

Records Classification and Functions: An Archival Perspective

Fiorella Foscarini

The University of British Columbia, School of Library,
Archival and Information Studies, 301-6190 Agronomy Road, Vancouver,
British Columbia, V6T 1Z3, Canada. <E-mail: fiore@interchange.ubc.ca



Fiorella Foscarini works as a Senior Archivist at the European Central Bank in Frankfurt am Main (Germany). Before, she was the Head of the Records Management Office at the Province of Bologna (Italy). She holds a diploma in Archival Science, Palaeography and Diplomatics from the State Archives School in Bologna and a Master's degree in Archival Studies from the University of Urbino (Italy). In 2004, she joined the PhD program of the School of Library, Archival and Information Studies at the University of British Columbia (Canada). Her research interests are functional analysis and classification systems, diplomatics of modern records, archival policy and legislation.

Fiorella Foscarini. *Records Classification and Functions: An Archival Perspective*. *Knowledge Organization*, 33(4) 188-198. 38 references.

ABSTRACT: The design of records classification systems has been subject to various and often inconsistent approaches. Subject matters, record types and forms, structures and functions of the organization: archivists and records managers (whether consciously or unconsciously) have traditionally referred to any of these elements, or to a mix of some or all of them, when developing their classification tools. Only in recent times has the concept of function become central to the theory, method, and practice of records classification. I discuss advantages and limitations of the functional approach applied to records classification by showing how it has been interpreted in the literature of different countries.

1. Introduction

The practice of classifying and arranging active records with the purpose of facilitating their current use, in order to support an effective and efficient management of the activities those records refer to, has been carried out for centuries according to different views and with results of uneven quality. "Filing agents and methods are kaleidoscopic in their variety" (Brooks 1940, 224); that was American archivist Philip Brooks' comment when looking at the diverse and inconsistent ways of dealing with their records adopted by U.S. government agencies in the 1940s.

Even in countries where the features of classification schemes for certain categories of public bodies are prescribed by the law (like in Italy, where the first regulation of this kind dates back to the beginning of the nineteenth century), their application has always been quite erratic and subject to the expertise,

or non-expertise, of the public officer entrusted with that task. Only recently, information professionals all over the world have been showing a new interest for the effective management of records since the initial stage of their life cycle, and in particular for the development of systematic classification schemes based on a rigorous, function-based methodology.

The reason why classification, as well as all other activities belonging to the domain that today is world-wide called records management, has not been supported from the beginning by a sound theory and methodology may be referred to the fact that it is the records creator's responsibility to organize its own records according to its business needs. Archivists and records managers have traditionally stood aside, offering guidance on best practices for managing active records, although often without having adequate knowledge of how their organization's activities are actually carried out – knowledge that is essential to understand how records should be best

organized. The nature of records, i.e., their being a by-product of practical activities, should dictate the methods of their natural accumulation as it takes place in the records creator's office during the usual and ordinary course of business.

2. Historical background

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 ("treasury archives") (Valenti 1981). Both systems coexisted in all European chanceries of the modern era where, in order to cope with the growing number of affairs, a subdivision based on the records' state of transmission was introduced with reference to the first kind of ordering (records sent, received, internal, and miscellaneous). Such a criterion soon became inadequate to control the mass of records produced by more and more complex organizations, and new kinds of record aggregations, started to appear throughout Europe (e.g., series based on the legal nature of the act represented or on its form).

Finally, in the course of the seventeenth and eighteenth century, the administrative efficiency of the Prussian state developed a revolutionary method of organizing records: all papers, independently of their status of transmission, form, or value, related to the same subject, and then to a given affair, activity, or procedure would incrementally be put together in discrete physical and logical units – 'dossiers' or 'files' – which in turn would be aggregated organically or on the basis of their homogeneity. The *Registratursysteme* represents the first example of a systematic method for classifying records (according to a comprehensive subject- and function-based *Aktenplan*) which would allow the 'archival bond' (i.e., the necessary and determined intellectual link that exists between those records that participate in and originate from a given activity) to manifest. The only flaw in the German system is that the relationships among records used to be established *a posteriori*, when the activity the records referred to was over and therefore the records 'original' order was somehow artificially created for the sake of administrative control (Lodolini 1992; Duranti 1997; Guercio 2001).

