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Understanding the context of records creation and use: 'Hard' versus 'soft' approaches to records management

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Abstract Current records management methodologies and practices suffer from an inadequate understanding of the 'human activity systems' where records managers operate as 'mediators' between a number of complex and interacting factors. Although the records management and archival literature recognizes that managing the active life of the records is fundamental to their survival as meaningful evidence of activities, the context where the records are made, captured, used, and selectively retained is not explored in depth. In particular, the various standards, models, and functional requirement lists, which occupy a vast portion of that literature, especially in relation to electronic records, do not seem to be capable of framing records-related 'problems' in ways that account for their dynamic and multiform nature. This paper introduces the idea that alternative, *'softer'* approaches to the analysis of organizational functions, structures, agents, and artifacts may usefully complement the *'hard'*, engineering-like approaches typically drawn on by information and records specialists. Three interrelated theoretical and methodological frameworks—namely, Soft Systems Methodology, Adaptive Structuration Theory, and Genre Theory—are discussed, with the purpose of highlighting their contributions to our understanding of the records context.

Keywords Records Management · Standards · Electronic Records Management Systems · Soft Systems Methodology · Adaptive Structuration Theory · Genre Theory

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Introduction

As a constituent part of the archival discipline, records management may be described as a coherent set of principles, methods, and resources aiming at providing a meaningful and sustainable conceptual and physical frame for the active management of an organization's or an individual's records. As such, it is meant to *mediate* and, thereby, to facilitate the work of the records creators (who, in an organizational context, also happen to be the internal users of records management systems), while constraining it in a special way, so as to ensure that the essential properties of the records and their aggregates are maintained and safeguarded over time and across space.

Records management in contemporary organizations typically relies on electronic records management systems (ERMS) or electronic document and records management systems (EDRMS), whose properties, features, and behaviors are defined by system developers in cooperation with the organization's records managers, mostly on the basis of existing records management standards, such as ISO 15489 (International Organization for Standardization 2001a, b) and MoReq2 (Serco Consulting 2008). It is also up to the records managers to suggest 'customizations' that would make each system uniquely suitable to any given business environment. Again, records managers act as *mediators* between system developers (i.e., IT/IS experts or software providers, usually external to the organization), standards, and system users (i.e., the organization's internal clients and records creators).

If one finally considers the records managers' role within the whole life cycle of electronic resources, one realizes that their *mediating* intervention becomes fundamental when it comes to enable the transfer of records to a digital repository. In this case, too, the literature offers plenty of standards and models that should assist both the creators and the custodians of the active records in their shared preservation responsibilities. However, neither the OAIS Reference Model (Consultative Committee for Space Data Systems 2002) nor the DCC Curation Life Cycle Model (Higgins 2008)—just to mention two of the most widely known attempts to describe and prescribe the characteristics of digital preservation environments—delve into the actual practices of making and keeping digital objects, implicitly relying on capable and knowledgeable *mediators*.

Now, the question is: are records managers sufficiently equipped to fulfill their mediating tasks? Is, for instance, their approach to the design and implementation of ERMS functionalities (including those components of the system, such as classification schemes, retention schedules, and recordkeeping metadata sets, which are eminently records management tools) appropriate to the specific nature of the 'human activity systems' out there? Checkland and Scholes (1999) define "human activity systems" as "systems that feature human beings in social roles trying to take purposeful actions" (p. 24).

By observing their practices, one may conclude that records managers do experience some difficulty in grasping today's work processes, especially when the latter are unstructured and creative, that is, unsuitable to be mapped against any 'fixed' representation of the world (Foscarini 2009).

In order to understand what makes present approaches to records management inadequate to deal with the "irreducible complexity of real world situations" (Checkland and Scholes 1999, p. 90) and, by the same token, why a great number of ERMS projects fail to meet expected outcomes, the first part of this paper will make explicit the frameworks of reference and methodological assumptions that inform most records management methods and tools. The second part is dedicated to the analysis of a few 'alternative' methodologies—which may generically be categorized as 'soft' approaches as opposed to the 'hard' approaches characterizing the most commonly held 'systems thinking' behaviors—that records managers and other information specialists may want to consider if they wish to take actions that are likely to be sensitive and responsive to the complex contexts in which they find themselves.

First issue: our Weberian understanding of organizations

One does not need to be an expert in organizational theory or sociology to realize that the character of today's bureaucracies (i.e., their being flexible, polycentric, flat, networked, matrix-based, etc.) is radically different from the one of the mechanistic model of 'classic bureaucracy' as described by Max Weber (1947/1964). The relative stability of the industrial and post-industrial society allowed both public and private organizations to display rather simple and rigid hierarchical structures, where labor was rationally divided and fixed sets of responsibilities were assigned to every individual office in accordance with written rules and regulations (Morgan 1986; Yates 1985). In such self-contained microcosms, decisions were made at one level and implemented at the next and records were used to provide reliable mechanisms for monitoring employees' performances, to take decisions, and to set precedents for future actions (Bearman and Lytle 1985–1986).

