions, as opposed to subjects, are both finite in number and linguistically simple;
 - xxi. Records align much more easily and simply under functions than under provenance or subject.
- B3. What kind of influence have non-functional factors (e.g., organizational structure, record types, etc.) exercised on the design of the function-based classification system?
- B4. Do you see any difference between the logic you have drawn on in designing the classification system and the logic followed by the users of such a system when they operate it?

- B5. How was the business analysis carried out?
- Did you refer to any existing standards (e.g., DIRKS methodology, ISO 15489) or manuals (e.g., Shepherd and Yeo's 2003 handbook)?
 - Do you think you would have needed some (additional) training on function or process analysis techniques?
 - How was the support you received from the interviewed business units?
- B6. Could all activities be described in terms of structured business processes? If not, can you describe those activities that just could not fit in?
- Are there functions or groups of activities that are unsuitable to a functional approach?
 - Are there work processes that the people who carry them out seem to be unable to describe?
- B7. How do you consider issues of standardization and interoperability, at least with reference to the higher-level classes of the classification system?
- How do you like the idea of having a (partly) shared classification system for all Central Banks in Europe?
- B8. How would you describe users' acceptance of the classification system (during implementation/now)?
- B9. Did you have to make many changes after the first phase of implementation of the current classification system in the organization?
- B10. What does the maintenance of the classification system involve?
- Are there sectors or classes of the system which are more stable than others?
 - Are users making many mistakes in using the system?
 - Are there ways of using the system that you do not approve but have become part of the users' daily practice?

B11. Are there things that you would or would not repeat if you could start all over again developing the classification system for your organization?

- Are there principles or rules in the literature on records management that, in the light of your experience, you just consider myths?
- What would you recommend records managers primarily to look at when developing classification systems?
- On the basis of your observations (e.g., the needs of your users), how could the classification in place in your organization possibly be improved?

C) Special area of inquiry: EDRMS team (includes records managers involved in the EDRMS project, IT experts, business analysts, project manager, etc.)⁶¹³

C1. How would you describe the “philosophy” (or “spirit”) underlying the EDRMS in place in your organization?

- Has this underlying philosophy been effectively communicated to the system users?
- Do you think that users usually appropriate and use the system “faithfully” (i.e., according to its intrinsic spirit)? If not, where are the “weak” points?

C2. What are in your opinion the most valuable features of the system?

- Are the system capabilities currently fully exploited?

C3. What are the main limitations of the system?

- What do people (records managers/users/EDRMS team) mostly complain about?

C4. To which extent had the system to be customized to the specific characteristics of your organization (to its culture, setting, work practices, etc.)?

C5. How much has the introduction of the EDRMS changed the organization (its culture, setting, work practices, etc.)?

⁶¹³ Part of the questions included in the previous special area of inquiry (see in particular, question B1, B2, and B8) may also be addressed to some of the subjects involved in this special area.

- If you agree that the new technology determined some “organizational change”, how much of this change was planned and how much happened unexpectedly?
- C6. Can you describe user involvement in the EDRMS implementation phase?
- C7. Have users been trained on the use of the classification system embedded in the EDRMS?
- Who did the training and how was that feature explained?
 - Is the classification system used “properly” by the (trained) users?
 - Is it considered to be a user-friendly tool?
- C8. Do you think that the classification system has become a more powerful tool thanks to its integration in the EDRMS?
- How do you see the role of classification in an electronic environment?

D) Special area of inquiry: users (includes both ordinary users and “super-users”)⁶¹⁴

- D1. Have you participated in the design and/or implementation of the current classification system?
- If yes, which activities have you been involved in (e.g., business analysis, testing of the system, training on its use, providing comments on content/structure of the system) and to which extent?
- D2. Do you find the classification entries being a good representation of your actual activities and the ways you carry them out?
- Are all your activities/tasks represented in the scheme?
 - How would you describe a function-based classification system?
 - Would a subject-based or an organizational structure-based system better serve your operational tasks?