At the beginning of the nineteenth century, the German system was spread through most of continental

Europe by the Napoleonic administration, which further improved it by combining in one single tool classification with registration of all sent and received records. This method for systematically pre-ordering the correspondence was later extended to the internal material, becoming the heart of any recordkeeping system in all public authorities. The fundamental act of setting aside a record by means of, first, classification (which places the record into its administrative, procedural and documentary context) and, second, registration (which provides evidence of the existence of each record uniquely identified within the system) provides records with those mechanisms of intellectual control that are necessary to guarantee their reliability and authenticity over time (Duranti et al 2003).

In Italy, the Napoleonic tool is still in place and is called "Protocol Register/Classification System" (in Italian, *Sistema Protocollo/Titolario*). As it is maintained by a public officer, such a system has a high juridical value. By certifying when each registered record has been sent or received and by placing it within its documentary context, the system itself has the nature of a 'public act' and as such, it has the value of 'superior evidence' before the Court (Romiti 1995).

Given the system described above, the most common 'units of natural aggregation' one may find in the public archives of continental Europe are 'files' – where records are grouped according to the affair or matter they refer to-and 'series' – made of records which are homogeneous in form (e.g., series of minutes, of decisions, of circulars, of ledgers). Both can be considered functional aggregations, insofar as they result from the rational exercise of the creator's functions (Guercio 2001).

3. Classification in modern bureaucracy

The reliance on fixed and recognizable documentary and procedural forms has been for a long time the basis of archival work. In his overview of the traditional functional approach taken by the Dutch archivists in performing records description, Peter Sigmond (1991-92, 142) seems to believe that "all decisions in administration are reached using standard procedures and forms." Sigmond's view reflects the actual characteristics of the modern bureaucratic apparatus as depicted by Max Weber at the beginning of the last century, i.e., a "mono-hierarchical structure," where each office has a fixed area of functional responsibility specified by laws and administrative

regulations, and where “decisions are made at one level and implemented at the next” (Bearman and Lytle 1985-86, 16). “The files documenting these decisions, writes Weber, ‘are preserved in their original or draught form’ and record actions and decisions taken. These records provide a mechanism for monitoring an individual performance and set precedents for future actions” (Lutzker 1982, 124).

Weber’s emphasis on “functional or instrumental rationality” which, according to Morgan (1986), seems to be typical of the bureaucratic organization, echoes the concept of administration underlying Jenkinson’s “golden rule” (1965). The great British archivist wrote in his *Manual of Archive Administration* (p. 153): “The golden rule for the Administrator, so far as concerns 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 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.”

The image of organization and of recordkeeping efficiency praised by Jenkinson in the mid of the last century has become a sort of implicit paradigm that every archivist and records manager has inevitably followed when trying to analyze agencies’ structures, functions, and delegation of authority mechanisms for purposes of intellectual control over the records produced by those agencies. Nevertheless, in recent decades, organizations have displayed a number of new configurations that are fairly different from the ‘mechanistic model’ of the classic organizational theory and which today challenge our understanding of the interplay between structure and function as well as our belief in the alignment of documentary forms and business procedures.

4. Schellenberg and the functional analysis

The complexity of modern organizations was already evident to American archivist Schellenberg, in the 1950s, when he wrote his manual of archival principles and techniques. Indeed, the first part of the chapter on records management is dedicated to an analysis of records production control mechanisms that organizations should implement to correct their ways of operating, with particular regard to simplification and standardization of procedures, control of forms, and reduction of duplicates. Improving the work processes and, more generally, the organization

and functioning of an agency is the first step towards good recordkeeping; yet the latter – Schellenberg specifies – is not by itself a guarantee of efficient administration (Schellenberg 1956, 33-110).

The American ‘filing system’, as opposite to the European ‘registry system,’ has always been characterized by a more pragmatic approach to records management, including records classification. The lack of conceptualization about the nature of records, together with the absence of a diplomatic understanding of documentary forms, made it possible for American archivists to adopt subject-based systems of the kind used in libraries to classify records. Schellenberg, who did read the fundamental treatise written by German archivist Brenneke, firmly rejected the subject approach – allowing it for reference and information files only – and stressed the importance of studying an agency’s functions, activities, and transactions as the best method for building effective classification tools. “Action,” more than organization, should be the basis for developing records classification as “records are the by-products of action, and they naturally fall into groups that relate to action” (Schellenberg 1956, 53). His analysis of the hierarchy of action components and his definition and categorization of functions and activities still represent a model to archivists when embarking on functional analysis.