Post-World War II 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" (Bearman 1992, p. 169). The widespread adoption of computerized systems, and subsequently the Internet, has supported and pushed forward fundamental changes in the nature of organizations, societies, and our own lives, changes that rather than being 'determined' by such technological developments, have their origin in economic, political, and cultural factors that it is not the purpose of this paper to explore (Yates and Van Maanen 2001).

Records managers and archivists are all well aware of these deep transformations in society; however, when they make their functional analyses for purposes of, for instance, records classification or when they investigate the stages of a business process in order to identify the records that are, or should be, created in the course of it, they tend to forget that the supposed stability of functions and activities is only apparent, that records may reside anywhere, not just in official recordkeeping systems, and that *actual* work practices are often fairly different from the way in which laws, regulations, internal manuals of procedures, and the people themselves who are in charge of given activities articulate how work gets done.

These issues have been addressed by several authors who, by embracing a post-positivist view of the record, have recognized the influence exercised by a number of social factors on records creating and keeping processes. In particular, over the last decade, more attention has been paid to 'what happens' when records get created and are handled during their active life. Lemieux (2001) provides an empirical account of a number of elements affecting the interrelationship between recordkeeping and accountability in the banking and financial sectors. Yakel (2001) discusses the 'social construction of accountability' looking at radiologists' recordkeeping practices. Trace (2002) suggests a new framework, ethnomethodology, for a more nuanced understanding of records and Shankar (2004) used this methodology when examining records creation practices in scientific laboratories. Finally, Oliver (2008) explores the interactions of organizational culture with information and its management.

The interest in recordkeeping practices and organizational cultures actually dates from the beginning of the 1980s, when archival scholars raised the concern that archivists kept on referring to a traditional, Weberian image of bureaucracy, which prevented them from grasping how contemporary organizations actually work (Lutzker 1982; Bearman 1992). It is a fact that organizational configurations known as 'full bureaucracies' or 'pyramidal organizations', though still existing in some parts of the world and types of industry, are becoming increasingly rare in our Western society (Hofstede 2001; Mintzberg 1983). Nevertheless, despite evident signs of profound changes in society and all that has been written to cultivate different perceptions of social dynamics and to suggest alternative approaches to it, in their daily activities, records managers and archivists seem to be unable to read the situation in which they are immersed in ways other than the 'classic' bureaucratic one.

In my dissertation research, which featured case studies focused on understanding how people in organizations develop, implement, and use functional records classification systems, I found evidence supporting the resiliency of archivists' Weberian frameworks. One of the common elements that emerged in the case studies from four different organizations was the absence of any attempts by archivists or records managers to analyze critically actual functions and activities. Instead of trying to offer representations of the organizational reality that would, in some cases, show a discontinuity with the past (e.g., non-hierarchical structural relationships; activities conducted in a matrix fashion), all study subjects almost exclusively used written official sources to get an overview of the activities and processes carried out by each office. They would then engage in painstaking exercises to make their simplified and abstract views fit in with some schematic functional classification model, such as the one illustrated in MoReq2 or the classic representation of functions-activities-transactions devised by Schellenberg (1956/2003, p. 55) in his 1956 manual (Foscarini 2009).

Second issue: our 'hard' systems thinking inclination

In the last few decades, many authors have claimed that "we need a more sophisticated view of organizational processes" including our own records

management and archival processes (Yakel 1996, p. 454). The 'solutions' proposed are under our eyes. A number of international and national bodies and research projects have issued methodologies, standards, reference models, schemas, requirement specifications, checklists, and so on with the aim of assisting designated communities in the establishment and maintenance of sound and consistent records management and archival programs and systems (e.g., International Organization for Standardization 2001a, b, 2006, 2009; Serco Consulting 2008; International Council on Archives 2008; National Archives of Australia 2001/2003; Duranti and Preston 2008; Consultative Committee for Space Data Systems 2002; Higgins 2008).

