

The Legal Issues Concerning the Admissibility in Court of Computer Printouts and Microfilm

by KENNETH L. CHASSE

Introduction: Records Management and Data-Processing as a Distinguishable Field of Law

There are five main propositions in this paper. First, the records management and data-processing industries and professions in Canada have insufficient input into the creation of laws of evidence which govern the admissibility of business and government documentation in court proceedings. The federal and provincial governments are presently reviewing their Evidence Acts because reform of this legislation is at an advanced stage of development after ten years of law reform proposals. Now is the time for the business and government records management community to advise the Minister of Justice and the provincial Attorneys General on how the laws of evidence can serve their needs. This paper will provide the records manager or data-processing specialist with a legal framework for that purpose.

Secondly, the law at present does not provide adequately for the admissibility of computer printouts and microfilm documentation. While it is uncertain whether computer printouts are admissible under all of the Evidence Acts of Canada (the *Canada Evidence Act* and those of each of the provinces and territories), the admissibility of microfilm documentation is merely discretionary and is treated as second class evidence to paper originals. Similarly, the law does not adequately specify the criteria that should be used for judging the reliability of computer-produced and microfilm-produced documentation.

Thirdly, Bill S-33, a proposal to rewrite the *Canada Evidence Act* (given first reading in the Senate on 18 November 1982, and to be reintroduced in 1984) will remedy a few of these problems, but not the major ones. It will clearly establish computer printouts as admissible business documents, and microfilm documentation will become as admissible as traditional paper original documentation is at present. But Bill S-33 perpetuates the major defects of the current federal and provincial Evidence Acts and fails to set out the criteria that courts should use in evaluating the reliability of computer-produced and microfilm-produced documentation. Instead, it continues the law's reliance upon the same few, vague, undefined legislative phrases which have caused the courts across the country to produce conflicting decisions and which give inadequate guidance to records managers as to what will be required by the courts in future cases.

Fourthly, there is a need to develop records managers and archivists who can qualify as expert witnesses in relation to documentary evidence. The proof of all business documents in court proceedings would be greatly facilitated if the foundation evidence used to gain admissibility for such documents could be accepted as expert opinion evidence, rather than using the hearsay rule exception as to business documents alone.

And finally, the rules governing the admissibility of business documents (including computer printouts and microfilm) should not hinder other developments in the field of record-keeping. Eleven separate areas of legal and technological development concerning records and the records manager can be identified. Therefore, the federal and provincial governments, along with the business community, should establish a national body charged with the duties of licensing records managers, declaring standards of records management and data-processing, and integrating these eleven areas of reform so that they do not conflict by going separate ways. At present, there is little coordination of the activities of records managers and the data-processing industry with the activities of courts and lawyers.

Until recently, the rules of evidence were only one of three legal problems magnifying the cost and inefficiency of business record-keeping. The other two were retention periods dictated by legislation, and retention of documents dictated by Revenue Canada. But recent actions by the federal and provincial governments may well remove these two problems, leaving the rules of evidence as the main hindrance to allowing business record-keeping to take full advantage of computer and microfilm record-keeping. Revision of these rules is therefore urgently needed. But such revision must be compatible with other recent developments in records management: the indispensibility of computers to business and corporate survival; the electronic transfer and registration of ownership; fully automated records management; a complete dependence upon electronically recorded data; transborder data flow; computer crime and the need to develop security against penetration; advances in computer-related technologies such as disk storage, automatic indexing, and computer output microfilm; freedom of information; protection of privacy; the standardization of statutory document retention periods; and the publication of National Standards of Canada for microfilming procedures. The total is eleven areas of development, all of which concern record-keeping and the records manager. There is a need, therefore, to professionalize the records manager and to view these eleven areas as part of a single field of law — the law of records management and data-processing. We could thus reduce the number of “data guardians” and “computer ombudsmen” that a fragmented and separate development of these eleven areas would bring knocking on the corporate door.

The advantage of this integrated approach to records management and data-processing is that, by having professional records managers, it facilitates an appeal to the law of expert evidence. That is a more complete and less complex solution than trying to specify, by means of special statutory business document provisions, the conditions that will assure the reliability of the information in business documents. The courts are well practiced in receiving and testing the evidence of experts, but they have hardly begun to understand the procedures of records management and data-processing. Therefore, the federal and provincial governments, along with the business community, should establish a national body charged with the functions of licensing records managers, and with the duty of

declaring standards for records management and data-processing. There is a need for a national licensing and advisory body that can integrate the eleven areas of reform activity that affect records. But until we have such expert witnesses, it is necessary to rely upon the awkward mechanisms of the hearsay rule and its business-document exceptions in the law of evidence.

A further concern in this paper is the recommendations for business records and computer printout admissibility contained in Bill S-33, a proposal of the Minister of Justice, considered by the Senate last year, to enact a new *Canada Evidence Act*. That proposal will be reintroduced into the Senate in 1984 as a new bill. When it is enacted, it will be the model for reforming the provincial and territorial Evidence Acts and Ordinances. Bill S-33 proposes the preservation of the present traditional business-document approach.¹ The mechanism used by these overly simple provisions involves setting only a single, vague principle by which to govern admissibility and reliability, that is: was the document created in "the usual and ordinary course of business?" Thus a low threshold of admissibility is established, an unfair burden is cast upon the party who opposes admissibility to show why the documents being adduced are unreliable rather than upon the adducing party (being the party in control of the system that produced the documentation in question) to first show the reliability of the records system as a condition-precedent to admissibility.

My objection to this approach is based on the argument that, as judges and lawyers become familiar with the present methods of record-keeping and data-processing, the law will become fragmented into inconsistent decisions as to the necessary conditions-precedent for admissibility, and trials will become longer because of the need to thoroughly examine each record-keeping system before admitting its documents into evidence.² Traditional legislation based upon our experience with paper original record-keeping systems is therefore inadequate for computerized record-keeping systems.

My thesis is that it is far better to set into our Evidence Acts the basic principles essential or inherent to the reliability of any computerized record-keeping system — i.e., to itemize the principles which should be part of the "usual and ordinary course of business" of such systems — instead of merely stating that the records that they produce should be kept in the "usual and ordinary course of business" without defining that phrase. Our Evidence Acts require a greater detailing of record-keeping principle, and will then "occupy the field" or "pre-empt the field" by preventing a continuation of the present process of fragmenting legal principle. This fragmentation is caused by conflicting court decisions which in turn are caused by vague statutory language. Vague language such as "a record made in the usual and ordinary course of business" gives rise to many possible interpretations. Each judicial interpretation must skew this vague statutory language to meet the particular, unique set of facts that the parties before the court have decided to present and to arbitrate a forced choice from among persuasive, but adversarially-biased arguments presented to the court.

1 See, for example, s. 30 of the *Canada Evidence Act*, s. 48 of the *British Columbia Evidence Act* and s. 35 of the *Ontario Evidence Act*.

2 That process has already begun — see below the discussion of the decision of the Ontario Court of Appeal in *R. v. McMullen* (1979), 47 C.C.C.(2d) 499.

Consider the following examples of the present fragmentation of legal principles brought about by court decisions (cited below) produced by judges who have to cope with our inadequate Evidence Acts. In the extracts from these statutes which follow, one can see the legislative language which has given rise to these conflicts of judicial opinion. One court finds that our present statutory language requires that admissible records need only be made by a person under a "business duty" to make such records, but another court holds that the supplier of the information recorded, as well as the maker of the record, must have been acting pursuant to such "business duties." One court declares that it is sufficient if the making of the record was part of the ordinary routine of the business, but another holds that not only the making of the record but also the events being recorded must be part of the business routine. One court looks for contemporaneity between the making of a record and the events recorded as part of the "usual and ordinary course of business," while another court never considers contemporaneity. One court declares that records are inadmissible because of the interest or bias of the maker of the records, while another court decides that such a requirement is not to be read into the statute. One court looks to the original entry into the data base as being the necessary "original" record, while another court says that the computer printout can also be considered to be the "original" even after the computer's memory has been purged. And courts in the United States distinguish between computer-created or generated information and mere computer-stored original facts. Canadian courts, however, have not yet recognized that a record produced by a computer programme is often more analagous to a statement of opinion than to a pure statement of fact: that is, it may require verification by expert opinion evidence and supporting foundation facts. Moreover, there is uncertainty whether our Evidence Acts allow for statements of opinion in the form of business documents, particularly when those statements of opinion come from electronic data-processing. And while one court finds that the admissibility of computer printouts into evidence requires as a condition-precendent a detailed examination of the computerized record-keeping system which produced them, another court foregoes its own examination in favour of an expert witness.

The judicial process of case-by-case decision-making is a very poor process by which to develop binding, uniform principles for records management and data-processing. A statute which sets out the accepted principles of computerized record-keeping prevents a haphazard development of case-law principle in the courts. The statute establishes the main principles; the courts fill in the details in between. An individual case is a good vehicle for establishing a principle to govern a particular set of facts, but it is a poor vehicle for establishing a major, dominant principle which is to govern many cases, *unless* that individual court case has been preceded by many court decisions (case law) that it can draw experience from in drafting that broad, dominant statement of principle. We do not now have a large volume of court decisions which have analyzed computerized record-keeping, and it will take decades for Canada, because it is a small country, to develop a sufficient body of case law from its courts. (The present business-document provisions have been in the Evidence Acts for more than fifteen years and they have produced only a small handfull of published court decisions.) Also, a statutory pronouncement of principle allows a much greater input by the record-keeping and data-processing industry and professions (if they wish to advise on the content of such legislation) than it does any group of court cases. For these reasons, our Evidence Acts should "occupy the field" by imposing the authority of a statute, thus preemptory removing

the effectiveness of arguments which are not incorporated into the principles of the statute. Such legislation could facilitate the development of industry standards for computerized record-keeping and data-processing and prevent our having to endure a long period of conflicting court decisions until the rules of admissibility are finally decided by the provincial Courts of Appeal and by the Supreme Court of Canada.

Statutory provisions such as section 30 of the *Canada Evidence Act* should no longer be used. The business community and the courts need a more structured and detailed statement of what principles courts will apply in determining the admissibility of, and the weight to be given to business documents in general and computer printouts in particular. The interests of the business community in this law reform process are as important as those of the litigation lawyer. Other countries have enacted special provisions for the admissibility of computer printouts in court proceedings. They recognize that computerized record-keeping systems are different from traditional paper record-keeping systems. And not only do they accept computer printouts as a special case requiring special provisions apart from those which govern traditional business documents, but they also are much more detailed in their specifications as to the criteria courts should use in judging the worth of the printouts coming from a computerized record-keeping system.

This paper therefore proposes to take issue with the legislative approach to computer printouts taken by the Evidence Acts in Canada and by Bill S-33, by comparing them with legislation from other countries. The criteria that are specified for computer printouts in our Evidence Acts determine the rules that are applied to documentary evidence in court proceedings and they should therefore incorporate the basic principles for the design of record-keeping systems. The records manager, the archivist, and the data-processing specialist should be as much involved in the decisions as to whether we are taking the right legislative approach to how we determine what computer printouts are used in court proceedings as are the judge and litigation lawyer.

