Appraising Content for Value in the New World: Establishing Expedient Documentary Presence

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ABSTRACT

This essay explores a phenomenon familiar to archivists: the seamless moment of time and space within the remembering process when communities become aware of and must confront the fragility of public memory and make decisions about the management and preservation of their information resources. This decision point has recently been called the *documentary moment*. The authors' exploration of this concept focuses on the theories, strategies, methodologies, and processes formerly employed and now emerging at Library and Archives Canada (LAC) to facilitate the disposition of government's information resources. They also examine the challenges presented by the digital age on the documentary moment and whether corresponding philosophical or methodological changes to current institutional strategies, including macro-appraisal, are required.

KEY WORDS

Appraisal, Archival Theory and Principles,
Writing about Archives, Digital Environment

In this essay, we would like to explore aspects of the documentary roles and responsibilities of archives as they continue to emerge and evolve within the framework of contemporary public administration and its digital circumstances. In the course of this discussion, we will be sharing some of the recent experiences of Library and Archives Canada (LAC) as it led and participated in initiatives designed to address the Government of Canada's self-described "information management crisis." We will also relate the influences and impacts of these initiatives upon the theories, strategies, methodologies, and business processes employed by LAC to identify public sector information resources of archival and historical value. We believe that several features of LAC's recordkeeping and archival appraisal resolutions determined through these experiences transcend the particular context of its Canadian formulation and may be of interest to other jurisdictions encountering similar issues and problems.

We will conduct our exploration of the information management crisis within the Canadian government broadly and interchangeably through the lenses of two perspectives. First, we begin with some of the documentation challenges presented by the digital age, in particular, the impacts of social transformation, new information and communications technologies, and new information resource volumetrics upon the notion, nature, constitution, and meaning of documentary value.[1] We will assess whether this new sociotechnology context requires any corresponding philosophical or methodological changes to current information management strategies in relation to the administration of public program and service delivery, and especially in reference to the documentary presence required to enable and facilitate public business enterprise. We will touch upon the development and implementation of new public management within the Government of Canada through new business enterprise architecture, collaborative governance models, and client-focused citizen-state interaction, and what the impact of this transition potentially means for the management and disposition of public sector information generally. Aspects of this examination will inevitably draw us more deeply into the relationship between the business value of public sector information resources and the establishment of an *expedient documentary presence* sufficient to satisfy the policy contingencies and business requirements of modern public administration in the digital environment.

As LAC engaged with the policy center and the departments and agencies of the Canadian government to address information management issues from the perspective of public administration, questions also began to surface internally about how LAC was specifying and identifying the archival and historical value of public sector information resources to qualify documents, records, and data for continuous preservation over time as documentary heritage. In light of the ongoing changes within the public sector and the operation of governance more generally, were the current documentary perspectives and expected outcomes of LAC's longstanding evaluation strategy—*macro-appraisal*—continuing to provide for the constitution of a representative documentary memory satisfying contemporary and longer-term institutional and public expectations? As a new documentary heritage institution,[2] what kind of documentary heritage presence now needed to be established to satisfy the documentary contingencies of the legislation referenced to the objects, accountabilities, and powers concerning the disposition of government records? We conclude with some recent LAC reflections upon these questions.

A Glimpse into the Documentary Conditions of the Digital Infosphere[3]

In the opinion of some recent punditry on the subject of the Internet, Google is either "making us stupid" or it is "making us smarter."[4] Depending on who or what you read—and some observers would suggest that we no longer read in the traditional sense but that we merely scan information simply to identify and ingest content distilled from larger information resources held in still larger information resource containers or networks—the digital age also represents either the end or the beginning of forgetting.[5] It is an age apparently with the capacity to build an infrastructure of "total recall" through e-memory sustained by artificial intelligence and cloud-computing services within a semantic Web-space (aka Web 3.0),[6] or alternatively, it is an age that will continue to require human intervention and intelligent interactive processing within ambient networks and a participatory Web-space (aka Web 2.0) to produce and refine knowledge and memory continuously and cumulatively over time.[7] Currently, within the transition to linked open data and content ontologies, it appears to be closer to something more like a Web 2.5.[8]

It is also an age of superabundant information resource productivity and volumetrics, the scope, scale, and dimensions of which are now expanding at a rate of escalation that taxes basic comprehension. Thanks to the Web and its ever-expanding application and content layers, as well as other affiliated networks, communications links, and broadcast-transmission capacities, the world is currently in the midst of what the computing experts have been calling an *exaflood* (of exabytes). The corresponding coping analogies to explain the evolving size and extent of the global knowledge repository are interesting and informative in a metaphorical sense, one of the most recent schematics being the Wikibon iStack. According to the context around this animating image, the estimated amount of data in the digital universe in 2010 had reached 1.2 zettabytes, enough apparently to fill seventy-five billion fully loaded 16GB Apple iPads, with the resulting iStack able to cover the entire surface of the football pitch at London's Wembley Stadium extending approximately 339 miles into the sky and reaching beyond the limits of the exosphere.[9] Regardless of whose calculations one accepts, or the nature of the imaging and criteria being used, in what year the measure was taken—and whatever percentage of the information may be considered redundant or duplicate—productivity is prodigious and continuously accelerating. In fact, information production has exceeded available storage space both generally and locally in a number of cases. More significantly, there are very few recognized socioeconomic or other determinants generally in place to permit content differentiation for the purposes of deciding its continuing persistence, preservation, accessibility, or disposal based on criteria of value.

Essentially, the Web represents semantic and epistemological chaos, especially from public sector information resource development and public memory preservation perspectives. To put it simply, an enormous amount of content is being produced, some of it has significant value as intellectual or memory capital; much of it has temporary, minimal, or no value whatsoever. The costs of managing (not necessarily storing) information have become exorbitant, and collectively as a society we are not really sure what to do about the situation other than to push *save* constantly and continuously to keep all of it in default of decision making.[10] Unfortunately in this case, as noted several years ago, the digital age also signals the end of the age of "collecting" as we used to understand it archivally in the analog environment, certainly of indiscriminate information resource accumulation.[11] Society will need to determine ways and means of identifying content of continuing documentary value for the purposes of its preservation over periods of time and of eliminating its information resource "rubbish."

The volume of digital information and its manifest digital disorder—in the sense of its miscellaneous composition and compilation—instantly advances and presses the issue of documentary value on multiple levels. While cyberspace is conspicuously free from the interventions and mediations that have placed documentary objects into forms and systems of physical and conceptual order for hundreds of years, it nevertheless imposes certain documentary conditions through its own innate sense of miscellaneous order, in effect, what amounts to a new order of disorder, including a corresponding new order of documentary value(s).[12] Especially problematic for public administrators and public archives within these documentary conditions, we believe, are the recent reconceptions and representations of the information "life cycle" within cyberspace, which continue to build and reflect on the notions of networked or participatory or ontological or generative memory variously proposed and discussed by a host of Web analysts, observers, and users. In Luciano Floridi's particular model of the participatory-generative Web memory continuum, for example, there is no preservation component in the traditional sense of its operation or meaning. Rather, in his view, preservation simply constitutes a "recycling function," the thinking being that any important information will remain persistent within the computing cloud through a process of creation, collection, storage, distribution, consumption, repurposing, and recycling for as long as its content remains useful or relevant to *inforgs* (the "information organisms" that inhabit the digital infosphere). Otherwise it will be subject de facto to deliberate destruction or incidental erasure through its manifest irrelevance. Digital memory is a transitory concept of continuously evolving information framed by its contemporary use and relevance: it is not endurable but perishable or compostable.[13] In effect, for many observers currently writing about information in the digital environment, "archive" has largely become a dead word and a dead concept; it is simply a process in a computerized information system understood by users as the temporary "save" or "keep" function.[14] From a pure information technology perspective, the functionality of save or keep is not invested with any semantic meaning around a conscious decision made either by the creator or user about the value of the information object or the resource itself. It is just part of a greater information process. From the perspective of preservation—or repurposing or recycling in Floridi's context—the documentary value of information is typically linked to transactional or spontaneous memory of a transitory nature. In other words, there are no value propositions for information resources within the digital infosphere other than contemporary taxonomic or folksonomic relevance and market-driven economic utility: documentary value is simply a temporary concept of transitory relevance. In such a fluid memory environment, what are the incentives to invest in the incremental preservation of long-term static or registered memory over time? When is it appropriate to do so? What are the public expectations around this permanent memory context? Archivists have been wrestling with these questions for a number of years, but with the virtual immersion of society into information resource development and communication via social media, mobile devices, and the cyberspace of networks (wired or wireless), answers now need to be found and quickly.

Certainly as a concept and as a practice, the purposeful preservation of long-term registered memory persists from various social, historical, and archaeological perspectives.[15] They remain intact and critical for scholars who have written and are writing about society, social theory, social epistemology, and now social transformation, including about the impact of new information and communications technology and social media upon social structure, organization, agency, and the broader human condition.[16] Labels abound for this phenomenon of social remembering over the course of a long "documentary moment," for example, cultural memory, retrospective memory, historical memory, collective memory, and even enduring or perpetual memory. Lately, at Library and Archives Canada, we have been articulating the preservation of what our national legislation calls "documentary heritage" as a manifestation of identifying, selecting, and describing "the civic goods of public memory."[17]

The Notion of Documentary Presence

Looking at the roles and responsibilities of information management and the archives within the context of public administration and government–which is essentially the focus of this essay—the long-term preservation of authentic, reliable, and retrievable state memory has for many years been a fundamental component of administrative accountability consonant with transparent governance, effective corporate stewardship, and the efficient delivery of programs and services to citizens through public business enterprise.[18] Long the administrative by-product and function of the chancellery and central agencies as they have evolved over time since the High Middle Ages,[19] today the production and preservation of the documentary *causa materialis*[20] of public administration in open and accessible form, especially in relation to policy development, decision-making, and interactive relationships between citizens and the machinery of government, are increasingly central to the constitution and maintenance of a democratic consensus conceived under the rule of law. In Canada, the intimate nature of the relationship between the democratic capacities and competencies of the state and its records administration was made perfectly clear in the report of the Glassco Royal Commission on Government Organization (1962), which devoted an enormous amount of attention (under the circumstances) to the administrative function of records management and monumentally declared that "records must be created, maintained and preserved in such a way that a contemporary democratic government can be held fully accountable to the public for its activities." The *Glassco Report* finally articulated the direct and critical link between effective records management and transparent and accountable public administration within the constitutional framework of the Canadian democracy.[21] Implicit in this administrative policy statement is the documentary dependency of the modern institutional state, most conspicuously evident in the bilateral assumption and presumption of a continuous and utilitarian documentary presence enduring over time within the operations of its public business enterprise. In effect, it is the actual documentary products and continuous documentary production of the state—its information resources created and managed as business records and transactional data in the course of public administration—that substantially frame and continuously inform the nature, dimensions, and manifestations of its political, social, and economic ecologies. To a considerable extent, the modern institutional state is now understood as a viable and visible entity of administrative authority and materiality by administrators and citizens alike through its documentary context, documentary production, and documentary content: it is both a conceptual and practical manifestation of documentary self-inscription, self-reference, and self-presentation.[22] Ultimately, the corporate continuity of the public administration—its theory and fiction of authority, capacity, accountability, and transparency abstraction—becomes apparent and is self-consciously reinforced and constantly reiterated through an established documentary presence inscribed in a documentary body of recorded corporate transactions and other content having business value over periods of time, potentially including enduring value as documentary heritage.

