"My Very Act and Deed": Some Reflections on the Role of Textual Records in the Conduct of Affairs

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Abstract: How important to the archivist is an increased understanding of communications technology and its impact on society as it applies to the media of record? There is a growing awareness of the need to "read" the often obscure meanings in nontextual media. In addition, there is a need to understand how various technologies impinge on communication in such a way as to change bureaucratic process and the meaning of the act or decision entered in the record, which may look the same but ceases to have the same authority, especially as the age of the computer is already evincing certain characteristics analogous to preliterate society. The relationship of physical or oral acts to their record is discussed and, thereafter, the impact of writing and print on bureaucratic and administrative textual material. There is good evidence that not only is a knowledge of form and phraseology important in the study of modern diplomatics, but also the technology which has its own cultural impact on the user, including the archivist. The archivist has to assess this as part of the appraisal process and in order to assist the user in the interpretation of meaning over and above that of content and context. The article's approach is discursive in an attempt to put a general light on the subject and is not intended to be a piece of original research.

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THE INTENSE EFFORT BY archivists across North America to redefine their role in an electronic multimedia environment is giving rise to a close look at the physical and technological nature of the record as a means of communication. Meaning is no longer seen as being limited to content within the context or provenance and fonds, but must be sought also in the technology of the medium which has, since earliest times, had a profound effect on society as a whole. Writing, printing, and the television image have often been cited in this regard.

Archivists reared in a largely textual environment have had a tendency to "read" all media of record literally, without realizing that all forms of communication are loaded with conventions and semiotic "signs" inherent in their respective technologies.3 Consequently, archivists and users alike are having to employ more perceptive strategies of interpretation. This article is little more than a reflection on the physical nature and form of some textual documents in relation to the needs which gave rise to them and their subsequent impact on administrative process. The study of form and phraseology in medieval administrative instruments under the term "diplomatics" can provide a valuable precedent and starting point for a "modern diplomatics," which emphasizes not only the content but also the form of documentation over time.

The Impact of the Oral Tradition

A study of preliterate communication can be helpful, not because it is historically anterior to literacy, but rather because in this age of automation, we are beginning to move into a "post-literate" mode which, while not dispensing with literacy, reintroduces the immediacy of rapid interactive networking and feedback analogous to oral exchange. Our understanding is more holistic and planetary. We are becoming more conscious of ourselves as part of a natural environment threatened with destruction by exploitation, misuse, and nuclear weaponry, so that "our very idea of history as a process finding its fulfillment in the future must now give way to a reevaluation of both the past and the present." If as archivists we are ceasing to see history as an arrow propelled literally from the past through the present into the future, then our approach to the evaluation of documents and the record may likewise have to undergo a change which, for instance, takes into account threats to life and environment through pollution and the disposal of waste, much of which has gone unrecorded.

Preliterate communities depended, and

¹For example, Hugh A. Taylor, "The Media of Record: Archives in the Wake of McLuhan," *Georgia Archive* 6 (Spring 1978): 1–10, and "Transformation of the Archives: Technological Adjustment or Paradigm Shift?" *Archivaria* 25 (Winter 1987–88): 12–28; Barrington Nevitt, "Archivist and Comprehensivist," *Argus* 10 (1981): 65–70. For a more general discussion of the Canadian discourse of technology, see Arthur Kroker, *Technology and the Canadian Mind: Innis/McLuhan/Grant* (Montreal: New World Perspective, 1985).

²For example, M. T. Clanchy, From Memory to Written Record: England 1066–1307 (Cambridge, Mass.: Harvard University Press, 1979); Elizabeth Eisenstein, The Printing Press as an Agent of Change (Cambridge: Cambridge University Press, 1979); Jack Goody and I. Watt, The Consequences of Literacy (Cambridge: Cambridge University Press, 1977); Eric A. Havelock, Preface to Plato (Cambridge, Mass.: Harvard University Press, 1963), The Literate Revolution in Greece and its Cultural Consequences (Princeton, N.J.: Princeton University Press, 1982); Harold A. Innis, The Bias of Communication (Toronto: University of Toronto Press, 1951), Empire and Communications (Oxford: Oxford University Press, 1950); Ernst Posner, Archives in the Ancient World (Cambridge, Mass.: Harvard University Press, 1972); Marshall McLuhan, Understanding Media: The Extensions of Man (Toronto: McGraw-Hill, 1962), The Gutenberg Galaxy (Toronto: University of Toronto Press, 1962); Walter J. Ong, Orality and Literacy: The Technologizing of the Word (London: Methuen, 1982); Brian Stock, The Implications of Literacy (Princeton, N.J.: Princeton University Press, 1983); Frances Yates, The Art of Memory (Chicago: University of Chicago Press, 1966), "Print Culture," Encounter 52 (1979): 59–64; John Fiske and John Hartley, Reading Television (London: Methuen, 1978).

³For a good definition of semiotics, see T. O'Sullivan, J. Hartley, D. Saunders, J. Fiske, *Key Concepts in Communication* (London: Methuen, 1983), 210–12.