In line with a distinction made in his chapter on appraisal, Schellenberg subdivides “functions,” which are defined as “all the responsibilities assigned to an agency to accomplish the broad purposes for which it was established” (Schellenberg 1956, 53), into two main groups. The first group consists of “substantive activities,” i.e., “activities relating to the technical and professional work of the agency, work that distinguishes it from all other agencies;” the second includes “facilitative activities,” i.e., “activities relating to the internal management of the agency, such as housekeeping activities, that are common to all agencies” (Schellenberg 1956, 54). Interestingly enough, the same definitions are provided in a recent records management handbook written by Shepherd and Yeo (2003), where Schellenberg’s ideas are used as a framework for the functional analysis of today’s organizations. Schellenberg breaks down the activities of both groups in transactions, which may be usefully differentiated into “policy” and “operational” transactions (Schellenberg 1956, 55). A classification system where all record groupings or files belong to either category of transactions should facilitate records appraisal on the basis of the relative

value attributed to the records which support policy decisions against those which mirror the specific individual transactions that follow those decisions.

5. Classification and organizational structure

Classification systems based on the structure of the organization represent a valid alternative to function-based classification, because “organization frequently corresponds to function” (Schellenberg 1956, 55). However, after having said that, Schellenberg admitted that (1956, 56) “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.”

Considering the current pace of administrative change, nobody would nowadays disagree with the fact that function is a much more stable criterion than organizational structure. However, at the time of Schellenberg (and more recently too), the kind of bureaucracy described by Weber was still too dominant, at least in archivists’ minds, to allow a clear separation between those two factors. No surprise, therefore, if a number of classification systems that claim to be function-based, at a deeper glance turn out to be just the mirror of an agency’s internal structure. This phenomenon is particularly evident in European countries where the development of business models and bureaucratic structures has generally been quite different from that of North America.

Borrowing the words of sociologist Geert Hofstede, David Bearman (1992, 178-9) compared the “full bureaucracy” of the Latin-European countries – characterized by a wide power distance, top-down communication flow, and tightly distinguished functions – with the “workflow bureaucracy” of the Anglo-American countries – characterized by a narrower power distance, flowing of communication in all directions, and functions which are not closely tied to places in the organization. Bearman’s hypothesis that different organizational cultures would have an impact on record-making and recordkeeping styles is also confirmed by an analysis of the classification systems adopted in different countries.

5.1 The Italian classification by competence

Italian archivists have often been using the concept of competence when theorizing and designing ‘function-based’ classification schemes, although such a concept introduces some elements of organizational

structure that necessarily limit the flexibility of the scheme. Competence, that is, “the authority and capacity of carrying out a determined sphere of activities within one function, attributed to a given office or individual” (Duranti 1998, 90n), can be expressed either in structural or in functional terms, as juridical person and sphere of activity are both present in the idea of functional responsibility. Actually, most of the classification schemes in use in Italy today reveal, usually below a higher functional level, a structure that is pretty much based on the organization chart of the agency.

The Italian archivist who, in the second half of the last century, has most extensively discussed the topic of classification systems is Raffaele De Felice (1967; 1971; 1988). His writings on what he used to call “systematic classification by competence” are addressed to public authorities. According to De Felice, the conceptual act of classification should follow an organic, logic, and coherent method based on the nature itself of the competences attributed by law to any given body. A classification by competence “shows purposes and means of each administrative unit or set of activities” (De Felice 1967, 74). For the sake of uniformity, the highest level of any scheme should always display the same general structure of three main headings (in Italian, *titoli*) (1967, 64):

One for the activities relevant to the organization and functioning of the offices; one for the activities aiming at guiding the acts of the administration in general terms; and one for the specific activities carried out by each office in performing the competences assigned to it.

De Felice’s methodology is consistent with the “general criteria for the systematic classification of modern public records” as outlined by the Royal Decree 35/1900, where *titoli* are defined as “the principal matters of a specific office” (i.e., competences). The grouping of activities suggested by De Felice has ultimately the same objective as that provided by Schellenberg, i.e., the identification of policy records. However, because it is applied at a higher level, De Felice’s method involves redundancy, in that the competences of the second *titolo* have to be repeated within the third one as well.