The Evidence Acts in Canada

The "business document" provisions of the Canada, British Columbia, and Ontario *Evidence Acts* (hereinafter referred to as CEA, BCEA, and OEA: the Evidence Acts of the other provinces and territories use similar language) establish exceptions to the rule which bars hearsay evidence from being admitted into court proceedings. Without them, most business documents could not be accepted into evidence because they are hearsay, that is, they do not constitute evidence given by a person having direct personal knowledge of the facts and events they contain. A records manager giving evidence about records dealing with matters in relation to which he does not have direct personal experience or knowledge, for example, is introducing hearsay evidence. If the record was made by a person who had such direct personal knowledge, it is said to contain single or first-hand hearsay. If the record was the end product of a system whereby information is transferred from hand to hand before it was thus recorded, it is said to contain multiple hearsay. The business document provisions allow business and government records to become evidence in court proceedings if the conditions-precendent to admissibility which these provisions set forth are satisfied. It is the legislative language which establishes these conditions-precendent and which establishes the factors the court is to consider in determining the weight to be given such records that has given rise to the judicial interpretations

which make up our conflicting case-law. These provisions contain the critical words which have given rise to conflicting opinions on such key issues as the "usual and ordinary course of business;" contemporaneity in recording facts and events; imposing a business duty upon the supplier of the information recorded and upon the maker of the record; single or multiple hearsay; statements of opinion or bare facts only; the absence of a motive to misrepresent (i.e., disproving interest or bias); the "circumstances of the making of the record;" and what is an "original" record and what is an acceptable copy or duplicate: can microfilm be an original or must it be regarded as a copy which always requires proof of its original? The important fact to be kept in mind when reading these business document provisions (s. 30 CEA, ss. 47 and 48 BCEA, s. 35 OEA) is that the issues cited above represent a list of basic questions which our courts have not yet clearly decided. They therefore dominate decisions as to the admissibility of computer printouts, as well as of business documents in general.

The Inadequacy of the Criteria used in the Evidence Acts for Computerized Record-Keeping Systems

The words "computer," "printout," and "data-processing" are not adequately used in our Evidence Acts. There are as yet no special provisions in the Evidence Acts in Canada for computer printouts, even though the admissibility and evidentiary weight of computer-produced documentation is governed by these business-document provisions. (There are separate provisions for the records of banks, but those provisions also contain insufficient references to computer printouts or to data-processing. Admissibility and weight are subdivisions of the less precise term "reliability.") As a result, the following five major issues or questions exist in relation to computer printouts. Are computer printouts admissible under all of the federal and provincial Evidence Acts? What are acceptable "circumstances of the making of a record" for a computerized record-keeping system? (This phrase appears in almost every Evidence Act in connection with business documents.) Does the opening phrase of section 30(1) CEA, "Where oral evidence in respect of a matter would be admissible," limit section 30 to single or first-hand hearsay? (If so, most business records would be inadmissible.) Again, subsection 30(6) CEA directs the court to consider "evidence as to the circumstances in which the information contained in the record was written, recorded, stored, or reproduced." Does this wording mean that any particular circumstance of the recording, storage, or reproduction of a record can be used to justify its exclusion from evidence or does section 30(1) dominate so as to make any record made "in the usual and ordinary course of business" admissible regardless of any individual circumstance? And finally, are the BCEA and OEA limited to computer-stored facts because the dependence of these provisions upon such words as "fact," "act," and "event" means that computer-created information (that is, the product of data-processing) is not admissible under these provisions?³

With no decision on such fundamental issues in relation to something as important as the computer, it cannot be said that the present law of evidence is serving business and government record-keeping well. The current process of reform

3 For comparison, note that s. 30 CEA uses the broader word "matter" and the U.S. *Federal Rules of Evidence* refer expressly to "data compilation," "opinions," and "diagnoses" — see Rule 803(6) reproduced near the end of this article.

of the law of evidence is urgently needed, but I contend that Bill S-33 is an inadequate answer to the legal issues set out above. Until this process of law reform is completed, lawyers must rely upon what sparse guidance existing case law gives in order to advise records managers as to what they must do in their offices and what they must be able to say in court in order to ensure that their records become admissible evidence. The present standards or issues of reliability used by the rules of evidence in Canada in relation to business and banking documents are listed below, although not all of them are applied together in every case, nor are all expressly referred to in all of the Evidence Acts. The citations of the more important court cases and law journal articles are set out in relation to each of the following major issues as footnotes:

(1) *Usual and ordinary course of business.* Records admitted into evidence are records which have been made in the "usual and ordinary course of business," but that phrase is not defined in the Evidence Acts. For example, should it be given a subjective or objective definition?⁴

(2) *Contemporaneity.* Admissible records are those that have been made contemporaneously with (or reasonably close to) the events to which they refer. Section 30(1) of the CEA would allow an interpretation of contemporaneity to be imposed by means of the phrase "usual and ordinary course of business," and section 30(6) CEA would allow a court to impose its own views as to the need for contemporaneity by the power it gives the court to investigate in each case the total "circumstances in which the information contained in the record was written, recorded, stored or reproduced, and draw any reasonable inference from the form or content of the record." Section 48(1) of the BCEA and section 35(2) of the OEA require contemporaneity because of their respective phrases: "at the time it occurred or within a reasonable time after that," and "at the time of such act, transaction, occurrence or event or within a reasonable time thereafter."⁵

(3) *Personal knowledge or first-hand hearsay.* Records that are created by persons having personal knowledge of the facts recorded, or by persons who are close to and can readily identify the sources of such recorded information, have greater weight in court than records created by persons having only second-hand or multiple hearsay information; section 30(1) CEA can be argued to be limited to first-hand hearsay because of its opening phrase, "Where oral evidence in respect of a matter would be admissible in a legal proceeding." Section 48(2) BCEA and section 35(4) OEA state that lack of personal knowledge in the making of a record can be shown to affect weight, but "such circumstances do not affect its admissibility."⁶

4 Refer to ss. 30(1) & 29(2) CEA, ss. 48 & 36 BCEA, ss. 35(2) & 33(3) OEA; and see *Setak Computer Services Corp Ltd. v. Burroughs Business Machines Ltd. et al.* (1977), 15 O.R.(2d) 750 (Ont. H.C.); and *Aynsley v. Toronto General Hospital*, [1968] 1 O.R. 425 (Ont. H.C.).

5 See *Setak Computer Services Corp Ltd. v. Burroughs Business Machines Ltd. et al.* (1977), 15 O.R.(2d) 750 (Ont. H.C.).

6 See Ontario Law Reform Commission, *Report on the Law of Evidence* (1976), p. 185; J.D. Ewart, "Documentary Evidence: The Admissibility of Documents Under Section 30 of the Canada Evidence Act," *Criminal Law Quarterly* 22 (1979-80), p. 189, 195; *R. v. Grimba and Wilder* (1978), 38 C.C.C.(2d) 469,471 (Ont.Co.Ct.).

(4) *Duty to record and supply the information recorded.* Records created by persons who are under a duty to make such records and which contain information supplied by persons who were under a duty to supply that information.⁷

(5) *True copies.* If copies of records are used, the "original" must be readily available with the copy.⁸

(6) *Facts only; not opinions.* Admissible records should contain only statements of recorded facts and not opinions or compilations based on facts, unless the person who formulated that opinion or compilation is called as a witness. It is thus more difficult to get computer-generated data admitted into evidence than to get computer-stored data admitted.⁹

(7) *Absence of motive to misrepresent.* Evidence of the existence of a motive to misrepresent on the part of the person supplying the information or the person making the record has been held to justify exclusion of business documents.¹⁰

(8) *Investigation of the "circumstances of the making of the record."* The Evidence Acts direct the courts to a consideration of the "circumstances of the making of the record," or to the "circumstances in which the information contained in the record was written, recorded, stored or reproduced," but no guidance is given as to what are acceptable "circumstances of the making."¹¹

(9) *Internal accountability.* The organization producing business documentation is the source that created the documentation, that is, the records of an organization were created by the organization itself, internally and under the supervision of members or employees of that business organization. In contrast, computer communications allow record-making and bookkeeping services to be done outside the business which will be said to own the resulting records. The employees of that business alone therefore will not be able to supply the foundation evidence for admissibility of their own records. Internal accountability has not yet been discussed in the reported cases, and the factor of external computerized record-keeping or bookkeeping does not appear to have been an issue in those decisions.

7 See *Re Watson Properties Ltd.* (1978), 17 O.R.(2d) 328 (Ont. H.C.); *Setak Computer Services Corp Ltd. v. Burroughs Business Machines Ltd. et al.* (1977), 15 O.R.(2d) 750, 762-3 (Ont. H.C.); *Adderley v. Bremner*, [1968] 1 O.R. 621 (Ont. H.C.); and *Matheson v. Barnes & I.C.B.C.*, [1981] 2 W.W.R. 435 (B.C.S.C.).

8 See *R. v. Bell and Bruce* (1982), 35 O.R.(2d) 164, 65 C.C.C.(2d) 377 (Ont. C.A.); (but compare the same court's earlier decision in *R. v. McMullen*, *infra*; and see *R. v. Cordell* (1982), 39 A.R. 281 (Alta.C.A.).

9 See *Aynsley v. Toronto General Hospital* [1968] 1 O.R. 425 (Ont. H.C.); *Adderley v. Bremner*, [1968] 1 O.R. 621 (Ont. H.C.); *Schweizer v. Central Hospital et al.* (1975), 6 O.R.(2d) 606 (Ont. H.C.); *Setak Computer Services Corp Ltd. v. Burroughs Business Machines Ltd. et al.*, (1977) 15 O.R.(2d) 750 (Ont. H.C.); *Demuyne v. Bittner*, [1977] 4 W.W.R. 200 at 211 (Alta. S.C.); Ewart, "Documentary Evidence," p. 201; Bronstein and Engelberg, "A Preliminary Assessment of the Reception of Computer Evidence: Report of the Computer Evidence Survey Project," *Jurimetrics Journal* 21 (1981), p. 329.

10 See *Northern Wood Preserves Ltd. v. Hall Corp. Shipping*, [1972] 3 O.R. 751, aff'd 2 O.R.(2d) 335 (Ont. C.A.); *Setak Computer Services Ltd. v. Burroughs Business Machines Ltd. et al.*, (1977), 15 O.R.(2d) 750 (Ont. H.C.); *R. v. McLarty* (No. 3) (1978), 45 C.C.C.(2d) 184 (Ont. Co.Ct.); and *R. v. Anthes Business Forms et al.* (1976), 10 O.R.(2d) 153 (Ont. C.A.).

11 Refer to s. 30(1) CEA, s. 48(2) BCEA, and s. 35(4) OEA. See also *R. v. McMullen* (1979), 47 C.C.C.(2d) 499, 506-7 (Ont. C.A.); *R. v. Vanlerberghe* (1976), 6 C.R.(3d) 222 (B.C.C.A.); and *R. v. Rowbotham* (No. 4) (1977), 2 C.R.(3d) 244, 266 (Ont. Co.Ct.).

(10) *A low threshold of admissibility which transfers the onus of proof to the opposing party.* The courts have generally admitted traditional business documents after some proof that the documents were created within the adducing party's "usual and ordinary course of business" and it is then left to the opposing party to disprove the reliability of the records adduced.