A double assumption and presumption of documentary presence within public administration is now so utterly complete that today it is virtually taken for granted. Certainly, it would be difficult to imagine any contemporary form of government operating without enormous masses of documents, records, and data, or without a dedicated infrastructure of administrators and technology having responsibility for their control, management, access, and disposition. One of the issues we will discuss later is not whether documents and records exist within public administration—they evidently do and have clearly done so for hundreds of years, now in superabundant digital quantity—but whether the documents and records actually constitute an expedient documentary presence, that is, one that supports the policies, goals, and objectives of the state however they are formulated. Increasingly within contemporary forms of democratic governance, for example, the substance and extent of the documentary presence necessary to achieve efficient public administration is related to its capacity to enable and support effective decision-making and to provide documentary evidence of business activity sufficient to satisfy stewardship, accountability, and legal requirements. In a number of countries, however (including Canada), questions are now being posed about this particular presumption. While one can assume and perceive an obvious and enormous documentary presence within public administration generally, the presumption that it is entirely appropriate or sufficient is increasingly dubious and illusory. Indeed, the mere fact that documents and records exist, even in superabundant number, does not necessarily satisfy the contingencies and expectations associated with requisite documentary presence, the requirements of which have been changing as administrations continue to redirect and commit themselves toward new policy orientations under the generic rubrics of new public management, accountable and transparent administration, or even "open government." Recent administrative history in both the public and private sectors is littered with examples of an established documentary presence insufficient to satisfy the requirements of reviewers, investigators, auditors, or courts of law for a variety of reasons, despite access to overwhelming numbers of contextual documents and records placed in evidence.[23]

In other words, it is neither administratively nor legally adequate merely to have documents and records "present." To achieve utilitarian status as an appropriate documentary presence, and this is the primary thesis LAC advanced in Canada's recent round of recordkeeping policy deliberations and negotiations leading up to the government's official *Directive on Recordkeeping* of 2009,[24] they must be the "right" documents and records in the sense that they are authentic, accurate, reliable, and readily accessible with timely and suitable precision of recall; they provide expedient documentary evidence and documentary context directly through their documentary production in relation to the matter or issue under review or scrutiny; and they are sufficiently documentary in nature, character, and capacity to the extent that the circumstances of what may or may not have transpired can be fully ascertained through their ex post facto consultation.

Over the course of these discussions, LAC questioned the commonly held notion of recordkeeping serving simply as an administrative service providing for the organization, arrangement, description, and storage of documentary objects and content for subsequent secondary use subsidiary to business enterprise. Rather, LAC successfully tabled the proposition that recordkeeping is a documentary function of core business materiality required to establish an expedient documentary presence necessary to permit the operation of public administration and to satisfy the exigencies of its corresponding stewardship and accountability frameworks. [25] Research undertaken by LAC recognized that the management of public sector information and the long-term preservation of government's corporate or state memory physically within or virtually under the control of an organizational repository or cloud repository service had necessarily some associated information technology (IT) components and issues related to enabling infrastructure. Our main conclusion, however—and this determination influenced much of the regulatory content within the *Directive on Recordkeeping*—was that departments and agencies needed to address an emerging and rapidly escalating crisis in the value of information by establishing documentation standards for their program and service activities directly linked to institutional business enterprise architecture (and notably not to IT architecture at the first level of instantiation). That is, IT could not or would not drive or resolve the solution to what was essentially an intellectual problem—the articulation of business value for information resources within the context of public administration.[26] Coincidentally, our research also indicated that the nature of the information value crisis had a number of animating dimensions and attributes, notably the nature, scope, and scale of information production in terms of overwhelming volumetrics and the extensive loss of organizational custody and control over information conceived and considered as business resources. The attributes of provenance within information networks, which provide for and support negotiation with administrative or other sources of origin or authority for the purposes of preserving memory at an institutional or organizational level within the context of macro-appraisal, had also become problematic.[27]

Of critical and fundamental importance, LAC argued, was the conspicuous absence of appropriate and up-to-date value propositions for information resources sufficient to enable their creation, capture, management, and disposition within individual departments and agencies. In archival terminology, government lacked a strategy, a methodology, and the corresponding criteria to appraise the value of its information resources for the purpose of establishing an appropriate documentary presence to conduct public business. Through the *Directive on Recordkeeping*, the first step toward the resolution of this issue was to require departments and agencies to identify and ensure the creation of information resources having business value.[28] With this step currently underway through a phase of implementation and compliance verification, could the extension of extant macro-appraisal principles to the institutional context of recordkeeping now help government establish the business value of its information resources?

As we shall see, the beginning of the answer to this question was a qualified yes, but only with some substantial reformulation, and even then, only to a limited extent. Ultimately, a combination of phenomena, forces, and circumstances obliged LAC to push forward from a macro-appraisal strategy for the archives toward a recordkeeping regime for government animated and framed by "Big P" public policy and business administration in addition to archival theory supporting the identification of documentary heritage. A key element within the context of this decision was the recognition of two factors. Firstly, that the authoritative texts and documentary discourse required to support program and service delivery to citizens—as well as provide for the accountability, transparency, and stewardship of governance—were assuming a digital documentary presence that largely transcended the institutional boundaries, confines, and controls within government, previously delimited by organizational hierarchies, responsibility centers, offices, and files. Secondly, that this is exactly the kind of bureaucratic environment of business activity and corresponding documentary creation that the theory and strategy of macro-appraisal was fundamentally designed to address. In fact, the policy framework and business administration of government had substantially changed and so had the relationships and behaviors of the structures, functions, and agents interactively engaged both within and outside of its networks. Moreover, it had also become very clear that not only were the foundational concepts and the very nature of governance in a state of transition and redirection, but that the corresponding activation and implementation that manifest as policy development and program/service delivery were now expanding well beyond the administrative halls and walls of formalized entities called "departments," practically emulating and reflecting ongoing transformations within society at large. Consequently, our research, analysis, and thinking at LAC has lately been moving the institution toward a whole-of-society approach[29] to content evaluation and appraisal, merging some of the concepts, theories, and research methods of social science (e.g., domain analysis and network theory) with postmodern ideas and other philosophical notions in search of a broader epistemological foundation for decision-making about documentary value, including the heritage value of government's business information resources. To understand why we have decided to move in this policy direction and where we currently reside within its evolution, it is material to briefly relate the history of macro-appraisal at LAC and its more recent reconstitution as recordkeeping.

Two Tales of Crisis and the Macro-appraisal Manifesto

At Library and Archives Canada, the introduction of new appraisal principles and concepts for government records began within the context of internal and external discussions about appraisal reform in the late 1980s into the early 1990s. Looking back at the internal discussions, one can identify a number of factors that contributed to the initiation of a local domain reform movement and subsequently led to the transformation of the institution's appraisal goals, objectives, criteria, and processes collectively determining the status and disposition of public sector information. A description of the environmental circumstances that originally led the National Archives to propose a macro-appraisal strategy for the disposition of public records has been detailed in a number of papers and essays; however, for the purposes of establishing context and evolutionary links of continuity around the progression of macro-appraisal into the digital era, it is worth summarizing the main factors situating its practical origins and theoretical beginnings.[30] Some of these elements remain partly intact and relevant today within the digital environment; their circumstantial migration forward continues to call for forms of strategic intervention, albeit of a somewhat different nature, perspective, and constitution than previous propositions and resolutions.

Formally called the Government-Wide Plan for the Disposition of Records, macro-appraisal strategy was largely articulated in response to recommendations and directions contained in a series of internal studies, audits, and strategy statements. These were originally conceived and developed primarily to address various practical and logistical issues concerning the heritage memory goals and objectives of the former National Archives of Canada, as well as other assigned roles and responsibilities, in light of new information laws and policies issued by the federal government through the decade of the 1980s, including the Access to Information Act and the Privacy Act (1983), the new national archival legislation of 1987 (the National Archives of Canada Act), and the introduction by the Treasury Board of Canada Secretariat (TBS)—the central agency responsible for administrative policy applicable to all departments—of the Management of Government Information Holdings policy (1988).[31] In effect, the National Archives of Canada decided to examine its corporate business operations with a view toward improving program and service delivery, both as a national institution preserving documentary heritage and as a central agency facilitating the management of federal government records with specific statutory responsibilities, powers, and authorities regarding their destruction or disposal. Along the way, it would come to some significant revelations and resolutions about the archival and historical value of public records and the identification and determination of these "qualities." These revelations and resolutions would find strategic, methodological, and business codification in a corpus of theories and processes that we call the *macro-appraisal manifesto*.

The First Tale: The Archival and Historical Value Crisis

Much of the internal institutional debate and discussion initially focused on the roles and responsibilities of the National Archives within government's records scheduling process, that is within the traditional framework of information management. In fact, the new information legislation and policy suite of the 1980s had positioned the archives advantageously within the information life cycle of government, insofar as the management of information through the phase of its final disposition now required the formal authorization of the National Archivist. This enabled the archives to intervene positively and proactively in the information management process to preserve archival and historical records, since (1) no record of government could be destroyed without the written consent of the National Archivist, and (2) the National Archivist also had the authority to identify archival and historical records and to require their transfer to the National Archives. Alternatively, these interventions came with consequences, notably among them that the corresponding departmental records schedules also had to be authorized. This linked the disposition of records within departments and agencies directly to decision-making within the archival appraisal process. Inadvertently and very quickly as it transpired, this linkage plunged the National Archives into an archival and historical value crisis.

To summarize the situation briefly, the demand by departments and agencies for National Archives (NA) authority to dispose of records—in the form of formal written permission provided to government institutions enabling them to proceed with the implementation of their records schedules—rapidly overwhelmed NA capacity in two ways. First, there really was no formal process in place within government at the time (circa 1990) to provide for the transaction of the government records disposition process as a business activity of submission and approval between the National Archives and departments. The government records disposition business process would need to be created, and it would need an interval of four to five years of experimentation, research, and development before something satisfactory and robust would begin to emerge in a codified manner.

This would eventually include every administrative element and step required to support government records disposition and archival appraisal now linked in a single business transaction (the granting of authority), including the development and management of departmental records disposition submissions, corresponding archival appraisal reports, instruments of records disposition authority, records disposition agreements, terms and conditions of agreements for the transfer of archival records, and so on, and last but not least, the creation of a secretariat armed with administrative and planning oversight through automated project management tools. Not only did the National Archives have to develop and implement all of the business processes, instruments and administrative infrastructure practically from scratch, the entire package also had to be negotiated and agreed upon with the departments under the auspices of central agency information management policy. Despite being the authorizing agent within the government records disposition process, the National Archivist was not in a position to operate unilaterally. In any case, it would not have been prudent to do so. Whatever the National Archives would eventually develop in the way of archival appraisal theory, methodology, and criteria, it all had to be practically implementable, and this would require necessarily the cooperation of the departments and Treasury Board Secretariat.

We do not want to dwell overlong upon the administrative procedure and business process of macro-appraisal, but it was as much part of LAC's current government records disposition program as the associated policy elements and features of its appraisal theory, methodology, and criteria with which most of the archival world is now familiar. We cannot overemphasize how important the continuous creation, development, and adaptation of administrative and business efficiencies were in the articulation and implementation of macro-appraisal's intellectual content over time, and how business improvement continues to animate developments within the context of government recordkeeping today at LAC. In the early years, the National Archives very deliberately provided macro-appraisal with a strong foundation of project management planning, information systems analysis and appraisal activity timetabling, decision reporting, document tracking, client negotiation, and accountability and/

or instrument and approval signing. Our current view is that the constitution and construction of public memory, like any other element of public business enterprise, must be policy based and supported by logical business processes and administrative procedures. In fact, this represents a fundamental principle within the mantra of our ongoing institutional modernization: the articulation and preservation of public memory is an objective of public policy implemented within the context of public administration.[32] Consequently, it must have the capacity to be predictable, measurable, and accountable in relation to results. We initially began to learn this lesson during the 1990s; it eventually became an essential part of macro-appraisal, and it is currently core to the implementation of the *Directive on Recordkeeping* within the Government of Canada. Significantly, business process and accountability also had much to do with how the former National Archives began to address the other problem it confronted in the midst of the archival and historical value crisis: the conspicuous absence of appraisal strategy, methodology, and criteria.