Apart from those technical deficiencies, De Felice’s work points out important elements that can transform the classification scheme into something more than a mere retrieval tool. In fact, the purpose of classifying records is (1971, 135):

To reduce the multiplicity of affairs undertaken or in progress carried out by an office to a finite number of hierarchically arranged partitions, so that the continuous natural increase of the archives can happen according to a logical order which reflects the historical development and evolution of the activity.

The “cognitive process” of classification 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” (De Felice 1967, 67). By realizing the archival bond and by consequently determining the internal structure of an archival fonds, classification becomes in his eyes “the only means to accomplish the formation of an archives” (De Felice 1967, 68).

Other authors have criticized what seems to be like an overestimation of the role of classification. Obviously, De Felice confuses classification with the original order that can actually arise naturally and objectively in virtue of the natural sedimentation of records in series or files, with no need for any pre-established ordering such as that provided by a classification scheme. It is of this opinion, *inter alia*, Donato Tamble’ (1993) who argued that “the archival bond exists independently of any administrative, cognitive, or cultural operation. The archives which are formed with no use of any classification systems have the archival bond as well” (Tamble’ 1993, 109). Nevertheless, De Felice has the merit of having lent theoretical force and systematic rigour to one of the most neglected functions in the archival literature.

6. Classification in a digital environment: an Italian project

More recently, Italian professor Maria Guercio has guided a project for the development of integrated models of records classification schemes in a digital environment with the purpose of facilitating interoperability among certain classes of organization in the public sector (e.g., Universities, Regions, and Provinces) (Guercio 2005; Rossi and Guercio 2005). It is evident that, given such a goal, only a functional approach can provide the scheme with the necessary flexibility. The main assumption of the Italian project is that classification is a unique means to enable the systematic, logical, and functional organization of all kinds of documents, whatever their medium, and to guarantee their intellectual control, including

the management of retention periods, access privileges, and privacy and security issues. Therefore, far from being an old-fashioned archival tool, classification can become a crucial instrument for the qualified management of meaningful contents on the web “against the risk of losing the notion of archives, structures, relationships in favor of an indistinct and disqualified ‘information’ dimension” (Guercio 2002, 433).

The headings of the proposed classification models are targeted to identifying the functions and activities relevant to each class of organization, as opposed to subject-matters or organizational structures. Reference to the latter is nevertheless provided through the indication of the “primary responsibility office(s)”, an added element in the scheme that can easily be updated without modifying the classification scheme itself. Descriptions of each heading, including directions for recommended record and file arrangements, are also included in the classification scheme that, in this way, is transformed into a guide for operators as well as for both internal and external users of the records system. The Italian project is grounded on the functional analysis methodology as illustrated by the Australian DIRKS manual and subsequent ISO standard for records management, as well as, with particular reference to the additional features of the scheme, on the Canadian example.

7. Classification in Canada

Canada, like the U.S., has a long tradition of subject-based filing systems. The first step towards a functional approach to classification is represented by the Administrative Records Classification System (ARCS) and Operational Records Classification System (ORCS) developed in the 1980s by the Province of British Columbia and followed by STAR and STOR (Standards for Administrative/Operational Records) of the Province of Nova Scotia. 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” (Duranti et al 2003, 44).

Thanks to the physical divide between records documenting common, facilitative functions (i.e., administrative or housekeeping records) which are included in one system shared across all government agencies, and records documenting the distinct, substantive functions of each agency (i.e., operational or program records), the overall system provides extreme interoperability and flexibility. ORCS and

STOR, which are unique for each agency, nevertheless derive from a common standard structure as well.

Another advantage of the Canadian system is that the classification system is fully integrated with a preservation system. Each lower level of the scheme is associated with indications relevant to how long any given record series should be retained first in the creator's office (active stage) and then in a records center (semi-active stage). Eventually, retention information also specifies when each series is supposed to be disposed of. One could argue that by focusing on retention and appraisal considerations, the developers of the system might have overlooked the functional approach. Actually, this is confirmed when looking at classes which are named, for instance, *Policies* or *Contracts*, as they are obviously meant to create typologically homogeneous series for preservation purposes.