All these attempts to frame our domain—some in general terms (e.g., the OAIS Reference Model, Consultative Committee for Space Data Systems 2002), others by taking a more detailed approach (e.g., the InterPARES Chain of Preservation Model, Duranti and Preston 2008)—have many undeniable advantages and have certainly enriched our understanding of recordkeeping in a digital world. As conceptual devices to map our landscape, to try to make sense of it, and to name and define its components, standards, models and the like, are wonderful tools. Despite their sometimes overly meticulous granularity, they actually help reduce complexity, in that they tend to focus on general aspects, to underplay differences, and to support the regulation of discourse and practices in organizations (Zachry and Thralls 2007). By borrowing the words used by Mary Douglas to characterize institutions as entities created for the purpose of "trying to reduce uncertainty by means of abstraction and routinization", professional standards may as well be described as "entropy minimizing devices" (Douglas 1986, p. 93).

However, applying some of these models and standards to non-traditional types of bureaucracies might require a great deal of adaptation or might not be possible at all (Duranti and Foscarini 2009/2010). Additionally, because they are designed according to some engineering-like approach (i.e., a problem-solving-oriented kind of thinking that "concerns itself [not] with what *is*, [but rather] with what *is to be*", Checkland 1999, p. 126), these abstract representations of portions of the real world tend to be self-referential and can hardly be mapped against actual instantiations of it.

Social phenomena (including any records-related activity), as opposed to natural phenomena, are in fact very 'messy', chaotic by nature, simply due to the fact that we, human beings, are part—and an important part—of the picture. To make predictions of social happenings is therefore always extremely difficult, as any human action necessarily involves a mix of intended and unintended consequences. When drawing their models or designing their systems (e.g., graphical representations of a record's life cycle or of the sequence of actions involved in some business process), archivists and records managers tend to ignore such complexity and to pretend that 'they know what the problem is'. This attitude is typical of what this paper calls a *'hard'* systems approach to records management.

Structured vs. Unstructured problems

A systems engineering process, or problem-solving process, usually follows a step-by-step approach that involves the following actions: (1) defining desired

objectives—on the basis of an organization's goals and relevant standard requirements; (2) investigating alternative systems or techniques by which the objectives may be accomplished; (3) making an analysis of the costs and risks involved in each prospected solution; (4) designing models (which should take into account any interdependences of objectives, techniques, environment, costs, and risks); (5) establishing a criterion for choosing the preferred option (often based on cost/benefit evaluations); and (6) implementing the most efficient and possibly cheapest model in the real world (Checkland 1999, p. 130–136). Records and information professionals will probably find the process described above not unfamiliar.

Another characteristic of 'hard' systems approaches is that the 'problem' that the design engineer is asked to solve is a 'structured problem'. This means that there is a gap between the desired future state and the present state, and the engineer is entrusted with the task to select a means that is economically efficient to bridge that gap. In other words, the 'what' (i.e., what end is to be achieved) is defined and the 'how' (i.e., by what means) must be examined (Checkland 1999, p. 139).

The daily use that people make of terms like legal system, health system, school system, etc. demonstrates that 'hard' systems thinking attitudes are deeply embedded in our culture. Based on the assumption that "the world [is] a set of interacting systems, some of which do not work very well and can be engineered to work better" (Checkland 1999, p. A10), management science postulates that organizations are goal-seeking entities and decision making in pursuit of declared goals is a fundamental managerial activity (Simon 1997).

These few sentences describe quite well the 'business system' where records managers implicitly tend to situate their records management 'problems', where they find themselves dealing with corporate goals, standard requirements, and technological constraints on the one side, and records creators (that is, the unpredictable users and, at the same time, makers of any systems) on the other. Among the latter, the organization's senior managers are worth mentioning by virtue of the special role they play in support of the application of those management theories that are meant to inform the culture of a workplace. When such theories derive from the kind of assumptions mentioned above, as it often is the case, senior managers may be regarded as the vehicle through which a goal-oriented and problem-solving understanding of human endeavors becomes social practice (Oliver and Konsa 2010).

One may argue that not all trends in management science promote ideas of organizational culture that belong to the exclusive domain of 'hard' thinking approaches or are detrimental to records management. For instance, the Information Management Capacity Check Tool and Methodology developed by Library and Archives Canada (2003) may be regarded as an example of a "diagnostic tool" that provides for some forms of user participation in shaping the information management culture of an organization. Management theories that are based on engineering-like assumptions are usually concerned with being straightforward and applicable in a cost-effective manner (Simon 1997). Such theories show low tolerance for unstructured situations or destabilizing forces in organizations, which, on the contrary, are factors that Genre Theory (one of the 'soft' approaches that will

be described later in this paper) considers of utmost importance to understand what actually goes on when people in organizations carry out their tasks.