While most of the initial discussion focused on the business lines of program and service delivery as outlined above (the pressure applied by departments and agencies to obtain disposition authority being the business driver in this case), it soon became apparent that other issues required resolution, those, most notably, connected with the appraisal of government records to establish their archival or historical value, that is, the other chain in the government records disposition link forged by the granting of authority. Typically at the National Archives during the 1980s—and practically everywhere else in the archival world, especially in North America—the determination of archival or historical value in relation to government records largely consisted of a pseudohistorical evaluation of the information content of records and documents either following or loosely applying interpretations of appraisal criteria that had been developed and had attained the status of quasicodification within the archival profession over a period of fifty years or so beginning in the 1930s. From an intellectual perspective, Theodore Schellenberg developed the seminal and most cogent expression of these criteria in the 1950s and early 1960s, and his thinking and ideas influenced the content of many of the appraisal manuals produced in the United States and elsewhere during the 1970s and after (and continues to do so even today).[33] At the National Archives of Canada, using elements of Schellenberg's guidance and propositions contained with other assorted appraisal manual derivatives (including records management manuals), archivists typically examined records on a file-by-file or document-by-document basis to ascertain their evidential, informational, historical research, legal, fiscal, and other secondary values (as opposed to their primary administrative value as business records), even including their apparent "intrinsic" value. Essentially, the primary focus of the archival appraisal enterprise was on the apparent value(s) of the information content of bounded documentary objects, such as files, documents, and other recording media.

Unable to cope with the departmental demands for records disposition authority and acknowledging that an appraisal process loosely based on Schellenberg's value taxonomy—and what amounted to highly subjective pseudohistorical intuition—was inhibiting progress on records disposition as a horizontal issue of public policy, the National Archives began to assess and analyze the accumulated results of its approach to the determination of archival and historical value in relation to the government records it was acquiring and had acquired over time. Very quickly it came to some important conclusions, notably that (1) there was no consistency or constancy in the nature of appraisal decision-making at the operational level of implementation; it varied from person to person, or from application to application, and (2) the volume of records produced or accumulated by government had grown to such an extent that it was no longer feasible to assess their archival value on a file-by-file or document-by-document basis. In fact, the circumstances had become completely untenable to the extent that the National Archives was now acquiring government records under a process of "selective retention," that is, the actual decision about their archival or historical value was being postponed to a later date to satisfy the immediate administrative requirement to produce records disposition authorities for departments and agencies. Regardless of the intellectual results and the increasingly dubious nature and constitution of the public memory obtained through the application of a subjective taxonomy of value to the documentary production and products of government, the appraisal process was enormously cumbersome and slow. Very clearly, the system that the National Archives had in place to appraise the value of government records for the purpose of their long-term preservation was no system at all, and the institution was failing to meet the new requirements of its enabling legislation and mandate in relation to the disposition of government records. In addition, authorities external to the institution were challenging some of the NA's recent decisions about the archival or historical value and preservation of certain government records (with very good reason), and very little in the way of logic or documentation could rationalize these decisions in a satisfactory and accountable manner.[34]

Hindsight is always "20/20," and today we recognize that the former National Archives was locked into a form of archival appraisal that was both highly subjective and highly inefficient because it relied almost entirely on the intuitive artisanship of its professional archivists working unilaterally as individuals and largely without institutional guidance provided through appraisal strategy, methodology, and criteria. The archival and historical value crisis this caused was acute, and it called for drastic action. In the circumstances, the institution recognized that the intellectual decision-making involved in archival appraisal is inherently subjective on many levels, but also that greater consistency and precision in the documentary outcomes of its appraisal enterprise could be achieved through a framework of appraisal policy and business systems designed to objectify the results.[35] Over the next decade, a corpus of critical appraisal thinking would emerge and find both codification and practical implementation.

The Macro-appraisal Manifesto

We have called macro-appraisal a manifesto because it originated in some very clear, strong, and central declarations of policy intention around how the National Archives would establish the archival and historical value of government records moving forward over time. While the macro-appraisal manifesto was in no way doctrinaire—on the contrary, it very much represented a tactical compromise between theory, strategy, method, technique, and practice—it was nevertheless grounded in doctrine, that is, in a set of principles that animated its strategy, methodology, and criteria. These principles first emerged through the decade of the 1990s, and they continued to be recast and refined as the context of their application evolved.

The inauguration (1991) of macro-appraisal by the former National Archives of Canada was a watershed moment, and it represented a huge institutional achievement. It completely redefined the landscape and development of archival appraisal theory and strategy both at the National Archives and across Canada, and eventually, it would come to have some significant international profile and prominence. It introduced, for example, provenance-based appraisal linked to structured-systems thinking and especially functional analysis. Macro-appraisal also initiated communications form, format, and medium-agnostic appraisal, as well as focused appraisal analysis endeavor at the context and tier of the records creator rather than on the content of documents and records. Finally, macro-appraisal insisted upon a new primary objective: to identify and capture a documentary representation or illustration of how government develops policy, makes decisions, establishes infrastructure, and interactively delivers programs and services to citizens through public administration over time, rather than to account comprehensively for all business activities and their corresponding information resources at the enterprise level of business transactions. In essence, macro-appraisal was truly a revolutionary manifesto.

Unfortunately, and practically as it was being introduced—as we would later come to understand—macro-appraisal was already slightly out of sync with the contemporary operation and progression of public administration. In the mid-1990s, government was already in the process of launching a major initiative of policy renewal and redirection, bringing substantial changes to its administrative goals and objectives, and to the ways and means of decision-making within public business enterprise. In this environment, a documentary theory supporting a top-down appraisal approach based on the identification of command-and-control authority hierarchies and their information outputs was essentially outmoded, and its limitations would soon be exposed. In addition, with the arrival of technology at the desktop, subsequently enhanced by the innovations of social media and other Web 2.0 tools—and what this meant for development of collaborative public administration—provenance-focused appraisal (as it was construed from structural-functional organizational perspectives) was unable to engage fully the new semantic relationships and workflows enabled by technology within emerging business networks.

Indeed, as it was being reformulated, re-expressed, and refined through the 1990s into the early 2000s, it was becoming clear that macro-appraisal rested on some theoretical assumptions and had certain strategic predispositions that were limiting its capacity to adjust and adapt. In particular as time passed, the incapacity to address fully the growing complexity of public administration and the nature and characteristics of its information resource production was becoming increasingly problematic from the perspective of having logical and legitimate documentary outcomes. If records were being regularly transferred to LAC by departments, and this was not always the case, we were beginning to wonder whether they actually provided the most accurate and synthetic representation of government's administration. Were we acquiring the "right" records? In fact, macro-appraisal was beginning to struggle both conceptually and tactically with the emerging horizontality of policy development and decision-making associated with the transition from activity-based to results-oriented administrations through the inauguration of new public management and integrated planning, reporting, and performance evaluation across the Canadian government. And of course, enormous changes were occurring within the business cultures, behaviors, and relationships of public administration generally, largely coincidental with the innovation of new information and communications technologies.

We also began to understand that the appraisal and records disposition processes of macro-appraisal were positioned badly in relation to the public administration it was ostensibly intending to document, even after having created what we fully believed to be a solid business infrastructure in collaboration with our information management colleagues within government departments. In effect, our processes were not really integrated or aligned with public administration in a business sense, and business managers generally neither understood our intentions nor necessarily saw any value in their participation within the authority process. Even with the development of coping mechanisms for administrators, such as interpretive guides, or the proposition of new organizational models for government information resources, such as the Business Activity Structure Classification System (BASCS), macro-appraisal largely remained an archival appraisal technique and tool substantially designed for archivists and the vocational use of information managers.[36]

Late in 2005, LAC recognized that departmental incapacities within government around the application and implementation of macro-appraisal requirements through the mechanism of records disposition authorities were symptomatic of something far more profound. To implement macro-appraisal finally and fully in the context and manner in which it was theoretically conceived and proposed, LAC would have to take on a further role of leadership, in this case by helping the policy center resolve government's emerging information management crisis. In the process of undertaking and establishing leadership on this policy file, and for a variety of reasons, LAC would finally come to recognize that macro-appraisal had become largely obsolete even within the application of its most recent formulation. This was largely due to the theoretical limitations imposed by its understandings and readings of public administration as a source and context of documentary creation, which were largely based on structural-functional analysis and/or structuration models and perceptions of socio-institutional behavior and culture.[37] Actually to succeed from the perspective of documentary heritage, LAC was going to have to revisit its institutional philosophy, deepen its consideration and appreciation of documentary context, and change its documentary objectives and tactics, especially in reference to the conversation and discourse formed around fundamental intentionality and organizational purpose. The first step in that direction would be through the development of a regulatory regime for recordkeeping within government institutions under LAC leadership and with the policy authority of the Treasury Board Secretariat.

The Second Tale: The Information Management Crisis

We do not intend to describe fully the nature of the information management crisis within the Government of Canada, as its origins, sources, and contexts have been well documented in a number of federal reviews, studies, and situational analyses.[38] It is also a story familiar to many national and state governments today, the sole differentiations between them largely consisting of local domain circumstances and variations on several themes depending on how one cares to analyze and explain the information resource environment and its infrastructure (or absence thereof in the case of the latter), and in this sense our local Canadian tale of information management crisis is rather unremarkable. This is not to minimize the impact of the crisis in Canada—it has been profound within the circles and operations of federal public administration for example—but we believe the story of how LAC is cooperatively developing ways and means to help remedy the current tactical situation and to strategically address emerging digital challenges is more interesting than the origins of the problem in the first place. Nevertheless, in the Canadian context, some key observations can be made about the contextual circumstances both surrounding and instigating the crisis.

First, the information management crisis in Canada's federal public administration is not necessarily a crisis rooted in the absence of information management theory, information management tools, or information technology resources and infrastructure. These we have (and have had) in abundance, although critical adjustment and redirection has certainly been required in a number of elements, as some of our corporate thinking is clearly out of date and misaligned both with the digital environment and current business enterprise requirements. Rather, in our view, the crisis is and has been rooted in a combination of factors, including (1) new conceptions of public business enterprise and administration that are transforming organizational business behavior at every level within the workplace; (2) changes in information production and information flows and communications; (3) some critical misunderstandings of or illusions misguidedly created around the power and impacts of computer-based information and communications technology; (4) an extensive loss of corporate control exercised over administrative and business records with significant impact on the accessibility and capitalization of information resources; and (5) the continuing misconception and misrepresentation of information management as a separate service industry and consequently its artificial separation from business operations.

In particular, we would like to emphasize two of these crisis-making catalysts. First, beginning in the late 1980s through the 1990s and into the first decade of the twenty-first century, the Canadian federal public service, as in many countries, has been in a state of redirection and transformation, moving from an activity-based to a results-based organization. This involves the articulation and continuing evolution of new corporate ethics and behaviors for public sector administration (new public management and governance models) and the introduction of "businesslike managerialism" to the enterprise of public program and service activity supported by new and highly self-conscious forms of oversight, scrutiny, and review, including results-based financial and accrual accounting, that is, new policy manifestations of results-driven public accountability.[39] Yet the most immediate and visible impact of this transition has been as much about social and cultural transformation within federal departments, agencies, and corporations, for example, the strong inclination away from command-and-control institutional hierarchies toward horizontal teams, multidisciplinary and interdepartmental working groups, committees, and broader networks now virtually enabled by new information and communications technology, as it has been about new policy direction and program effectiveness and/or efficiency. As a result of these changes, we know that information flows are changing and that new relationships are being opened (or alternatively closed) within new networks (technological or otherwise), adjusting the nature of documentation requirements in relation to new accountability and stewardship imperatives, as well as altering administrative culture and business behaviors at all levels within government. This sociocultural transformation brings us to another catalyst of crisis.