Overall, ARCS, ORCS and their Nova Scotia counterparts are definitely 'functional' systems in the sense of their effectiveness, as they provide in one integrated tool a number of 'functionalities.' However, none of them offers a good example of a function-based classification system. In fact, record types, structures (e.g., *Committees*), subject-matters (e.g., *Equipment and Supplies*, which nestles *Clothing*, *Fuel*, and so on), and function terms are all mixed up at each system level. Apart from this terminological issue, a structural issue should also be addressed. The entries in the classification system appear in alphabetical order, instead of being arranged sequentially according to the development of the affairs or matters. This is fundamentally inconsistent with the functional approach.

Similar observations have been made by Paul Sabourin (2001), archivist of the National Archives of Canada (NA – today LAC, Library and Archives of Canada) who, at the end of the 1990s, participated in a project for the review of the NA's *Subject Classification Guide*. After the adoption of new disposition authorities called MIDAs (*Multi-Institutional Disposition Authorities*) based on a fully functional appraisal methodology known as macro-appraisal (Cook 1992; Bailey 1997), the old subject-based classification system had become an obstacle to the effective application of the functional categories identified in MIDAs. That was the strong impulse for a change in the classification system.

The first issue faced by Sabourin and colleagues was to define clearly what a function is. After several years of structural-functional analysis in the context of the macro-appraisal approach, the NA arrived at a

consensus on the following "working definition" of function (Sabourin, 2001, 144):

- (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.

It is implicit 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). I believe that the third part of the definition fits better with the *Business Activity Structure Classification System* (BASCS) that came from the NA's project. This describes function as a business process (the highest level of the system or block level) and each process as a cyclical, sequential series of fixed steps (the primary and secondary levels).

The methodology for developing a functional classification system such as BASCS rests on the assumption that the sequence of procedural steps that is described, and often also prescribed, by the legislation constitutes the structure of any activity. In other words, by *Activity Structure* is meant the decomposition, in a hierarchical (i.e., from general functions to specific activities) and sequential order (i.e., according to stages or procedural steps for each activity) of functional levels, down to the elementary unit that corresponds to the step or transaction that generates the individual records. The files resulting from the application of BASCS will therefore reflect the natural development of each activity carried out by an agency. It should be noted that the arrangement of classes and sub-classes in this system is always logical, not alphabetical as in ARCS and ORCS.

The approach described above is indeed purely logical and functional; thus, it would seem to be close to achieving the full integration of business processes and documentary procedures that, according to Duranti et al (2003, 42-43), is one of the methods for ensuring the records' reliability. However, if applied rigorously and systematically, such a method

could end up producing abstract and self-referential tools, which are totally unable to mirror the way of actually carrying out work in a real office. Moreover, one should take into consideration that not all activities are structured processes: some may be quite creative and not follow any pre-established sequence of steps. Finally, not each step that makes up a process is supposed to generate a distinct transaction file. When the main driver of classification is the workflow, the lower levels of the scheme tend to become too detailed and as such, they may cause excessive fragmentation of files, besides difficulty in applying and keeping up-to-date the scheme. In the end, what probably is missing in the just examined Canadian model is the translation of the 'business classification scheme' into a 'records classification scheme', a scheme that would pay attention to the actual needs of the users (i.e., the records creators) as well as to the nature itself of the records. An answer to this problem seems to come from Australia.

8. The Australian model

The Australian archival tradition is an outgrowth of the British one. "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" – so says Schellenberg in his manual (1956, 72). At that time, the comprehensive public records administration of Australia was under the guide of an enlightened archivist, Ian Maclean who established the grounds for all future developments in recordkeeping in the country. In particular, in his writings on records classification, Maclean (1959) clearly spelled out the difference between a "transaction file," i.e., "a file that contains the sequence of papers deriving from a particular piece of business," and a "subject file," where "background information records" that support the "action records" of the former file type are gathered (Maclean 1959, 393). Accordingly, he formulated the following "rules of efficient record-keeping" (Maclean 1959, 395): first, "to draw a clear line of demarcation between files established for the two different purposes", and second, to observe strictly the "principle of respect for the sequence of administrative action".

This short historical excursus shows the origins of the analytical functional approach taken by the National Archives of Australia when, almost forty years after Maclean's words, it first published the record-keeping manual which is known as DIRKS. The

DIRKS (2000) manual provides a rigorous and structured eight-step methodology approach designed to "ensure that records and information management is firmly based on the business needs of the organization." The accountability agenda of each organization, based on a systematic analysis of its legal and regulatory obligations, business requirements, and broader community expectations, together with an assessment of the exposure to risk if those requirements are not addressed, all these factors concur to determine the recordkeeping requirements and strategies which are most appropriate to every single organizational context. It is evident from the predominant weight granted to external factors as well as from the terminology used in the analysis, that the whole DIRKS approach is very much business-driven.