⁶¹⁴ Part of the questions included in the previous two special areas of inquiry (in particular question B1, B2, B4, C2, C3, C6, and C7) may also be addressed to the subjects involved in this special area.

- D3. Do you use the classification system for purposes of retrieval, or do you usually rely on other metadata?
- D4. How easy or difficult is classifying and filing with the current function-based system?
- On an average, how long does it take to you to classify (and file) a record?
 - Do you ever need to ask for help?
 - Do you think you have received enough training?
 - Are you aware of any classification or filing mistakes you made?
 - Does the computer make classification easier?
- D5. Has your work changed after the introduction of the EDRMS? If yes, in which ways?
- D6. How important is good records management for you/your office?

Appendix 6: Observation Guide

Observation Guide

The subjects of my observations are going to be the users of the classification system and record-keeping system in place in the organization. Both ordinary users and “super-users” (i.e., records managers and users of an EDRMS who received a special training to enable them to support ordinary users) will be observed in their daily operations. I expect to observe 5 to 8 people overall. What I am interested in is how these people go about in processing information (e.g., how records are attributed to classes in the classification system, how files are created, how records and files are retrieved in the EDRMS). I am not interested in the actual content of the records; rather I aim to understand how records get aggregated in formal structures, whether records management processes are perceived to be easy or complicated, whether users are happy or unhappy with the type of classification system (and EDRMS) they deal with, and why.

Observations will take the form of sitting with identified users when they are processing information and taking notes about their work practices, particularly their use of the classification system. Individuals will be encouraged to talk aloud about what they are doing, and my descriptions will be supplemented with questions probing particular issues. Though most of the questions are expected to arise spontaneously in the course of each observation, I will as much as possible rely on the same list of questions provided in the interview guide.

Before any observation takes place, I will introduce myself, explain the purpose of my research, and ask each subject to sign his/her consent form. I will also ask each subject whether he/she allows me to audio-tape what is being said. If any of the subjects does not wish to have his/her words taped, notes will be taken instead.

Observation Introduction

- 5) Explanation of the aims of the research project. Any questions?
- 6) Explanation of observation process and follow-up. Any questions?
- 7) Request permission to tape what is being said during the observation.
- 8) Review of consent process: reminder to subject(s) that participation is voluntary and that he/she has the right to withdraw consent at any point. Any questions?

Appendix 7: UBC Behavioural Research Ethics Board – Certificate of Approval (Survey)



*The University of British Columbia
 Office of Research Services
Behavioural Research Ethics Board
 Suite 102, 6190 Agronomy Road,
 Vancouver, B.C. V6T 1Z3*

CERTIFICATE OF APPROVAL - MINIMAL RISK

PRINCIPAL INVESTIGATOR: Luciana Duranti	INSTITUTION / DEPARTMENT: UBC/Arts/Library, Archival & Information Studies	UBC BREB NUMBER: H07-01798
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:		
Institution	Site	
N/A	N/A	
Other locations where the research will be conducted:		
Bank of Canada; Federal Reserve Bank of New York; the 27 Central Banks of the European Union (i.e., Austrian National Bank, National Bank of Belgium, Bulgarian National Bank, Central Bank of Cyprus, Czech National Bank, National Bank of Denmark, Bank of Estonia, Bank of Finland, Bank of France, Deutsche Bundesbank, Bank of Greece, Magyar Nemzeti Bank, Central Bank of Ireland, Bank of Italy, Bank of Latvia, Bank of Lithuania, Central Bank of Luxembourg, Central Bank of Malta, Netherlands Bank, National Bank of Poland, National Bank of Romania, National Bank of Slovakia, Bank of Slovenia, Bank of Spain, Sveriges Riksbank, Swiss National Bank, Bank of England).		
CO-INVESTIGATOR(S): Fiorella Foscarini		
SPONSORING AGENCIES: N/A		
PROJECT TITLE: The Functional Approach to Records Classification: A Qualitative Study - Part 1		