In fact, the new horizontality associated with new public management combined with the new networked ethos of the digital workspace has had an enormous impact upon the way public servants think about and create, use, exchange, channel, receive, store, and provide information. Ironically, however, some of the benefits and utilities for public administration enabled by this integration of people and technology have also led inadvertently to the emergence of an increasingly pervasive and largely unrestrained institutional culture of rampant information production and indiscriminate information storage and disposal evolving counterintuitively to information resource needs and organizational business requirements.[40] This "counter-culture" is enormously problematic, since all of the accounting and accountability requirements associated with results-based public administration are entirely contingent upon the creation, production, capture, management, and persistence of the information necessary to support corporate decision-making and to satisfy the corollary requirements of review, performance measurement, evaluation, and audit, and more broadly, the emerging context of public scrutiny. In this public business environment, the omnipresence of the core-essential evidence in readily accessible form is absolutely vital. However, the assumption of documentary presence and accessibility is not especially well supported either practically or theoretically, and consistent corporate control over business records and other forms of documentary evidence is increasingly suspect if not entirely dubious. Research at LAC indicated that this state of affairs can be variously attributed to some persistent mythology that has emerged and grown up around the power and capacity of information technology as a tool of information storage, organization, and retrieval; the subsistence of information management as a separate service component often under IT; and the general absence of value propositions for business records and information resources within government departments.

Documentation Standards and the Return of Recordkeeping

Of the various elements contributing to the information management crisis, surely one of the most significant has been the "blind faith" (in many quarters and at many levels) in the capacity of information technology to both handle the volumetrics of current information production and support the "precision of recall" necessary for effective public administration on a continuing basis. The operational manifestation of this information technology mythology—and it is truly mythology—is that it is unnecessary to consider the value of information resources from any lens or frame of perspective, or to manage information resources on a differentiated basis, since the Government of Canada (obviously) has the storage capacity to keep everything and the computing power to render the "everything" instantly and precisely accessible through software search tools and applications. In actual fact, the Government of Canada currently has neither the information storage capacity necessary nor the precision of information recall required to manage effectively the volume of public sector information it is creating, and neither does anyone else.[41]

It is somewhat remarkable that information has now achieved what amounts to bimodal resource status simultaneously as business capital and as commercial commodity in an established global knowledge economy, and yet few criteria or standards have been developed to measure its actual value in either capacity, and scant horizontal strategies are put in place to assure its persistence or preservation over time based on characteristics or qualities of continuing economic, public, or other utility, especially given the risks associated with poor information resource management. In fact, when LAC decided to embark on the Government of Canada's new approach to recordkeeping in the direction of documentation standards for institutional program and service activities in early 2008, we found few examples from which to draw inspiration, with the exception of some basic documentation requirements within the pharmaceutical, healthcare, banking, and other regulatory industries largely framed under an obligation of a "duty to document."[42] We found no actual codifications of documentation standards for public administration per se anywhere, and we were therefore obliged to establish mechanisms to allow departments and agencies to create their own standards or profiles in relation to their documentary accountabilities and responsibilities defined under government's Management Accountability Framework (MAF) and the corresponding institutional Program Activity Architecture required under Management, Resources and Results Structures (MRRS) policy.[43]

Library and Archives Canada went in the direction of documentation standards—now called documentation profiles or recordkeeping requirements—for business activity (within public administration)[44] for a number of very good reasons, but primarily because our research and analysis indicated that government was in the midst of an "information value crisis" rather than an information management crisis.[45] Critical adjustments to the ways and means of information management within the Government of Canada are certainly necessary, notably including the introduction and implementation of new functional requirements for recordkeeping within electronic systems and the development of rules and protocols to enable the development of trusted digital repositories or cloud repository services. However, the prevailing thinking at LAC was that the information management problem was primarily a product of the volume of information resources being created (or otherwise) and captured; the absence of a differentiated approach to the management of information resources based on criteria of business value; and corresponding difficulties around the custody, control, and disposition of information resources, again linked to the absence of value criteria for business information. Not only were government institutions trying to manage all of their information resources cumulatively on a continuing basis (an irrational and futile exercise to be sure), but they had also lost extensive corporate custody and control over much of their information capital. In cases where corporate custody and control were established, they were no longer disposing of information regardless of its value. For all intents and purposes, the government records disposition process had effectively ceased to function, and the documentary presence necessary to satisfy the contingencies of stewardship and accountability was difficult to ascertain and in some cases nonexistent. To put it another way, government had forgotten just how important it is to manage information resources on a differentiated basis of value, and how important it is to throw out information rubbish on a systematic basis. Allow us to set some additional context around these conclusions.

Earlier on, we alluded to circumstances in which the majority of government institutions were not necessarily ready for the macro-appraisal manifesto in terms of its theory and intentions, but especially not in relation to its records acquisition and preservation requirements. Departments found it difficult to comply with the terms and conditions of records disposition authorities that directed them to transfer records to Library and Archives Canada. Our determination of the archival and historical value of government records, which was based on structural-functional and structuration approaches to institutional business processes/activities and the corresponding capture of their documentary evidence in relation to specific documentary objectives, typically had no obvious or logical links to extant information classification schemes within departments, which are usually traditional and largely subject based or alpha-chronological. Complicating matters further, many of the records in which LAC has a public memory interest are not under effective corporate control but actually reside in "bootleg" networks, systems, and files under the control of individuals and groups at the desktop. All of this, and a number of other contributing factors, first became "officially" clear in 2003, when the auditor general of Canada noted significant shortcomings in the government's records disposition program and identified an information management crisis within the government.[46] The auditor's observations confirmed other perspectives on the unsatisfactory nature of information management within the government's public administration variously expressed by the information commissioner of Canada, the Treasury Board Secretariat's Chief Information Officer Branch, and the Department of Justice, not to mention the results of information management capacity checks self-administered within departments or the various comments made by board members on a number of recent commissions of inquiry and other panels. The questions posed by the auditor concerning the quality and efficiency of the government records disposition program finally provided Library and Archives Canada with an opportunity to intervene substantively in matters related to the management of information within departments and agencies.

In the aftermath of the auditor's comments and given the continuing focus on new public management and its transformative impacts (e.g., enhanced accountability and transparency requirements, new values and ethics for public administration), we recognized that the challenges associated with contemporary information resource development and recordkeeping needed to be elevated to the senior executive level within government. Positioned within the evolving context of electronic records and information and communications technology in general, these challenges were of sufficient importance to attract the attention of the clerk of the Privy Council (Canada's most senior public servant) and the secretary of the Treasury Board who supported the librarian and archivist of Canada in the creation of a series of Deputy Minister Roundtables on information management and recordkeeping in the fall of 2006. Shortly thereafter, an internal government-wide Task Force on Recordkeeping was created at the assistant deputy minister (ADM) level to develop strategies and solutions.

The substantive nature and impact of LAC's interventions within this task force began to emerge when the ADMs collectively passed a significant "tipping-point" in the committee discussions and deliberations largely on the subject of transitory records and the corresponding need to revise the Transitory Records Authority. Issued by the former National Archives in cooperation with the Treasury Board Secretariat in 1990, the Transitory Records Authority was among the most used (and abused) records disposition instruments within government because it provided institutions with enormously wide latitudes of discretion and interpretation on the identification and disposal of transitory records, since they were defined as "records that are required only for a limited time to ensure the completion of a routine action or the preparation of a subsequent record, or records that are not required by government to control, support, or document the delivery of programs, to carry out operations, to make decisions or to account for business activity." This particular authority was causing enormous concern within government information management and other public administrative circles for obvious reasons.

When the task force therefore requested that Library and Archives revise the Transitory Records Authority, we agreed to do so provided that the task force first address the implications of the primary contingency upon which this authority was based, that is, if government only required certain information for a limited time to complete routine transactions or to facilitate the preparation of subsequent records, which records did government actually need "to control, support, or document the delivery of programs, to carry out operations, to make decisions or to account for business activity"? Remarkably, or perhaps unremarkably given the circumstances and clarity of its propositional logic, the task force agreed that a new recordkeeping context needed to be developed to establish the business value of institutional information resources over time and before the issue of disposal could be considered. In an instant and in effect, Library and Archives Canada had turned the information management conversation completely upside down and shifted its traditional focus away from the identification and disposal of government's documentary waste to the creation and capture of business records having ongoing value in support of public administration, in other words, from the disposal of unnecessary information to the "keeping of records" for business purposes. In the process, LAC was assigned intellectual responsibility for developing the principles, concepts, and theories of recordkeeping, and the Treasury Board Secretariat was given the lead on its implementation, thereby clarifying roles and responsibilities within government around the development and management of information resources. Most importantly, it allowed Library and Archives Canada to focus government's business enterprise and information management attention on the creation of value propositions for its institutional information resources, subsequently to recast macro-appraisal as a component of recordkeeping in this regard, and finally to establish recordkeeping as a building block in the development of a new documentary framework for public memory.

In the wake of this agreement, through working groups established and co-led by LAC and TBS, and drawing upon expertise from various government departments, a number of strategic assumptions emerged that would eventually provide the platform for the Government of Canada's new *Directive on Recordkeeping*. The primary conclusions of LAC's research and analysis, endorsed by the most senior levels within our public administration, were that (1) government could not afford to manage all of its information resources in an undifferentiated manner, nor was it practically feasible or intellectually logical to do so even if the resources were available; (2) government required a regulatory regime of recordkeeping to create, capture, and manage its information resources designated to have continuing value as business records; and (3) government required a documentary context for its program and service endeavors directly linked to its program activity and service orientation architectures. One of the innovative developments in this regard was the LAC *White Paper on Documentation Standards* (2008).[48]

LAC thinking has evolved considerably since the publication of the *White Paper*. For example, the praxis of documentation standards has subsequently become reconstituted as recordkeeping requirements under a regulatory instrument, the Government of Canada's *Directive on Recordkeeping* issued by the Treasury Board Secretariat. Nevertheless, the *doxa* of documentation standards within the *White Paper* essentially remains the same within the new recordkeeping context, its primary objective being to assure core-essential documentary presence within the federal public administration in the form of documentary evidence to support decision-making and the delivery of programs and services over time. Specifically, the documentary intention is to provide context, coherence, and explanation for institutional decision-making, programs, services, results, and outcomes within government by

- identifying information resources of business value at sufficient levels of materiality or granularity required by organizations to conduct business activity, complete transactions, achieve results, and measure or assess performance;
- integrating the asset development of information resources into the management processes of public administration as a functional requirement of planning, organizing, directing, controlling, and monitoring business activity;
- linking and mapping documentation requirements for institutional programs and services to organizational business context by developing integrated business process models and program activity or service orientation diagrams that identify workflow and specify stages where business records must be created or captured; and
- determining and describing the nature, characteristics, extent, arrangement, treatment, preservation, and disposition of the information resources that must be created or captured as business records by organizations on a continuing basis to satisfy business activity, accountability, stewardship, and legal requirements.

Within discretely defined and formal (regulatory) parameters of public administration, the primary objectives are to identify the documentary evidence required by organizations to operate and account for program activities or service orientations; determine the nature, composition, and extent of the documentation that needs to be created and kept by organizations to satisfy these evidence requirements; and to explain how government institutions will capture, manage, and preserve this evidence over time regardless of its origin, source, form, or format. *In other words, recordkeeping is fundamentally a documentary function that enables business entities and organizations within public administration to establish expedient documentary presence through the creation and deployment of documentation standards.*

One of the most recent iterations of this documentation standards *doxa* in government recordkeeping praxis has been the development and approval of a new multi-institutional disposition authority for the Disposal of Transitory Information Resources of Government Institutions Subject to the Library and Archives of Canada Act (2010/003).[49] This effectively brings the recordkeeping conversation originally begun under the auspices of the ADM Task Force full circle, beginning and ending with the notion of transitory information. However, let there be no illusions about the status and substance of this conversation. Multi-Institutional Disposition Authority 2010/003 applies to all Government of Canada institutions "as soon as they have fulfilled the following requirements under the Directive on Recordkeeping issued on June 1, 2009 by the Treasury Board Secretariat":

- The identification of information resources of business value, based on an analysis of departmental functions and activities (section 6.1.1), and
- The establishment and implementation of repositories in which information resources of business value are stored or preserved in a physical or electronic storage space (section 6.1.3, item 1).