The first point I seek to make arising from these issues is that the lawyer and his records management witnesses must be prepared to contend with this list of principles when preparing the foundation evidence to be given in support of the admissibility and weight of computer-produced records, or when structuring a cross-examination if it is intended to oppose their being admitted into evidence. The second point is that these current criteria are, *as a group*, inadequate for judging the admissibility and weight of documents produced by computerized record-keeping. Some of these criteria should be applied to all record-keeping systems whether computerized or traditional paper systems. For example, a records manager of any system should be able to testify as to the *sources of the information* in his records and be able to prove that his records were made by *persons under a duty* to make such records. But most of these criteria cannot be applied to computers. The records produced by computers which become an organization's permanent records are rarely produced *contemporaneously with the events they record*. And they most often contain *multiple hearsay* because the information has been passed electronically or physically from hand to hand and reformatted and reorganized by various computer programmes turning out data compilations. The information in its original form soon disappears, meaning that there is nothing with which to compare a "true copy," and also meaning that printouts most often contain not just unmassaged, unmanipulated "bare facts," but rather *opinions in the form of data compilations*. Moreover those data compilations may have been produced not internally within the organization itself, but by a computer service bureau or at a data centre in another country. Electronic *trans-border data flow* allows a single data centre or accounting centre to do all the analysis for many branch offices. If our present Evidence Acts were rigorously applied, therefore, witnesses would have to be brought from the United States to prove documents which business organizations in Canada claimed were their records, and to prove the worth of the software written and applied to those records in the United States. With no industry standards for computerized record-keeping, the courts cannot be left with a standard as simplistic as "*usual and ordinary course of business*," and then be expected to investigate the full "*circumstances of the making*" of each record in each case. Efficient trial administration just would not allow it. Also, because computerized systems are much more complicated than traditional record-keeping systems, it is impractical and unfair to cast the onus of disproving the reliability of printouts upon the opposing party rather than placing the onus of proving their reliability upon the adducing party. The adducing party should have to prove the reliability of the system that produced the printout, and not merely that the printout was produced "in the usual and ordinary course of business," whatever that might be.

It is important to note that some of the above principles come not directly from the language of the Evidence Acts, but rather from judicial interpretations of the vague language in those statutes. Such interpretations give rise to published judgments which are collectively referred to as the "case law" on a particular issue. The judges have added conditions in addition to what the Evidence Acts expressly

state. In the *Setak* case cited above, for example, Mr. Justice Griffiths of the Supreme Court of Ontario held (at p. 763) that section 35 of the OEA requires that both the supplier of the information recorded in the business record and the maker of that record be under business duties to supply and record respectively. But that section makes no reference to such conditions-precedent, and in fact section 35(4) states that "the circumstances of the making of such a writing or record ... may be shown to affect its weight, but such circumstances do not affect its admissibility". His Lordship, however, found these business duties of supplying and recording to be part of the phrase, "usual and ordinary course of business," and therefore held that statements by employees of the Burroughs company recorded in minutes of a business meeting with Setak employees would not be admitted into evidence unless the minutes "clearly demonstrate[d] that a Burroughs employee was describing something that occurred reasonably close to the meeting, and that he was relying on his own observation in making the statement, and not on information obtained from someone entirely outside the business" (p. 764).

For the same reason, in the *Adderly v. Bremner* case already cited, the court refused to admit into evidence those portions of hospital records recording the statements of the plaintiff-patient. As Mr. Justice Griffiths said in *Setak* of the *Adderly* case, "it is questionable whether the patient, in making the statements that were recorded, was acting in the course of the business of the hospital" (p. 763 of *Setak*). The decision in *Setak* was also applied by the B.C. Supreme Court in *Matheson v. Barnes* (see above) so as to exclude a signed statement taken by an insurance adjuster from a witness who died before trial. The Court held that both the maker of the record and the supplier of the information must be under a business duty in order for the record to be admitted as a business record under section 48 of the BCEA. In criminal proceedings, the *Canada Evidence Act* applies. The broad, vague language of section 30 CEA could be held to accommodate the double-duty interpretation of the *Setak* case just as easily as the provincial Evidence Acts.

Another example of a case-law-added condition of admissibility is "the absence of a motive to misrepresent." Section 35(4) OEA contains no such requirement, but in *Northern Wood Preserves v. Hall Corp. Shipping* case cited earlier, records were ruled inadmissible because they were of such a self-serving nature, even though they were made contemporaneously and in pursuance of a duty to record. But in the *Setak* case, Mr. Justice Griffiths disagreed with adding such a condition to section 35(4) (see pp. 758-9). Proof of the absence of a motive to misrepresent would more appropriately be required by section 48(3) BCEA than by any of the provisions of the OEA.¹²

It has to be accepted as almost inevitable that the courts would find it necessary to supplement our vague Evidence Acts with judge-made conditions as individual cases require more detailed rules than these statutes provide. The resulting uncertainty caused by an increasing number of *ad hoc* decisions, however, leaves the lawyer and the records manager with no guidance as to what the courts will require in the next case. The Evidence Acts therefore should be amended to contain the principles

12 For examples of the interpretation of this BCEA provision, see *International Woodworkers of America v. MacMillan Bloedel*, [1972] 5 W.W.R. 509 (B.C.S.C.); and *Denis Shipping Ltd. v. Palmer* (1973), 33 D.L.R.(3d) 760 (B.C.Co.Ct.).

which will guarantee admissibility into evidence of reliable records. This type of legislative provision is more urgently needed in relation to computer-produced records than traditional business records because computer systems of record-keeping are newer and less well-known to the judiciary and the legal profession, and much less standardized.

It was to be expected that the most dramatic addition of judge-made conditions of admissibility would occur in relation to computer printouts. The criminal case of *R. v. McMullen* (see above) concerned proof of banking records in relation to a prosecution for obtaining property by false pretences, and the banking provisions of the *Canada Evidence Act*, (section 29) therefore applied. The standard set for computer-produced banking records would be all the more appropriate for computer-produced business documents in general, however, if sections 30 CEA, 48 BCEA, or 35 OEA had been applicable. In *McMullen*, the Court placed a heavy onus upon the party seeking the admissibility of computerized banking records, and the key passage in the judgement concerns the nature of the foundation evidence required in order to gain admissibility for such computer printouts. What the Court required goes far beyond the statutory language of any of the business or banking document provisions of our Evidence Acts. The Court stated (p. 506):

The four conditions precedent provided therein, (s. 29) the last being that the copy of the entry offered in evidence is a true copy of what is in the record, have to be proven to the satisfaction of the trial judge. The nature and quality of the evidence put before the Court has to reflect the facts of the complete record-keeping process — in the case of computer records, the procedures and processes relating to the input of entries, storage of information and its retrieval and presentation: see *Transport Indemnity C. v. Seib* (1965), 132 N.W.(2d) 871; *King v. State ex Rel. Murdock Acceptance Corp.* (1969) 222 So.(2d) 393, and Note, "Evidentiary Problems and Computer Records", 5 Rut. J. Comp. L. (1976), p. 355, et seq. If such evidence be beyond the ken of the manager, accountant or the officer responsible for the records (*R. v. McGrayne*, Ontario Court of Appeal, March 14, 1979 [since reported 46 C.C.C.(2d) 63] then a failure to comply with s.29(2) [of the *Canada Evidence Act*] must result and the printout evidence would be inadmissible.

This is far more than has previously been required of banking records which are not the product of a computerized accounting system. Today all banking records are produced by computerized systems of record-keeping, and the above passage is applicable to any case wherein banking records are adduced. Compare those requirements with the language of the banking-document provision of the *Canada Evidence Act* (section 29):

29.(1) Subject to this section, a copy of any entry in any book or record kept in any financial institution shall in all legal proceedings be received in evidence as prima facie proof of such entry and of the matters, transactions and accounts therein recorded.

(2) A copy of any entry in such book or record shall not be received in evidence under this section unless it is first proved that the book or record was, at the time of the making of the entry, one of the ordinary books or records of the financial institution, that the entry was made in

the usual and ordinary course of business, that the book or record is in the custody or control of the financial institution and that such copy is a true copy thereof; and such proof may be given by the manager or accountant of the financial institution and may be given orally or by affidavit sworn before any commissioner or other person authorized to take affidavits.

The banking document provisions of the provincial Evidence Acts are very similar (see sections 37, 38 BCEA, and 33 OEA), and it should be noted that the words in these provisions are much less demanding than the *McMullen* principle that the "evidence put before the court has to reflect the facts of the complete record-keeping process." Nonetheless, I would argue that the Court in *McMullen* was completely justified in setting such an onerous standard for admissibility because of the fundamental changes brought about by computerized record-keeping, and because our Evidence Acts do not contain special provisions which compensate for those changes.

In sharp contrast to *McMullen*, other lawyers argue that the decision of the B.C. Court of Appeal in *R. v. Vanlerberghe* (already cited) means that computer printouts merely require the supporting evidence of a single expert witness rather than all the supporting evidence that the Ontario Court of Appeal specified in the *McMullen* case. Still other lawyers argue that the Ontario Court of Appeal overruled its decision in *McMullen* when it handed down its decision in *R. v. Bruce and Bell*, (also cited earlier). And other lawyers argue that these decisions are not in conflict, that *Bruce and Bell* merely corrected an erroneous interpretation of *McMullen* on a lesser point: that the printout can be treated as the "original" and as not being merely a copy. They also argue that the *McMullen* principle that the foundation evidence "has to reflect the facts of the complete record-keeping process" still stands.

My point is that this degree of conflicting judicial opinion and uncertainty over fundamental principles is unacceptable. The case law references argued above are meant to exemplify two important features of the published court decisions in relation to computer printouts and business documents in general: first, the need of the courts to add new rules in individual cases beyond what the Evidence Acts require so as to compensate for the differences among record-keeping systems and the varying nature of their sources of information, and, secondly, the resulting fragmented and conflicting nature of those decisions when compared with one another. This second feature is so much the product of the first that I would argue that the state of the law of evidence on business records can be summed up as being based upon statutory provisions which contain a few vague, undefined terms, which establish a low, undemanding standard of admissibility (and thus show a bias toward admissibility). They still stand inadequately interpreted by a sparse case law which, although somewhat more demanding than the Evidence Acts from which it arises, is in an insufficiently developed state to provide adequate guidance to business and government record-keepers, and which show signs of fragmenting into conflicting lines of authority imposing inconsistent rules for determining admissibility and weight. The courts are supplementing the inadequate standards provided by the Evidence Act with some of the pre-statute requirements from the old common law

rules as to the admissibility of business records. Case law development, however, is too slow a system of law reform, given that business and government record-keeping is already heavily dependent upon computers.