⁴Lister Sinclair, in *History and the New Age* (Toronto: Canadian Broadcasting Corporation, 1984), 1.

still depend, on memory and the spoken word accompanied by gesture and action to communicate with each other. "Primal languages are very special in that words are thought of as being sacred. The source of life is thought of as the breath which comes from the centre of one's being, from the area of the heart indeed."5 Words are action oriented. They do not modify, analyze, or describe in dependent clauses, but speak concretely about a world of the past in the present, a mythic presentation: "Time recorded biologically without being allowed to become history," in M. Eliade's brilliant phrase.⁶ All the wisdom of the old must be transmitted to the children in myth and Levi-Strauss's "science of the concrete,"7 which observes nature meticulously in terms of use, not deduction and abstraction. The emphasis on the user in these ancient patterns of speech was also evident in map making by native peoples in North America. Drawn on the ground or made with branches and twigs, they were ephemeral and dependent on memory, the remarkable preliterate data bank from which was retrieved only that which was required. D. W. Moodie has explained that "when a map was committed to media which affected its size, such as skins or bark, no attempt was made to fill in the entire space. Instead, detail was elaborated only where necessary Although Europeans frequently found these maps overly simple and often confusing, they were eminently suited to the overriding objective of most native cartography: to accentuate the environmental information salient to successful wilderness navigation."8 Retrieval from the automated record is likewise at its most effective when only that which is required is displayed.

A great deal of work has been done, particularly during the past twenty years, mapping the effects of written communication, including the materials on which they were written. Harold Adams Innis, a Canadian economic historian, moved from studies of the social and economic impact of the fur trade and the cod fisheries as staples that totally changed the environments of those they touched, to an examination of literate communication as a staple of administration and commerce.

The ability to capture and preserve human memory through writing most profoundly differentiated preliterate societies from those called "civilized." The phonetic alphabet, with its arbitrary signs so easily learned, separated those who used it from the concrete immediacy of the natural environment from which pictograms had been drawn; thoughts became interiorized, detached, analytical, having a life of their own and yielding to reason and logic, expressed, exchanged, and preserved through text. There is evidence to suggest that writing, as developed by the Greeks from whom westerners have derived so much intellectual baggage, is what causes literate persons to think historically, rationally, in a linear manner as they follow the serial communication from one line to another. For centuries this baggage has shaped minds and attitudes; writing has filled archives and almost monopolized paper forms of communication. Like fish, the heirs of Greece and Rome have swum in this water for over three thousand years and so are scarcely aware of it.9

Marshall McLuhan has pointed out that new media of record absorb older ones, as writing absorbs speech; print, writing; and television, old movies.¹⁰ The new medium

⁵Joseph Brown, in History and the New Age, 2.

⁶Quoted by David Caley, ibid., 2.

⁷Claud Levi-Strauss, *The Savage Mind* (Chicago: University of Chicago Press, 1968), 10–19.

⁸D. Wayne Moodie, "Native Mapmaking," in *The Canadian Encyclopoedia* (Edmonton: Hurtig, 1985), 294.

⁹For a recent series of articles on this theme, see David R. Olson, ed., "Understanding Literacy: A Symposium on the Psychological, Social and Educational Dimensions of Literacy," *Interchange* 18 (1987): 1–173.

¹⁰McLuhan, *Understanding Media*, ix.

is deeply distrusted until it becomes established and takes on a life of its own. Again, this is a factor in the impact of the record on process; consider, for example, legal suspicion of microfilm or the automated record as admissable evidence in courts of law.¹¹

Doomsday Book marvellously exemplifies the impact of literacy on a predominantly oral society which did not even speak the same language as the Norman "public servants." The administration of William I wanted to put together a kind of land registry, a vast land title record compiled from responses to a modern-sounding questionnaire. The richly varied world of Anglo-Saxon England, however, had no Latin equivalents for many of the terms used, to the dismay of the Norman officials who somehow had to ram them into their Procrustean bureaucratic bed, matching like with like. 12 The dream of "one word one meaning" is an essentially literate one which has kept lawyers wealthy and, in this case, has provided lifetimes of study for medieval historians. M. T. Clanchy has demonstrated clearly how many in medieval England felt written charters and other documents were greatly inferior as evidence to sworn testimony by witnesses. 13

Many charters of the early Middle Ages were seen essentially as pale copies, a photographic record if you like, of an event, which was an action involving flesh and blood people. The reality of a transfer of land might involve cutting a piece of turf and handing it from one party to the other before witnesses. The charter subsequently prepared was simply a memorandum. "Be it remembered that" or "know that" a ceremony has taken place and a transfer made, and sometimes the knife or a fragment of

the sod was attached. As the literate record became established, only then did the document become the sole instrument, an act in itself, to which seals and, later, signatures were attached. Earlier in this century, it was still customary when signing a legal instrument to place a finger on the little red spot (the vestigial seal) and declare "this is my very act and deed." "Acts" and "deeds" have remained in the vocabulary of parliament and the law, a reminder of their ancient preliterate origins and the power of new media to create new environments and new realities.