In this context, it is apparent that the records managers' mediating role involves a number of difficulties. First and foremost, they have to deal with 'problems' whose nature is hard to define. When, for instance, we claim that email management *is a problem* within a given organization, are we capable of explicitly stating what the problem is about? Or should we rather say that the 'email problem' is actually a 'problem situation' involving various, perhaps conflicting factors of which some may be better identifiable than others? 'Unstructured problems'—as *all* problems characterizing 'human activity systems' inevitably are—do manifest themselves in some way (e.g., in some sense of unease); however, they can neither be objectively defined nor quantified. Problems relating to "real-world manifestations of human activity systems" are defined by Checkland (1999) as "condition[s] characterized by a sense of mismatch, which eludes precise definition, between what is perceived to be actuality and what is perceived might become actuality" (p. A14).

This way of looking at the complexity of real-world happenings without neglecting or minimizing individuals' "appreciations" of the facts of social life characterizes the so-called 'soft systems thinking' movement that was founded by Peter Checkland and colleagues at Lancaster University (UK) in the 1960s. Checkland's ideas are influenced by the notion of 'appreciative system' that management scientist Geoffrey Vickers employed to describe "the activity of attaching meaning to communication or the code by which we do so" (Vickers 1968, p. 100). According to Vickers, our previous experiences create for us certain norms or value systems that lead to the readiness to see (or appreciate) only certain features of the situations in which we are immersed. These features or aspects of the reality are organized into "appreciative systems", which create for all of us, individually and socially, our "appreciated world". Our "science-based culture" would prevent us from realizing that goal-setting or goal-seeking models are just a myth. In reality, people in social contexts tend to follow 'feedback models' consisting in maintaining desired relationships and eluding undesired ones (Checkland 1999, pp. 262–263).

Checkland's ideas, as synthesized in his Soft Systems Methodology, inform just one of the three 'soft' approaches that this paper intends to suggest as different conceptual frameworks that would usefully complement the 'hard' methods with which we are mostly familiar.

Three methodologies for a three-level analysis

In the following pages, I illustrate the main characteristics of three theoretical and methodological frameworks (i.e., Soft Systems Methodology, Adaptive Structuration Theory, and Genre Theory) that appear to be especially suitable to enhance both research and practice in records management. These are certainly not the only 'soft' approaches archives and records management may benefit from. The reason for focusing on them in particular derives from my reflections over the three levels of analysis indicated by rhetoric scholar Clay Spinuzzi (2003) as typical of information

systems design research. The three levels in question involve *activities*, *actions*, and *operations*, respectively. Spinuzzi notes that "the levels need to be integrated to gain a fuller understanding of what goes on [in organizations]" (p. 30).

Given this observation and assuming that recordkeeping systems are a subset of information systems, both sharing the objective to support, or to "serve"—as Checkland and Holwell (1998) would say—human activity systems, the three interdependent levels of analysis seemed to call for a set of methodologies that could possibly be applied either individually or in any combination, and that rested on similar world views. Considering that the real-world situation to improve, or to make sense of, is *the* system IS research should primarily focus on, Checkland and Holwell (1998) refer to the information or records system as "the system that serves", while the 'human activity system' becomes, in their discussion, "the system served".

The three approaches here suggested appear to possess all of qualities mentioned above. In particular,

1. the first level of analysis, the *macroscopic level*, corresponds to the interactions occurring at the contextual/organizational level, which usually are unconscious. These interactions tend to take place over extended periods of time and largely depend upon the cultural-historical context in which organizations are immersed. At this highest level, an approach investigating the '*activity* system' and its meaning, such as the one suggested by *Soft Systems Methodology*, appears to be the most suitable to provide a 'rich picture' of actual organizational practice and to draw 'models' that can be used as a basis for initiating change in the current situation.

2. At the *mesoscopic level*, that is, the level where mostly—though not exclusively—conscious and goal-driven *actions* take place, the focus is on the ways in which individuals or groups adopt and, in most cases, adapt (that is, modify or interpret) a specific technology or artifact. I identified in *Adaptive Structuration Theory* a set of conceptual tools that seem to be especially useful to explain, for instance, why expected outcomes of technology adoption do not occur in any given circumstance.

3. Finally, the *microscopic level* is that of the moment-by-moment *operations*, the minute practices and habits on which people in organizations draw as they carry out their work. According to Spinuzzi (2003), by examining such automatic, microscopic operations, one may identify 'breakdowns', that is, points where people's workarounds emerge (pp. 34–35). 'Local innovations' of existing practices are analyzed in the context of *Genre Theory* research, with the purpose of tracing the evolution of organizational genres through time and ultimately understanding the unarticulated needs that shape actual business processes.