The need of the courts to add conditions for individual cases because of the inadequacies of the Evidence Acts can be exemplified by reference to one of the most reputedly reliable systems of record-keeping, the banking system. The argument in support of requiring such an onerous stand for admissibility for computerized banking records is as follows. The record-keeping systems of banking no longer justify special treatment. There is no justification for differentiating their computerized financial procedures from those of many other large corporate organizations. The main consequence of computerization is the same — the centralization in data centres or service bureaux of the financial and other data-processing functions, which are external to the office or branch which uses the resulting records. Full accountability cannot be obtained from the bank branch alone. As a result, the banking situation upon which our present banking-document provisions are based no longer exists. The branch accountant or manager who produces the document as evidence, or makes out the affidavit for court, is no longer the person responsible for the accounting system of his branch. Nor is that accounting system necessarily controlled by a data centre in his city. The foundation evidence supporting his testimony or affidavit therefore is not within his bank branch. Creating a hearsay exception for banking documents (such as section 29 CEA), was justified when the accountant or manager who produced the banking documents was also the person responsible for the accounting system because he was readily available for cross-examination. Now that responsibility has been displaced to the data centre which is not readily available for cross-examination, this no longer applies. And it is the preservation of the opportunity to cross-examine which is the main justification for the rule against hearsay evidence. We should not therefore create statutory exceptions to that rule unless those exceptions can provide adequate compensation for the resulting lost opportunity to cross-examine. The present provisions of our Evidence Acts do not provide such adequate compensation in relation to computer printouts.

Therefore, the third point sought to be made is that because of this fundamental change in the nature of banking record-keeping, it was very appropriate for the Ontario Court of Appeal in *R. v. McMullen* to require of the foundation evidence put forward in support of the admissibility of the bank's computer printouts that "the evidence put before the court has to reflect the facts of the complete record-keeping process." (This is a standard even more necessary for business document provisions such as sections 30 CEA, 48 BCEA and 35 OEA.) The Court also pointed out that if a person knowledgeable in the bank's computerized record-keeping system is not available for examination, the attempt to use section 29 CEA must fail. These systems may well be more accurate than traditional record-keeping systems, as claimed, but they are not infallible.

In *Remfor Industries Ltd. v. Bank of Montreal* (1978),¹³ for example, the bank was held liable on a cheque certification because it had missed a stop-payment order on the cheque because the information processed in the computer system by the

13 21 O.R.(2d) 225 (Ont. C.A.).

bank was limited to the amount of the cheque and the account number only: "Because of the manner in which the computer was programmed, the clerks of the bank would only be alerted to a stop-payment if the amount of the cheque presented for payment was exactly the same as was programmed into the computer" (p. 226). Also there have been recent criminal cases wherein account holders have been charged with theft based on withdrawals made possible by bank errors in making mistaken deposits to their accounts.¹⁴

Greater accuracy does not justify in law not having supporting foundation evidence and documentation made available. Nor does it justify failing to require that there be an opportunity to examine and cross-examine as to the integrity of the system where the reliability of the total system is not otherwise proved. Particularly in relation to criminal proceedings, a "fair trial" should continue to be understood to include an opportunity to cross-examine those who produce or create the main pieces of evidence against the accused or opposing party. The change to computer operations by the banks and the displacement of responsibility for the accuracy of that accounting system from the bank branch to the bank's data centres should therefore result in a revision of the banking-document provisions in our Evidence Acts.

The same argument can be even more forcefully made in relation to business documents in general. As with the banks, record-keeping and data-processing responsibility often does not lie with the branch unit which keeps the business records. The computer has made fundamental changes to business record-keeping and as a result the traditional legal principles developed from paper record-keeping systems are not sufficient. The most frequently incorporated differences created by computer record-keeping systems over traditional paper record-keeping systems are:

- (1) The use of few temporary, first-made paper records because computer record-keeping is able to cumulate totals and update records without having to document such changes with further paper records. The result is a reduced availability of supporting "original" paper records and paper audit trails.
- (2) The need for substantially fewer people to man a computer record-keeping system handling the same volume of records as a traditional paper record-keeping system. This factor can mean that computer systems are less secure against tampering than traditional paper record-keeping systems.
- (3) The displacement of record-keeping and bookkeeping or accounting services outside the business organization itself to computer service bureaux.
- (4) The ability of the computer to collect and transmit its records electronically allows for "trans-border data flow" — the ability to displace record storage and data compilation services across national, provincial, and state boundaries. Such computer communications also allow computer records to be accessed from remote terminals over long distances.
- (5) The greatly reduced storage space needed for computer records.

14 *R. v. Sparks* (1981), 65 C.C.C.(2d) 476 (Ont. Co. Ct.); *R. v. Johnson* (1978), 42 C.C.C.(2d) 249 (Man. C.A.).

(6) An increased need for security procedures to be added to computer systems. The greater convenience and efficiency of computer record-keeping systems (as set out in the above points) means they have a greater need for super-added security procedures. The comparative inefficiency and inconvenience of more traditional systems provides them with a more natural, inherent security.

The fourth point to be made therefore is that special, detailed evidentiary provisions which set standards of admissibility beyond those which apply to business documents in general, are required for computer printouts, and those special requirements should be included in our Evidence Acts. The longer the period of delay before such reform takes place, the greater will be the volume of conflicting court decisions.

The Records Manager as an Expert Witness

Expert witnesses can be very effectively used in support of computer printout admissibility. They can give opinion evidence which non-expert witnesses cannot (except in relation to matters of commonplace knowledge such as estimating the speed of a car or whether someone was intoxicated), and can rely upon hearsay sources of information for their evidence. If a lawyer preparing a case for court has available as a witness a professional records manager, therefore, there can more easily be an appeal to the law of expert evidence. This is a much more complete and less complex solution than trying to anticipate in detail the conditions of admissibility that a court may require under sections 30 CEA, 48 BCEA or 35 OEA. The courts are well practised in receiving and testing the evidence of experts, but they have hardly begun to understand the procedures of records management and data-processing.

The previous cited British Columbia case of *R. v. Vanlerberghe* provides an excellent example of the effectiveness and efficiency of expert testimony when proving records from a complex computer system — so much so that I would argue that it is more appropriately classified as a case of expert evidence rather than a case of proving documents under the relevant business-document provisions (s. 30 CEA). It concerned an appeal from a fraud conviction arising from improper telegraphic transfers of funds from various Toronto branches of the Royal Bank to British Columbia. Mr. Justice Bull stated the following in giving the judgement of the B.C. Court of Appeal (pp. 223-24):

The theory of the Crown's case was that by some arrangement between the appellant, who somehow or other managed to have identification of one Jim Nobess, and the person who made the phone calls to the various branches and who somehow or other had a code key which was contained in the telephonic messages which lent credibility to the message by the receiving branch, the funds were extracted. As this man was not entitled to receive those funds, and as no funds had been transferred to the local branches for delivery to him, he had procured such funds, totalling \$14,500 approximately, by fraud.

The main witness for the Crown was one Allison, whose job was Assistant Manager of Operations, District Systems Department, locally. He was asked by the Crown to be qualified as an expert in the systems and operations of the systems of the Royal Bank of Canada of

record-keeping and accounts. The learned judge found he was an expert in such accounting and record-keeping by the bank. He gave testimony of the mechanical bookkeeping system employed by the bank throughout Canada, and that a personal perusal of the records flowing out of the system satisfied him that none of the seven Ontario branches had given the directions so received by the local branches, and that in fact the records of the bank showed that no such telegraphic transfers were made for the benefit of Jim Nobess upon his identification on the order of Dr. Frank Nobess, or anybody else, for that matter.

The learned trial judge dealt with this matter, in my opinion, extremely lucidly when he said, referring to the witness Allison:

He testified and the fact seems to be that the records he produced from the branches of the Royal Bank in Toronto were computer printouts, the bookkeeping apparently being done by the computers. He stated that he had gone to Toronto personally and in one day visited each branch of the Royal Bank in Toronto from which the telephone calls had allegedly emanated, and on that occasion had procured the records of the Toronto branches previously referred to and which have been entered as exhibits in this trial.

The reference to the computer is simply that the testimony of the modern bookkeeping system maintained by the bank in a central location is by computer, and that the information which Allison received of the records of each branch in question in Ontario was what is called computer printouts.

The only attack and the sole ground of appeal argued was that the evidence by Allison (which, I may add, was to some extent supported by one Ryan, who gave evidence that the system described by Allison applied right across Canada) was based on printouts, so-called, from the computer or computers, and were not admissible as evidence under s. 30 of the Canada Evidence Act, R.S.C. 1970, c. E-10.

I disagree. I think that the section clearly covers mechanical as well as manual bookkeeping records and the keeping of records, and the flow-out or printout of that bookkeeping system clearly falls within the meaning of records in s. 30 and was therefore admissible.

Unfortunately this case, like previous court decisions, provides no elucidation of the differences between computerized and traditional record-keeping, and no detail in elucidating the factors the courts will be looking for to identify an acceptable computerized record-keeping system (that is, the courts have provided no analysis of the appropriate "circumstances of the making" of admissible computer printouts). But judges can write only as much analysis into their judgements as the evidence put before them allows.

Consider in comparison to the above *Vanlerberghe* case the damaging results that can follow when a non-expert witness is used. *R. v. Rowbotham* concerned the admissibility of wiretap evidence,¹⁵ and Judge Borins of the County Court of Ontario stated (pp. 266-27):

The next issue relates to the admissibility of certain evidence on the voir dire [a trial within the trial to determine the admissibility of evidence]. The Crown seeks to prove: (1) that the Bell Telephone Company assigned certain telephone numbers to Rowbotham, his alleged co-conspirators Cripps and Assaff, and to John Boone; and (2) that during the months of December 1973 and January 1974 certain long distance calls were made to and from these numbers. Through Mr. Thompson, a security representative with the telephone company, the Crown has produced the telephone bills, including a record of long distance tolls, of these four people and they have been marked as Exs. G3, H3, I3 and J3. It is solely on the basis of what is printed on these documents that the Crown seeks to prove these facts. Mr. Thompson has no knowledge of how the bills were prepared nor of the billing procedures of the telephone company. He stated that the information on the documents came from a computer, but he was equally ignorant as to the operation of the computer. He has no knowledge as to how the documents came into existence. In reality, what he has done is to bring to court some documents which were given to him by some other persons.

In my view, there are at least three reasons why this evidence is not admissible. In ruling that it is inadmissible for the purpose of the voir dire I am not to be taken as saying that the Crown cannot tender this evidence in the main trial in support of the matters set out in the previous paragraph if it is able to do so in the proper manner. First, the evidence is hearsay and does not fall within the exception created by *Ares v. Venner* [1970] S.C.R. 608, 12 C.R.N.S. 349, 73 W.W.R. 347, 14 D.L.R.(3d) 4. Second, to the extent that the documents may be admissible pursuant to s. 30 of the Canada Evidence Act, R.S.C. 1970, c. E-10, the Crown through Mr. Thompson has failed to establish a proper foundation. As I have stated, he can provide the court with no assistance with respect to where the documents came from, how they were prepared, where the information came from that is set out in them, the billing procedures of the telephone company, and so on. In this regard I would refer to the comments of Morand J. in dealing with a similar issue in respect of a similar (but far from identical) provision of the Ontario Evidence Act, R.S.O. 1960, c. 125, s. 34a [en. 1966, c. 51, s. 1] (now R.S.O. 1970, c. 151, s. 35), in *Aynsley v. Toronto Gen. Hospital*, [1968] 1 O.R. 425 at 430-34, 66 D.L.R.(2d) 575, affirmed [1969] 2 O.R. 829, 7 D.L.R.(3d) 193, which was affirmed [1972] S.C.R. 435 (sub nom. *Toronto Gen. Hospital Trustees v. Matthews*), 25 D.L.R.(3d) 240.