The main deliverable of the first two steps of the DIRKS methodology (i.e., first, the preliminary investigation of the business, social, and legal contexts in which the organization operates, and, second, the analysis of its business activities and processes) is the *Business Classification Scheme* (BCS), i.e., a conceptual model showing an organization's functions, activities, and transactions in a hierarchical relationship. According to the DIRKS methodology, documentary sources and interviews with internal and external stakeholders should first be collected in order to provide the information necessary to understand what an organization actually does. The largest units of business activity (i.e., functions) shall then be broken down into a set of logical sub-parts by accomplishing a hierarchical, top-down functional analysis. The details of how the organization carries out its business will emerge through the subsequent process analysis, which presupposes a bottom-up examination of all steps involved in each transaction.

At this point, no actual record or documentary procedure has been taken into consideration with purpose of getting an insight into the record-making and -keeping systems of the organization. The BCS is therefore the outcome of a pure, widely articulated functional analysis that, apart from having a larger focus as it includes an investigation of the broader social context or "ambient function" (Hurley 1995) on which the organizations' goals and strategies ultimately depend, is not much different from the Canadian BSCS. However, in the Australian system, the BCS is just the logical model from which archivists/records managers draw their classification tools.

Because records are created at the transaction level, the main divergences between the two different

types of classification only emerge at the point in which the functional terms of the BCS are translated into topics or subtopics to serve the purposes of records classification, that is, according to the DIRKS manual, "to title the record for searching and retrieval". Anything can be a topic or subtopic: record types, subject-matters, but also single transactions or the output of a small group of tasks.

The DIRKS manual does not elaborate much on how to adapt the conceptual representation of business processes typical of a BCS into a workable records classification tool that, as such, should primarily be responsive to the requirements of records system users. Actually, it seems that the way of treating the subject of records classification in DIRKS corresponds to the idea of terminological control (i.e., a hierarchical and logical expression of predictable relationships), as opposite to that of contextual control (i.e., a non-hierarchical and contingent description of observed, unpredictable relationships), as formulated by Chris Hurley (1995, 22-25) in his analysis of contextual metadata. Hurley claims that the documentation of the circumstances relevant to the making of the record which are captured in record-keeping systems (by means of records classification, for instance) requires external validation once the facts the record refers 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, which Hurley calls ambient function, is implicit in recordkeeping systems due to their contemporaneity with the facts generating the records, but needs to be articulated during archival description. Terminological control, on the contrary, is what matter most when classifying business functions.

To that end, the DIRKS manual suggests that organizations are free to choose between the hierarchical structure of a *Records Classification Scheme* and the alphabetical structure of a *Functional Thesaurus*. Besides the differences in arrangement of entries and in retrieval capabilities, both classification tools are considered equal by the DIRKS developers. Attributing same functions and importance to two tools of which the former should rather be mandatory while the latter is not reveals a misconception of the purposes of classification.

The methodology for business analysis, the classification of business activities, and, in general, all features of recordkeeping systems which are described in the DIRKS manual are based on an Australian standard (AS 4390-1996) which has today become an

international standard for records management: ISO 15489-2001. The standard highlights the significance of the process of classifying records as one of the techniques to capture (i.e., to set aside) records into a records system. Unlike the DIRKS manual, it also acknowledges that providing linkages between individual records which accumulate in the course of business is the highest purpose of classification. Therefore, it is clear that the ISO standard puts records classification on a higher level of importance in comparison to any tools aiming at facilitating retrieval of information through controlled vocabulary or thesauri. Yet, the classification system is not supposed to be a mandatory requirement for record-keeping systems.

9. Classification and new technologies: advantages and risks

Unlike the ISO standard, the *Model Requirements for the Management of Electronic Records (MoReq)* issued by the European Commission in 2001, which has become a sort of standard for the Member States of the European Union and is currently under revision, maintains that "classification scheme lies at the heart of any Electronic Records Management System (ERMS)" (MoReq 2001, 16). Despite its pragmatic approach and intentional lack of any theoretical explanations, *MoReq* builds on the body of knowledge shared by the archival community, not only European but rather international.

