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Optical Disc Document Images: Evidentiary Aspects in Victoria

Abstract

Experienced information specialists expect optical disc technology to gain wide acceptance in the marketplace as an alternative to traditional electro magnetic technology and microfilm or paper-based document management systems.

Archivists, librarians, records managers and computer systems managers alike, however, have expressed concern related to the legal status of records and data maintained using this technology. Specific concern relates primarily to the admissibility of optical disc records as evidence and as a consequence the acceptance of this type of electronic record by the business community, administrative agencies and other organisations.

At the time of this article, no statute or regulation, or judicial decision, seemingly exists in any Australian jurisdiction which directly addresses the application of this particular technology to document reproduction and storage.

Keywords

optical disc, cd-rom, evidence, admissibility

OPTICAL DISC DOCUMENT IMAGES: EVIDENTIARY ASPECTS IN VICTORIA



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Introduction

Experienced information specialists expect optical disc technology to gain wide acceptance in the marketplace as an alternative to traditional electro magnetic technology and microfilm or paper-based document management systems.¹

Archivists, librarians, records managers and computer systems managers alike, however, have expressed concern related to the legal status of records and data maintained using this technology. Specific concern relates primarily to the admissibility of optical disc records as evidence and as a consequence the acceptance of this type of electronic record by the business community, administrative agencies and other organisations.

At the time of this article, no statute or regulation, or judicial decision, seemingly exists in any Australian jurisdiction which directly addresses the application of this particular technology to document reproduction and storage. Apparently the Courts have yet to be confronted with a challenge to the reliability of records or data maintained by these systems and may not be required to respond for several years based upon the past history with other technologies.²

The problem however has been alluded to by the Australian Law Reform Commission (the ALRC)³ in 1985. In the comprehensive review of the law of evidence undertaken by the Commission, it was observed that the definitions provided in the *Evidence Act 1958 (Vic)* (the Act) excluded '...computer output on microfilm, produced using laser techniques and the new technology of optical disc which also uses laser techniques'.⁴

- 1 See for example: Head B, Eyes are on optical systems, Australian Financial Review September 4th 1989 pp 43, 47 where sales of optical disc systems are reported as outstripping those of all other micrographic systems for the first time in 1989.
- 2 The title of the world's first commercial computer is accredited to LEO (for Lyons' Electronic Office) which in 1951 was applied to calculating the weekly payroll of Lyons, a chain of English tea houses, a few months before UNIVAC's debut at the US Census Bureau. It was not until the *Civil Evidence Act 1968* that computer generated documents were accorded distinct evidentiary status in the UK and not until 1971 in Victoria.
- 3 Australia Law Reform Commission Report No 26 on Evidence AGPS 1985 2V.
- 4 Ibid Vol 2 at p 137.

What should businesses and administrative agencies do in the interim period, until a body of law evolves similar to that for microfilm and computer records? Should purchase decisions be postponed until new legislation is enacted or the technology has passed judicial scrutiny and authoritative precedents established? Should commerce wait several years to recognise what is already established - that this new technology offers greatly improved storage, retrieval and sharing of information.

This article examines the accuracy of the ALRC's observations in respect of the Act. It reviews electronic digital imaging systems and in particular the medium known as optical disc as a storage medium for documents within the context of existing laws of evidence relating to microfilm and computer storage of document reproductions in Victoria.⁵

What is an optical disc?

Since the 1970s, a new kind of computer storage device has emerged that can compress data into exquisitely small spaces. It uses the power and precision of a laser to etch and then read tiny marks on shimmering platters called optical discs.

Already, optical discs have begun to rival or replace magnetic storage in some applications, and ultimately they may supplant microfilm or magnetic storage altogether. On an optical disc, the image of an A4 page would occupy an area smaller than the period at the end of this sentence.

Optical discs offer several advantages besides greater density. Because they store information so compactly, they are less expensive, bit for bit,⁶ than magnetic discs or tapes. They are also extremely durable. Some types of optical discs are expected to last many decades,⁷ whereas magnetic media often begin to deteriorate after a few years use. Nor is there any chance of a catastrophic 'head crash' occurring within an optical disc. In contrast to read/write heads used on most magnetic discs, the lenses that focus the laser beam on the optical disc stand well clear of and never contact the surface of the disc. Further, optical storage media is not subject to corruption or

5 References are provided throughout in footnote to other Australian jurisdictions where direct statutory equivalents of the Act exist or where application of the common law may vary. However the unfortunate reality is Australian evidence law relating to documents as enacted in the various States and Territories is fragmentary and inconsistent. Such is the degree of inconsistency that one class of documents or their content may be clearly admissible in one jurisdiction but be equally clearly inadmissible in another. For this reason the article focuses upon the Victorian position.

The following abbreviations are used throughout: Cth EA *Commonwealth Evidence Act* 1905; AEO *Australian Capital Territory Evidence Ordinance* 1971; NEA *New South Wales Evidence Act* 1898; E(R)A *New South Wales Evidence (Reproductions) Act* 1967; NTEA *Northern Territory Evidence Act* 1984; QEA *Queensland Evidence Act* 1977-1984; SEA *South Australian Evidence Act* 1929; TEA *Tasmanian Evidence Act* 1910; WEA *West Australian Evidence Act* 1906-1982.

6 A bit is the smallest unit of information processed or stored by a computer represented by a single zero or one. The word 'bit' is a contraction of 'binary digit'.

7 Some companies are now guaranteeing a minimum life of 30 years without degradation and acceleration ageing tests conducted by Sony indicate a possible life of up to 100 years! ((1989) 23 (1) INFORMAA 5).

destruction from electro magnetic interferences.

The most widespread commercial application of the technology to date is the familiar compact disc (CD) used for sound recording.

The success of the compact disc hinges on its use of digital technology. To make a CD, an analogue signal representing the sound of music as a continuously varying voltage, is converted into its digital equivalent - a string of bits. These bits are then encoded as a pattern of billions of pits in a three mile long spiral on the disc. The CD player, a form of dedicated computer, converts the pits into bits, then converts the bits into music.

It became clear early on that CD technology would lend itself to a wide range of computer applications. The pits could equally represent anything which could be converted to a digital form including text and images as well as sound.

In 1984, joint venturers Philips and Sony announced development of a disc for data storage rather than music. The disc was called CD-ROM (Compact Disc Read Only Memory). The 'ROM' derives from memory chips found in computers which store programs and data in permanent form and cannot be written over. Similarly, CD-ROM format cannot be added to, altered or erased, it merely delivers up what is stored on it. These features are both a strength and weakness of the technology. While the format is rigid this makes it ideal for archival storage and for ensuring faithful reproduction of whatever is recorded. Its rigidity is also offset by the disc's capacity. A single (12 cm) CD-ROM will hold 250,000 A4 pages of text - any portion of which can be located, retrieved and reproduced in a matter of seconds.

CD-ROM is by far the most sophisticated publishing medium available today.

Computer professionals and manufacturers realised that in order for the use of optical discs to expand, the discs must be made capable of accepting new information, similar to their magnetic competitors. A second generation of discs designed to be written on once only and then read repeatedly enables the technology to be utilised by consumers for permanently recording and storing their own information. At present the technology is relatively expensive and slow. This new medium has been rather inelegantly dubbed WORM (for Write Once Read Many). Data on write-once discs cannot be erased or revised. Updates to information on the disc are recorded on a virgin area of the disc, and the old version is rendered obsolete. Rather than erasing obsolete information this feature often proves valuable to organisations that need to maintain a complete record of prior transactions.

Formats for completely erasable optical disc are currently being developed utilising the same principles and laser techniques of the earlier formats. There are several commercial products available now,⁸ however the technology is regarded as infant in terms of development.

8 Erasable optical technology is presently of two types : magneto/optical technology and phase linear technology. Magneto/optical was the first form of erasable optical storage but has proved to be extremely slow. Phase linear is a faster and purer form of erasable data storage. See for example Hay 'Look what's in storage news' [1989] Computing Australia 26 (17 Apr).

Evidentiary Problems - The Fundamental Tenant of Reliability

It is a fundamental legal requirement that, to be admissible, any and all evidence must be relevant to the facts in issue. The other principal tenant of admissibility is that it must be reliable. All evidence must exhibit these cardinal dual characteristics. It is the second element which is the focus of this article.