In effect, the *doxa* of documentation standards and the praxis of recordkeeping have substantially altered and repositioned the documentary moment both within government and more broadly within the context of appraisal. They are pushing the decision point about documentary value and public memory far upstream within the time-space continuum of information resources manifest as self-conscious institutional or organizational acts and outcomes of deliberate and deliberative documentation; they are focusing the attention of business managers on the business value and capitalization of their information resources; they are repositioning and repurposing macro-appraisal as a new recordkeeping manifesto of theory, method, and process intertwined and ensconced in business rules and protocols that enable government departments and agencies to assess the value of their information resources for business purposes. They are also establishing (necessarily) a public memory and documentary heritage contingency, insofar as the enduring value of government's information resources has become a value subset of government's intellectual capital as expressed and captured in its business records. In this regard, they are integrating decision-making about business, public memory, and enduring value into a single documentary decision point immediately prior to or during the creation of documents for business and public memory purposes both within the administrative context of new public management and inside the digital infosphere. Even with the former macro-appraisal manifesto now repurposed and in the recordkeeping possession of public servants, however, the discussion around the nature, definition, meaning, sources, relationships (provenance), and the constitution of business value and public memory within the context of government's documentary presence is only just beginning.

We indicated earlier that the macro-appraisal manifesto could assist in this discussion in a "qualified" way. Unilaterally and on its own, macro-appraisal does not represent an answer to the problem of identifying and capturing business and enduring memory value in information resources or of establishing expedient documentary presence to satisfy stewardship and accountability requirements, although it contains several fundamental components and elements of analysis that can be tactically applied within the context of this decision-making on a continuing basis into the future. Actually, when we began reflecting upon the accomplishments and achievements of macro-appraisal, our thoughts invariably turned in combination to one of its enduring strategic principles, the scenario of its before-and-after, and what its implementation actually meant and represented for the institution and its professional archivists. From a technical or tactical perspective, its primary contribution was to shift the focus of archival appraisal away from a highly subjective analysis of the information resource content contained in documents and records either according to quasicodified value taxonomies (e.g., Schellenberg) or pure intuition linked to anticipated research utilities or potential as documentary source material for historical exposition. In the place of this traditional approach, the reforms of macro-appraisal proposed that the archival and historical value of government records should be identified in relation to the provenance of their creation or production, and to their status as documentary evidence of the business functions and activities associated with the primary source of their administrative origin, ergo the genus of structural-functional analysis and provenance-based appraisal with which macro-appraisal is largely associated. Ultimately, macro-appraisal represented a significant shift from documentary content to documentary context. It was a proposition for documentary representation and illustration rather than a guide or manual for indiscriminate "collecting," and in this sense, it substantially changed the ways and means of appraisal at the former National Archives of Canada and elsewhere.

In retrospect today, we now largely see macro-appraisal as one of the seminal catalysts for directional change within archival institutions and within the archival profession. As with the contemporary propositions of documentation strategy in the United States, which may have differed slightly in theory, techniques, and applications, but not necessarily in terms of goals or objectives, macro-appraisal offers the initial steps toward a corpus of scientific thinking.[50] Here we have something more intellectually robust, something more principled and deliberative, something more theoretically rigorous, something approaching the context of the social sciences and their analytic models and methods, although it remained essentially expressed in the form of technique, methodology, and tools. The desire to move in such a direction has in fact been part of our appraisal discourse for many years, certainly since Ernst Posner started writing in the 1950s about the necessity of moving the archival profession toward a greater emphasis upon social science perspectives. In our view, the objective is not to remove subjectivity and professional judgment from contemporary archival appraisal endeavor (archival appraisal is inherently subjective), but rather to expand the analytic horizons in which subjectivity operates to include other ideas and forms of contextual understanding beyond the confines of what is generally apprehended by archival science, and in the process bring greater consistency to the identification of documentary heritage at the institutional level.

And yet, and this has been our main conclusion about the conceptual milieu and applications of macro-appraisal, documentation strategy, and other similar approaches, we have so far not been able to break the bonds of our own discipline and our own basic concepts, techniques, and tools to bring the full range of the intellectual dimensions and capacities at our disposal to bear on the identification and selection of documentary heritage. We continue to reference social theory and social epistemology and social science, but we largely remain unwilling to engage fully or to cross entirely over into potentially new analytic and transdisciplinary territory to inform archival appraisal philosophy and strategy, and to become more scientific in our thinking and decision-making applications. Despite the welcome introduction of new discourse at times, for example, the allusions to postmodernism we now regularly see in the archival literature (which actually encourages archivists into more enlightened forms of subjectivity extending well beyond the traditions of pseudohistorical analysis, intuition, research forecasting, and passive collecting), when the moment comes actually to make decisions about the archival value of information resources, we seem to fall back and confine ourselves to the processes, techniques, and principles of what has passed for a generic archival science over time supplemented by local domain theories. For example, we have been hearing lately about some proposals to expand and change the definition of *archival provenance* to permit its accommodation and operation within the digital functionality of information and communications networks and social media. The notion of provenance has always been intellectually and practically problematic, never mind the corresponding conceptions of the *fonds* or original order. Perhaps it would be easier, wiser, and more logical simply to recognize and admit that provenance is an outdated analog concept which does not translate well to the digital infosphere of the computing cloud and the miscellaneous documentary disorder of "networked individualism."[52]

At LAC, even with a new recordkeeping context and process, and however sophisticated these may be within the environmental circumstances of our public administration, we must say that appraisal continues to remain quite subjective within the current context of its methodology, technique, and tools. For some time now, we have been wondering about the societal relevance of our institution's intended documentary outcomes. Do the information resources that LAC causes to be preserved through the appraisal lenses that it applies contain relevant documentary content of public benefit and utility? For example, does the documentation of current government structures and functions in hierarchical order of importance produce documentary heritage? With the production of content by individuals, groups, organizations, and institutions across society reaching unimaginable levels within a "here comes everybody" democracy increasingly enabled by social media,[53] does LAC actually have the intellectual capacity and competency to engage and intervene within its cyberspace and time from the perspective of documentary heritage value?

Our sense is that LAC's appraisal outcomes need to become more objectively representative of how society functions as a whole, inclusive of how government operates within it by developing policy, making decisions, and interacting with citizens over time. However, as we all know, society writ large is undergoing fundamental change at a rate of unprecedented velocity and on an evolutionary scale of transformation. In this new context, and for a variety of reasons, we believe that our contextual analysis, which has become the primary source of inspiration for archival appraisal at LAC, needs to become more scientific and comprehensive than it has been in the past to enable the institution to become more discriminating about the content it will identify as documentary heritage both now and into the future. We need to move well beyond paradigms of structural-functional analysis and into something more approaching societal analysis. Let us now conclude with some remarks and observations about the whole-of-society model for appraisal that we are currently discussing and developing at LAC under the rubric of institutional modernization, and what we believe needs to happen to bring greater analytic objectivity and rationale to our appraisal decision-making.

A Whole-of-Society Approach

Library and Archives Canada is not simply a repository for documentary heritage created by the federal public administration. We have always preserved information resources from the private and civil sectors, and collected Canada's published heritage within our bilateral function as the National Library. In the past, we have largely focused our appraisal attention (ergo macro-appraisal) on the corporate records of government because of the extent and volume of the documentary production, and simply followed the regulations we have created for the legal deposit of publications. We have some "orientations" for appraisal within the private and civil sectors, but nothing truly approaching policy or strategic direction. Now with a new mandate to preserve Canada's documentary heritage writ large, LAC is in an enviable position. We have a major opportunity to redefine ourselves in the digital world of the twenty-first century, and we have the legal authority, objects, and powers to do some remarkable things in this regard. On the other hand, we are less sanguine as to whether LAC has yet fully developed the documentary way forward to support the documentary means it has at its disposal.

Along these lines, our appraisal thinking has been evolving in two directions, one related to appraisal policy development at the institutional level, the other related to the intellectual rigor and philosophical principles required to make appraisal decisions and provide rationale. From the institutional perspective of appraisal policy, part of LAC's modernization agenda has been to begin building a stakeholder network of documentary repositories to address documentary heritage and related appraisal issues from a broad pan-Canadian perspective. LAC is one of approximately eight hundred archives and two thousand libraries in Canada, and it is axiomatic that we share roles, responsibilities, and interests. Can we now collaborate to create a whole-of-society framework that would allow institutional members within this network to work together and move toward collective appraisal decisions, or at least to an understanding of the nature and direction of their respective documentary intentions? So far, reactions to this proposal have been encouraging, to the extent that the stakeholder community is already talking about creating a documentary agora: a kind of commercial marketplace to discuss potential acquisitions. It is a beginning, but there is obviously much more to discuss around institutional documentary intentions from a policy perspective.

More problematic and complex, of course, are the nature and content of LAC's documentary outcomes, and it is in these particular areas that LAC has been focusing its reflections and asking for enhanced analysis and greater precision of documentary intention and justification from its staff. Our reading of the situation is that while LAC, like many other institutions, has moved the location and application of appraisal analysis to the context of documentary creation, we have not yet advanced the framing of it sufficiently into what social theorists and social scientists typically call the "thick context" of interpretation, value, meaning, and cognition. Our understanding of creator context and our lensing of it essentially remains very "thin," largely confined to analysis and assessments conceived through archival concepts and techniques (provenance, *fonds*, original order, etc.) and certain elements of social theory that are able to correspond reasonably well, such as for example, the application of the structural-functionalism of macro-appraisal. And almost inevitably, viewed and articulated from this "thin" perspective, our perceptions of society often remain unilateral to the extent that the documentary content refracted into the repository through our particular set of context lenses is also quite limited in scope, sometimes bordering on a one-dimensional reflection, or what could be called a purely "archival sense of the past."[54]

Fundamentally, we need to return to the question of documentary content through a new set of appraisal lenses, and this means a very much broader and deeper exploration of societal context. We need to begin by asking ourselves about the nature and constitution of the documentary presence that needs to be established within LAC to satisfy the exigencies of its enabling legislation, and in the process, we will need to ask some questions that we have not been comfortable with or have studiously avoided in the past. This includes the issue of sufficient documentary representation or illustration within particular domains of social activity however they may be articulated and analyzed, and increasingly the problem of financial sustainability in relation to the costs of physical ownership and/or intellectual custody or control (these are not necessarily the same questions from a financial perspective). One option we have been thinking about is a more direct focus on the public endowment and preservation of our foundational civic content and knowledge—the original documents of our decisions and actions, and the information contained in our books and other documentary media and artifacts—which are required within society to articulate, express, and share common goals, assumptions, values, and ethics; to provide individuals and groups with the capacities of social literacy necessary to enable their democratic participation within communities; and to ensure accountable public administration and responsible governance under the rule of law. We would contend that the DNA of this civic content and knowledge is fundamentally expressed in society's primary discourses.[55]

Practically, this means focusing appraisal attention on the selection of society's *causa materialis*: the documents that permit us socially to "live our lives" within a state of law; to function collectively as a democracy; and to maintain continuing and inclusive social consensus and progress through the distribution and sharing of information resources and the preservation of an accessible documentary heritage. We are exploring the notion that documentary repositories, certainly at the national level, should concern themselves primarily with the identification and persistence of the information resources and documents articulating the modern democratic state and its broader domain of intersectoral governance and activities, including its corresponding regularities, ethics, and discourses expressed through contemporary "socioeconomic" actions and behaviors at various individual, group, and organizational levels. In relaying this broader and multilayered understanding of societal context and its relation to appraisal and the selection of content, we are proposing the articulation of a new social epistemology rooted in a documentary corpus whose nature, construction, and constitution are inspired and informed by social theory and social science in addition to archival theories and concepts, including the diversity of approaches variously expressed in the sociocentric writings of scholars such as Bourdieu, Foucault, Ricoeur, Habermas, Goody, Giddens, La Capra, and others.[56] In effect, we are proposing that archives identify and analyze societal discourses within defined domains of epistemological conception to establish an expedient documentary presence to support the multiple purposes and public advantages of documentary heritage.[57]