The English common law has kept alive the spirit of ancient oral custom over against written codes, and it is well to remember that the English bureaucracy grew out of the Courts of Chancery, Exchequer, Kings Bench, and the High Court of Parliament itself. These were all courts of record, where the ancient counterparts of "the people's evidences" were enrolled on parchment. These courts held the ultimate record of legal and administrative "acts," for which the copy has come to be seen as a parchment instrument secured at much cost, increased by the handwritten verbiage of common form and by delays in "moving" (affixing) the various seals. Each bureaucratic office as it was created became over time like a bee embalmed in amber and the King, when communication at a distance was required, had to devise new seals and new offices to expedite business in a process known as "going out of court." Monarchs, who could read but scorned to write, in turn devised the privy seal, the secret seal, and the signet in order to make medieval circumventions around those great monumental documents of the scribal age, the letters patent and letters close.14 Documents de-

¹¹Kenneth L. Chasse, "The Legal Issues Concerning the Admissibility in Court of Computer Printouts and Microfilm," *Archivaria* 18 (Summer 1984): 166–201.

¹²This is an oversimplified description. For a full account, see Vyvian H. Galbraith, *The Making of Doomsday Book* (Oxford: Clarendon Press, 1961).

¹³M. T. Clanchy, From Memory to Written Record, 208-12.

¹⁴For a general survey of the process, see S. B. Chrimes, An Introduction to the Administrative History of Mediaeval England (Oxford: Blackwell, 1966).

signed to speed process instead led to the creation of additional process. The Tudors circumvented the ancient Exchequer by developing the Treasury, because the accounting system was totally inadequate for planning in a future-oriented renaissance world. For over one hundred years, the telephone has been used to hasten process, but may have created, through lengthy follow-up memoranda, more paper than it eliminated.

Process on Paper

In the West, the availability of paper at a cost far less than parchment, coupled with the use of the signature over the seal, again altered documentary forms and process. The courts of record continued majestically on, some increasing in irrelevance with the passage of time. Only the courts and traditional administration retained the use of parchment; elsewhere, society began the love/hate affair with the paper record which has devoured it ever since, a demon lover bent on drowning its creators. The invention of printing provided, in effect, an office copier for blank forms, with the type faces (as in printed books) imitating the old text and set hands. Later, printed forms became more creative as the medium set its stamp on bureaucratic ingenuity and obfuscation. Meanwhile, the individualism of handwritten and signed paper documents created by an increasingly literate society rendered communication at a distance far more flexible. The newly emerging print culture-explosive, specialized, and fragmented-produced those private, wary, detached, and ruthlessly competitive public servants who gaze out of Holbein's portraits. 16 The medieval royal household built around conciliar decision making yielded to ministers with immense delegated powers heading up departments of government. Only recently has this pattern begun to reform into a renewed "household" management via inner cabinets, as information and events now move so much faster than paper.

In business, as in government, documentation on paper made the various operations increasingly specialized, from an extension of household management to the now familiar industrial bureaucracy. Chequer boards, slates, and tallies yielded to the double entry bookkeeping which became all but universal and essential for future reckoning and the deferred pleasures of Protestantism; but much of the old, more personal, less specialized approach lingered on until quite recently. As Graham Lowe explained:

The transition from the traditional oneroom office of the nineteenth century to the multi-departmental bureaucracy of the twentieth century was gradual. The small, informal counting house of the nineteenth century was staffed by a craftsman-like bookkeeper, perhaps assisted by an office boy and a junior clerk. The old office was also characterized by informal social relations, unsystematic administrative procedures, and a minimal amount of records. The bookkeeper was a generalist who learned his craft by apprenticeship. He retained much of his employer's office system in his head. Overall, a rule-of-thumb approach to management matters prevailed. The smallness and modest

¹⁵For a full account of the changing nature of bureaucracy in an earlier paper and information explosion created by the printing press and related factors, see Geoffrey R. Elton, *The Tudor Revolution in Government* (Cambridge: Cambridge University Press, 1959).

¹⁶In N. Machiavelli's *The Prince* (translated by W. K. Marriott with an introduction by Herbert Butterfield [London: Dent, 1958]), chapter 22 is titled "Concerning the Secretaries of Princes," which nicely delineates the ideal bureaucrat and how he should be managed. Government, in Machiavelli's eyes, was a work of art where the artist/administrator engineered certain "causes" to obtain, like brush strokes, the desired "effects" with a dedicated calculation so evident in the eyes of Holbein's sitters.

scale of activities characteristic of firms in late nineteenth century entrepreneurial capitalism thus required little in the way of sophisticated organizational structure, records keeping, and administrative planning.¹⁷

Douglas McCalla has noted that in small retail businesses, there might be two partners keeping a daybook and a ledger. Single proprietors often seem to have kept very primitive accounts as a supplement to memory of payments due. For farmers and artisans, the record was of day-to-day expenses and costs, closer in nature to a diary. The costs of planting and harvesting, and receipts from yields reflect the ancient cycle of the seasons as did the old financial year. 18 As a business grew and, with it, the fragmented need for separate sets of accounts for customers, employees, suppliers, branches, partners, capital profit and loss, and bad debt, the partners became increasingly remote from middle management; in short, they had to "go out of court" to expedite business, keeping only the capital and private accounts.