Each of the approaches mentioned above involves specific analytical techniques and underlying concepts that, when applied in an actual project (whether in relation to scientific research or in the context of practical records-related activities), may contribute a more nuanced understanding of the functional, structural, and human factors that shape, and are in turned shaped by, the context, content, and structure of

the records during their active life. The objective of the project [e.g., getting a 'rich picture' of what an organization or a department within it is for; understanding how people interact with available technologies (including ERMS, but also classification systems and other 'archival technologies') in order to accomplish their tasks; learning why given artifacts (such as, spreadsheets, databases, or any other document types) get modified in their form or content to better support work practices] will determine the appropriate level/s of analysis and methodology/ies.

Lessons learned from soft systems methodology

The 'problem-solving' process involved in Soft Systems Methodology (SSM) rests on quite different assumptions from those relied upon by the 'hard' systems approaches considered earlier. Not only can any situation be *perceived* as 'problematic' in specific time–space circumstances but every individual will have a different perception of what the problem is and such individual perceptions will change over time. The subjectivity that SSM recognizes as being inherent in all human affairs implies that there is no one 'solution' to real-world problems and there is no one model that accounts for any and all of the situations that can be encountered when dealing with human activity systems.

One may argue that the developers of models and standards such as those criticized in previous sections of this paper do not claim that 'one size fits all' either (Hofman 2006). They actually explicitly invite their readers to adapt the models and standards' requirements to their specific work environments. However, *how* to make such an adaptation is not explained anywhere in the standard, and when implementation guidelines or technical reports do exist, their approach is again quite general and abstract, thus requiring substantial interpretation and adaptation efforts on the part of the users.

Additionally, because of the compulsory nature of some of those requirements, it might seem easier to the organization to adapt itself to the model rather than vice versa. Likewise, ERMS features might appear totally inflexible to their users to the point of making them perceive the technology as a 'black box' they cannot do anything about—while it mostly is not. As a consequence, the organization might feel it necessary to transform its structure, processes, and work styles in order to better align with the model which is implicit in the ERMS, even when that model does not make any sense to the organization concerned.

SSM subverts the primacy of the model typical of engineering design and shifts the focus of those who are interested in improving the reality (rather than the model) on the 'problem situation', with the understanding that there may be as many representations of the situation in question as there are people concerned with it. Consequently, the methodology tries to account for a plurality of models, each reflecting a different worldview, or *Weltanschauung*, by conceptualizing a number of 'relevant systems'.

The 'standard-compliant model' (such as, for instance, one based on ISO 15489:2001) might well be one of the models that some people in the organization may point out as relevant to their situation. This observation implicitly suggests that

'soft' approaches are not meant to entirely replace 'hard' ones. They rather appear to be complementary. As a matter of fact, a logical model based on an existing records management standard is likely to be the most familiar to information specialists; however, its 'desirability and feasibility' will have to be evaluated against other models based on different perceptions of the reality.

Thus, instead of applying the 'model-building-and-model-optimization approach' typical of systems engineering methods, SSM uses modeling as a conceptual device to display 'purposeful systems' that do not claim to describe any parts of the real world. The models are developed in order to generate a debate about the problem situation and any possible changes to it. Every voice, every viewpoint might be relevant. This openness implies that those applying the methodology engage in an in-depth investigation into the reality they wish to improve, without trying to impose a particular structure on it, their aim being that of achieving the 'richest possible picture' of the situation under examination.

There is a tendency in current approaches to records management to do exactly the opposite of what SSM recommends. First, records managers tend to pay little attention to the actual situation; second, they most of the time impose pre-conceived structures on their understanding of the circumstances they are concerned with. Findings derived from my dissertation research may again help clarify this point. All organizations participating in my multiple-case study research seemed to have no doubts that their classification schemes needed to be function-based, as unanimously recommended by the professional literature. However, none relied on firsthand information about business processes and functions to build the classification scheme. Where such information had been collected, it was just used to validate assumptions made 'on the paper'. In the absence of any in-depth analyses of the situation, all those classification schemes failed to address the actual needs of the organizations they were supposed to serve. As a result, in one of the cases investigated, some business areas simply refused to use the classification tool that was developed centrally; in the other cases, radical system adaptations had to be put in place in order to make the classification usable (Foscarini 2009).

SSM involves rigorous methods for data collection and data analysis. Ultimately, this methodology is a means of organizing discussion, debate, and argument among all interested parties, rather than a means of engineering efficient solutions. It is fundamentally a learning tool. In most applications of SSM, the final objective is to suggest some 'action to improve the situation'. In such cases, the action (which does not necessarily need to materialize in a new system, but might simply result in some structural changes or in a change of behavior toward managing information) will be based on finding an 'accommodation', a compromise, between all interests involved.