15 (No. 4) (1977), 2 C.R.(3d) 244 (Ont.Co.Ct.).

The requirement in this passage for evidence as to “where the documents came from, how they were prepared, where the information came from that is set out in them, the billing procedures of the telephone company” is consistent with what the Ontario Court of Appeal held in the later case of *McMullen* in relation to computer printouts under section 29 CEA, (the foundation evidence “has to reflect the facts of the complete record-keeping process — in the case of computer records, the procedures and processes relating to the input of entries, storage of information and its retrieval and presentation”).

I now suspect that the result of the application of the computer to business record-keeping may be to render the hearsay rule problems so complex as to leave this traditional legal mechanism inadequate for the task of developing evidentiary rules for computer printouts. In contrast, the rules as to expert opinion evidence have easily accommodated testimony on matters of equal complexity to computerized record-keeping. For example, the law does not specify by means of the rules of evidence how a corporate auditor is to prepare the financial statements as a condition-precedent to the admissibility of his evidence about those statements, and yet those statements are based almost entirely on hearsay information. And so it is with the testimony of almost any expert. For now it is necessary to specify, as conditions of admissibility, how records managers are to make and keep their records because they are not used as expert witnesses. They are not used as expert witnesses simply because the procedures for certifying the professional qualifications of records managers have not been formalized as they have for psychiatrists and accountants. Until records managers are more easily and more frequently qualified as expert witnesses, it will be necessary to use this second-best solution to these evidentiary problems: that is, attempting to manipulate the doctrine of the hearsay rule and its business document exceptions to try to compensate for the changes made by the computer.

Law reform proposals in relation to computer printouts must therefore be dominated by the hearsay rule and its business document exceptions in the Evidence Acts. In Canada the latest product of the law reform process is Bill S-33. Its conservative nature arises from the history of the business document provisions in our Evidence Acts.

The History of the Development of the Business Document Provisions

To understand the changes that the various advocates of reform have recommended, it is necessary to consider briefly the development of the business document provisions in Canada. The first stage of development was the common law exception to the rule against hearsay evidence. At common law, a record could be admitted for the truth of its contents as an exception to the rule against hearsay evidence if it was:

1. an original entry,
2. made contemporaneously with the events recorded,
3. in the routine,
4. of business,
5. by a person since deceased,

6. by a person who was under a duty to do the act or event recorded, and to record it, and
7. who had no motive to misrepresent.¹⁶

The second state was the business-document provisions in section 30 CEA and similar provisions in the provincial Evidence Acts and territorial Ordinances which came into effect in the late 1960s. The most notable common feature of their design is that they remove the rigidity of the common law rule by substituting a bias toward admissibility by focusing upon only two mandatory requirements for admissibility — records made in the “usual and ordinary course of business” and records made contemporaneously with the events so recorded. Section 30 CEA is the latest development of this second stage. It sets an even lower standard for admissibility than do the provincial Evidence Acts, particularly because it does not expressly require contemporaneity in the making of the very documents that are brought to court, and because it would probably allow statements of opinion and analysis into evidence (although this point has not been decided in the courts). It is also more flexible because it allows for a full inquiry into the total circumstances of the making of the record and links those circumstances to the question of admissibility.

There is a price to be paid, however, for easy and flexible admissibility. Trial administration suffers because wide powers of inquiry or discretion often generate long discussions of law to determine admissibility, which obviously interrupt the trial. This could occur under our present business document provisions once lawyers and judges become more aware of the differences between computer systems of record-keeping and traditional systems, and begin to realize they require different principles for verifying accuracy than are used in the present statutory provisions. Secondly, wide discretions carry with them long periods of uncertainty until the case law fills in the limiting and guiding principles for their “judicial exercise.” Such a price may be tolerable in relation to an issue which affects only a small, specialized area of the law or common practice but it is not tolerable when it affects the way in which business and government keep their records. Also, wide discretions carry the danger of a fragmentation of case-law-evolved principle, with the decisions of provincial courts going off in all directions until enough time has gone by to allow them to work their way to the Supreme Court of Canada for resolution. In this state of affairs, lawyers cannot help businessmen in designing record-keeping systems which will produce admissible records that will allow them to protect their property interests and civil rights under the law. And a weak, undemanding, or loosely applied rule of admissibility can allow the poorest records to be as admissible as the best.

It is now time to consider the third stage of development. The aims of the third stage of business document provisions should be fourfold. First, the recognition of specialized witnesses to reduce the number of witnesses necessary for establishing the foundation evidence for admissibility. For example, U.S. Federal Rule of Evidence 803(6) uses the phrase, “...all as shown by the testimony of the custodian or other qualified witness.” Section 38 of the Evidence Ordinances of the Yukon Territory and of the Northwest Territories use the expression, “if the custodian of record or

16 For an analysis of these criteria, see J.D. Ewart, “Documentary Evidence: The Admissibility at Common Law of Records Made Pursuant to a Business Duty,” *Canadian Bar Review* 59 (1981), p. 52.

other qualified person testifies to its identity and mode of its preparation.” Such legislative wordings can facilitate recognition by the courts of expert witnesses in proof of business documents. Secondly, giving authoritative recognition to those features of record-keeping which ensure reliable and accurate records. The case law and other legal literature shows a greater appreciation of those features than was the case when the present business document provisions were enacted. Such features therefore should be incorporated into those provisions so as to do away with their vagueness, overcome their uncertainties of application, and make tactically necessary witnesses (or affiants) of the records managers. Thirdly, consolidating into fewer provisions the number of statutory provisions in our Evidence Acts which deal with business and government documents. And, finally, dealing expressly with computer and microfilm evidence as types of business documentation requiring special and separate provisions.

Bill S-33 goes part way in satisfying these aims, but it should have gone further. It is based upon the *Report of the Federal/Provincial Task Force on Uniform Rules of Evidence* (discussed below). The Task Force reported in 1981 to the Uniform Law Conference of Canada, a body made up of delegates from the federal and provincial governments. The report of the Task Force led to the Uniform Evidence Act which was adopted by the Conference in August 1981. Such acts of the Uniform Law Conference of Canada are meant to serve as law reform models for the federal and provincial governments so as to bring about uniform laws in areas of common or related legislative interest. Bill S-33 is largely that Uniform Evidence Act. All of this law reform activity clearly shows that most government officials concerned with reform of the law of evidence believe that the Evidence Acts should be changed in relation to business and government documents. But Bill S-33 and the Uniform Evidence Act show that they do not yet accept the proposition that computer printouts require special provisions in our Evidence Acts. Bill S-33, if enacted, will continue the legal mechanisms of section 30 CEA which are inadequate for efficiently judging what evidentiary value a court should give to computer printouts. It appears, however, that we will be burdened with them for some time to come and the litigation lawyer and the records manager will have to continue to compensate for their inadequacies.

This leads to my fifth main point which is that to compensate for the absence of specialized criteria in the Canadian law of evidence governing the admissibility of and the weight to be given computer-produced records, lawyers and records managers should prepare their cases and design their record-keeping systems with regard to the specialized legislation developed in other countries specifically for computer printouts. Such legislation provides the basic principles a lawyer would use in drafting a list of questions he would put to witnesses in court, and it provides the first principles one would write into a manual on record-keeping.

Legislation in other Countries and from the Federal/Provincial Task Force on Uniform Rules of Evidence as Sources of Criteria for Computer-Printout Admissibility

The leading examples of separate or special criteria for computer printout admissibility are the United Kingdom *Civil Evidence Act* (1968), section 5, and the South Australia *Evidence Act* (1929-76), section 59b, which was added by the *Evidence Amendment Act* (1972) (S.A.). Their criteria are summarized below.

United Kingdom Evidence Act 1968,
s. 5(2):

South Australia Evidence Act 1929-1976,
s. 59b(2):

Conditions to be proved:

- | | |
|---|---|
| (a) regular use of the computer for activities regularly carried on; | (a) computer correctly programmed and regularly used to produce output of the kind tendered in evidence; |
| (b) computer regularly supplied with information of the kind in the statement; | (b) computer output produced from data prepared from information "that would normally be acceptable in a court of law as evidence of the statements...in the output"; |
| (c) computer operating properly, or defective operation did not affect production or accuracy; | (c) no reasonable cause to suspect departure from the system or error in the preparation of the data; |
| (d) the information is derived from that supplied to the computer in the ordinary course of activities. | (d) from input to output, the computer was not subject to a malfunction affecting accuracy; |
| | (e) no alterations to mechanisms or processes of the computer that might affect accuracy; |
| | (f) records of alterations to the mechanisms and processes of the computer have been kept by a responsible person; |
| | (g) accuracy or validity of output not adversely affected by improper procedure or inadequate safeguards. |

Both lists establish an important safeguard or guarantee of accuracy in requiring that the data or information upon which the tendered printout is based be such as is regularly fed to the computer as part of the regular activities of the organization. This requirement is a more specific version of the business document requirement of records "made in the usual and ordinary course of business." The desired result is records or printouts prepared according to established procedures and pursuant to established business duties. The *Civil Evidence Act* (1968) is more direct and therefore clearer in establishing this "business as usual" requirement, but the importance of such a requirement would be given further appropriate emphasis if another of its underlying reasons — reliance or dependence upon such records in business decision-making — were expressly stated.

However, the South Australian criteria are superior because they direct attention to the computer program used; they require that the data base for the printout not violate the other rules of evidence; and they require that a "responsible person in charge of the computer" keep records of alterations to the "processes of the computer." Yet both acts direct too much attention to the mechanical fitness of computers. Such concern is more appropriate to the conditions of admissibility of the evidence produced by police breathalyzer machines and radar devices. As for

computers, in the last several years since these provisions were enacted, it has become clear that intentional falsification and negligence by human operators is almost the entire threat to computer printout accuracy, and that computer mechanical fitness is a minuscule source of inaccuracy. The admissibility criteria laid down by the courts or the legislatures should be designed accordingly.

The following draft provision¹⁷ therefore places emphasis in the required proof upon input procedures, reliance upon the data base in business decision-making, and upon the computer program:

S.1. A computer printout recording a business act, event, or transaction shall be admissible into evidence to prove the truth of the matters asserted therein provided that the offering party shows:

- (1) that the input procedures conform to standard practices in the industry; and, the entries are made in the regular course of business, and
- (2) that he relied on a data base in making a business decision(s), within a reasonably short period of time before or after producing the printout sought to be introduced at trial, and
- (3) by expert testimony that the processing program reliably and accurately process the data in the data base.

These criteria focus much more closely upon the human parts of a computerized record-keeping system where the errors and falsehoods are likely to occur, instead of upon the mechanical and electronic parts of the system, where they rarely occur. They give much more guidance to a court, to a lawyer preparing a case, and to a records manager attempting to determine what the law requires of records-keepers, than do such vague phrases as "the usual and ordinary course of business" or "the circumstances of the making of the record."