If we are truly to understand the agency and functionality of society, and especially the nature of the semantic relationships now animating human actions, transactions, and societal discourse within the networks and documentary production environments of cyberspace (the new locus of what Pierre Bourdieu once called habitus), our sense is also that a "thick" understanding and a comprehensive documentary representation of our new digital society require a fundamentally different set of appraisal lenses expressed through a fundamentally new set of appraisal questions. Our line of questioning needs to expand and include other reflections and to be more focused on research and analysis, more sociocentric, and ultimately more scientific. And we certainly need to become much more collaborative with other social sciences in exploring the answers to these questions, notably in tune with the theoretical approaches and practical methods and techniques of sociology, anthropology, and the rest.[58]

Right now at LAC, through the proposition of a whole-of-society model and approach to documentary intentionality and documentary outcomes, archivists and librarians are beginning to articulate and develop the questions that we need to ask as an institution to broaden and deepen the documentary context we bring to the identification and selection of documentary content. LAC is asking for a new documentary model of appraisal to be developed based on the research, analysis, and philosophical principles primarily illuminated within social theory and social science, and we have created a new organization within the institution's new Collaboration and Policy Sector to lead this intellectual investigation from a strategy research and policy perspective. At the moment, this team is exploring the various dimensions of this policy direction through the tools domain analysis commonly utilizes in many of the social sciences (notably sociology), including through the development of an analytic grid of social fields and activities to focus the research and discussion. In a hybrid adaptation combining social theory and social science perspectives with archival concepts and purposes to probe more deeply into the societal context(s) of human agency, complex information resource production, sociotechnology integration, and relational networks, we are beginning to build the new intellectual capacities and competencies necessary to make the right documentary choices and assure the expedient presence and persistence of authoritative, representative, registered, and enduring content of a documentary heritage nature.

Notes

The content of this essay has been largely drawn from two recent presentations made by the authors: by Daniel J. Caron in his master class on archival appraisal conducted at the National Archives of the Netherlands on July 6, 2011, "Reflections on the Evolution of Appraisal at Library and Archives Canada: From Content to Context to Content Through Context," and by Richard Brown, "Macro-appraisal in the Twenty-First Century: Towards a New Documentary Framework for Public Memory," delivered at the international seminar, The Future of Memory: The Digital Archival Heritage, Santiago de Compostela, Spain, on November 19, 2010. It also reflects parts of the conversations, discussions, and collaborations between the authors over the course of the past seven years.

[1] Information overload and confusion over information resource value and authority are two significant by-products of the ongoing integration of people, technology, and economics, and they are rapidly becoming important matters for public policy resolution, as discussed by Daniel J. Caron during a recent national radio interview in Canada conducted by Radio-Canada Première Chaîne, *La Sphère*, March 31, 2012, http://medias-balado.radio-canada.ca/diffusion/2012/balado/src/CBF/lasphere-20120331-180.mp3.

[2] Library and Archives Canada was created as a new documentary heritage institution by virtue of new legislation—The Library and Archives of Canada Act, S.C. 2004, ch. 11—which merged the former National Library and National Archives. The act broadly defines documentary heritage as "publications and records of interest to Canada" and maintains many of the nondiscretionary roles and responsibilities under the previous institutions in sections 10 (legal deposit) and 12–13 (government records), but the use of the new terminology is beginning to change institutional ideas about the meaning and status of its statutory objects and powers, notably upon the status of government and other records within LAC custody and control.

[3] We are using the notion of a digital infosphere as it was introduced and defined by Luciano Floridi in "The Information Society and Its Philosophy: Introduction to the Special Issue on 'The Philosophy of Information, Its Nature and Future Development'," *The Information Society* 25, no. 3 (2009): 153–58, and in "Web 2.0 vs. the Semantic Web: A Philosophical Assessment," *Episteme* 6 (2009): 25–37.

[4] See the interesting apposition represented by two recent articles in *The Atlantic* magazine: Nicholas Carr, "Is Google Making Us Stupid?," July/August 2008, which discussed changes in our reading habits and their consequences, and Jamais Cascio, "Get Smarter: Is Google Actually Making Us Smarter?," July/August 2009, which focused on intelligence augmentation.

[5] See, for example, the recent article by Jeffrey Rosen in the *New York Times* (July 19, 2010), "The Web Means the End of Forgetting." Alternatively, David Bearman has long argued, and rightly so in our opinion, that the introduction of new electronic information systems technology has ushered in an age of massive and continuous (and largely inadvertent) memory loss owing to negligent recordkeeping and poor preservation practices. See especially his essays in David Bearman, *Electronic Evidence: Strategies for Managing Records in Contemporary Organizations* (Pittsburgh: Archives and Museums Informatics, 1994).

[6] See the interesting and timely discussion about "life-logging," cloud computing and the technology vision for the "coming world of Total Recall" in the recent book by Gordon Bell and Jim Gemmell, *Total Recall: How the E-Memory Revolution Will Change Everything* (Dutton: New York, 2009). Ironically, Bell and Gemmell admit that too much information is being produced and that some form of information appraisal will be necessary to support logical and continuing memory persistence.

[7] Floridi, "Web 2.0 vs. the Semantic Web" 25–37, especially section 5, "Why Web 2.0 Works."

[8] Floridi's scholastic approach to the notion of ontologies needs to be supplemented by broader philosophical views, including the synthetic understandings provided in, for example, Ian Hacking, *Historical Ontology* (Cambridge, Mass.: Harvard University Press, 2002), or other search perspectives. For a Canadian perspective on Linked-Open Data, see Pierre Desrochers, "Visualizing Open Government: Case Study of the Canadian Recordkeeping Approach," in *Linking Government Data*, ed. David Wood (New York: Springer, 2011), 155–80.

[9] The Wikibon iStack is at David Vellante, "Information Explosion and Cloud Storage," *Wikibon Blog*, June 21, 2010, http://wikibon.org/blog/cloud-storage/. An analysis of the expansion of information scale and the escalation of the information production rate—including corresponding analogies—is in a recent International Data Corporation white paper, John F. Gantz, project director, *The Expanding Digital Universe: A Forecast of Worldwide Information Growth through 2010*, http://www.emc.com/collateral/analyst-reports/expanding-digital-idc-white-paper.pdf. For further analogical analysis, see also John Palfrey and Urs Gasser, *Born Digital: Understanding the First Generation of Digital Natives* (New York: Basic Books, 2008), chapter 8 "Overload," 185–208. Bret Swanson coined the original term "exaflood" in the *Wall Street Journal*, "The Coming Exaflood," January 20, 2007, http://online.wsj.com/article/SB116925820512582318.html.

[10] Directly linked to the issue of overwhelming information resource generation and productivity is a fundamental problem of information preservation, insofar as society's capacity to create and produce information has far outdistanced both its physical and virtual capacity to store and preserve it, and this gap continues to grow exponentially. One of the great myths of contemporary information technology is the notion that society possesses unlimited information storage. In fact, the production of digital information has already outstripped global server capacity by an estimated factor of four or five. A related myth concerns the costs of information storage. Typically, the issue of storage is viewed in terms of physical capacity, and it is true that continuing advances in microchip engineering are reducing information storage space to a virtual status approaching the atomic level and that digital storage containers are becoming far less expensive than they once were. However, the real cost of information preservation lies not in the physical storage of data, but in the administration, management, and accessibility of the information "objects" inside the storage containers—regardless of how big or small—over time, the costs of which are rapidly escalating out of sight. This is especially true in the case of online storage and preservation, which is the expected norm within participatory cyberspace and fundamental to information resource discovery, capitalization, and public utility within collaborative networks, as opposed to near-line storage or offline "dark storage," which are progressively less expensive from an accessibility standpoint, though not necessarily from administrative and management perspectives. See Daniel J. Caron and Richard Brown, "The Documentary Moment in the Digital Age: Establishing New Value Propositions for Public Memory," *Archivaria* 71 (Spring 2011): 1–20.

[11] This is precisely why many institutions are now beginning to renew their focus on the value of information resources. See, for example, the recent study by the U.S. National Archives and Records Administration, National Records Management Program, *A Report on Federal Web 2.0 Use and Record Value 2010,* http://www.archives.gov/records-mgmt/resources/web2.0-use.pdf. See also the comments by Richard Cox in his article, "The End of Collecting: Towards a New Purpose for Archival Appraisal," *Archival Science* 2, nos. 3–4 (2002): 287–309.

[12] The notion of order—and especially archival or "original"' order—is a critical concept for archival science, and it has significant impact upon the perception, representation, and constitution of documentary value(s) from the archival vantage. See the thoughtful discussion of what amounts to a serious occupational and theoretical debate in Brien Brothman, "Orders of Value: Probing the Theoretical Terms of Archival Science," *Archivaria* 32 (Summer 1991): 78–100. The prevailing social order established for documents within the archives is now continuously challenged by the "disruptions" of the nondocument universe of intertextuality, metanetworks, and documentary disorder of the digital miscellany, which is changing the way people understand, integrate, and use information resources. In an interesting book on this subject, *Everything Is Miscellaneous: The Power of the New Digital Disorder* (New York: Times Books, 2007), David Weinberger suggested that the miscellany of the Internet, networks, and digital data actually creates a new order of order, or a third order of information classification, which is de facto artificially "orderless" in the analog sense of its understanding but established and perceptible through machine linking and tagging. See especially pages 8–23, "The New Order of Order." Additionally, he presented arguments that the accumulation and use of knowledge in this new paradigm have become networked. See

Weinberger, *Too Big to Know: Rethinking Knowledge Now that Facts Aren't Fact, Experts Are Everywhere, and the Smartest Person in the Room Is the Room* (New York: Basic Books, 2012).

[13] Floridi, "Web 2.0 vs. the Semantic Web."

[14] For example, in the massively comprehensive and imposing compilation of multiple works by a variety of scholars writing about information over the course of the past fifty years or so edited by Robin Mansell, *The Information Society* (New York: Routledge, 2009), four volumes, 1,984 pages, the word "archive" is never used. See also the similar lacuna in Manuel Castells, *The Information Age: Economy, Society and Culture*, 2nd ed., 3 vols. (Oxford: Blackwell, 2000).

[15] See Daniel J. Caron and Richard Brown, "Entre Voltaire et Borges: Archiver, Trier? La Perspective du Bien Public," in "Archiver/Archiving," special issue, *Intermédialités* 18 (Autumn, 2011): 85–99, now revised and translated into English as "Is Archiving the Act of Sorting? A Governance Perspective," *Optimum Online* 42, no. 3 (2012), http://optimumonline.ca/article.phtml?id=418 [available to subscribers only].

[16] For an in-depth analysis of the impact of media and information communication technologies in shaping and redefining society, see Harold A. Innis, *Empire and Communications* (Oxford: Clarendon Press, 1950) and Tim Wu, *The Master Switch: The Rise and Fall of Information Empires* (New York: Knopf, 2010). Daniel J. Caron also explores these ideas with a specific focus on the evolution of the writing system in the digital age and its impact on society in *Web HT.0 Pour une Société Informée: La Pertinence Numérique et Ses Défis pour les Sociétés Démocratiques du XXIe Siècle* (Paris: Hermann, 2011). See also the additional context for sociotechnology transformation set by Daniel J. Caron and Richard Brown, "Des Grottes de Lascaux aux Nuages de Google: Le Bouleversement des Systèmes de l'Écrit et Son Incidence sur le Fonctionnement de Nos Institutions Démocratiques," *Télescope* 18, nos. 1–2 (2012): 155–67.