It is very curious and perhaps significant that, despite all the massive corpus of writing about management and administration,

so little attention has been given to the impact of the various records. 19 There has been no major study on how the nature of the printed and paper document has affected the conduct of affairs in business and the public sector, apart from those of the communications theorists. This, of course, is part of the problem of fishes and water referred to above.

Seymour Wilson asserts that decision making and the bureaucratic assumptions which underpin all policy making and administration are based on various aspects of rationality: the relation of means to ends and intentions to the effectiveness of various procedures; an objective understanding of human behavior as a means of describing, measuring, and ultimately manipulating it; the concept of authority based on the specialized, fragmented knowledge of the expert; the matching of events to precedents through rules and regulations to be understood relatively easily and used as templates and matrices to fashion acceptable human behavior.20 It is this kind of rationality which lies behind Luther Gulick's PODSCORB (Planning, Organizing, Directing, Staffing, Coordinating, Reporting, and Budgeting) as applied as much to the factory floor as the office.21 No wonder

¹⁷Graham S. Lowe, "The Enormous File': The Evolution of the Modern Office in Early Twentieth-Century Canada," Archivaria 19 (Winter 1984-85): 138.

¹⁸Douglas McCalla, "Accounting Records and Everyday Economic Life in Upper Canada, 1790-1850," Archivaria 21 (Winter 1985-86): 150, 153.

¹⁹The "Studies in Documents" series in Archivaria 20 (Summer 1985) onwards deals with "modern diplomatics" and explores the nature of records through history, their impact on government, and the impact of the principal media of record on society and hence the user. Several articles cited are from this series. In addition, the following articles approach records in a similar manner: Tom Nesmith, "Archives from the Bottom Up: Social History and Archival Scholarship," Archivaria 14 (Summer 1982): 5-26; JoAnne Yates, "Internal Communications Systems in American Business Structures: A Framework to Aid Appraisal," American Archivist 48 (Spring 1985): 141–58; Trudy Huskamp Peterson, "Counting and Accounting: A Speculation on Change in Record Keeping Practices," *American Archivist* 45 (Spring 1982): 131–34; David Bearman and Peter Sigmond, "Explorations of Form of Material Authority Files by Dutch Archivists," *America Archivist* 50 (Spring 1987): 249–53. Also valuable are Laetitia Yeandle, "The Evolution of Handwriting in the English Speaking Colonies of America," American Archivist 43 (Summer 1980): 294-311; Maygene Daniels, "The Ingenious Pen: American Writing Implements from the Eighteenth Century to the Twentieth," American Archivist 43 (Summer 1980): 312-24. I have relied heavily on the detailed researches of others and if I quote them generously, that is to give them their due.

²⁰V. Seymour Wilson, Canadian Public Policy and Administration: Theory and Environment (Toronto: McGraw-

Hill Ryerson, 1981), 8.

²¹Luther Gulick, "Notes on the Theory of Organization," Papers on the Science of Administration (New Wilson)

trained engineers occupied management positions and developed management systems. It is preeminently literate and, in its origin, was totally dependent on the document to capture and distribute the documentary record. Colonialism is the transnational form of bureaucratic development that often attempts to achieve the effects of private enterprise through purely bureaucratic arrangement and fiat. The old trading companies are an example of this, and indeed the East India Company stands behind the Indian Civil Service, which became the model later imported into Britain.

Before the emergence of gigantism, "the numbers game," and the massive accumulation of facts by nineteenth-century commissions, government was largely a family affair (at one point Canadians spoke of the "Family Compact") where men of influence, representing powerful interests, tried to make sense through debate and discussion and arrive at a conclusion. The emphasis was on oral exchange; clerical operations were relatively menial and ministers attended to all their own mail in person. With the growth of information flow, a theoretical, if not practical, division began to arise between those who handled, processed, and organized the enormous factual content of documented information and those who made sense of it for translation into decision making. In Britain, Lord Palmerston at the War Office was forced into this position after years of attention to minutiae,22 and the Colonial Office was gradually transformed through what is clearly the emergence of the "mandarin" buffering the minister from a flood of conflicting detail, the generalist with a first class humanistic background.23 The original mandarins, those Chinese scholar officials who acted as architects, engineers, teachers, and rulers of society, "were firmly opposed to any form of specialization. There was only one profession they recognized: that of governing." When the Indian Civil Service developed the principle, they were able to do so in an autocratic milieu uncomplicated by democratic government with its sharply conflicting points of view from fixed positions, which was to bring these administrators into collision at times with government and legislators in the West.