To sum up, the approach here suggested differs from the one typically employed by the developers of models and standards in three fundamental aspects:

(a)   the focus is not on the model representing some parts of the reality or the information system based on that model (i.e., "the system that serves"); it is rather on the real-world situation that the observer wants to understand and/or improve (i.e., "the system served")—which implies the building of a 'rich

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picture' of the situation. It may be worth clarifying that SSM does not claim that a 'rich picture' should be exhaustive, complete, or even unbiased, objective. The purpose of the methodology is to allow the emergence of as many perspectives of the situation as the individuals (or groups of individuals) that are involved in it;

(b)   more models, each accounting for some particular views of how the reality is or should be, are described, analyzed, and discussed—with the active involvement of all interested parties; and

(c)   any action to be taken is the outcome of an 'accommodation' between different interests and worldviews, and normally leads to new problem situations to be tackled—thereby, SSM is a never-ending learning process.

SSM is a powerful methodology that, once applied to the records management and archival domain, could serve both theoretical and practical purposes. As a research tool, it may be used to analyze recordkeeping environments from the perspectives of different participants in those environments. This would help reveal hidden mechanisms (e.g., conflicting goals, power games) that may influence the contexts of records creation and use in terms of, for instance, information sharing behaviors, values attached to records, organizational commitment to records management, and so on. From a practitioner's viewpoint, becoming aware of these factors would support the development of records management tools and practices that are better responsive to the organizational cultures of any workplace. Records appraisal seems to be an area where the "systemic process of inquiry" enabled by SSM would be especially fruitful. Instead of concentrating on 'systems of values' that do not have any objective foundations, the appraiser would take a systemic approach to the investigation into the uses that people make of the records and the meanings that they attach to them.

My dissertation research profited from the SSM conceptual framework in two fundamental ways. First, such framework enabled me to look at the situations under investigation with an understanding of the unexpressed motives behind them. I was for instance able to capture the rhetoric or symbolic meanings that people tended to attach to instantiations of the technology they used. The second benefit refers to making my case study subjects aware of the multiple possible ways they could analyze the 'problem situations' with which they were dealing (Foscarini 2009). However, extensive grounding in real-world application of the specific techniques involved in the methodology is needed to understand fully their advantages and limitations.

Contributions of adaptive structuration theory

Giddens' (1984) theory of structuration brought in a new, revolutionary perspective with regard to the nature of the interactions taking place in society. Instead of considering social structures either as an external force that shapes and determines human actions (as assumed by the so-called 'decision-making school', which dominated the social sciences until the late 1990s—and which seems to be still

popular in some areas of information studies) or as a product of human agents (as social constructionist approaches have 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 (DeSanctis and Poole 1994, p. 124).

Individuals in organizations continuously 'enact' the structures they are given (including technologies and other artifacts) and, by doing so, they 'reproduce' the rules and resources that are embedded in those structures. In most cases, the outcome of this process is the institutionalization of certain practices; however, since 'reproduction' does not necessarily mean 'replication', individuals might also, either intentionally or unintentionally, challenge and modify the structures of, for instance, a technology as they are using them (Giddens 1984).

Authors promoting Adaptive Structuration Theory (AST) draw on concepts of structuration to examine the interplay existing between human action, social structures, and advanced information technologies. The notion of "duality of technology", that Orlikowski 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) (Orlikowski 1992, p. 405).

Instead of discussing the 'impact' of technology on processes, behaviors and artifacts (as the records management and archival literature apparently still tends to do), researchers using AST focus on the mutual influence of technology and social processes, and the always different outcomes that emerge when technology is enacted by human beings (as individuals or, especially in an organizational context, as groups) in any specific circumstance of use. Another assumption in research based on AST is that technologies are always potentially modifiable and there is nothing deterministic in any organizational change related to the introduction of a new technology (Yates and Van Maanen 2001).

The concept of "appropriation", which is central to AST, involves the ability of groups to actively choose how to use the structures of a given technology. Appropriation is the process by which "a group makes judgments about whether to use or not use [a certain structure], directly uses (reproduces) it, relates or blends it with another structure, or interprets the operation and meaning of [it]" (DeSanctis and Poole 1994, p. 129). 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, and some to specific "appropriation moves". In reference to the latter, DeSanctis and Poole (1994) note that technologies can be either 'faithfully' or 'unfaithfully' appropriated. Faithful appropriations are consistent with both the "spirit" [defined as "the general intent with regard to values and goals underlying a given set of structural features" (p. 126)] 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.

AST researchers draw on this insight to explain why the results of the implementation of the same piece of technology may differ from organization to organization (and among different departments within the same 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 (Poole and DeSanctis 1989, p. 152).