Reliability has a special meaning to lawyers and one that is quite different from that used by a technologist or scientist. It will be seen that in order to be sufficiently reliable at law, all evidence must exhibit a duality of properties. Evidentiary reliability must be tested at two levels. First, a document itself must be accepted by the Court as being authentic. That is, it must not be a counterfeit or have been altered in any way. Secondly, completely independent of the authenticity of the document, the statements or information contained in the document, which are tendered in evidence as proof of the truth of what is asserted or recorded in the document, must be capable of being accurately and independently tested. The rationale or purpose of this inherent dichotomy of relevance is examined further. It will be seen from discussion of the cases analysed that where the Courts have been required to consider the issue of reliability of documentary evidence, these dual aspects of relevance have often become blurred and one aspect or the other overlooked or ignored. It will also be seen that unfortunately, and perhaps unwittingly, recent amendments to the Act have aggravated and perpetuated the confusion surrounding both these aspects of reliability.

With the advent of digital imaging technology, the ability to demonstrate reliability is of increasing importance. It behoves computer engineers to develop, and information professionals and lawyers to demand, image and information technologies which integrate in-built controls such that human beings can test the integrity and reliability of images stored on, and information generated by, computers.

Making the reliability of computer-generated evidence as easy as possible to test is crucial. If it is not, then justice could be hindered or denied and the commercial acceptance, and the continued development, of this useful technology inadvertently delayed.

Hence, it will be helpful at the outset to record in summary at least some of the problems related to the technology which could potentially create legal obstacles. Even if this new technology is within the ambit of existing laws, the design and operation of electronic imaging systems will need to address these problems.

Images stored on optical disc may not be an exact reproduction of the original

The quality of input scanners for image based systems varies considerably. Documents and parts thereof are scanned into the system in a manner similar to facsimile scanning. The typical system scans at a normal resolution of 200

dots per inch. Documents may be typed, handwritten or illustrated. While the resolution is adequate to fully reproduce the image, not everything from the original will be reflected in the duplicate. While this may seem to be an obstacle, other technologies such as microfilm or facsimile also fail to reproduce everything contained in the original, but generally reproduce a complete and readable image. The quality of an electronically digitised image can in fact exceed the quality of the microfilm image. Typically in the dot for dot transformation from the original document to the optical disc, a white dot is recorded as a 'zero bit' and a black dot as a 'one bit'. However, most systems will not store the image in terms of a series of 'electronic dots' in order to conserve space. Instead, after scanning, the image is compressed to reduce both the amount of storage and the transmission time.

The technique most often used is called 'run length encoding'. Compression squeezes out all of the white space and represents the remaining image in the minimum number of bits. Compression ratios of 20:1 and 30:1 are used for ordinary business documents. The same compression standard is used that allows fax equipment to reduce transmission time from 6 minutes per page to sub-minute performance. This is called the CCITT standard (Consultative Committee on International Telephone and Telegraph). At any point, the compressed version of the image can, however, be reconverted back into the dot version through the application of appropriate decompression algorithms.

Although there is significant alteration to the attributes of the original image through compression, the image qualities of the final displayed image will not be altered.

Electronic images may be enhanced during or after scanning and prior to storage on the optical disc

Image enhancement may be a significant impediment to legal acceptance of this technology. Image enhancement techniques actually improve the image by sharpening line edges, removing the appearance of stains, tears, holes, or specs from the background and filling in broken letters, gaps, and other defects in an image. The purpose is to make electronic image even more readable than the original. Thus the concern is just the opposite of the previous concern that the electronic image may not capture all of the information (i.e. the exact likeness) of the original image.

One view is that the image enhancement merely results in an improved image rather than different information. Since the information contained in a record ultimately is more important than its appearance, Courts or Tribunals may not object too strenuously.

The key issue here is the 'trustworthiness' of the electronic image. In terms of copies, this new technology, even more so than microfilm techniques, may require the maintenance of some audit trail, indicating the types of image enhancement techniques used and, perhaps the percentage of change that resulted after enhancement. Further, it may not be going too far to suggest that the original images be microfilmed, or an unaltered version of the original image scanned and stored on CD-ROM prior to image enhancement.

However, what needs to be balanced here is the substantial additional time and expense on the part of the user to create this duplicate copy for legal purposes.

The Image is 'volatile', ie the information maintained within an image (such as a signature, seal or other mark) can be removed or modified without a trace

This is an extension of the previous problem of enhancement. Image data has the same electronic characteristics as any other computer information. After retrieval from storage (i.e. from the optical disc), the image or parts thereof may be electronically modified in a variety of ways. The data can be deleted, modified or enhanced with additional data from other electronic sources. Where the original storage medium is an non erasable optical disc, the original image remains intact.

Commercial products now exist to assist with the editing of electronic images and it is now acknowledged that such products are the perfect tool for illegal and fraudulent reproduction of documents. It has been claimed these products '...have the potential to undermine the reliability of videos and photographs as evidence in legal trials'.⁹

The revised image may be stored as a new document. With erasable optical discs, the previous image could be erased completely without a trace. This susceptibility and vulnerability of electronic image data to intentional or accidental alteration represents a significant obstacle in terms of the reliability of what is reproduced from storage. It warrants detailed examination by agencies involved in future reforms relating to documentary evidence.

Digital images cannot be certified in terms of authenticity

Microfilm records can be certified. However, computer stored records cannot readily be certified. As will be seen later, the alternative is for the Courts to require that the procedures be documented and performed in the ordinary course of business.

The life of optical disc data is uncertain

Some concern has been expressed as to the archival quality of optical disc storage. This concern however is lessening with improvements in materials used.¹⁰

Digital images are hybrid reproductions

It will be seen that while Courts and quasi judicial Tribunals and Parliament have already established the legal acceptance of computer records in judicial or administrative proceedings, there is a significant difference of attitude, rationale and treatment depending upon whether what is sought to be

9 Video capture product could cause fraud and forgery [1991] Computing 3.

10 Above at 6.

admitted is a copy of an original document or a computer-generated document. Optical disc technology represents a convergence or integration of the two concepts.

It seems clear, at the minimum, that this new technology, used as an image storage medium, exhibits hybrid characteristics in terms of current technology. It has similar image re-production properties as microfilm and yet utilises data processing technology. Having regard to the present law in Victoria, the result of this observation may be surprising for those waiting for a legal 'test case' to be authoritatively decided.

The rules of evidence have sought to deal with the aspects of copies of documents and computer generated records or documents quite separately and as will be seen the particular rules applicable will depend upon the circumstances.

The issues dealt with in this article relate primarily to optical disc storage as an acceptable copy of the original document. The existing legislation relating to microfilm reproductions has been criticised as complicated and impractical.¹¹ Optical disc reproductions aggravate the already unsatisfactory situation.

In this regard, it is the thesis of this article that the technology is an uncomfortable fit within the legal framework existing in Victoria. Beyond the inherent existing problems relating to copies of documents, it will be seen that the primary deficiency in existing Victorian legislation is the lack of a clear distinction between, and separate treatment of, computer-stored information and computer-generated information.

Computer-stored records exist where the output from the computer storage media is a copy, faithful reproduction or restatement of the information or data as originally supplied by the human operator to the computer. This would include not only electronically scanned images but also factual records such as births, deaths and marriages and land information.

Computer-generated records exist where the computer makes a computation, performs a logical operation, analyses or processes the information or data supplied. The record produced or made in such circumstance cannot be directly attributed to a human. This would include, inter alia, financial computations, statistical extrapolations and computer modelling.

The Law

Historically, the Courts have always preferred the oral testimony of witnesses to that of information contained in documents. This basic proposition remains true even today notwithstanding that Court proceedings, particularly in civil matters, will often be dealt with with almost exclusive reliance upon documents. Oral evidence may be called but often this is only to fill the gaps left by the documents themselves. This development in the law is a reflection of the prominence that recorded communications and

11 For example see the ALRC report, *Ibid* Vol 1 at para 323.

information now occupy in routine business and commercial activities and the conduct of daily life.

The practical benefits to be derived from reliance upon documents are several. One advantage that a document offers is that its content does not alter once it is before the Court. Although the information contained in the document may, and often is, a subject of considerable argument, the precise wording of the documents will remain unaltered throughout the proceedings. This may be contrasted with oral evidence given by witnesses who may change their story for a variety of reasons throughout the proceedings. Furthermore, a trial involving only the interpretation of documents should be shorter and less expensive than one involving witnesses.