Finally, one further important model from outside Canada should be mentioned, the *Computer Evidence Act* enacted in South Africa on 4 May 1983, which came into force on 1 October 1983.¹⁸ The preamble to the act outlines the desirability "to provide for the admissibility in civil proceedings of evidence generated by computers; and for matters connected therewith". This is the newest collection of specialized admissibility criteria for computer printouts. These draft provisions allow for the admissibility of "authenticated computer printouts," which is a computer printout accompanied by an "authenticating affidavit." The authenticating affidavit is to be deposed to by some person who is qualified to give the testimony it contains by reason of:

- (a) his knowledge and experience of computers and of the particular system used by the computer in question;
- (b) his examination of all relevant records and facts concerning the operation of the computer and the data and instructions supplied to it.

17 See *Washington University Law Quarterly* 59 (1977), p. 91.

18 See Act No. 57, 1983, *Government Gazette* for 11 May 1983, No. 8700, 72.

And the authenticating affidavit is to contain the following pieces of foundation evidence:

1. A description in general terms of the nature, extent and sources of the data and instructions supplied to the computer, and the purpose and effect of its processing by the computer;
2. A certification that the computer was correctly and completely supplied with data and instructions appropriate to and sufficient for the purpose for which the information recorded in the computer printout was produced;
3. A certification that the computer was unaffected in its operation by any malfunction, interference etc., which might have had a bearing on such information or its reliability;
4. A certification that no reason exists to doubt the truth or reliability of any information recorded in or result reflected by the computer printout;
5. A verification of the records and facts examined by the deponent to the authenticating affidavit in order to qualify himself for the testimony it contains.

The effect of such a legislative approach to the foundation evidence of computer printout admissibility is to place upon the adducing party an onus to demonstrate the reliability of the record-keeping system, instead of placing an onus upon the opposing party to disprove reliability once the adducing party has adduced some evidence of records made in the "usual and ordinary course of business." The section 30-type approach of relying entirely upon "the usual and ordinary course of business" without further definition is too simplistic for computer record-keeping systems. Such systems are too complicated to justify casting upon an opposing party a burden to disprove reliability. The sources of evidence for proving reliability are within the custody of the adducing party; therefore it is with that party that the burden of establishing proof should lie.

There is one more area which these examples do not make sufficiently important or necessary to admissibility and that is *security*. Our Evidence Acts give no recognition to the special security requirements of computer systems over traditional record-keeping systems. Computer systems can involve fewer people and fewer temporary records in the production of the same quantities of permanent records as do traditional records systems. These facts give rise to an argument that computer systems are more vulnerable to falsification. Although computer systems can be made even more secure than traditional systems, that security must be more intentionally added to the computer system whereas the comparative awkwardness or inefficiency of traditional systems gives them a greater inherent security component.

The best sources for arguments as to the principles of computer security are published reports which deal with various computer systems. For example, a lawyer opposing admissibility could weave into his arguments or cross-examinations a reference to portions of the report of the Krever Commission in Ontario. Released on 30 December 1980, the *Report of the Commission of Inquiry into the*

Confidentiality of Health Information contains an excellent discussion of the security aspects of computerized record-keeping (volume II, chapter 18, "Computer-Supported Systems in Health: The Threat to Privacy"), which includes an extensive list of procedures and measures for providing data bases with physical security, software security, and personnel security (pp. 182-87). The report's recommendations as to computer data are numerous and are aimed at protecting privacy and preserving accuracy (Chapter 18, Recommendations 36 to 42). In relation to these matters of privacy and preserving accuracy, the report discusses the differences between computerized and traditional paper record-keeping systems. What follows is my list of the main features of that discussion:

- i) The establishment of new data bases and of systems for collecting data to put into them is extremely easy. Members of the public feel they are not in a position either to determine which data must be shared, or how well they are to be protected.
- ii) The great density in which data can be packed allows an intruder to easily carry off many thousands of records and to be non-selective. Non-selective access to large numbers of records was impossible when all records were kept on paper.
- iii) Computers make possible "invisible theft" — stealing of data without actually removing any physical object by transmitting data or making copies and without altering the source data.
- iv) Computers allow large numbers of copies of data to be produced very quickly on high speed line printers or on computer output microfilm (COM). Thus getting "silent" copies is far easier than with paper.
- v) Computers permit greater ease in altering data by writing over magnetically stored data without leaving a trace.
- vi) Computers also allow the collating of data which were never intended to be brought together by linking computer systems so as to link different kinds of records, and thus greatly facilitate a non-selective access to masses of data.

The report emphasizes that all of these differences can be compensated for by security procedures which have been developed in the data-processing industry.

Admissibility of computer printouts should require some demonstration of the ways in which the system is protected against intentional and negligent falsification and loss and destruction of data bases and of permanent records. This is due not only to the dependence of computer systems upon communications lines, but also to the fact that computer systems require neither the retention of temporary records the way traditional record-keeping systems do nor as many people to run them. These two factors in particular account for the greater efficiency of the computer system and for the greater natural security of the traditional system.

One could write into the requirements for admissibility some phrase such as "a demonstration of the security of the system," but such a phrase would have to be accompanied by a statement of the accepted criteria of security in order to provide some uniformity in adjudication, and to aid trial administration by providing some degree of delimitation to the necessary evidence to be marshalled in preparing for trial. Making security an express condition of admissibility will require, at the least, a legislative delineation of what general types of things the judge is to have regard to when evaluating how secure a record-keeping system is, for example, whether the

record-keeping system includes a duplicate set of records on microfilm. The existence of duplicates on microfilm allows the accuracy of records to be verified very easily, and therefore acts as a deterrent to intentional falsification of records because detection is so much easier, and successful perpetration so much more difficult (particularly if the duplicates are stored off premises away from the primary filing source). Unfortunately, many organizations have hesitated to initiate microfilm programmes because of doubts as to the admissibility of microfilm-produced copies if the paper original document no longer exists. (The admissibility of microfilm copies is discussed below.)

Another excellent source of criteria for preparation of computer evidence for court is the law journals. Fenwick and Davidson,¹⁹ suggest the following points of evidence that a custodian of computer-kept records should be prepared to testify to so as to establish a foundation for admitting a computer printout as a business record:

- (1) the reliability of the data processing equipment used to keep the records and produce the printout;
- (2) the manner in which the basic data was initially entered into the system (e.g., cards, teletype, etc.);
- (3) that the data was so entered in the regular course of business;
- (4) that the data was entered within a reasonable time after the events recorded by persons having personal knowledge of the events;
- (5) the measures taken to insure the accuracy of the data as entered;
- (6) the method of storing the data (e.g., magnetic tape) and the safety precautions taken to prevent loss of the data while in storage;
- (7) the reliability of the computer programs and formulas used to process the data;
- (8) the measures taken to verify the proper operation and accuracy of these programs and formulas;
- (9) the time and mode of preparation for the printouts.

The witness need not necessarily have personal knowledge of the basic data as input to the system, nor personal knowledge of the actual physical operation of the data processing equipment, so long as he or she is generally familiar with the methods employed by the company in processing the business records. Indeed, the courts seem to be reluctant to require the proponent of computer evidence to call more than one foundational witness.

The purpose of including these lists here is to show that our Evidence Acts are inadequate, and to secure opinions from the records management industry as to what criteria should be written into our Evidence Acts.

The sixth point I wish to make is that specifying detailed criteria greatly increases the probability that the witness used to introduce computer records is a person with detailed knowledge of the records system as a whole, and detailed criteria make necessary the use of witnesses having supervisory responsibility over the record-keeping system that produced the records that are to become the evidence. By thus

19 "Use of Computerized Business Records as Evidence," *Jurimetrics Journal* 19 (1978), p. 9.

making necessary the use of witnesses who are held accountable for the record-keeping system, the business document provisions of the Evidence Acts that apply to computers can more clearly approximate rules requiring expert evidence. The fundamental feature of expert evidence is the accountability of the expert witness for the accuracy of the evidence he gives. It is not sufficient that the expert witness testifies that he obtained the evidence he gives in the "usual and ordinary course" of his business, for he puts forth his professional responsibility and opinion in certifying the accuracy of the evidence he gives.

A Proposed New Business Document Provision for Computer Printouts

What follows is an outline of the conditions-precedent that I suggest should be added to such sections as 30 CEA, 48 BCEA, or 35 OEA, dealing with the admissibility of computer printouts. They should be considered not only from the unsympathetic point of view of the prosecutor, plaintiff, or records manager looking for quick and easy methods of documentary proof, but also from the more sympathetic point of view of the accused person or the civil litigation defendant facing accusations or demands based on dubious documentation and having limited strategies with which to test that documentation. These points are put forward not only as a law reform model therefore, but also as a framework for constructing a cross-examination of an opposing witness or an examination-in-chief of one's own witness in order to oppose or secure the admissibility of computer printouts under the present business document provisions of our Evidence Acts.

The conditions-precedent to admissibility of computer printouts should require:

- (1) Proof of the sources of the information recorded in the data bases upon which the printout is based;
- (2) Proof that the information in the data base was recorded, in some fashion, contemporaneously with, or within a reasonable time after, the events to which such information relates, *but* contemporaneous recording within the data base itself would *not* be required;
- (3) Proof that the data upon which the printout is based is of a type regularly supplied to the computer during the regular activities of the organization from which the printout comes;
- (4) That the information upon which the statements in the printout are based, would in itself be admissible as evidence supporting those statements; (*or*, that the data upon which the printout is based does not violate the other rules of evidence);
- (5) Proof that the entries into the data base upon which the printout is based were made in the regular course of business;
- (6) Proof that the input procedures in adding to the data base conform to standard practices in the industry;
- (7) Proof that there has been reliance upon the data base in making a business decision(s) within a reasonably short time before or after producing the printout sought to be admitted into evidence;

- (8) Proof that the computer programme(s) in producing the printout, reliably and accurately processes the data in the data base;
- (9) Proof that from the time of the input of the data into the data base upon which the printout is based, until the time of the production of the print-out, records have been kept by a responsible person in charge of the computer and of alterations to the mechanism and processes of the computer during that period; and
- (10) Proof of the security features used to guarantee the integrity of the total record-keeping system upon which the printout is based, and of the effectiveness of such features.

In determining whether the security features of a computerized record-keeping system are sufficient to justify the admissibility of its printouts, the judge shall have regard to the following criteria of security:

- (1) Protection against unauthorized access to data and to permanent records;
- (2) Processes for the verification of data and of statements in records;
- (3) The safeguarding of communications lines; and
- (4) The existence of copies of records on paper, microfilm, or other reliable physical or electronic form, for purposes of verification or replacement of falsified, lost, or destroyed permanent and temporary records.

And finally, in determining whether the security features of a computerized record-keeping system are sufficient to justify the admissibility of the printout tendered, the judge shall have regard to the degree of security appropriate for records of the type upon which the printout is based. The above list of criteria should be able to be proved by a supervising officer of any well run data-processing facility. If there are software programmes which were written by persons employed outside the facility, the programmer, or someone who can testify from direct experience as to the reliability of that software in producing accurate information, should also be a witness. These criteria could be proved by affidavit as a similar list of conditions-precedent is contained in the South African *Computer Evidence Act* (1983).