CERTIFICATE EXPIRY DATE: August 16, 2008

DOCUMENTS INCLUDED IN THIS APPROVAL:	DATE APPROVED: August 16, 2007	
Document Name	Version	Date
Protocol:		
Research Proposal: The Functional Approach to Records Classification: A Qualitative Study.	N/A	June 8, 2007
Questionnaire, Questionnaire Cover Letter, Tests:		
Questionnaire: Classification Study	2	August 2, 2007

The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

***Approval is issued on behalf of the Behavioural Research Ethics Board
and signed electronically by one of the following:***

Dr. Peter Suedfeld, Chair
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazanjian, Associate Chair
Dr. M. Judith Lynam, Associate Chair
Dr. Laurie Ford, Associate Chair

Appendix 8: UBC Behavioural Research Ethics Board – Certificate of Approval (Case Study)



The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road,
Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL – FULL BOARD

PRINCIPAL INVESTIGATOR: Luciana Duranti	INSTITUTION / DEPARTMENT: UBC/Arts/Library, Archival & Information Studies	UBC BREB NUMBER: H08-01062
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:		
<small>Institution</small>	<small>Site</small>	
N/A		N/A
Other locations where the research will be conducted: ----- ⁶¹⁵		
CO-INVESTIGATOR(S): Fiorella Foscarini		
SPONSORING AGENCIES: N/A		
PROJECT TITLE: The Functional Approach to Records Classification: A Qualitative Study - Part 2		
REB MEETING DATE: May 22, 2008	CERTIFICATE EXPIRY DATE: May 22, 2009	
DOCUMENTS INCLUDED IN THIS APPROVAL:		DATE APPROVED: May 26, 2008
<small>Document Name</small>	<small>Version</small>	<small>Date</small>
Protocol: Research Proposal: The Functional Approach to Records Classification: A Qualitative Study.		
	N/A	June 8, 2007
Consent Forms: Consent Form		
	N/A	May 7, 2008
Questionnaire, Questionnaire Cover Letter, Tests: Observation Guide		
	N/A	May 7, 2008
Interview Guide		
	N/A	May 7, 2008
Letter of Initial Contact: Letter of Initial Contact		
	N/A	May 7, 2008
<p>The application for ethical review and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.</p>		

⁶¹⁵ Names of selected central banks have been deleted, in order to protect anonymity of case study subjects.

***Approval is issued on behalf of the Behavioural Research Ethics Board
and signed electronically by one of the following:***

Dr. M. Judith Lynam, Chair
Dr. Ken Craig, Chair
Dr. Jim Rupert, Associate Chair
Dr. Laurie Ford, Associate Chair
Dr. Daniel Salhani, Associate Chair
Dr. Anita Ho, Associate Chair

Appendix 9: UBC Behavioural Research Ethics Board – Certificate of Approval (Case Study - Amendment)



The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road,
Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - MINIMAL RISK AMENDMENT

PRINCIPAL INVESTIGATOR: Luciana Duranti	DEPARTMENT: UBC/Arts/Library, Archival & Information Studies	UBC BREB NUMBER: H08-01062
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:		
Institution	Site	
N/A		N/A
Other locations where the research will be conducted: ----- ⁶¹⁶		
CO-INVESTIGATOR(S): Fiorella Foscarini		
SPONSORING AGENCIES: N/A		
PROJECT TITLE: The Functional Approach to Records Classification: A Qualitative Study - Part 2		

Expiry Date - Approval of an amendment does not change the expiry date on the current UBC BREB approval of this study. An application for renewal is required on or before: May 22, 2009

AMENDMENT(S):	AMENDMENT APPROVAL DATE: March 2, 2009
Document Name	Version Date
<p>The amendment(s) and the document(s) listed above have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.</p>	

⁶¹⁶ Amendment requested following change of case study subjects. Names of selected central banks have been deleted, in order to protect anonymity of case study subjects.

*Approval is issued on behalf of the Behavioural Research Ethics Board
and signed electronically by one of the following:*

Dr. M. Judith Lynam, Chair
Dr. Ken Craig, Chair
Dr. Jim Rupert, Associate Chair
Dr. Laurie Ford, Associate Chair
Dr. Anita Ho, Associate Chair