The original underlying suspicion of documentary evidence was based upon the impossibility of subjecting such evidence to cross-examination. Documents were excluded from evidence unless their accuracy and reliability and relevance to a fact in issue could be demonstrated by other means. One notable early exception to the common law rule was official public records. Where the provenance of such official records could be established, this was said to give sufficient reliability to the document as evidence. The position regarding public records is discussed in more detail later.

Admissibility of documents as evidence will not always be a concern of information professionals or businesses.

First, only a small percentage of all information stored will ever be required as evidence in Court. Secondly, specific legislative requirements as to the retention of particular types and classes of records will prescribe requisite formats and life cycles for those records to which the specific legislation relates.¹² Finally, the general evidentiary requirement of producing the original as primary evidence of a document's contents relates only to the mode of proof and if not insisted upon by a party to proceedings, it need not be observed.¹³

The starting point is that admissibility of copies and computer records involves a preliminary question of law to be decided by the courts.

In Victoria it seems there are four possible primary bases for the admission of an optical image reproduction into evidence:-

1. At common law by application of the so called 'best evidence' rule. The rule requires that the original writing or recording is necessary to prove the contents of what is recorded.¹⁴ However, if the original is unavailable, then other relevant evidence (so called secondary

12 See for example *Income Tax Assessment Act 1936* (Cth) s 262A; *Fringe Benefits Tax Assessment Act 1986* (Cth) s 132; *Payroll Tax Act* s 44; *Financial Institutions Duty 1982* (Cth) s 77; *Cash Transactions Report Act 1988* (Cth) s 23; *Proceeds of Crime Act 1987* (Cth) Div4; *Cheques and Payment Orders Act 1986* (Cth) ss 68 and 112; *Limitations of Actions Act 1958* (Vic) s 5.

13 *R v Alexander & Taylor* [1975] VR 741 at p 751 (document); *R v Matthews & Ford* [1972] VR 3 at p 11 (recording).

14 Chadbourne JH (ed) *Wigmore on Evidence* (Boston : Little Brown & Co 1972) Vol 4 at p 1277.

evidence) of its existence and contents is admissible in certain circumstances unless the proponent of the evidence acted male fides in its destruction or loss.

2. Specific statutory exceptions to the 'best evidence' rule. These are statutory provisions for the admissibility of properly certified and authenticated copies of records and documents. They have to a large extent overtaken the common law 'best evidence' rule. The principal Victorian exceptions dealt with following include official reproductions, reproductions of business documents and reproductions done on approved machines.
3. The 'business records' exception to the 'hearsay' rule. Statements contained within computer images of documents are 'hearsay' evidence unless they can be brought within an exception to the 'hearsay' rule. If a record was made in the regular course of business, subject to certain conditions, it will constitute an exception to the 'hearsay' evidence rule.
4. The 'computer produced document' exception to the 'hearsay' rule. As with business records, statements contained in a document produced by a computer or computers will in certain circumstances constitute an exception to the 'hearsay' rule.

The Common Law 'Best Evidence' Rule

The 'best evidence' rule requires that an original document be tendered unless it has been destroyed or lost or its absence cannot be accounted for and prevents the tendering of copies when the original is still in existence. It will be seen further that the rule has been modified by legislation to perpetuate the testimony of reproductions of documents stored on microfilm and statements or records made in the course of business or generated by computer. The legislative modifications supplement the common law rules. Thus, the common law may still operate to facilitate the tendering of copies into evidence even where the statutory requirements are not met.¹⁵

An original document will always be required to be tendered in evidence when it is available. Generally, it may be said that the original is the version of the document agreed by the parties as the version upon which they would act. Duplicate documents and carbon copies may also be originals if executed by all parties.¹⁶

Before the present century, there was often strict application of the rule. In one case the prosecution's failure to produce the original of a railway by-law was used to prohibit a magistrate convicting an accused for a breach of that by-law¹⁷ and in another oral evidence (secondary evidence) about a bushel

15 Section 43 of the Act expressly provides that the legislative provisions in Pt3 are 'in addition to and not in derogation of any power of proving documents or of proving facts by documents given by any other provision or any other Act or existing at common law'.

16 *Gotlieb v Danvers* (1796) 170 ER 418 (duplicate of notice served on defendant executed at same time as original); *Durston v Mercuri* [1969] VR 507 (carbon copy of breath analysis recording).

17 *Flynn v Sellehim* (1884) 2 Q LJ 48.

measure was rejected on the basis that the measure itself should have been produced.¹⁸ In yet another, despite the acknowledged inconvenience involved, it was held that the individual volumes of a library of some 450 books with prices marked in each volume was the best evidence of the purchase price which was agreed upon the marked prices, and to be preferred to the secondary evidence provided to the plaintiff of an amount calculated by adding together the marked prices.¹⁹ These cases however probably do not represent modern judicial attitudes. The reasons for the existence of the 'best evidence' rule were succinctly stated by Wigmore:

'(1) As between a supposed literal copy and the original, the copy is always liable to errors on the part of the copyist, whether by wilfulness or by inadvertence; this contingency wholly disappears when the original is produced. Moreover, the original may contain, and the copy will lack, such features of handwriting, paper, and the like, as may afford the opponent valuable means of learning legitimate objections to the significance of the document. (2) As between oral testimony, based on recollection, and the original, the added risk, almost the certainty, exists, of errors of recollection due to the difficulty of carrying in the memory literally the tenor of the document.'²⁰

Secondary evidence

An original document is considered primary evidence of the contents of a document.

At common law, a party may however tender secondary evidence of the content of a relevant document. For the purposes of this article, the two most important circumstances allowing secondary evidence are upon proof:

- a) that the document is a 'public document'; or
- b) that the original was lost or destroyed, or that reasonable efforts to locate and procure the original document have been unsuccessful.

In both cases, if a copy of a document is tendered, it is necessary to prove that the copy is a true copy of the original. The copyist or any person who has compared the original with the copy may give evidence as to its accuracy.²¹

The secondary evidence rule, in particular as it applies to copies, has been largely overtaken by legislation in Victoria. The principal legislation is discussed in detail further. For this last mentioned reason, the common law exceptions are dealt with only briefly. This is not intended to belie the importance of their applications in circumstances outside the ambit of the legislation.

18 *Chenie v Watson* (1797) 170 ER 217.

19 *Dymock v Tyson* (1899) 16 WN (NSW) 119.

20 *Wigmore on Evidence* 3rd ed (Boston : Little Brown & Co 1940) Vol 4 at p 1179.

21 See *Permanent Trustee Co of NSW v Fels* [1918] AC 879 at p 885 per Lord Buckmaster (PC); *R v Collins* (1960) 44 Cr App R 170 (CCA) at p 174.

Public documents

At common law, copies of numerous public documents are viewed as being an exception to the 'best evidence' rule. There will be no need to prove the accuracy of the document's content. The basis for the exception is founded upon the notions of the official provenance of the records and public inconvenience if original documents were continually required in Court.²²

To satisfy the requirements of being a public document, the Courts have recognised at least the following criteria:

- a) the document must be created and stored for public use on a public matter;
- b) the document must be available for public inspection;
- c) the information in the document must be recorded contemporaneously with the events of which it purports to be a record; and
- d) the record must be created by a person having a duty to inquire and satisfy himself as to the truth of the recorded facts.²³

There are many examples of public documents that have been accepted by the Courts including company returns,²⁴ government maps²⁵ and meteorological records.²⁶

The fact that a public document can be readily admitted in evidence has little bearing on the weight that may be ultimately attached to it.

Documents lost or destroyed

At common law, where the original has been lost or destroyed, its contents may be proved by secondary evidence. Where loss is involved, proof is required that it has been duly searched for without success by the person who should have possession or control of it.²⁷ It seems that the degree of effort required in searching for a document may vary according to its relative legal significance and the nature of the proceedings.

On occasion, the Courts have enforced perhaps unreasonable requirements regarding searches.²⁸ On other occasions, Judges have been prepared to

22 See *Mortimer v McCallan* (1840) 151 ER 320 at p 325 (books of Bank of England).

23 See *R v Halpin* [1975] 2 WLR 260 (CA) at p 263 (Returns to the Registrar of Companies); followed by *Gaggin v Moss* [1983] 2 QdR 486 per McPherson J (Marine Board of Inquiry Report).