What makes of classification a crucial tool in the electronic environment is primarily the fact that it provides essential information in the form of metadata on the context of records creation and use, information that would otherwise be unattainable. On the one hand, the process of assigning the same classification code and file number to all records participating in a given activity accomplishes the function that the elements of form of the record used to perform in the paper world, i.e., linking each individual record with the activity that originated it. On the other hand, the 'archival bond' (i.e., the necessary linkage existing among all records belonging to the same file or series) is also made explicit through such a process, while the physical arrangement of paper-based records is enough to reveal their mutual relationships, though definitely not enough to guarantee the preservation of the original order over time.

The first requirement of any classification scheme also in the digital world must therefore be "to reflect in its internal organization the hierarchical structure

of business functions" (*MoReq* 2001, 18). *MoReq* does not go further in the elucidation of this statement, nor does it dwell upon methods of function analysis. However, it is important to point out the number of control mechanisms and user access restrictions that *MoReq* identifies and prescribes with the purpose of ensuring that the internal integrity of the ERMS is maintained at all times. By technically limiting to the system administrator the authority to make any changes to those metadata that refer to critical components of the system, thereby "fixing" the content, structure and contextual relationships of records and files, *MoReq* provides a framework for establishing the authenticity of an ERMS's contents.

When not supported by a deep understanding of archival principles, the great flexibility allowed by the new technologies may engender risks for the preservation of the fundamental characteristics of records in a digital environment. That is what happens, for instance, in the records management handbook by Shepherd and Yeo (2003), which emphasizes the advantages of creating 'virtual' aggregations of records instead of 'fixed' ones by applying a "multidimensional approach to contextual metadata" (Shepherd and Yeo 2003, 97).

Because in computer systems storage is random, the authors argue that the use of folders imitating the records' physical arrangement would not be essential (Shepherd and Yeo 2003, 95): "Instead of translating the logical model of functions and processes into a hierarchy of folders and sub-folders, the model is represented in an authority file, an electronic listing of the various functional levels." Then, they add (96) that "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." Of the same opinion is Bearman (1996, 195-245), who argued that "because electronic records do not have the physicality associated with (...) paper records, aggregation is unnecessary."

10. Conclusion

Apart from the typical pitfalls generated by atomistic approaches to records management, Shepherd and Yeo's handbook presents a classification design methodology that is a kind of mature version of previous functional models. In particular, the preliminary environmental investigations followed by top-down functional analysis and bottom-up process analysis combined, are quite similar to the relevant

steps in the DIRKS Manual. The main difference lies in the description of the functional entities. What distinguishes activities from functions is scope, hierarchical interdependency, and, according to the handbook, the fact that the former are time-limited. Additionally, "most organizational activities are of a broadly repetitive nature: they are instances of a process that will recur many times" (Shepherd and Yeo 2003, 53). The idea that emerges is again that of the bureaucratic, instrumental rationality that tries to reduce uncertainty by means of "abstraction and routinization" (Douglas 1986, 93). Finally, Shepherd and Yeo (2003, 55) also claim that, despite their relative unpredictability, even "creative activities are mostly instances of types of activity that can be expected to recur."

Should the latter considerations be supported by reality, not only a taxonomy of functions, as envisaged by Hurley (1993) and others (Bearman and Lytle, 1985-86), but also one of recurring activities could be developed in the future. Actually, in 1985, a project called *Commentaries on Sources* was launched in The Netherlands with the objective of identifying and describing procedures and special record types that were used by organizations during the nineteenth century to carry out their mandates (Sigmund 1991-92, 147). A similar exercise might be attempted today, at least with reference to those classes of acts that are carried out according to recognizable patterns. Of course, this kind of analysis lies in the assumption that we can draw on a fully developed diplomatics of current records.

Following Mary Douglas' characterization of institutions (1986), we may also say that classification systems are "entropy-minimizing devices" (Douglas 1986, 48). Should a classification system be based on a rigorous and, at the same time, realistic functional analysis, then its 'power' would affect both the business processes and the records of an organization. In particular, business processes would be streamlined and the multiplicity of records would be reduced into a single, organic structure (*reductio ad unum*) where the whole is more the sum of its parts (Cencetti 1970).

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