The study of the 'unintended consequences of technology' and the ways in which technologies—including 'archival technologies' such as ERMS, but also records classification systems, retention schedules, etc.—'get away' from their official, promoted uses has the potential of further developing the records management and archival domain, where the concept of technology as both structural and socially constructed has not yet become common currency.

Genre theory and the social construction of organizational genres

One of the outgrowths of genre theory builds on the application of structurational concepts and methods to the study of the nature and intrinsic characteristics of the artifacts (including documents, tools, and procedures) that people 'produce and reproduce' in organizations to carry out their activities or, more generally, "purposeful social interactions" (Yates and Orlikowski 1992). By expanding on the notion that human agents are "knowledgeable and reflexive"—as structuration theory describes them (Orlikowski 1992, p. 406)—genre theory recognizes the centrality of the users of any information system.

Only recently has information systems research realized that understanding users when developing new IT applications and services is vital (Iivari et al. 2010). Until the late 1990s, as mentioned earlier, the positivist tradition of 'systems rationalism' (a.k.a. 'decision-making school') has been the dominating view of the relationship between technology and organizational change. However, *who is the user* that today's user-centered design methodologies (such as, contextual design, client-led design, business process reengineering) claim to be interested in? As a matter of fact, most studies of information systems in the workplace focus on how those systems support organizational activities and processes (thus, goal-oriented) rather than how they support individual users, their characteristics, preferences, and actions. In other words, they tend to forget that information systems are not used by organizations but by the *individuals* working in those organizations.

'User-centered' approaches have in general been criticized by genre theory scholars for eventually trying to "inform centralized solutions" (Spinuzzi 2003, pp. 11–22). Unlike system-centered design approaches, user-centered ones do involve some field work with the aim of 'co-designing' the system with the users. However, as a final outcome, most of them still tend to achieve 'formalization' as a way of consolidating the field data and finding overall patterns that might shed light on the underlying work structures. According to Spinuzzi, in most of these design approaches, users are actually portrayed as "victims", not as "agents" capable of initiating and implementing changes in the system by themselves. Decision-makers with specialized knowledge (e.g., IT systems developers, records managers), shown as "designer-heroes", would then come on stage and 'rescue' the users by consolidating their unarticulated practices into official, formal, and authoritative systems (Spinuzzi 2003, p. 3). Among the user-centered approaches under scrutiny

by genre theorists, SSM is also mentioned (Spinuzzi 2003, p. 13). In my view, however, the SSM approach cannot be reduced to a system development methodology, taking into account the number of diverse viewpoints it acknowledges and the never-ending learning process that is implicit in its philosophy.

Genre theorists argue for a 'truly' participatory design in relation to developing and implementing information systems. In particular, they recommend that greater attention be paid to the unofficial, local innovations, or workarounds that individuals in organizations develop—whether consciously or unconsciously—to cope with the rigidity of official solutions. As Bowker and Star (1999) note, "imposed standards will produce workarounds. Because imposed standards cannot account for every local contingency, users will tailor the standardized forms, information systems, schedules, and so forth to meet their needs" (p. 159).

These transformations of official genres, which in some instances will give rise to completely new genres, while in others will just hybridize existing ones (Yates and Orlikowski 1992; Orlikowski and Yates 1994), are dictated by the need to satisfy "exigencies", that is, "objectified social needs", that function as conventionalized motives in a variety of rhetorical situations (Miller 1984, p. 157). Examining patterns of typical responses to recurrent situations (e.g., business procedures) in organizations may enhance our understanding of new or emerging genres, such as blogs and other social media (Miller and Shepherd 2004), which are becoming more and more relevant to records-related studies. I think that diplomatics, being one component of the records management and archival discipline that specifically focuses on the form and function of the records, could especially benefit from the insights of genre theory.

On a more practical level, records managers, who, through the development of policies and procedures, contribute to the so-called "centripetal impulse" that keeps organizations together should at the same time become better aware of the "centrifugal impulse" that also exist in organizations and learn how to deal with people's innovations without being overwhelmed by them.

Genre tracing is the branch of genre theory that examines the origins and consequences of the minute "breakdowns" or "destabilizations" created, mostly unconsciously, by people when enacting organizational artifacts. Based on activity theory and genre theory, genre tracing "examines how workers develop unofficial, frequently unarticulated work practices and genres, how they adapt old genres to new uses, and how they link their innovations to established, official genres" (Spinuzzi 2003, p. 23).

According to Spinuzzi (2003), "a system that has become too officialized can be inflexible and rule-bound, unable to adapt to change, and unwilling to grant agency to workers; [on the other hand,] a system that has become too unofficial can be too flexible and chaotic, resistant to conventional approaches, and deficient in organizational memory and coherence" (p. 21). In their role as *mediators*, records managers have a responsibility in helping organizations avoid both extremes (as they must, if they are to continue functioning) and in maintaining a dynamic tension between centripetal and centrifugal impulses. By taking a more inclusive approach, which implies not only allowing users to co-design the system

but also taking into consideration any changes to existing 'conventions' they may introduce, records managers would be able to positively influence work practices from the inside.