Moving from the macro, cultural level to the micro, operational level of business procedures and how documents are filed for the retrieval of information, the limits inherent in writing and typing on paper to some extent dictate the kind of policy which can be effectively pursued. As illustration, consider two departments of government and one trading house from Canada.

Bill Russell, author of an article on the Department of Indian Affairs (DIA) nicely titled "The White Man's Paper Burden," focused directly on documentation and process:

It is through their musings over the problems associated with *how* to maintain a records system that we see DIA administrators grappling with the questions of what they *kept* and why, and to a certain extent what they *created* and why. In their discussions on how best to cope with the functions of records classification, custody, control and disposal, they provide us with something of their perceptions of the value of their records and the purpose they served.²⁵

²²Henry Parris, Constitutional Bureaucracy (London: Allen and Unwin, 1969), 108.

²³Murray Young, *The Colonial Office in the Early Nineteenth Century* (London: Longmans, 1961), 189–92. ²⁴Etienne Balazs, *Chinese Civilization and Bureaucracy* (New Haven: Yale University Press, 1966), 16–17. In contrast to the flexible use of sources in the West, Chinese historiography required quotations from documents rather than summarizing them, and this also applied to bureaucratic methodology. Copying stifles the mind, favoring the letter at the expense of the spirit. "The magic of the word (the change of intrinsic and associated meanings carried by each written character) undoubtedly has a lot to do with it" Ibid., 16–17.

²⁵Bill Russell, "The White Man's Paper Burden: Aspects of Record Keeping in the Department of Indian Affairs, 1860–1914," Archivaria 19 (Winter 1984–85): 51. I have drawn extensively on this article.

The records of DIA bear witness to a clash of those oral and literate cultures discussed above. Russell quotes A. E. St. Louis, registrar-cum-archivist, writing in 1937:

We possess . . . in the Public Archives and in our own Department Archives an unbroken chain of chronological events relating to our Aborigines. . . . I wish to emphasize the fact that none of our papers can be classified as Indian legends or myths, but all of them bear the characteristics of historical monuments. . . . They contain an almost continuous record of our Indian wards' progress . . . all this related chronologically by our Superintendents, Inspectors, Agents, Farmers and lastly by those worthy representatives of the Church. . . . I feel that it is incumbent on the Department to preserve from decay the remembrance of what these men have done for its wards and these records should be kept intact for historical purposes as an example to future generations.26

Here is the perfect expression of a value system based on the phonetic alphabet, literacy, and print.

There arose a constant tension between local offices and a highly centralized DIA, which resulted in "slow communications with the field, tardy decision making and confused lines of authority." Backlogs were finally eased towards the end of the century by a file subject index and increased staff.

What were the general implications for documents and process? Russell points out that DIA was dominated by the historical perspective both culturally, through the notion of "progress" and "civilization" for its wards, and legally because Indian claims knew no statute of limitations and the early

records were vital, jealously guarded even from the Public Archives. As with many other departments, the early indexed filing systems allowed for the solution of limited, reactive problems but did not facilitate longterm planning based on coordinated information. This essentially was the principal limitation of the docket and letter book. Field office records were poorly kept; there was little bureaucratic standardization coordinated at the head office in the face of a native culture in which all this process must have seemed totally alien and irrelevant. The success of local agents was probably more the result of personal relationships with the tribes rather than paperwork.

Terry Cook, in his study of northern Canadian administrations and their records, reminds archivists that files and their titles can be deceptive. The created document's content will depend on the seniority and function of the individual creator within the process. The impact of various indexing and registry systems have to be assessed in relation to decentralization and local destruction.²⁷

The heavily geographical orientation of the Department of the Interior with its jurisdiction over natural resources found a powerful tool in the patterning of information through maps and similar aids in the 1870s. Topographical registers were assembled on a geographical basis. Subject files were created which allowed for active planning compared to the passive registration of earlier times and a more reactive, laissez-faire attitude to exploration and development.28 The records created by the department have a modern, sophisticated style appropriate to an environmental approach, albeit a rudimentary one, since its general objective was settlement and exploitation. Moreover, as new branches and departments were created around the settle-

²⁶ Ibid., 52.

²⁷Terry Cook, "Paper Trails: a Study of Northern Records and Northern Administration, 1898–1958" (Typescript; to be published shortly).
²⁸Ibid.

ment of the West, the record series became fragmented in an age of primitive copying systems. Cook warns, however, that:

Administrative policy and operational decisions were obviously not driven exclusively or even primarily by departmental records-keeping systems. In the first place, the degree to which policy is formulated at all by recourse to records can only be assumed, not yet demonstrated conclusively. As well, the role of other information sources (conversations, informal notes, senior officials' personal files) vis-á-vis the formal records-keeping system in developing policy has not been investigated.... Despite these qualifications, better knowledge of social bookkeeping systems in the pasttheir inherent biases, the characteristics of the data they collected, their shifts and changes over time-remains essential to evaluating the information contained in those systems for most research purposes.29