The main purposes of the above list are first, to shift the onus of demonstrating the reliability of the record-keeping system which produced the computer printouts sought to be adduced onto the proponent of their admissibility (thus preventing an onus of adducing evidence of unreliability being placed upon the opponent of admissibility merely because the proponent has presented some superficial evidence that the printouts were created in the usual and ordinary course of business, which is the case under the present rules); secondly, to establish criteria which are compatible with computerized record-keeping and to replace those of the present statutory and common-law business document exceptions to the hearsay rule which are not; and, finally, to establish the criteria of admissibility for computer printouts in an authoritative document such as a statute, so as to "occupy the field," thereby preventing case law from developing conflicting admissibility criteria or developing criteria in a slow, fragmented fashion.

Bill S-33 and the Recommendations of the Federal/Provincial Task Force on Uniform Rules of Evidence

In 1977 the ministries of the federal and provincial Attorneys General created the Federal/Provincial Task Force on Uniform Rules of Evidence. The Task Force wrote a comprehensive report on the law of evidence which it delivered in January 1981 by reporting to the Uniform Law Conference of Canada, a permanent government body aimed at developing compatible federal and provincial legislation. I was the Evidence Task Force's chairman during its first two years, and a member of it through its entire three and one-half year existence. It was my responsibility to develop the Task Force's study papers on business and government documents, including the admissibility of computer printout and micrographic documentation. I argued the above list of criteria with my colleagues on the Evidence Task Force, and lost. The main arguments of my dissenting opinion are outlined in this paper, but unfortunately the resulting draft Evidence Act which culminated the report of the Task Force contained only a few of these criteria. The draft Evidence Act does, however, contain the following provisions:

159. In this section and sections 160 to 172, "computer" means any apparatus or device that processes or stores data or information:

171.(1) A business record made by a computer is admissible in evidence in the same manner as any other business record if the proponent proves that

(a) the data or information on which the record is based are of a type or types regularly supplied to the computer during the regular activities of the person or organization from which the record originates;

(b) the entries into the data or information bank on which the record is based were made in the usual and ordinary course of business; and

(c) the computer program used in producing the record reliably and accurately processes the data or information in the data or information bank.

(2) the proof required by subsection (1) may be made by producing an authenticating affidavit of the custodian of the record or any other qualified witness, based on his information and belief.

The Uniform Law Commission, however, rejected the recommendations of the Task Force which gave rise to these modest provisions. As a result, Bill S-33 does not contain them either, although the federal Minister of Justice is not bound to follow the decisions of the Uniform Law Conference.

The Report of the Federal/Provincial Task Force on Uniform Rules of Evidence contains the following commentary in support of the above provisions (p. 400):

The reason for the first condition is that the court should be satisfied that the computer system not only is capable of processing the kind of information upon which the print-out is based, but also that it does so regularly and routinely. Like the usual and ordinary course of business requirement, this guarantees that the data processing is done in a proven

rather than experimental fashion. The second condition is there to assure that in the case of this particular entry into the data base regular procedures were in fact followed. The third condition is simply to provide the court with some expert evidence of the reliability of the programme itself: normally this would be done on the basis of evidence of a business experience with the computer programme over a period of time, but if this experience was lacking (for example, if this was the first time that the business had used this particular computer system or programme), it would be necessary to call an expert who could testify to the accuracy and reliability of the programme from a technical point of view.

The Task Force unanimously agrees that these criteria of admissibility may be proved by an authenticating affidavit based on the knowledge and belief of the affiant.

This approach to the reception of computer evidence undoubtedly leaves many questions about the programming, operation and control of computers to be dealt with as a matter of weight. The majority of the Task Force is satisfied that they can be dealt with quite adequately on a case by case basis and that there is no need to spell out any criteria of weight in the Uniform Evidence Act itself.

In order to assist parties to explain or to attack computer evidence, the Task Force recommends unanimously that in both civil and criminal proceedings a party with leave of the court may require the testimony of any person concerned in the making, or having knowledge of the contents of computer evidence tendered or who is acquainted with the systems employed.

Finally, the Task Force unanimously recommends that the same provisions governing the admissibility of computer printouts apply equally to civil and criminal proceedings.

In answer to these arguments, the "Decisions of the Uniform Law Conference of Canada on the Recommendations of the Federal Provincial Task Force on the Uniform Rules of Evidence" (Appendix 1 to the *Report*, p. 522) give the following reasons for rejecting these recommendations:

Rejected. Members of the majority expressed the following reasons for their decision: (1) if a computer printout is used by a business in its usual and ordinary course of business, that provides sufficient guarantee of reliability; (2) the provisions in the recommendation would require the calling of many additional witnesses; and (3) in some cases it would be impossible to satisfy the conditions even though the evidence was reliable.

As a result, the above provisions were not included in the Uniform Evidence Act adopted by the Uniform Law Conference of Canada at its annual meeting in Whitehorse in August 1981. Bill S-33, by not including them, represents a missed opportunity to create principles for structuring the foundation evidence necessary for the admissibility of computer printouts. But with a successor to Bill S-33 to be introduced into the Senate (or possibly the House of Commons) in 1984, a new

opportunity has arisen for the data-processing and records management communities to advise the federal Minister of Justice on how the rules of evidence can best serve their needs.

Yet even if enacted in its original form, Bill S-33 (which gives itself the name, "The Canada Evidence Act, 1982") will bring four important improvements to the law of business and government document admissibility: it will remove any doubt that admissible business documents may contain statements which are based upon double or multiple hearsay and not just single or firsthand hearsay; it will clearly establish that computer printouts are "business records," which are admissible subject to its provisions; it will clearly establish microfilm documentation as original documentation; and it will divide the three main categories of evidentiary issues affecting business documents (hearsay issues, best evidence rule issues, and authentication issues) into three separate groups of sections. To evaluate the worth of Bill S-33 in its treatment of computer printouts, it is necessary to take each of the legal issues developed above from the existing case-law and see what Bill S-33 does with them. The expression "made in the usual and ordinary course of business" is the most important part of the business document exceptions to the rule against hearsay evidence created by sections 30 CEA, 49 BCEA and 35 OEA. Bill S-33 proposes to continue the dependence of this hearsay exception upon this expression by means of the following provisions:

152. In this section and sections 153 to 158, "business record" means a record made in the usual and ordinary course of business;

153.(1) A business record is admissible whether or not any statement contained in it is hearsay or a statement of opinion, subject, in the case of opinion, to proof that the opinion was given in the usual and ordinary course of business.

(2) Where part of a business record is produced in a proceeding, the court, after examining the record, may direct that other parts of it be produced.

Unfortunately, Bill S-33 continues the legislative practice of leaving the defining of the words "usual and ordinary course of business" entirely to the courts by providing no definitions of these words. But at least section 153 would avoid the controversy over the single/multiple hearsay issue that plagues section 30 CEA because it does not contain the opening words of section 30 that have given rise to this issue, "Where oral evidence in respect of a matter would be admissible." A business record, to be admissible under section 153, does not have to have been made by one who had direct personal knowledge of the facts and events recorded in that record. And the words "a statement of opinion" appear in section 153 because of the current doubt as to whether the word "matter" in section 30 CEA includes opinions. These words will cause lawyers to argue that computer printouts containing data compilations are as admissible under section 153 as printouts containing bare facts in the form in which they were originally entered.

In regard to the issues as to what "circumstances of the making of the record" the court should look for, and to what the scope of the evidence should be in relation to gaining admissibility, Bill S-33 has merely copied from sections 30(6) and 30(9)

CEA. The following presentation will facilitate comparison. (Sub-section 30(1) CEA is reproduced as well to allow for comparison with ss. 152 and 153 above.)

155.(1) For the purpose of determining whether a business record may be admitted in evidence under this Act, or for the purpose of determining the probative value of a business record admitted in evidence under this Act, the court may examine the business record, receive evidence orally or by affidavit, including evidence as to the circumstances in which the information contained in the record was written, recorded, stored or reproduced, and draw any reasonable inference from the form or content of the record.

(2) Where evidence respecting the authenticity or accuracy of a business record is to be given, the court shall require the evidence of the custodian of the record or other qualified witness to be given orally or by affidavit.

(3) Where evidence under subsection (2) is offered by affidavit, it is not necessary to prove the signature or official character of the affiant if his official character purports to be set out in the body of the affidavit.

156. Any person who has or may reasonably be expected to have knowledge of the making or contents of any business record or duplicate or copy of it produced or received in evidence may, with leave of the court, be examined or cross-examined by any party.

30.(6) For the purpose of determining whether any provision of this section applies, or for the purpose of determining the probative value, if any, to be given to information contained in any record received in evidence under this section, the court may, upon production of any record, examine the record, receive any evidence in respect thereof given orally or by affidavit including evidence as to the circumstances in which the information contained in the record was written, recorded, stored or reproduced, and draw any reasonable inference from the form or content of the record.

30.(9) Subject to section 4 [re competence and compellability], any person who has or may reasonably be expected to have knowledge of the making or contents of any record produced or received in evidence under this section may, with leave of the court, be examined or cross-examined thereon by any party to the legal proceeding.

30.(1) Where oral evidence in respect of a matter would be admissible in a legal proceeding, a record made in the usual and ordinary course of business that contains information in respect of that matter is admissible in evidence under this section in the legal proceeding upon production of the record.

United States Federal Rules of Evidence: Rule 803. Hearsay Exceptions; Availability of Declarant Immaterial

The following are not excluded by the hearsay rule, even though the declarant is available as a witness:

803(6) RECORDS OF REGULARLY CONDUCTED ACTIVITY. A memorandum, report, record, or data compilation, in any form, of acts, events, conditions, opinions, or diagnoses, made at or near the time by, or from information transmitted by, a person with knowledge, if kept in the course of a regularly conducted business activity, and if it was the regular practice that business activity to make the memorandum, report, record, or data compilation, all as shown by the testimony of the

custodian or other qualified witness, unless the source of information or the method or circumstances of preparation indicate lack of trustworthiness. The term "business" as used in this paragraph includes business, institution, association, profession, occupation, and calling of every kind, whether or not conducted for profit.

Again, no definitions of key words are provided. Which of the "circumstances in which the information contained in the record was written, recorded, stored or reproduced" (s. 155) should a court use to determine admissibility or probative value? How does one know if one has drawn a "reasonable inference" from a record unless one knows which "circumstances" of record-making are the key ones in creating reliable records? The above provisions also fail to make mandatory any proof of the sources of the information that goes into records. A reliable record-keeping system should provide no difficulty in proving the sources of its information, and there should be a mandatory, invariable requirement to identify the sources which had personal knowledge of the information recorded. Future case law might interpret sections 30(6) CEA, 48(2) BCEA, 35(4) OEA or 155 of Bill S-33 as requiring a description of the sources of information as part of the foundation evidence for admissibility of weight (probative value). There is nothing in these provisions, however, mandating such an interpretation as does the U.S. *Federal Rule of Evidence* (803(6): "...made ... by, or from information transmitted by, a person with knowledge."

Bill S-33 also fails to deal expressly with the issue of contemporaneously-made records and whether the information that is recorded in and admissible record must be supplied by a person under a duty to supply such information. The legislative language used will perpetuate the present process of creating conflicting case law in relation to these and other issues.