[17] For the notion of public memory constituted as "civic goods," see Daniel J. Caron, "Memory, Literacy and Democracy" (remarks, Canada 150th Anniversary Conference, March 11, 2010), http://www.collectionscanada.gc.ca/lac/012007-1000.002-e.html and Daniel J. Caron and Richard Brown, "The Documentary Moment in the Digital Age: Establishing New Value Propositions for Public Memory," *Archivaria* 71 (Spring 2011): 1–20.

[18] The Government of Canada initially began to search for ways and means to improve its records administration in support of its public business in the early 1890s through a series of internal inquiries (as described by Bill Russell in "The White Man's Paper Burden: Aspects of Records Keeping in the Department of Indian Affairs, 1860–1914," *Archivaria* 19 [Winter 1984–1985]: 50–73). Three full federal public inquiries (federal royal commissions) examined various elements of records management over the course of the twentieth century: the Royal Commission Appointed to Inquire into the State of the Records of the Public Departments of the Dominion, 1912–1914; the Royal Commission on National Development in the Arts, Letters and Science (aka the Massey Commission), 1951, which was primarily interested in the development of the arts and sciences in Canada but whose final report nevertheless devotes two chapters to the "state and condition of the public records"; and the Royal Commission on Government Organization (aka the Glassco Commission), 1962, which devoted an entire volume of its five-part report to consider virtually every conceivable contemporary aspect of "records management."

[19] See Richard Brown, "Death of a Renaissance Record-Keeper: The Murder of Tomasso da Tortona in Ferrara, 1385," *Archivaria* 44 (Fall 1997): 1–43 and Michel Duchein, "The History of the European Archives and the Development of the Archival Profession in Europe," *The American Archivist* 55 (Winter 1992): 16.

[20] Daniel J. Caron first introduced the notion of *causa materialis* as a documentary concept in his vision paper for LAC institutional modernization, "Shaping our Continuing Memory Collectively: A Representative Documentary Heritage," http://www.bac-lac.gc.ca/eng/news/speeches/Pages/Shaping-our-Continuing-Memory-Collectively-A-Representative-Documentary-Heritage.aspx. The notion of *causa matierialis* also grounded the discussion in a subsequent international presentation by Caron, "Recordkeeping as a Pillar of Public Memory, Accountability, and Administration: The Canadian Experience," at the "Canada-Japan Symposium on e-Government Document Management, National Libraries and Archives," February 2, 2011, http://www.bac-lac.gc.ca/eng/news/speeches/Pages/Speech-Recordkeeping-as-a-Pillar-of-Public-Memory,-Accountability,-and-Administration-The-Canadian-Experience.aspx. *Causa materialis* can best be defined as the

foundational civic goods of our nation—the original documents that record our decisions and actions and the information to be found in our books and other documentary media and artifacts.

[21] Government of Canada, J. Grant Glassco, *Report of the Royal Commission on Government Organization*, 5 vols. (Ottawa: Queen's Printer, 1962), chapter 4, "Paperwork and Systems Management," 468. For additional information on the impact of Glassco, see Daniel J. Caron and Andreas Kellerhals, "Supporting Democratic Values through a Relevant Documentary Foundation: An Evolutionary Complex," *Archivaria* 71 (Spring 2011): 99–134, especially "The Canadian Experience," 102–11 and notably 109–11.

[22] The legal fiction, governing authority, and documentary nature of the modern administrative state have a very long history that has been traced as far back as the sixth century BC and successively through the empires of Assyria, Babylon, Egypt, Greece, and Rome. See, for example, Jan Assmann, *Cultural Memory and Early Civilization: Writing, Remembrance and Political Imagination* (Cambridge: Cambridge University Press, 2011). Their modern derivations are rooted in thirteenth- and fourteenth-century political discourse. See, for example, Ernst Kantorowicz, *The King's Two Bodies: A Study in Medieval Political Theology* (Princeton, N.J.: Princeton University Press, 1957) and Quentin Skinner, *The Foundations of Modern Political Thought*, vol. 1, *The Renaissance* (Cambridge: Cambridge University Press, 1978).

[23] The most notorious Canadian example of this phenomenon is revealed in the recent *Report of the Commission of Inquiry in the Sponsorship Program* (aka the Gomery Commission) (March 6, 2006), which investigated alleged institutional mismanagement of federal sponsorship activities and their related funding: schemes, Library and Archives Canada, http://epe.lac-bac.gc.ca/100/206/301/pco-bcp/commissions/sponsorship-ef/index.html. During the review, the firm of Kroll, Avey, Lindquist was retained by Justice John H. Gomery as forensic auditors for the purposes of the evidentiary examination. In the course of their investigation, they examined 28.3 million documents; however, "the incompleteness of the communications agencies' and their principal's books and underlying records and related files and documentation restrict our [Kroll's] ability to report on the ultimate use of all sponsorship and advertising for those agencies and related contracts and events of interest" (see in particular, *Who Is Responsible? Forensic Audit*, p. 7). In other words, despite the superabundant documentation ostensibly present in evidence, the auditors are unable to determine what actually transpired. This will prompt Justice Gomery to recommend mandatory recordkeeping within government conceived as a "duty to document" for all public servants, see Recommendation 16, and pages 177–204 generally, "Restoring Accountability: Recommendations." François Matte presented an overview of the documentary production of government records during the Gomery Commission at the LAC Forum on Canadian Democracy held on April 9, 2008, Ottawa, Canada, "What We Learned from Gomery: Managing the Scope of Document Discovery," http://www.collectionscanada.gc.ca/obj/023023/f2/023023-2604d-e.pdf.

[24] Government of Canada, Treasury Board of Canada Secretariat, "*Directive on Recordkeeping* (2009)," http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?section=text&id=16552.

[25] See, for example, the foundational work in economics of information by Kenneth J. Arrow among other works: Kenneth J. Arrow, *The Limits of Organization* (New York: W.W. Norton and Company, 1974); Arrow and Thierry Granger, *Théorie de l'Information et des Organisations* (Paris: Dunod, 2000).

[26] Although not exhaustive of the research involved, see, for example, the successive Treasury Board of Canada Secretariat publications including: *Review of Information Technology and Systems in the Government of Canada* (Ottawa: Policy Implementation and Review Division, Administrative Policy Branch 1984); *Enhancing Services through the Innovative Use of Information and Technology: Strategic Direction for the 90s* (Ottawa: Communications and Coordination Directorate 1994); *Blueprint for Renewing Government Services Using Information Technology* (Ottawa: 1994); also with the National Archives of Canada, *Information Management in the Government of Canada—A Situation Analysis* (Ottawa: 2000); and finally *Policy Framework for Information and Technology* (Ottawa: 2007). See also the successive annual reports of the Office of the Auditor General of Canada, in particular: *Report of the Auditor General of Canada to the House of Commons* (Ottawa: Minister of Public Works and Government Services Canada, November 1994), especially chapter 8, "Information Technology: Reaping the Benefits and Managing the Risks—The Rapidly Changing Environment Requires New Approaches to Reap the Benefits of Information Technology"; and also *Report of the Auditor General of Canada to the House of Commons* (Ottawa: Minister of Public Works and Government

Services Canada, September 1996), especially chapter 16, "Treasury Board Secretariat—Renewing Government Services Using Information Technology."

27 The concept of provenance in relation to the application of macro-appraisal is discussed extensively in Richard Brown, "Macro-Appraisal Theory and the Context of the Public Records Creator," *Archivaria* 40 (Fall 1995): 121–72.

28 Government of Canada, Treasury Board of Canada Secretariat, *Directive on Recordkeeping* (2009), http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?section=text&id=16552.

29 The "whole-of-society approach" was first communicated by Daniel J. Caron in "Leaving the Cathedral and Entering the Bazaar" (speech, Association of Computing Machinery and Institute of Electrical and Electronics Engineers [ACM/IEEE] Joint Conference on Digital Libraries, Ottawa, June 14, 2011), Library and Archives Canada, http://www.bac-lac.gc.ca/eng/news/speeches/Pages/leaving-cathedral-entering-bazaar-remark.aspx.

30 The literature on macro-appraisal is vast. Aside from the many articles on the subject by Terry Cook, who largely conceived, pioneered, and led the initial development of the macro-appraisal approach at the former National Archives of Canada, see the special volume of *Archival Science* (nos. 2–4, 2005) on macro-appraisal, in particular, Terry Cook, "Macro-appraisal in Theory and Practice: Origins, Characteristics and Implementation in Canada, 1950–2000," 101–61, which is the best account of how macro-appraisal was first formulated conceptually and subsequently operationalized. Our contributions to the literature of macro-appraisal variously include Richard Brown, "Making Choices and Assigning Values: Macro-Appraisal in a Shared Accountability Framework for Government Record-Keeping," in *Proceedings of the Fourth General Conference of EASTICA*, Hong Kong, August 2000 (Hong Kong: EASTICA, 2000),15–32; Richard Brown, "Back to the Strategic Roots: Appraisal Reform at the National Archives of Canada," *Archival Issues* 22, no. 4 (1999): 113–22; Richard Brown, "Funkcionalno Vrednovanje u Drzùvnom Arhivu Kanade: Sedam Godina Stvarne Praske" ("Functional Appraisal at the National Archives of Canada: Seven Years of Actual Practice"), *Arhivski Vjesnik* 41 (March 1999): 51–65; Richard Brown, "Records Acquisition Strategy and Its Theoretical Foundation: The Case for a Concept of Archival Hermeneutics," *Archivaria* 33 (Winter 1991–1992): 34–56; Richard Brown, "The Value of Narrativity in the Appraisal of Historical Documents: Foundation for a Concept of Archival Hermeneutics," *Archivaria* 32 (Summer 1991): 152–56; and pre-eminently, Brown, "Macro-Appraisal Theory and the Context of the Public Records Creator."

31 For a brief overview of the 1989 Management of Government Information Holdings policy, consult Michael Nelson, "Federal Information Policy: An Introduction," *Government Information in Canada/Information Governmental au Canada* 3, no. 1 (1995) and Treasury Board of Canada Secretariat, *Treasury Board Manual: Information and Administrative Management Component: Information Management: Part 3, Government Information Holdings: Chapter 3-1, Policy on the Management of Government Information Holdings* (Ottawa: Catalogue no. BT52-6/6, 1994).

32 See for example, Daniel. J. Caron, "Shaping Our Continuing Memory Collectively: A Representative Documentary Heritage," Library and Archives Canada, http://www.bac-lac.gc.ca/eng/news/speeches/Pages/Shaping-our-Continuing-Memory-Collectively-A-Representative-Documentary-Heritage.aspx; Caron, "Memory Institutions in the 21st Century: The Need for Convergence and Collaboration" (speech, Archives Society of Alberta Conference, The War of Independence Reconsidered: Librarians and Archivists: Past, Present and Future, Alberta, Banff, May 2010), http://www.bac-lac.gc.ca/eng/news/speeches/Pages/Memory-Institutions-in-the-21st-Century-The-Need-for-Convergence-and-Collaboration.aspx.

33 See Terry Cook, "What Is Past Is Prologue: A History of Archival Ideas since 1898, and the Future Paradigm Shift," *Archivaria* 43 (Spring 1997): 17–63.

34 The decision-making under scrutiny included the deliberate destruction of immigration case files required by a federal royal commission investigating the potential presence of Nazi war criminals in post-1945 Canada, which led a federal cabinet minister to describe the National Archives records disposition process as "incomprehensible." For a recent and extended analysis of this event, see Terry Cook, "A Monumental Blunder: The Destruction of Records on Nazi War Criminals in Canada," in *Archives and the Public Good: Accountability and Records in Modern Society*, ed. Richard Cox and David Wallace (Westport, Conn. and London: Quorum Books, 2002), 37–65.