Finally, let us glance at the Hudson's Bay Company as it changed from merchant venturing activity based on the fur trade, with its officers, factors, and commissioners—generalists who had administered not only trade, but integrated a land and society. The magnificent records of the company now housed in Winnipeg bear witness to an oral, scribal subculture amongst its servants, with strong traditions of communication behavior sharply at odds with the new retail business being developed in the 1880s and 1890s. The commissioners of that era sought to introduce printed forms

in addition to the servants' contracts which had been in use since the eighteenth century.30 The three thrusts of company business-land, fur trade, and sales shop-were strictly rationalized into departments based on function rather than geography. More and better information now arrived at headquarters in shorter time through the use of loose printed forms for standard transactions at fort, district, and departmental level. By 1900, twenty main file groups became the basis of an alphanumeric filing system. "The records system shows the need for constant communication on a wide variety of topics associated with the operation of a successful commercial enterprise. It underscores as well the relationship of this communication with an effective transportation network,"31 explains Mark Walsh.

The company now operated not with lake boats and pack trains, but steamers and steam trains, the telegraph and the telephone, demanding much faster transmittal of information for decision making and putting a premium on facts and news rather than editorialized opinion (witness the change in appearance of newspapers, which became a simultaneous mosaic of information under a date line). Business, likewise, required rapid transmission of facts and, like government, was set on a path of frantic speed-up: "The tendency of electric media is to create a kind of organic interdependence among all the institutions of society, emphasizing de Chardin's view that the discovery of electro-magnetism is to be regarded as 'a prodigious biological event.' "32 This is what the old order of railway age and industrial bureaucracy had to contend with after the turn of the twentieth century, resulting in a frantic output of paper documents prior to a flip and re-

²⁹Ibid.

³⁰For this section, the author is indebted to Mark Walsh, "By Packtrain and Steamer: The Hudson's Bay Company's British Columbia District Manager's Correspondence, 1897–1920," *Archivaria* 20 (Summer 1985): 127–35. This is the first of a series of articles in *Archivaria* which examines the record in the context of use and impact rather than content.

³¹Ibid., 132.

³²McLuhan, Understanding Media, 218.

versal, which is beginning to take effect as computer printout gives way to electronic mail and there is increased use of terminals to access data bases without recourse to paper. Many subject filing systems contained the folder "telegrams." Perhaps there was even then an unconscious awareness that the medium was the message!

In the context of documentation, early attitudes to the typewriter are quite revealing.33 It was, of course, a "typewriting machine," combining two media in the first word and reiterating its mechanical, industrial origin in the second. Initially, commerce regarded the hand-written letter as more effective and personal. When finally adopted, typed letters retained all the phraseology of scribalism including the ubiquitous "humble and obedient servent." In addition, the typewriter and the carbon became a powerful ditto device banishing the letter book and filling the files. Like print, the machine's output was uniform, homogenous, so that personal letters too were robbed for a while of spontaneity; type requires correct form and spelling according to the iron law of the printing press. The original "type writers" were the operators, the hundreds of thousands of women who, in G. K. Chesterton's phrase, "'refused to be dictated to and went out and became stenographers.' "34 They became a part of their machines as an extension of their fingers and so merged with them until "typist" was devised. By then, the habit of dictating letters, especially into dictating machines, rendered the modern letter somewhat more relaxed and verbose in style. But even these gently persuasive sentences have now become common form, as suitable paragraphs are selected from floppy discs. That flattering three-page letter from the public official in reply to a special interest protest by now should deceive no one.

The adoption of the telephone seems to have increased the work of the typist, since,

contrary to conventional wisdom, the record of countless phone calls survives in public records at least through follow-up memoranda and correspondence. Those highly confidential phone calls that leave no trace upon the record probably would have once been conducted face to face behind closed doors. The loss of the record may not be all that great.

Above all, it was the telegraph and telephone that began to break down the transmission of information up and down the bureaucratic pyramid, and consequently the formal structure of documentation. The combination of the oral message amplified and speeded up by electricity, with no other authority but that of knowledge required at that moment, broke into every level of the hierarchy and hastened the "ad hoc-racy" of task forces and similar groups. The production line began to crumble, and the dots appeared on the organization chart. The retreat from the formal literate record had begun.

Information Overload and the Retrieval of the Archivist

This article has been restricted to consideration of the textual record in its many forms; to stray beyond these limits would extend the discussion too far. Texts must now be pursued to the point of departure from hard copy, to suspension within the computer. The disembodied sounds and voices over the radio and the power of these vibrations to persuade are, of course, familiar, as is television with its own set of compulsions and insistent language. Automation, despite the limitations of its language, ushers its users into a world of increasing personal choice as they develop patterns of command over constantly changing configurations of data. This is very disturbing to persons brought up on assimilation processes associated with paper documents.