For these reasons I would argue that Bill S-33 perpetuates the major defects that section 30 CEA and the provincial Evidence Acts have in relation to computer printouts. Because so special criteria for computer printout admissibility are provided, the court must be prepared to investigate the whole of a computerized record-keeping system to determine if it is reliable. As a result, one does not know what criteria the court will use to judge the reliability of the system which produced the records one wishes to introduce into evidence. The lawyer preparing for court, therefore, dares not put a narrow limit upon the foundation evidence he will be marshalling to demonstrate the reliability of that system. It follows, then, that courts can expect to have to endure long inquiries to determine the admissibility of computer printouts *if* the opposing party challenges the adducing party by invoking the court's powers in sections 30(6) and 30(9) CEA or 155 and 156 of Bill S-33 to investigate in detail the full "circumstances in which the information contained in the record was written, recorded, stored or reproduced." All of this suggests that running trials efficiently ("trial administration") will suffer because of an unwillingness to be any more definitive of the criteria for admissibility than the phrases, "usual and ordinary course of business" and "circumstances in which the information..."

The preferable approach, and that adopted in the legislation of England, Australia, and South Africa, is to make a more detailed statement of the criteria by which admissibility and weight are to be judged. Thus the standards for determining whether a sufficient degree of reliability exists for admissibility are set for the court,

relieving the court of having to investigate the whole of a record-keeping system in total. Ironically, there is one key definition in Bill S-33 which may ensure that the *McMullen* requirement of having to demonstrate the accuracy of the complete record-keeping process is perpetuated even after sections 29 and 30 CEA and their provincial counterparts are replaced. The definition of "original" in section 130 in relation to computer printouts states:

(c) in relation to stored or processed data or information, any printout or intelligible output shown to reflect accurately the data or information.

There is no indication which "data or information" are meant — the data or information recorded on the printout itself, or the original data or information upon which the printout is based? Nor is there any guidance as to what amount of evidence is sufficient for something to be "shown to reflect accurately." This definition is open to the argument that it requires that printouts not be accepted as original copies of business or banking documents unless they are *shown* to be an accurate reflection of previously recorded data or information. It will have to be shown therefore what data or information gave rise to the printout.

The wording of this definition may allow one to argue successfully that it will have to be shown how the data or information which created the printout was handled during all phases of its use so as to show that the printout is in fact an accurate reflection of that original data or information. Also, lawyers might argue that the words "data or information" should be interpreted as excluding statements of opinion from computer printouts in spite of the reference to opinion in section 153. Business records containing statements of opinion would then be argued to be admissible only if such records were not computer printouts which contain data compilations because data compilations could be said to be opinions rather than simple statements of data or information.

Microfilm

Microfilm is particularly important to business record-keeping for two reasons which justify giving it special attention under the rules of evidence: it represents a substantial saving in storage costs over paper record-keeping and over on-line storage; and it can greatly enhance the security aspects of computerized record-keeping by facilitating the keeping of duplicate copies of records. It therefore deserves an express reference in the Evidence Acts so as to provide a firmer foundation in law for the business world's substantial investment in it.

The legal issue in relation to microfilm is not whether it is legal to microfilm documents, as no law prohibits anyone from microfilming his own documents. Rather, the legal issues are whether a microfilm-produced copy will be admissible in court proceedings after the paper original has been destroyed, lost, or given away; and whether a microfilm-produced copy will be admissible if the microfilm was the original document, that is, there never was a paper original because the computer-produced-microfilm was the first produced permanent record. It is far more important to an organization's legal position that the records manager secure proper authority to destroy paper originals or permission to print the organization's permanent records only on microfilm than it is to secure permission to microfilm its paper files. The records manager who has secured only a vague, general authority to initiate a microfilming programme might find in court that although the microfilming

of paper documents is accepted as part of the organization's "usual and ordinary course of business," the destruction of the paper originals is not. This matter of formal organizational authorization in setting up a microfilm programme is dealt with in the National Standard of Canada cited below.

At present, the photographic evidence provisions of the Evidence Acts are of only limited usefulness in achieving admissibility for microfilm-produced documentation. Section 31 CEA is limited to government and financial institutions, while section 34 OEA gives only discretionary admissibility to photographic copies of executed or signed documents whose originals are destroyed before the expiration of the six-year rule defined by section 34(3). Section 40 BCEA also makes admissibility merely discretionary "in the interests of justice," and this is to be interpreted by the judge in each particular case. Both the Canada and Ontario provisions require proof of destruction of the original in the presence of employees or of loss or delivery out in the ordinary course of business, although it would be preferable to allow the principles for establishing and maintaining an acceptable microfilm programme to be established by the micrographics industry and by National Standards of Canada, than by the Evidence Acts. Clearly, these provisions see microfilm not as an original form of documentation, but merely as a second-best document to the paper original.

In 1979, the Standards Council of Canada approved a national standard entitled "Microfilm as Documentary Evidence" (CAN2-72. 11-79). This standard deals with procedures for establishing a microfilm programme, preparation of documents for microfilming, filming and processing, quality assurance, and storage and preservation. I would suggest therefore that a provision such as the following should be written into the Evidence Acts:

In assessing the weight to be given, or the reliance to be placed upon microfilm documentation, the trier of fact may draw any reasonable inference from the degree of compliance of the microfilm programme used, with Canadian National Standards for Microfilm Documentation, such as Canadian National Standard, CAN2-72. 11-79, "Microfilm as Documentary Evidence."

Such a provision is an example of the way in which the rules of evidence can be integrated with other developments in the field of record-keeping. But even without such a provision, this new National Standard²⁰ can be used to structure the foundation evidence marshalled in support of admitting microfilm documentation, or to structure a cross-examination if opposing its admission.

20 The National Standard of Canada CAN2-72. 11-79, "Microfilm as Documentary Evidence," is cited in relation to methods of keeping records in Revenue Canada Taxation's *Information Circular 78-10R*, "Books and Records Retention/ Destruction," dated 17 January 1983, p. 2:

Methods of Keeping Records

6. Revenue Canada Taxation recognizes as books and records of account for the purposes of sections 230 and 230.1 of the Income Tax Act, section 103 of the Petroleum and Gas Revenue Tax Act, section 25 of the Canada Pension Plan and section 72 of the Unemployment Insurance Act, 1971, the traditional books of account with supporting source documents; records maintained in a machine-sensible data medium which can be related back to the supporting source documents and which is supported by a system capable of producing accessible and readable copy; and microfilm (including microfiche)

The existing Evidence Acts may not be able to accommodate computer output microfilm (COM) because they require that there be an "original" to be microfilmed. A computerized system might produce a microfilm record as a routine part of record-keeping, then the memory might be purged leaving the microfilm as the only record of the original entries. If there is an "original," therefore it is the electronic impression which was first stored in the computer or entered into the computer. That data entry may have been combined with many others and manipulated by the computer programme, thus any "original" may be said to have been destroyed. What is microfilmed is not this "original" record. As a result, the requirements of proof that the "original record" was destroyed, lost, or delivered to a customer is inappropriate for computer output microfilm, *if* the "original" continues to mean the first recorded entry. One answer would be to recognize any printouts from the computer as being the original.

Bill S-33 does away with these strictures and deals with photographic and microfilm documentation as follows:

130. "duplicate" means a reproduction of the original from the same impression as the original, or from the same matrix, or by means of photography, including enlargements and miniatures, or by mechanical or electronic re-recording, or by chemical reproduction or by other equivalent technique that accurately reproduces the original;

"Original" means (b) in relation to a photograph, the negative and any print made from it,

"photograph" includes a still photograph, photographic film or plate, microphotographic film, photostatic negative, x-ray film and a motion picture.

reproductions of books of original entry and source documents, if produced, controlled and maintained in accordance with the National Standard of Canada CAN2-72. 11-79 entitled "Microfilm as Documentary Evidence." (CAN2-72. 11-79 is available through Canadian Government Publishing Centre, Supply and Services Canada, Ottawa, Ontario, K1A 0S9.)

This Information Circular also deals with retention periods for various classes of documents and states that after six years permission to destroy ordinary business records need no longer be obtained. This classification system follows the recommendations put forward in a 1979 report of the former federal Office for the Reduction of Paperburden and which were accepted and announced by the Minister of State for Small Business and by the Minister of State for Economic Development on 9 October 1980. The Minister of State for Small Business has published a handbook of almost 400 pages, *Records Retention Requirements for Business* which outlines what records must be kept, who must keep records, how long they must be kept, the relevant statute or regulation, the relevant agency, and the penalties for non-compliance. In July 1982 a supplement was published by the Office of the Co-ordinator Regulatory Reform, Treasury Board of Canada. Bill C-118, "An Act to Amend Certain Acts that Provide for the Retention of Records," received Royal Assent on 22 June 1982, and came into effect on 22 September 1982. It amended the following acts by substituting a six-year retention period in place of the mandatory retention mechanism of "retention until written permission for disposal is obtained from the Minister or Board": Canada Pension Plan, Defence Production Act, Excise Act, Excise Tax Act, Income Tax Act, Petroleum Administration Act, and Unemployment Insurance Act. In Ontario, the Management Board of Cabinet on 1 December 1981 published a similar handbook, *Guide to Records Retention Requirements*.

A "duplicate" is almost as admissible as an "original," failing which one can use a "copy," or in the absence of a "copy," one can use "other evidence":

131. Subject to this Act, the original is required in order to prove the contents of a record.

132. A duplicate is admissible to the same extent as an original unless the court is satisfied that there is reason to doubt the authenticity of the original or the accuracy of the duplicate.

133. Where an admissible duplicate cannot be produced by the exercise of reasonable diligence, a copy is admissible in order to prove the contents of a record in the following cases:

- (a) the original has been lost or destroyed;
- (b) it is impossible, illegal or impracticable to produce the original;
- (c) the original is in the possession or control of an adverse party who has neglected or refused to produce it or is in the possession or control of a third person who cannot be compelled to produce it;
- (d) the original is a public record or is recorded or filed as required by law;
- (e) the original is not closely related to a controlling issue; or
- (f) the copy qualifies as a business record within the meaning of section 152.

134. Where an admissible copy cannot be produced by the exercise of reasonable diligence, other evidence may be given of the contents of a record.

Thus Bill S-33 creates a "hierarchy of secondary evidence" after giving primacy to originals. Originals are referred to as being the best evidence, and the provisions (sections 131 to 134) are set out in Bill S-33 under the heading, "Best Evidence Rule."

Conclusion

Bill S-33 is a definite improvement over the present statute and case law. Computer printouts are clearly made admissible and a unified and ordered structure is given to the three major evidentiary issue categories of the best evidence rule, authentication, and hearsay rule exceptions. Also, microfilm produced documentation is given the status that paper original documentation has traditionally held. Bill S-33 does, however, perpetuate a major failure of the present law in that it lacks a framework of basic principles as guidelines for the necessary foundation evidence for admissibility. Bill S-33 deals very well with the problem of what is an "original," but it deal poorly with the problems of securing adequate evidence to prove the procedures and information that go to create that original. As a result, case law will continue the present process of fragmented development of principle, leaving both the business community and the data-processing industry in considerable doubt as to what the courts require as necessary standards for admissibility of the records they create.