24 *Stohl Aviation Pty Ltd v Electrum Fiance Pty Ltd* (1984) 56 ALR 716 (now overtaken by s69).

25 *Ex parte Bayview Pty Ltd : Re Johnson* (1949) 50 SR (NSW) 67 See also s 72 of the Act.

26 *Bailow Packing House & Cool Stores Rural Co-operative Society Ltd v Commonwealth & Dominion Line Ltd* (1937) 37 SR (NSW) 314.

27 *Clissold v McMahon* (1884) 5 NSW 61 at p 68 per Martin CJ.

28 See *Parkins v Cobbet* (1824) 171 ER 1196 per Best J (where held that a document which was traceable through several persons, the person to whom it was last traced should be called as witness before secondary evidence would be admitted).

presume that certain classes of documents would be automatically destroyed after a given period.²⁹ Where a business or agency has implemented procedures for systematic destruction of documents according to approved disposal schedules, the schedule will be evidence of their destruction. To put the position beyond doubt, it will be seen that the common law position has been altered by statute to permit the admission of a copy even if the original is intentionally destroyed.

The separate but related issue of statutory retention periods and the destruction of original documents is an issue of general concern to most businesses and organisations and of particular importance to information professionals, most notably, to archivists.³⁰ The primary purpose of digital imaging and optical disc technology is to provide a more economic alternative to the storage of original documents.

In conclusion, the common law provides a great deal of latitude and flexibility concerning the acceptance of secondary evidence regarding the existence and contents of documents. Provided the proponents of the secondary evidence have not acted male fides in loss or destruction of originals, secondary evidence of a document including copies, will be admissible in most cases where the Court is able to authenticate the copy as a reliable reproduction of the original.

The fact that a copy is reproduced from optical disc as opposed to some other medium is irrelevant as to its threshold admissibility. The type of medium or quality of reproduction only becomes an issue going to the weight accorded to such evidence not whether or not it is admissible as evidence. Therefore, in most instances, the Courts will be more concerned with the technology in terms of its accuracy and reliability only after it has been admitted. They are issues going only to weight.

Statutory exceptions to the 'best evidence' rule

The Victorian legislation regarding reproductions is now examined. Its content and effect is summarised.³¹

Background

The Victorian position regarding the admissibility of the copies of documents is convoluted and complex. Those without legal training would have extreme difficulty in understanding its purpose and effect. The enactment of the Victorian provisions in the Act followed a report by the

29 *Brewster v Sewell* (1820) 106 ER 672 per Bayley J ('The presumption of law is that a man will not keep those papers which have entirely discharged their duty and which are never likely to be required for any purpose whatever' at p 673.

30 It is beyond the scope of this article to analyse the plethora of Federal and State legislation prescribing statutory retention periods for various classes of documents, see for example legislation listed above at footnote 6.

31 References are provided where possible to equivalent provisions in other Australian States and Territories.

Chief Justice's Law Reform Committee.³² This in turn resulted in action being taken by the Standing Committee of the Commonwealth and State Attorneys General dealing with 'draft legislation to facilitate the use of photographic copies of documents as evidence'.³³

The resulting reproductions legislation is in addition to existing legislation and common law rules. Thus, if it is not complied with, it does not follow that reproductions cannot be tendered.

The Reproductions Provisions of *The Evidence Act 1958 (Vic)*

The Victorian legislation provides express statutory exceptions to the 'best evidence' rule and facilitates the admission of reproductions of documents, principally in three recognised categories or circumstances: Official reproductions, reproductions of business documents and finally, reproductions done on approved machines. Each of these shall now be discussed briefly.

Important definitions

Reproductions of documents is dealt with in Division 2A of Part 3 of the Act.³⁴ There appears to be very little judicial authority on these general 'machine copy' provisions. They seem to be little relied on in practice. This may well be a consequence of doubts as to the precise application of the language in these sections to new or technologically advanced means of copying such as laser printing, thermal copiers and electro-static photocopiers.

The principal difficulties lay in the definitions provided within the Act.

A 'reproduction' in relation to a document is defined in s 53 to mean 'a machine copy of a document or a print made from a negative of the document and 'to reproduce', and any derivatives thereof shall have a corresponding interpretation'.

A 'machine copy' in relation to a document means 'a copy made of the document by any machine wherein process or whereby an image of the contents of the document is reproduced from surface contact with the document or by the use of photo-sensitive material other than transparent photographic film'.

'Negative' in relation to a document means 'a transparent negative

32 Victoria Chief Justice's Law Reform Committee Sub-Committee on the Use of Photographs of Documents Report [s1] 1962. See also Supplementary Report by the same Committee 1963.

33 Standing Committee of Commonwealth and State Attorneys-General, draft legislation to facilitate the use of photographic copies of documents as evidence. Canberra : Govt Printer 1964 (408/64).

34 In NSW s 34 of the *Evidence Act* is a general section dealing with 'machine copies' while more detailed provisions relating to photographs and photostat copies are contained in *The Evidence (Reproductions) Act 1967*. In other jurisdictions see QEA ss 104-129; TEA Div 5; WEA ss 73A-73V.

photograph used or intended to be used as a medium for reproducing the contents of the document and includes any transparent photograph made from surface contact with the original negative photograph'.

In so far as electro-optical imaging techniques are concerned, it is clear that the process of image digitisation does not involve 'the use of photosensitive material'. What is less certain is the meaning of the words 'surface contact'.

The phrase 'surface contact' was first introduced at the time of the Evidence (Reproductions) Bill (Vic) in 1965. Its predecessor section was in rather different terms and dates back at least to the *Evidence Act 1890*.³⁵ The new phrase is not explained in any detail in the debates or the Chief Justice's Law Reform Committee Report preceding the changes. The previous phrase used was '...any machine or press which produces a facsimile impression or copy...' The view taken however, is that the new phrase was intended to expand rather than narrow the previous provision and it appears to have been accepted as encompassing reprographic reproduction and other reproductive techniques where scanning is involved as opposed to impressions derived from actual contact with the physical surface of the original document.

A narrower construction of the newer definition would be that 'surface contact' was intended to encompass only facsimile impressions which were produced from direct contact with the surface of the original document (such processes being common at that time³⁶) and that it was only inclusion of 'photosensitive material' which expanded the earlier statutory provision.

It can be concluded that the technicality and specificity of the definition imposes tight restrictions upon the admissibility of reproductions of documents. On a liberal construction, it appears that photocopying machines in general and electro-optical images of documents do involve 'surface contact' but not 'the use of photosensitive materials'. Thus photocopies are, and copies produced from optical disc would be, made admissible by the operation of these sections. The alternative and narrower construction would suggest that photocopying machines involve 'the use of photosensitive material' but do not involve 'surface contact'. The narrower construction would prima facie exclude new electro-optical imaging technology as no 'use of photosensitive material' is involved. These important definition provisions need amendment to clarify the position of optical disc document images.

The thrust of the transparency provisions is clearly directed to microfilming and microfiche³⁷ machines, a conclusion strengthened by the provision of s

35 Section 28 provided: 'When any writing whatsoever has been copied by means of any machine or press which produces a facsimile impression or copy of such writing, such impression or copy shall upon proof to the satisfaction of the Court or person acting judicially, that the same was taken or made from the original writing by means of such machine or press as aforesaid be admissible as prima facie evidence of such writing without any proof that such impression or copy was compared with the said original thereof and without any notice to produce such original'.

36 For example 'Gestetner' copiers reproduced copies from direct surface contact with an original typed stencil.

37 However see discussion following where it is suggested that microfiche may be excluded from the ambit of s 53.

53C which allows the Attorney-General to approve, for the purposes of the Act, certain machines for microfilming.

Reproductions of certain public documents

Section 53A of the Act deals with reproductions of public documents.³⁸ A reproduction of a document 'in the custody or under the control' of the holder of an office declared by the Secretary of the Attorney-General's Department by Notice published in the Government Gazette to be an office to which that section applies, will be entitled to certify documents as being a reproduction of a document. Such a copy is admissible in evidence without further proof as if it were the original document of which it is certified to be a reproduction.