³³Much of this on the typewriter and the telephone is from McLuhan, *Understanding Media*, 227–40. ³⁴Ibid., 228

We archivists now grope about in the world of Sherlock Holmes's dog that didn't bark, where the comfortable old connections and relationships between sources of information no longer exist, where—like the great detective—we must rid ourselves of preconceived approaches and assumptions if we are to avoid the blindness of bureaucratic experience. As Marshall McLuhan and Barrington Nevitt have explained:

There are, in fact, no connections in the material universe. Einstein, Heisenberg and Linus Pauling have baffled the old mechanical and visual culture of the nineteenth century by reminding scientists in general that the only physical bond in Nature is the resonating interval or 'interface.' Our language, as much as our mental set, forbids us to regard the world in this way. It is hard for the conventional and uncritical mind to grasp the fact that 'the meaning of meaning' is a *relationship*: a figure-ground *process of perpetual change*.³⁵

The significance of speech changed when writing became widespread, and likewise the significance of writing changed when print dominated the scene. Now automation has changed the individual's relationship with writing and print. For example, a user can (or will soon) retrieve from text, not a whole book or serial, but only that portion needed. If the wheel is considered as an extension of one's feet and the pen as an extension of one's fingers, then automation, which opens up exposure to information traveling at the speed of light from all directions, almost at once becomes, as McLuhan argues, an extension of one's nervous system. No wonder people are disturbed, anxious, and uncertain. They can see the wood, and the trees, and the space between them all at the same time; this is rather frightening.

Archivists speak of machine-readable records and perhaps are comforted by that nice old word "machine." As with other media, the content is that of its predecessor. The computer starts in the guise of a rather fast mathematical engine. It replaced paper accounting records and now absorbs vast quantities of text (much as printing absorbed manuscript books and televisions absorbed old movies) with what could become almost limitless capabilities of retrieval. A "machine" in the generally acceptable sense, the computer most certainly is not.

What are the implications for the administrator, the creator of documents? The old hierarchies are crumbling. Specialized operations are eliminated in the clerical field. Since communication through on-line, interactive transmission reintroduces old oral, preliterate patterns of communication, many familiar forms of record will go into a state of flux, and many classes of documents at the operational level will disappear altogether. There is still a vast hangover of paper, but that is a kind of super-nova paper explosion before the flip into largely terminal activity—not in its sense of finality, although that is a very real danger if international fears are not overcome in other fields of automation.

The whole approach to social organization and management is taking a distinctly biological, rather than historical, turn. The continuity of man and nature is now seen more clearly. There is less inclination to desacrilize nature through the concept of mankind as lords of creation. Patterns rather than causes leading to effects are sought; the constructive interval within paradox which does not necessarily have to be resolved is appreciated. ³⁶ Flexible, "organic/

³⁵Marshall McLuhan and Barrington Nevitt, *Take Today: The Executive as Dropout* (New York: Harcourt Brace Jovanovich, 1972), 86.

³⁶Kim S. Cameron, "Effectiveness as Paradox: Consensus and Conflict in Conceptions of Organizational Effectiveness," *Management Science* 32 (1986): 539–53.

adaptive" organizational structures are being built around problem solving through cooperation and consensus.37 Involvement, participation, and autonomy are likewise stressed. The old assured recipes for a successful organization no longer hold, but are subject to circumstance as administrators learn to live with both uncertainty for want of the right data, and equivocality arising from organizational ambiguities and the failure to ask the right questions.38 Quantum mechanics is showing that an element of uncertainty and subjectivity may be present at the heart of science and of life itself.39

What is the archivist's role in all this?⁴⁰ Surely, the life cycle theory of records retention and destruction is no longer appropriate in its original form.⁴¹ Far from being a cycle (unless the paper is recycled), the progression through administrator to records manager and thence to the archivist is the old linear, fragmented, production line process. If the record is to be of maximum value to the administrator and, where appropriate, to the general public as user, then archivists must be far closer to the point of creation and original use. They must thoroughly understand the strengths of the various media as records and the needs of users. They must help to shape the forms of information capture and retrieval systems of value equally for the present as for the future. It is possible that archivists will find solutions to problems through a closer study of the way in which the information-rich, basic forms of life-the genes, chromosomes, the DNA double helix, and the organic transactions present in sustainable agriculture—retrieve what they need when they need it.42 Is this the end of that subject/object split which literacy engendered and where "history" began? A deeper exploration of the relationship between myth and history is needed. 43 Will the postliterate, postindustrial society place the same value as archivists on all the vast accumulation of records, most of which are already self-destructing?44 Archivists need to wrestle with this now. A beginning has been made as we study retrieval of information in relation to the nature and purpose of the record, with less emphasis on the hierarchical level in an administrative structure and more on the process inherent in the record. Bearman and Lytle have recognized this and criticized the limitations of the record group, which "imposes the intellectual constraints of a physical shelf order system."45 The shelf is, after all, the line, page, and book writ linear—hangover from print culture. These authors' empha-

³⁷Warren G. Bennis, "Organizational Developments and the Fate of Bureaucracy," in Perspectives on Public Bureaucracy, ed. Fred A. Kramer (Cambridge: Wintrop, 1981). Bennis first used the term "ad hoc-racy." ³⁸Richard L. Daft and Robert H. Lengel, "Organizational Information Requirements, Media Richness and Structural Design," Management Science 32 (1986): 554-71.