35 In its efforts to increase institutional objectivity, the National Archives of Canada was drawing contemporary inspiration from the National Archives of the Netherlands and its Project Pivot,

which described its own appraisal endeavor as a mission to achieve "maximally objectified subjectivity" in its decision-making.

36 In 2001, the NA began to issue interpretive guides with the Records Disposition Authorities to federal departments to help information management officials apply their terms and conditions regarding the transfer of archival and historical records. To bring greater connectivity between information resource classification schemes and NA functional analysis expressed in the terms and conditions of its Records Disposition Authorities—and to suggest ways and means by which departments could modernize their records management models—the NA also began to develop a functional scheme for records classification, the rationale and details of which are explained in Paul Sabourin, "Constructing a Function-Based Records Classification System: Business Activity Structure Classification System," *Archivaria* 51 (Spring 2001), 137–54.

37 Beyond the structural-functional discourse of contemporary social theory, the macro-appraisal of government records at the former National Archives of Canada was significantly influenced by the concept of structuration expressed in the writings of Anthony Giddens, especially as it was described within his seminal distillation, *The Constitution of Society: Outline of the Theory of Structuration* (Los Angeles: University of California Press, 1984).

38 Among all of the federal studies, the most comprehensive being *Canada. Treasury Board Secretariat and National Archives of Canada. Information Management in the Government of Canada—A Situation Analysis* (2000), perhaps the most plainspoken analysis comes from the external officers of Parliament, the Information Commissioner of Canada and the Auditor General of Canada, both of whom repeatedly use the word "crisis" in their assessments of the state of information management in government. Information Commissioner John Read was particularly scathing during his term in office, decrying the absence of appropriate documentary presence ("You Can't Disclose What You Can't Find") and calling for a new information management law expressly requiring a "duty to document" for public servants to assure accountability for important decisions and actions. For all of the details, including how the information commissioner mapped out a proposed plan to "resuscitate information management" and "restore the foundations of accountability," see Office of the Information Commissioner of Canada, *Annual Report of the Information Commissioner 2000–2001,* (Ottawa: Minister of Public Works and Government Services Canada, 2001), chapter 1, "Restoring the Foundations of Accountability," and chapter 2, "Resuscitating Information Management." See also for comparison Office of the Auditor General of Canada, *Report of the Auditor General to the House of Commons—November 2003* (Ottawa: Minister of Public Works and Government Services Canada), chapter 6, "Protection of Cultural Heritage in the Federal Government," especially pages 17–27 for views on information management and the government records disposition program, both of which come under significant criticism.

39 The Canadian context is well described and analyzed by Daniel J. Caron, in Caron and Kellerhals, "Supporting Democratic Values through a Relevant Documentary Foundation." For more information, see Mohamed Charih and Lucie Rouillard, "The New Public Management," in *New Public Management and Public Administration in Canada*, ed. Mohamed Charih and Arthur Daniels (Toronto: Institute of Public Administration, 1997), 27–45.

40 For a high-level perspective, see Peter Drucker, "The Age of Social Transformation," *The Atlantic Monthly*, November 1994; Castells, *The Information Age*; Willian H. Dutton et al., eds., *Transforming Enterprise: The Economic and Social Implications of Information Technology* (Cambridge, Mass.: MIT Press, 2005); Mansell, ed., *The Information Society.* For discussion on issues surrounding the volumetrics of information, see Gantz, *Expanding Digital Universe*. For an alternate perspective on the discovery of electronic material for litigation, see The Sedona Conference, "The Sedona Principles: Second Edition, Best Practices Recommendations and Principles for Addressing Electronic Document Production" (June 2007): 2–6, https://thesedonaconference.org/publication/The%20Sedona%20Principles [available to subscribers only].

41 Daniel J. Caron, Library and Archives Canada, presentation at the "Information Management/Recordkeeping Breakfast," Toronto, September 21, 2010.

42 In Canada, the notion of a "duty to document" has long been associated with the agenda to reform the federal Access to Information legislation. See note 37, and in addition, the white paper proposed by Canada's Department of Justice, "Strengthening the Access to Information Act: A Discussion of Ideas Intrinsic to the Reform of the Access to Information Act," chapter 6, "Duty to Document," April 11, 2006.

[43] Daniel J. Caron, Library and Archives Canada, "The Recordkeeping Initiative: Findings of Assessment Projects and the Way Forward," http://www.collectionscanada.gc.ca/government/news-events/007001-6301-e.html.

[44] Library and Archives Canada, "Creating Documentation Standards for Government Programs, Services and Results: A Developmental Framework and Guide for Business Managers and Information Resource Specialists," March 2008, http://www.lac-bac.gc.ca/obj/007001/f2/007001-5000.1-e.pdf.

[45] The challenges of information overload have been discussed in relation to many time periods, notably: Elizabeth Eisenstein, *The Printing Revolution in Early Modern Europe* (Cambridge: Cambridge University Press, 1983), 42–91; J. Carey, "Technology and Ideology: The Case of the Telegraph," in *Communication as Culture* (New York: Routledge, 2009), 155–77; and C. Shirky's 2008 keynote address at the Web 2.0 Expo in New York, "It's Not Information Overload. It's Filter Failure." See also the statistics, analogies, and insights around the notion of information overload in Palfrey and Gasser, *Born Digital*, in particular, chapter 8 "Overload," 185–208.

[46] Office of the Auditor General, "Sponsorship Program," *2003 Report of the Auditor General of Canada*, http://www.oag-bvg.gc.ca/internet/docs/20031103ce.pdf.

[47] See Daniel J. Caron and Richard Brown, "Creating Documentation Standards for Government Programs, Services and Results: A Developmental Framework and Guide for Business Managers and Information Resource Specialists," (Library and Archives Canada, 2008), www.collectionscanada.gc.ca/obj/007001/f6/007001-5000.1-e.rtf.

[48] See Daniel J. Caron, "Reflections on the Evolution of Appraisal at Library and Archives Canada: From Content to Context to Content through Context (speaking notes, National Archives of the Netherlands, July 6, 2011), Library and Archives Canada, http://www.bac-lac.gc.ca/eng/news/speeches/Pages/reflections-evolution-appraisal-lac.aspx.

[49] Library and Archives Canada, *Multi-Institutional Disposition Authorities, 4.9 The disposal of Transitory Information Resources of government institutions subject to the Library and Archives Canada Act (Authority No. 2010/003)*, http://www.collectionscanada.gc.ca/government/disposition/007007-1061-e.html.

[50] See Brown, "Macro-appraisal in the 21st Century," and in Spanish and Galician, "La Macrovaloracion en el Siglo Veintiuono: Hacia un Nuevo Marco Documental para la Memoria Public," in *Actas del Seminario Internacional, el Futuro de la Memoria: El Patrimonio Archivistico Digital* (Santiago de Compostela: Xunta de Galicia, 2011), 613–52.

[51] Ernst Posner, *Archives and the Public Interest: Selected Essays by Ernst Posner*, ed. Ken Munden (Washington, D.C.: Public Affairs Press, 1967).

[52] The notion of provenance and its corollaries has long been the subject of archival efforts to expand its conceptual horizons from its first level of intellectual instantiation as an administrative understanding of recording source and order in the 1840s. See, for example, Brothman, "Orders of Value" and "Archives, Life Cycles, and Death Wishes: A Helical Model of Record Formation," *Archivaria* 61 (Spring 2006): 235–69; Michel Duchein, "Theoretical Principles and Practical Problems of *Respect des Fonds* in Archival Science," *Archivaria* 16 (Summer 1983): 64–82; Terry Cook, "The Concept of the Archival *Fonds* in the Post-Custodial Era: Theory, Problems and Solutions, *Archivaria* 35 (Spring 1993): 24–37; Frank Boles, "Disrespecting Original Order," *The American Archivist* 45 (Winter 1982): 26–32; David Bearman and Richard Lytle, "The Power of the Principle of Provenance," *Archivaria* 21 (Winter 1985–86): 14–27; Heather MacNeil, "Weaving Provenancial and Documentary Relations," *Archivaria* 34 (Summer 1992): 192–98 and "Archivalterity: Rethinking Original Order," *Archivaria* 66 (Fall 2008): 1–24; Laura Millar, "The Death of the *Fonds* and the Resurrection of Provenance: Archival Context in Space and Time," *Archivaria* 53 (Spring 2002): 1–15; and Geoffrey Yeo, "The Conceptual *Fonds* and the Physical Collection," *Archivaria* 73 (Spring 2012): 43–80.

[53] Clay Shirky, Here Comes Everybody: The Power of Organizing without Organizations (New York: Penguin Press, 2008).

[54] The concept of the "archival sense of the past" and its irruption of historical time and space was first introduced by Richard Brown in his presentation to the Annual Conference of the Association of Canadian Archivists in Toronto, June 2003: "Time Figures: The Archival Sense of the Past" (unpublished manuscript). See also the recent article by Brien Brothman, "Perfect Present, Perfect Gift: Finding a Place for Archival Consciousness in Social Theory," *Archival Science* 10, no. 2 (2010): 141–89, and especially pages 170–80 where he discusses writing, "recordness," sacrifice, and the

elusiveness of the "perfect present." Terry Cook provided additional perspectives on how archives are used in the historical sense in his article "The Archive(s) Is a Foreign Country: Historians, Archivists, and the Changing Archival Landscape," *The American Archivist* 74, no. 2 (2011): 600–632. Michel Foucault anticipated this perspective of the archive in *Archaeology of Knowledge* (London: Routledge, 2002).

[53] Accordingly, a logical and early definition in this context can be found in the records of government, as suggested by Sir Geoffrey R. Elton in his 1968 inaugural lecture at the University of Cambridge. G. R. Elton, *Return to Essentials: Some Reflections on the Present State of Historical Study* (Cambridge: Cambridge University Press, 1991), 94.

[56] See especially Pierre Bourdieu, *The Field of Cultural Production* (New York: Columbia University Press, 1994); Paul Ricoeur, *Memory, History, Forgetting* (Chicago: University of Chicago Press, 2006); Michel Foucault, *The Archaeology of Knowledge and the Discourse on Language* (New York: Pantheon, 1972); Jack Goody, *The Theft of History* (Cambridge: Cambridge University, 2007); Anthony Giddens, *The Constitution of Society: Outline of the Theory of Structuration* (United States: University of California Press, 1986); Hayden White, *The Content of the Form* (Baltimore: Johns Hopkins University Press, 1987); Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973).

[53] See for example Pierre Bourdieu, *Le Métier de Sociologue: Préalables Épistemologiques* (The Hague: Walter De Gruyter, 2005). Whereas contemporary thinkers in the archival discipline are searching for archival consciousness in social theory, we are searching for social theory in archival consciousness. A thoughtful article on at least one-half of this apposition is Brothman, "Perfect Present, Perfect Gift."

[58] To this end, for example, LAC invited Professor Barry Wellman, S. D. Clark Professor of Sociology at the University of Toronto, director of NetLab, and a global expert on network theory, to speak to its Stakeholder and Academic Forums on the shifting landscape of our work with information resources on November 24, 2011. This issue is broadly discussed in Professor Wellman's new book, *Networked: The New Social Operating System* (Cambridge, Mass.: The MIT Press, 2012), which he coauthored with Lee Rainie, director of the Pew Research Center's Internet and American Life Project.

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Richard Brown is the special advisor to the deputy head and librarian and archivist at Library and Archives Canada. Over a career at LAC now approaching thirty years, Brown has been an archivist, the coordinator of the Government Records Disposition Program, the director of the Government Archives, the director general of the Government Records Branch, and the director general of the Strategic Research Branch. Before joining LAC, Brown attended the University of New Brunswick and McGill University, and studied at the Warburg Institute and Institute of Historical Research of the University of London. He has a PhD in history from the University of Edinburgh.