Reproduction of business documents destroyed, lost or unavailable

Section 53B deals with the admissibility of reproductions of business documents.³⁹

Under this section, a reproduction of a document made or used in the course of business can be tendered in evidence upon proof that the reproduction was made in good faith and that the document has been destroyed or lost or that it is not reasonably practicable to produce a document.

Provision is made for proof by affidavit. Where proof is provided by affidavit, the information to be supplied includes information about the condition of the document at the time it was copied with respect to 'legibility and the extent of any damage thereto'. The affidavit must also describe the machine or process by which the copy or negative was made and that the processing was properly carried out in the ordinary course of business by the use of apparatus and material in good working order and condition. The affidavit or declaration must be made by the person making the copy at or about the time it was made.

Section 53B extends slightly the common law rules covering the admissibility of secondary evidence of the existence of a document. It appears not to have been the subject of any close analysis by the Courts.⁴⁰

The effect of the two aforementioned sections pivots upon the interpretations of the word 'document'. The definition provided in s 3(1) in the Act states that a 'document' includes in addition to a document in writing:

- '(d) any disc, tape, sound track or other device in which sounds or other data (not being visual images) are embodied so as to be capable (with or without the aid of some other equipment) of being reproduced therefrom;

38 NSW see E(R)A PtII s 3.

39 NSW see E(R)A PtII ss 4-13.

40 But see *Wran v ABC* (1984) NSWLR 241 at p 261 per Hunt J where the relevant provisions of the NSW *Evidence (Reproductions) Act* is briefly considered in the context of its effect upon the NSW *Archives Authority*. This appears to be the only case in which the relevant part of the Act is discussed at all.

- (e) any film, negative tape or other device in which one or more visual images are embodied so as to be capable (as aforesaid) of being reproduced therefrom,

A practically identical definition appears in s 38 of the *Interpretation of Legislation Act* 1984, except that in so far as paragraph(e) is concerned the words '(including a microfilm)' are added after the word 'film'. Paragraph (d) encompasses electro-magnetic computer storage of data, however the express exclusion of visual images extinguishes its coverage of electro-optical image storage on optical discs. Nevertheless, in respect of paragraph (e) it is reasonable to suppose that the words 'other device' are sufficiently broad to include the optical disc medium in which the visual images are embodied. In this regard, the ALRC's observations that optical disc technology is not encompassed by the Act, may not be entirely accurate. Applying a liberal interpretation, optical disc reproductions may be capable of being accommodated by the exceptions provided for secondary evidence in ss 53A and 53B.

'Business' is defined in s 3(l) of the Act as including 'public administration and any business, profession, occupation, calling, trade or undertaking, whether engaged in or carried on by the Crown, or by a statutory authority, or by any other person, whether or not it is engaged in or carried on for profit.' Thus, the definition of the term 'business' is indeed broad and it may be difficult to find any record keeping activity that would not fall within it.

In considering the word 'business' in the context of the definition provided in the *SA Evidence Act* 1929, Cox J in *R v Perry (No 3)*⁴¹ described the word as meaning '...almost anything which is an occupation, as distinguished from pleasure - anything which is an occupation or duty which requires attention is a business.'

In the event that optical disc images and reproductions therefrom are admissible under these provisions, other pre-conditions and proof by affidavit will need to be satisfied.

Section 53B(2) of the Act provides that an affidavit or declaration is to be made by the person at or about the time the machine copy was made, stating inter alia, the day the copy was made and describing or identifying the document, describing the machine process by which the copy was made and that it was made properly and in the course of business. Such affidavit or declaration shall be evidence that the machine copy was made in good faith.

In the case of a large organisation planning to centralise optical disc storage of documents such affidavits and declarations are cumbersome, costly and impractical. These difficulties are expanded upon later.

Approved machines

Provision is also made in the Victorian legislation for machines to be approved by the Attorney-General when satisfied that the machine

41 (1981) 28 SASR 112 at p 115.

automatically photographs documents passing through it in normal operating conditions at a speed which will prevent interference by the operator with the course of copying a document.⁴² In making copies from reproductions made from such machines, the existence of the original document is irrelevant. Proof is required, however, that the 'negative' was made in good faith by the approved machine and that the print reproduces the image of the negative. Again affidavits are used for the purposes of establishing good faith. Details required in the affidavit include information:

- (a) about the person or body who had custody or control over the document that was produced for photographing ;⁴³
- (b) about the make, model or type of machine used ;⁴⁴ and
- (c) that the photographing was properly carried out in the ordinary course of business by the use of apparatus and material in good working order and condition.⁴⁵

It should be noted that the Victorian legislation requires the Attorney General to be satisfied that an approved machine automatically photographs document passed through it in normal operating conditions at speeds which will prevent interference by the operator with the course of copying a document. Further, the Attorney-General has the discretion as to conditions that he may impose in respect of materials or types of materials to be used in conjunction with the machine.⁴⁶

Additional matters

Section 53J of the Act requires that before a reproduction may be tendered, the Judge must be satisfied:

- (a) that the negative is in existence at the time of proceedings; and
- (b) that the document reproduced was
 - (i) in existence for a period of not less than 12 months after the document was made; or
 - (ii) was delivered or sent by the party tendering the reproduction to the other party or one of the other parties to the proceedings.

These provisions do not apply to certified reproductions of public documents admissible under s 53A. Further, the requirement to maintain the original document for a period of 12 months or alternatively to have delivered the original document to the other party, does not apply to reproductions made

42 Section 53C NSW E(R)A, PtII s 5 permits the Minister to give approval. In Queensland QEA s 107.

43 Section 53C(4)(d).

44 Section 53C(4)(e).

45 Section 53C(4)(e).

46 Section 53C(2).

from negatives made by approved machines in the custody or control of Government offices, banks or public companies registered under the Life Insurance Act 1945 (Vic).⁴⁷

The net effect of s 53J is that a business must retain the original for 12 months as well as making the required affidavit or declaration. This seems to claw back the object of the statutory exceptions, that is to enable a business to reproduce its records and destroy the originals. The question is posed as to why the exceptions relating to the specific organisations in ss 3 are so narrow. Is this merely an arbitrary selection of particular businesses? Other businesses are nowadays subject to comparable public scrutiny and regulation as those currently excepted.

The following ancillary provisions may also be relevant:

- (a) a reproduction may be received in evidence even though it does not reproduce the colour or tone of the original document.⁴⁸
- (b) in respect of microfilming, only one affidavit or declaration is required if the documents are numbered in regular arithmetical series and 'photographed' in order. The film must be recorded on a 'continuous length of film'.⁴⁹

The provisions relating to microfilming and approved machines can have no possible application whatsoever to optical disc storage even upon the most generous interpretation. No 'film', 'photographic process', 'or use of negatives' is involved.

The effect of this is, if 'machine copies' from optical disc technology are admissible under s 53B, then they are subjected to a less onerous degree of authentication than documents 'made through the medium of a negative' and not subject to the checks provided for in s 53J. This would be an odd result given the greater reliability of microfilm reproduction relative to electronic digital reproductions. It is possible that this section also excludes microfiche storage which photographs a series of documents on one card (fiche), rather than on a 'continuous length of film'.

Optical disc technology neither produces a negative or any other transparent photograph. However, the purpose of optical disc image storage is viewed among information professionals as the principal successor to microfilm in the storage and reproduction of exact images of existing documents. Used as a storage medium in this way, it is distinct from computer-generated information. The Act draws a clear distinction between copies of documents (Division 2A) and, as will be seen following, computer-generated records or documents (Division 3). Ironically, it may be more difficult to get copies of documents into evidence than it is to get computer-generated records into evidence. This is because all computer-generated records are equated with ordinary business records.

47 Section 53J(3).

48 Section 53K.

49 Section 53H.

In most cases, a computer digital image printout is a faithful copy of the document that was captured by the scanning device linked to the computer. However, when computer-generated printout is offered into evidence, the original computer source record from which it comes may, and often does, no longer exist. Although admissibility may well exist for electro-optical images generated by computer under the hearsay provisions discussed below, this should be seen as purely accidental rather than by design. The current position is entirely unsatisfactory. An early clarification of the evidentiary status of this new technology is required in Victoria.