³⁹Fred Hoyle, *The Intelligent Universe* (New York: Holt Rinehart and Winston, 1983), 201–09. ⁴⁰See also, Taylor, "The Medium of Record," 1–10.

⁴¹Jay Atherton, "From Life Cycle to Continuum: Some Thoughts on the Records Management-Archives Relationship," Archivaria 21 (Winter 1985-86): 43-51.

⁴²These ideas were suggested by the reading of Fred Hoyle's *The Intelligent Universe* cited above.

⁴³For further thoughts on the relationship between archivists, historians, records managers, documents, and information, see also Hugh A. Taylor, "Information Ecology and the Archives of the 1980s," Archivaria 18 (Summer 1984): 25-37; and a sequel (following a long published discussion by others in *Archivaria*), Hugh A. Taylor, "Through the Minefield," *Archivaria* 21 (Winter 1985-86): 180-85. A most interesting article, William H. McNeill, "Mythistory, or Truth, Myth, History and Historians," has been published in the American Historical Review 91 (February 1986): 1-10; So far as I know, it is the first of its kind by a historian in a historical journal and indicates an emerging interest.

⁴⁴The terms "postliterate" and "postindustrial" have a respectable academic validity, although their meaning is open to discussion; see David Lyon, "From 'Post-Industrialism' to 'Information Society': A New Social Transformation?" Sociology 20 (1986): 577-88.

⁴⁵David A. Bearman and Richard Lytle, "The Power of the Principle of Provenance," Archivaria 21 (Winter 1985-86): 20.

sis on form and function, from which content can to a large extent be inferred, is pattern recognition in the face of overwhelming information fallout rather than a hopeless concentration on subject indexing of content. Bearman and Lytle offer instead a subject inference concept, the objective of which is "to capture the full richness of provenance information—the structures, processes and activities of organizations and to make routine the inferential process which permits one to locate information which has been or is being created by organizational activities. The power of the system will be to retrieve present as well as past information created by organizations; in fact, extrapolations to information yet to be created could be made within certain constraints."46 Finally, Bearman and Lytle assert that "archivists hold the key to provenance information becoming a major tool for management of all resources in modern organizations."47 This, they may agree, supports the view of an archival presence close to the point of records creation. Yet "in every field of study and research at present, the incidence of insight and new knowledge surpasses every means of systematic retrieval."48 The gap between document creation and the information retrieval process is closing, however.

At the microcosmic level, Clark Elliott, after examining a short series of letters, has proposed consideration of inductive classifications through observed functions performed by the various letters. 49 "Archivists," he writes, "are very seldom concerned with the nature or function of individual documents." In this, he is in line with Bearman and Lytle. The environment of the document is not a passive container of "content," but active processes

in the manner of preliterate words, designed for action, not analysis. A final example is illustrative: persons in special interest groups send letters to their legislative representatives by way of protest or petition. Their impact is not assessed by the recipients on the basis of *content* but on the *action* of writing the letter or sending the telegram. The very act and effort of writing a letter indicates a body of opinion with a "body count" of about two hundred. Printed cards are much lower; telegrams, telephone calls, and hand-written letters are higher. Our preliterate forebears would surely understand this.

Increasingly, the act or decision which informs the conduct of affairs grows closer in time to the document that records it. The specializations of form and technology become blurred as manuscript, typescript, and letterpress now find their modern expression in a flurry of photocopies, offset printing, and desktop publishing. The concept of an "original" becomes increasingly elusive and could almost disappear. Electronic communication, especially in its interactive mode, can become a continuous discourse without trace, as both act and record occur simultaneously with little or no media delay or survival. Words once again become action oriented. Surely this requires much thought and understanding on the part of the archivist working closely with colleagues in the communication field.

This article has attempted to present the relationship of communications technology to certain classes of archives, and its impact on the user who may also be the archivist. Several disciplines have provided a range of insights in mosaic form, analogous to synchronic discussion rather than diachronic research. Statements may sound

⁴⁶Ibid., 25.

⁴⁷Ibid., 27.

⁴⁸McLuhan and Nevitt, Take Today, 105.

⁴⁹Clark A. Elliott, "Communication and Events in History: Towards a Theory for Documenting the Past," *American Archivist* 48 (Fall 1985): 357-68.

⁵⁰Ibid., 361.

more assertive than tentative, but this is intended to avoid tedious modifiers in an ambience of suspended judgment, as thoughts swarm over the subject in a non-specialized way to let the light in and perhaps reveal some fresh approaches. This is

not the path of painstaking research, which has its place, but rather of "organizing ignorance for discovery" which, in a preliminary essay of this kind, may be more appropriate.

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⁵¹B. Nevitt, The Communication Ecology (Toronto: Butterworths, 1982), 149-72.