Conclusion

The fast and dramatic changes that our society has been experiencing in the last few decades urge records management scholars and practitioners to go beyond traditional disciplinary boundaries, to experiment with new methodological tools, and to learn to read old and new situations from different angles. This paper has suggested some possible directions that have the potential of improving one of the most critical tasks of records managers in organizations, that is, to get an adequate understanding of what goes on around them in terms of business activities, work practices, technology adoptions, and any other element constituting the context where records are made, captured, used, modified, and selectively retained.

Soft Systems Methodology, Adaptive Structuration Theory, and Genre Theory seem to offer particularly valuable ideas and applicable tools to both researchers and practitioners in this area. All three approaches rest on similar philosophical underpinnings and broadly share the same conceptual framework: they involve a post-positivist paradigm, require qualitative methods, take a user-centered approach, and embrace substantial notions of structuration theory. They also present the advantage of covering, in combination, all three levels of analysis (i.e., activity, action, and operation) that have been identified as co-constituting the 'reality' that any information system 'serves'.

Far from being less systematic or less practicable than any 'hard' approach, a 'soft' approach based on one or more of the methodologies explored in this paper appear to be suitable to help anyone interested in organizational records to make sense of both unofficial and institutionalized practices. This would, in turn, allow the user of the methodology to develop more flexible and 'culturally sensitive' tools capable of giving account of those practices.

Another goal that the integration of 'hard' and 'soft' methodologies might support would be the establishment of a more 'human factor-aware' framework for the implementation of any kinds of existing models and professional standards. As this paper has tried to show, it is not by further refining those models or issuing increasingly articulated representations of the reality out there that such reality will become better known or organizations will be better helped to find 'solutions' to their records-related 'problems'. The key to a 'successful' implementation of a records management system or program may be summarized as follows: shifting our focus from the "system that serves" to the "system served" (Checkland and Holwell 1998).

In actual workplaces, senior managers should ideally become partners in this endeavor. However, their understanding of the organizational reality is often goal-oriented and driven by values of economic efficiency. One of the 'unintended consequences' of the application of 'soft' methods in records management would be, internally, the promotion of a new, more user-centered, and flexible organizational

culture. On a larger scale, the spreading of a 'soft movement' might influence the approach taken by those who write about management theory and thus support the development of a different type of business managers.

Understanding the complex network of functions, structures, people's motivations and attitudes, technologies and artifacts where organizations operate is essential to a number of records management and archival functions, from records creation to classification, appraisal and selection, arrangement and description, access and security controls, etc. It is my conviction that without applying a more sophisticated approach to the study of real-world facts, objects, and processes (using the term 'sophisticated' in a different sense from that implied by those promoting standardization efforts), one will never be able to grasp what actually goes on in organizations, as this is a kind of knowledge that neither people are usually able to articulate, nor written statements, policies, or procedures are supposed to convey. By observing work practices 'in action' and the detailed operations that workers put in place, often unconsciously, when carrying out their activities, a records manager equipped with appropriate analytical methods would be in a better position to capture the 'tacit' needs that shape actual business processes and tools.

As a further justification for the necessity to go beyond traditional 'hard' thinking approaches, we should remind ourselves that the disciplines belonging to the "soft theory domain" (i.e., the humanities and the social sciences, including records management and archives) do not share the same goals and objectives characterizing the "hard-core theory domain" disciplines (i.e., the physical sciences). As explained by philosopher Wolfgang Iser (2006), "The humanities [and the social sciences] 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 subject under investigation], to address the question of why we need [it]" (p. 7). In order to "gain access to the domain to be charted", Iser (2006) continues, one needs to "piece together observed data and elements drawn from different frameworks" (p. 5). In other words, fieldwork research and analysis of different models through a variety of methodologies appear to be crucial to the development of the "soft theory" disciplines.

It is beyond argument that records management and archives suffer from a lack of empirical studies of actual record-production and recordkeeping places, whether based on positivist or interpretivist research paradigms. My future research will apply not just the concepts—as has already been done (Foscarini 2009)—but also the specific techniques involved in the approaches suggested in this paper to real cases, in hopes that others, both scholars and practitioners, will be inspired by my example to do the same. A critical mass of empirical research is indeed needed to enable these disciplines to fulfill their purpose adequately. A 'soft' approach seems to be, for the reasons explained in this paper, a promising way to go.

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