There also remain the existing problems generally regarding the application of the present s 53. While s 53 modifies and clarifies the common law best evidence rule, for instance to permit the reception by the Courts of copies even where the original is intentionally destroyed, the section has only gone part of the way. The reproduction, being admissible only as evidence of the document, makes it still incumbent on the person who wishes to introduce it to produce the maker of the document to give evidence of the facts contained in it.⁵⁰ Further, for a business wishing to save on storage costs and improve efficiency in record keeping, the current mandatory obligation requiring the making of affidavits or declarations is a considerable drawback. In practice, in large commercial organisations very elaborate and expensive administrative schemes would need to be implemented in an attempt to comply with the Act. Ironically, the necessity to swear, keep, file and maintain a system of affidavits and declarations, together with the concomitant exhibits, has been demonstrated to exacerbate rather than aid the implementation of efficient records management systems. In practice, organisations simply retain their originals as well as microfilm copies because of the difficulties in complying with the requirements as to affidavits or declarations.

It is the author's belief that these sections in Division 2A dealing with reproductions if appropriately amended and updated, will serve information professionals and the community generally by ensuring the acceptance of optical disc technology by the Courts. As microfilming is far from becoming obsolete, the opportunity should also be taken to correct the current difficulties regarding microfilming.

The Hearsay Rule

Common Law

As indicated earlier, the character of our common law adversary system of litigation places heavy preference and reliance upon first-hand testimony from eye-witnesses. Such testimony, if given orally to the Court, can be subjected to the important safeguards of examination-in-chief and cross examination. This, it is claimed, ensures that the Court will interpret accurately the relevant facts observed, the sincerity of the facts stated and through questioning, the reliability of the witnesses' capacity of observation and recall of the facts in issue.

50 See discussion following regarding Hearsay Rule.

Hence a statement other than one made by an eye-witness while testifying in Court and offered in evidence to prove the truth of the matter asserted is regarded as hearsay (second-hand) evidence and is not admissible unless it comes within the limited exceptions recognised by the Courts or as permitted by Statute.

One object of the hearsay rule is to ensure that this fundamental principle is not undermined by indirect testimony put to the Court through the tender of documents reporting observations.

In the context of this article, the following points are relevant.

Division 2A of the Act discussed above in respect of reproductions of documents does not relax the rule against hearsay because the copy is only evidence of the document itself. This distinction is analogous to the distinction between the proprietary right which exists in a manuscript as a physical item and the quite separate and independent copyright which exists in the content, i.e. the particular form of the words used to express the ideas contained in it.

Thus the hearsay rule applies only to the contents of documents, more specifically, statements contained in them. If a document is not derived from the out-of-Court statement of a human being, the only issue is one of reliability, that is authentication. Authentication in turn is tested by application of the best evidence rule.

With hearsay, the Court is concerned with the testimonial effect of the document not its particular physical form. The particular carrier medium of the statement is not directly relevant to the issue of hearsay provided the document is encompassed by the definition provided in s 3(1).⁵¹ Thus, a distinction must be drawn between the reliability of a document and its testimonial effect in considering its admissibility. Reliability will almost always operate at the threshold of admissibility but an otherwise reliable document may still be excluded as being hearsay.

Secondly, almost all documents containing 'statements' are made out-of court and are prima facie inadmissible as evidence of the truth of assertions made in them under the hearsay rule.

The hearsay rule operates to restrict the admissibility of both original documents and copies. A classic example of the operation of the rule in the context of business records is *Myer v DPP*.⁵² In that case, the House of Lords held by a majority of three to two, that a motor manufacturer's records of the numbers stamped on cylinder blocks of motor cars were not admissible to identify certain stolen vehicles. The manufacturer's practice

51 The various *Evidence Acts* in all Australian jurisdictions contain definitions of a 'document'. These are all 'inclusive' interpretation provisions which enlarge the ordinary meaning of the word. See QEA s 51 (1); WEA ss 73A 79B and 79E(4); TEA ss 40B(1) 59(5) 68A and 81A; NSWEA s 14A s14CD; SEA ss 34g and 45(b)(6); NTEA s 4; Cth EA s 7A(1).

52 [1965] AC 1001.

had been that while cars were on the assembly line, each vehicle was accompanied by a card onto which workmen recorded various information including chassis and corresponding engine numbers. The cards were eventually microfilmed and then destroyed. The House of Lords would not permit the tendering of either the microfilm or prints from it. It was held that as the records were tendered as proof of the facts contained in them the rule of law required that direct eyewitness testimony be given by the person responsible for recording such information. The particular workmen could not be identified or located at the time of trial.

In spite of strenuous arguments that the system of recording adopted was a guarantee of the reliability of the records the majority refused to recognise the circumstances as justifying an exception to the rule. Any changes to the law their Lordships said, would need to be effected by the legislature. In a powerful dissent, Lord Pearce suggested that in such circumstances the majority were rejecting the best evidence, namely, that of the record keepers, those responsible for recording, and then allowing the witness to consult the records for the purpose of refreshing memory on something about which the witness would most likely have little recollection.

Myers was followed in Australia in *R v Gardiner*.⁵³ Here it was held that an airline ticket bearing the name of Gardiner was inadmissible in evidence to show that a person of that name travelled the particular flight detailed on the ticket.⁵⁴

It became obvious in the late 1960s that the Courts were stretching the hearsay rule to its limits with the result that much information that would be probative in other fields was excluded. In 1968 the *Civil Evidence Act* was passed in the United Kingdom to permit exceptions to the harshness of the common law. Its basic purpose was to clear up the anomalies highlighted in *Myers* but which were beyond the powers of the Courts to correct. Included in the Act were special provisions for the admissibility of computer evidence in civil cases. In 1971 the Victorian Government amended the provisions of the Act in relation to the admissibility of documents and added legislation similar to the UK provisions relating to the admissibility of computer evidence. Other States and the Commonwealth have also enacted related provisions but reflect substantially different approaches to the introduction of computer derived evidence and to the dichotomy of criminal trials and civil proceedings.

The Victorian position is now elaborated on.

Statutory exceptions to the hearsay rule

In so far as we are here concerned more with the issue of reliability and accuracy of copies of documents (and thereby satisfying the threshold test of reliability and authentication) discussion of the hearsay rule would seem to be merely incidental. However, the statutory exceptions to the hearsay rule in

53 (1967) 13 FLR 345.

54 But contrast the earlier decision of Winn J in *R v Rice* (1963) 1 QB 857 which is contrary.

Victoria may in certain circumstances seemingly, and I emphasise seemingly, permit the tender in evidence of optical disc reproductions of documents notwithstanding that such copies are not subject to any tests of authentication or reliability.

This anomalous result may be inadvertently created by the operation of the exceptions to the hearsay rule granted in respect of business records or alternatively computer records.

Business records exception⁵⁵

Section 55(1)(b) provides:

- (a) In any legal proceeding (not being a criminal proceeding) where direct oral evidence of a fact would be admissible, any statement contained in a document and tending to establish that fact shall be admissible as evidence of that fact if
- (b) the document is, or forms part of, a record relating to any business and made in the course of that business from information supplied (whether directly or indirectly) by persons who had, or may reasonably be supposed to have had, personal knowledge of the matters dealt with in the information they supplied, and the person who supplied the information in the statement in question is called as a witness in the proceeding.

The requirement that a party cannot introduce documentary records without calling as a witness the maker of a statement in the document or the person who supplied the information contained in the document appears to defeat the object of relaxing the hearsay rule. However, it is necessary to have regard to the other subsections which derogate from the strictness of this requirement, in particular sub-sections 55(5) and 55(6), which sensibly recognise most situations where this would be impossible or may be impracticable.

Section 55 (and s 55B discussed later) refers only to documents and not a copy or reproduction of a document.

Section 55D, however, provides:

Where in any civil or criminal proceeding a statement contained in a document is proposed to be given in evidence by virtue of section 55 or section 55B it may be proved by the production of that document or (whether or not that document is still in existence) by the production of a copy of that document, or the material part thereof, authenticated in such manner as the court may approve.'

This section allows the admission in evidence of reproductions of documents as referred to in Division 2A of the Act. This creates difficulties of interpretation. Division 2A, as was pointed out, provides that a reproduction of a document is admissible in evidence (if all the requirements are satisfied) as evidence of the document. Section 55D appears to change that in that a

⁵⁵ The 'business records' exception exists in various forms in every Australian jurisdiction. See Cth EA Pt IIIA; NSW EA Pt IIC; QEA s 39 SEA s 45a; TEA Pt III Div 2B; WEA s 79E.

statement in a document may be proved by production of a copy of that document. Here the copy however is being admitted as evidence of the statement rather than as evidence of the document. Section 55D further provides that a copy of the document must be authenticated in such manner as the Court may approve. Presumably the Courts would interpret this last requirement as meaning compliance with the authentication provisions of Division 2A although it may be open to argue that the Court is granted a discretion to authenticate copies of business records and computer documents in some other manner.

This distinction between statements contained in documents which are, or form part of, a record relating to business, including copies thereof, and authenticated copies of documents appears somewhat artificial and blurs the rationale and purpose relating to each.

This point is illustrated by an examination of the cases which have dealt with these provisions in general and similar provisions in parallel legislation in other States. There appears to be no reported case specifically dealing with the relationship between Division 2A and Division 3 in Victoria.

In *Compafina Bank v ANZ Banking Group*,³⁶ a duplicate of a letter produced from the records of the company which has dictated, prepared and sent the letter to another company was held to form part of a record of the originating business. There was nothing in the reported facts of the case to indicate that the duplicate was or might have been admitted under the exceptions (either at common law or under the relevant statutory provisions) to the 'best evidence' rule. The objection to admissibility dealt with was solely upon the ambit and interpretation of the business records exception to the hearsay rule. There is no mention of authentication of the duplicate copy. Assuming the duplicate was, or was assumed to be, a valid exception to the best evidence rule, the case illustrates clearly the further additional evidentiary requirements relating to the testimonial effect of the contents of the documents, ie the statements contained therein, which must be satisfied.

If, however, we assume that the authentication of the duplicate was not considered, a less generous view of this case is that it stands as authority for the proposition that the business records exception to hearsay operates independent of the rules relating to the authentication of duplicate copies. In circumstances such as the instant one, it is not surprising that the Courts are necessarily more concerned with establishing the truth of statements made in documents than with authentication of the document itself.

As was pointed out in the *Albrighton Case* (a case considered in *Compafina*), the whole thrust of the business records exception

...is to bring into the Court room a method of establishing the truth which is relied on by our society outside the Court Room, that is to say, proper records made by persons who have no interest other than to record as accurately as possible matters relating to the business with which they are concerned; records which are used in the every day carrying on of the business on the basis

that they are most probably accurate, and which are likely, when litigation supervenes, to be a far more reliable source of truth than memory. Properly understood and applied (the section) makes available to Courts a most valuable source of evidentiary material which rules of evidence devised in another age would exclude.

The potential dilemma posed here is that between the presumed reliability of statements contained in every day business records and the presumed unreliability of copies.

Whatever view is taken of the reliability of the duplicate in *Compafina*, the case is the clearest authority for the proposition that duplicate copies can form part of the records of a business and thereby be admitted as primary evidence to prove statements contained in them.

The plaintiff in the case submitted that the copy of a letter written to somebody else is not a record of the company's business in the same sense as a statement in the manager's contemporaneous diary or copies of warehouse receipts or registers or documents '...regularly used in the ordinary course of business for permanently recording matters which take place in the course of that business'. The copy would not be admissible as a business record of the recipient company. Hunt J indicated that a 'business record' did not admit to such a narrow construction. Relying upon the Court of Appeal decision in the *Albrighton Case*⁵⁷ and *Re Marra Developments*⁵⁸ Hunt J held:

A copy of a letter sent by a company where it is part of that company's business to write such letters appears to me therefore to amount to a record of that company within the general meaning of the word 'record' (in the relevant provision).⁵⁹

This is the clearest formulation that at least duplicates or copies of all routine correspondence and other documents prepared by a business will be admissible to prove the truth of statements contained in them where it is a company's business to produce such documents.

The 'best evidence' rule was not an issue argued in *Compafina* and for that reason it should be contained on its facts to the issue of hearsay alone.

In Victoria, it is submitted that where a statement is contained in a '*business record*' and that record is comprised of an unauthenticated and unreliable copy of the document, both the document and statements contained in it are inadmissible. It would be a contradiction to permit proof of a statement in a document, a document which itself cannot be proved.

In *Marra Developments* Needham J upheld the submission of Counsel that the relevant 'business records' exception '...makes admissible statements in documents, and not documents themselves. Accordingly, the presence of an

57 *Albrighton v Royal Prince Alfred Hospital* [1980] 2 NSWLR 542 (CA).

58 [1979] 2 NSWLR 193.

59 *Ibid* at p 412.

admissible statement in a document does not make the balance of the document admissible, if it is otherwise inadmissible.⁶⁰ Unfortunately, while this may seem direct support for my last made submission, His Honour in referring to inadmissibility of 'documents themselves' was apparently using the phrase in the context of the totality of the statement contained in them, ie contents, not the physical documents as a separate species. This view is formed from his last quoted sentence in which His Honour refers to the 'balance of the document'. Thus the word 'document' is being defined in terms of its total contents rather than its separate and distinct physical form.

Notwithstanding, the earlier submission concerning the Victorian position stands even after having regard to authority which expresses the clear and correct view '...that provisions such as s 55(2) are designed to liberalise rules of evidence and should not be restrictively construed'.⁶¹

Computer Records Exception⁶²

Victoria provides a double-barrelled exception to hearsay evidence. As well as the 'business records' exception last discussed, there is a further species of document ie 'a document produced by a computer'⁶³ which, if produced under specified conditions, will be presumed to be so inherently reliable that statements contained in it will constitute prima facie proof of the truth of these statements. As mentioned, s 55D equally applies to reproductions of such documents.

Such provisions are criticised on the basis that there is no need to distinguish between computer business records and other business records.⁶⁴

The provision is extraordinarily wide and is poorly drafted. It allows for the admission in evidence of a document produced by a computer and provides that any fact as contained in the document shall be admissible as evidence of that fact. In such cases, there is no need to provide oral evidence supporting the fact, the document is admissible without calling the 'maker' of the document or the person who supplied or processed the information. Above all, the statement of fact contained in the document is evidence of that fact.

For the purposes of s 55B 'computer' is defined as meaning '...any device for storing or processing information...'.⁶⁵ It has been pointed out that this would be sufficiently wide to encompass an ordinary filing cabinet!⁶⁶

The fundamental flaw in s 55B, however, is the failure of the computer

60 Ibid at p 198.

61 *R v Ernst* [1984] VR 593 at 596 per McGarrie J, citing *Morley v National Insurance Company* [1967] VR 566 at 567 per McInerney J.

62 Three other Australian jurisdictions have computer-specific provisions. See QEA s 95; SEA ss 59a and 59b ACTEO pt VII.

63 Section 55B.

64 New South Wales Law Reform Commission Working paper on evidence (Business Records) Sydney : Govt Printer 1979.

65 Section 55B(8).

66 Tapper, *Evidence from Computers*; [1974-75] 4(2) Rutgers Journal of Computers and the Law 324 at p 394.

provisions to reflect the distinction between a computer as a storage device, capable of storing, inter alia, electronic reproductions or images, and as an information processing device. The original drafters of s 55B clearly intended the provision to operate only where what was being produced by computer was some document which was the product of computation or processing by the computer itself. Processing by computer, which results in information different from that originally provided to the computer, cannot be a statement made by a person. This is the underpinning rationale of s 55B. If however the computer produced document is merely a reproduction of information of a human 'maker', then the rationale is invalidated.

Reproduction of a document image from optical disc is a 'document produced by computer'. Thereby the same dilemma arises as with copies of documents which form part of the 'records of a business' namely can such secondary evidence of a document now be admissible simply because of loose drafting which fails to adequately address the full capabilities of a particular technology?

There can be little doubt that a literal application of the current s 55B would allow admission of evidence which was potentially both unreliable and hearsay simply because it is stored in a computer and subsequently produced as a document. Theoretically every document produced by a word processor is a 'document produced by a computer'. Indeed as most people are well aware, very few documents are not produced by computer these days. It would be an extreme view to suggest that all such documents and statements contained therein should be automatically admissible without being subjected to the usual evidentiary safeguards.

The principal statutory safeguard against inherently unreliably computer-produced documents lies in s 55B(7) which gives the Court discretion to reject any statement '...notwithstanding that the requirements (of s 55B) are satisfied with respect thereto, if for any reason it appears (to the Court) to be expedient in the interests of justice that the statement should be admitted'.

Conclusion

Optical disc images as reproductions

Division 2A of the Act which provides for the admission in evidence of reproductions of documents has been examined. It is to be noted that a reproduction is admissible only as evidence of the document and not as evidence of the matters asserted in it. Provided optical disc imaging can be regarded as a 'machine copy' the disc or subsequent reproductions from the disc will be admissible but only upon proof that it is either:

- (a) from a prescribed public office; or
- (b) that it was made in good faith, from a document made or used in the course of business and that the document has been destroyed or lost:
or
- (c) that it is not reasonable practical to produce it.

Each copy will need to be proved by affidavit or declaration as set out in s 55B(2). Where a reproduction is not within the ambit of Division 2A the common law will operate to govern its admission.

Section 53A and 53B are the sole principal provisions within Division 2A which appear to have any potential ambit to encompass optical disc reproductions of documents. It is possible that a narrow construction of these provisions would exclude such reproductions altogether.

Section 53C and connected sections relating to microfilming of documents can have no application whatsoever to optical disc reproductions. This is a result of the specificity of the language used within those provisions relating to 'negatives' and 'film' and 'photographic processing'.

The net result therefore is that before a reproduction of a 'machine copy' (including a copy from optical disc) is admissible, the appropriate affidavit or declaration must be produced. This in turn requires that each document which is electronically scanned and digitally stored must be accompanied by an affidavit or declaration, otherwise the original cannot be destroyed, as the reproduction will not be admissible as evidence of the original document. As has already been mentioned, such mechanisms in the work place are cumbersome, expensive and administratively unworkable. The law here mitigates against industrial and commercial efficiency and hinders the use of modern reproductive methods.

As has already been mentioned, many other statutes require the retention of specific types of records for a certain statutory period. Unless expressly excluded within a particular Act, s 53Q will operate to permit microfilming of any records which are required to be retained for a period longer than three years by that Act. The microfilming must take place in accordance with the s 53C procedure which is noted as having no application to digital imaging.

In summation, business enterprises, unless they can comply with this requirement, will be prevented from utilising this new technology to its full potential and from eliminating expensive storage space, because they cannot destroy bulky originals.

From a policy standpoint there is no reasons why this new technology should be inadvertently discriminated against.

As a minimum, amendments should be enacted to extend the current microfilming provisions to encompass new reproductive methods including microfiche, video and, in particular, digital imaging. With video and digital imaging, provision will need to be made to ensure that an unaltered and unalterable faithful reproduction is recorded and maintained.

Optical disc image as a business record

By operation of s 55, there is some authority in other States with similar provisions for the view that where it is a company's business to routinely

produce certain types of documentation, then duplicates or reproductions of those documents constitute a business record sufficient for admission as primary evidence of the statement contained in it. Thus it may, for example, be possible for architects plans routinely stored on optical disc to constitute business records of the architect and the disc would be admissible as an exception to hearsay. A subsequent reproduction from the disc however is subject to the authentication requirements of s 55D which in turn is (presumably) governed by the dictates of Division 2A. It is the author's view that, in Victoria, copies of documents should not and cannot be regarded as ordinary business records within the meaning of s 55 in the absence of authentication of the copy.

Optical disc image as computer produced document

Section 55B provides for the admissibility of statements produced by computers. The conditions for admissibility are set out in ss (2) and (3). The fulfilment of any of the conditions may be proved by a certificate signed by a person holding a responsible position in relation to the computer or to the management of the relevant function (s (4)). The Court is given a discretion to reject any statement if for any reason it appears to it to be inexpedient in the interests of justice (s (7)).

This section may be criticised relative to other provisions. Firstly, although there is a discretion to reject, there is no condition of admissibility which requires a 'document produced by a computer' to have any particular standard of reliability, as is required of other business records not produced by computer. The Act elsewhere as a whole requires very stringent authentication of reproductions and admissibility of documentary evidence. In respect of computer documents, there are no statutory safeguards as to good faith, approved machines, affidavits or declarations and the maker of a statement or the person who supplied the information to the computer need not be called as a witness. Further, a certificate signed by a person occupying a responsible position in relation to the operation of the computer is sufficient proof that the conditions of admissibility have been fulfilled. This last mentioned responsible computer person is a concept which itself has been considerably eroded by the widespread use of personal computers.

In any event, the very real possibility exists today that digital images (reproductions) of documents stored and produced by the computer are prima facie admissible as primary evidence without safeguards as to authentication.

If the certificate last mentioned is sufficient for documents produced by computers, one wonders why such certificates should not also be sufficient for the admissibility of reproductions of documents by other mechanical means.

To illustrate the anomaly of this provision, in any business if document images are stored in computer on optical disc which would satisfy the conditions of s 55B, a statement in a printout of that record (ie the image) would be admissible as evidence of the facts asserted. However, if the same

record is kept in written form, the statement would not be admissible under s 55 unless there was evidence that the person who made the statement or produced the information from which it was made has personal knowledge and was called as a witness. Also, the same record, if microfilmed, would not be admissible unless at the time it was microfilmed, an affidavit and declaration was made. If a print from the microfilm were tendered a further affidavit would be required.

Given the technical difficulties enumerated at the beginning of this article regarding the volatile and potentially unreliable nature of digital images, the present position is an unsatisfactory one.

The best evidence rule and the rule against hearsay need reform, but not by providing that a statement in a document stored on optical disc and produced by a computer is admissible without further proof when the same document produced by even more reliable means is not.

Reform

Some amendments are suggested.

In respect of Division 2A:

- (a) extend the existing provisions relating to microfilming to digital imaging materials and devices and other modern reproduction methods such as video and microfiche.
- (b) repeal s 53B(2) and s 53C(4) and provide that a certificate signed by the records manager or any other person occupying a responsible position in relation to the management or reproduction of records, shall be evidence that the reproduction was made in good faith. The certificate should identify the document or series of documents and give similar particulars as to the type of condition of any device used in the reproduction of a document.
- (c) amend s 53D to allow a certificate as to the making of machine copy by an independent processor.
- (d) repeal ss 53E, 53F, 53G, 53H, 53J.
- (e) amend s 53Q to encompass other reproduction methods and to enable the retention of a document image or reproduction for all purposes.

In respect of Division 3:

- (a) amend s 55 to clarify the status of reproductions as business records.
- (b) amend s 55B to distinguish between statements contained in records or documents actually produced by computer and mere reproduction of records or documents stored in a computer.

Postscript : The ALRC proposal

The ALRC has proposed the abolition of the 'best evidence' rule. The proposal recognises the desirability of tendering the original but treats it as an option to be exercised by the Courts subject to certain safeguards. This is the approach of the US Federal Rules⁶⁷ where a duplicate or reproduction would be admissible in evidence whether the original document is in existence or not. The proposal recognises there will be occasions where it will be in the interests of accurate fact finding and fairness to have the original material produced and those connected with the original and secondary evidence called as witnesses. This is proposed and the powers may be exercised where a request is made on reasonable grounds by one party to another for the original to be produced or a witness called and the other party refuses. The Court must consider the importance of the issue whether doubt exists as to authenticity or accuracy of the evidence on the original, and the nature of the proceedings, eg whether criminal or civil. If directions are not complied with and the original is available, the Court is given the power to reject or exclude the secondary evidence.

Whether the States will follow the ALRC proposals in future reforms of their laws of evidence, only time will tell. Hopefully, the abolition of special rules relating to reproduction of documents will receive further analysis before the ALRC view is generally adopted. Having regard to the nature of optical disc technology, a relaxation of the law to the degree proposed may at least increase the potential for fraud and lessen the likelihood of detection. Apart from fraud and consequential deception, in the absence of evidence of authorship or accuracy of the document, the Court may place undue weight on the evidence or be misled.

While admitting to such dangers the ALRC properly points out, 'The dangers will vary with the nature of the subject matter offered in evidence...'.⁶⁸ Given the nature of the evidentiary problems outlined at the beginning of this article, the nature of optical disc technology is such that the dangers are high.

In the interim, while Victoria retains its special rules, amendment along the lines suggested above is urgently needed to clarify the legal status of optical disc image technology and to facilitate its commercial acceptance and use.

67 Rule 1001, 1003.

68 Ibid Vol 1 Para 981.