

CURRENT ESSENTIAL ISSUES IN THE MALAYSIAN LAW OF EVIDENCE

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Chapter 11

THE EVIDENTIAL WEIGHT OF DOCUMENT GENERATED BY COMPUTER: A COMPARATIVE LEGAL APPRAISAL

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Introduction

“In this age of science, science should expect to find a warm welcome, perhaps a permanent home, in our courtrooms... Our decisions should reflect a proper scientific and technical understanding so that the law can respond to the needs of the public”.¹

1 Justice Stephen Breyer of the US Supreme Court on “Science in the Courtroom”, delivered in Feb. 1998 at the Annual Meeting of the American Association for the Advancement of Science (AAAS).

For many years now, computer-generated documents have been admissible in evidence on proof that they are relevant to the issues involved in the case that have been reproduced by means of mechanical and chemical devices. This is in line with the fact postulates that in the past decade, the explosion in the use of the Internet in various spheres of human endeavour has meant that evidence has to be collected from computers and various electronic devices. It is estimated that 70% of paper business records are wholly computer generated, and that 95% of business documents are produced on word-processors. Approximately 50% of the data stored on computers is never reduced to printed form. This means that 50% of potentially relevant evidence can only be gathered from information systems².

The law of evidence is concerned with the means of proving the facts which are in issue and this necessarily involves the adduction of evidence which is then presented to the court. The law admits evidence only if it complies with the rules governing admissibility. Computer output is only admissible in evidence where special conditions are satisfied. In general the principles of admissibility are that the evidence must be relevant to the proof of a fact in issue, to the credibility of a witness or to the reliability of other evidence, and the evidence must not be inadmissible by virtue of some particular rule of law. Real evidence usually takes the form of some material object (including computer output) produced for inspection in order that the court may draw an inference from its own observation as to the existence, condition or value of the object in question. Although real evidence may be extremely valuable as a means of proof, little if any weight attaches to it unless accompanied by testimony which identifies the object in question and explains its connection with, or significance in relation to, the facts in issue or relevant to the issue.

These days, a great deal of information is stored on computer disks and other modern information storage media. The information

2 Albert J Jr, Marcella, *Cyber Forensics: A Field Manual for Collecting, Examining and Preserving Evidence of Computer Crimes*, Boca Raton, FL, USA: Auerbach Publishers, Incorporated, 2002 at p xvi.

Available online: <http://site.ebrary.com/lib/mmulibrary/>

stored on such media cannot be accessed directly by a human being; instead, it must be accessed by means of a device such as a computer. For example, business records stored on a computer can only be accessed by opening the records through the correct computer program; similarly, a document written through the use of a word processing program can only be accessed in its intended form by means of that program. It is wrong to deny to the law of evidence advantages to be gained by new techniques and new devices, provided that accuracy and relevant. However such evidence should always be regarded with some caution and assessed in the light of all the circumstances of each particular case.

Additional forms of electronic data originate from:

- (1) Internet-based electronic commerce, online banking and stock trading;
- (2) corporate use and storage of phone mail messages and electronic logs;
- (3) personal organisers, such as the PDA;
- (4) wireless devices such as cell phones, pagers and PDAs with contacts and task list storage; and
- (5) corporate use and storage of graphic images, audio and video.

The Courts today deal with complex cases relating to highly sophisticated crimes where criminals take care to erase all evidence of their involvement. Then there are serious cases of medical negligence and related torts where rival parties seek to rely on expert evidence. Again, in the field of environmental pollution involving toxic substances, there is serious difficulty in finding out the levels of danger, the extent of actual and latent damage to humans and environment,

and there are uncertainties in accepting the technology installed by the polluter to conform to environmental standards. Intellectual property disputes throw up similar challenges. Statistical applications and the theory of probability are used in several cases including those involving DNA tests. In some civil cases where handwriting, forgery, or paternity issues are involved there is extensive use of scientific techniques.

The Courts are thus dependent and, in fact, compelled to analyse evidence of experts examined on each side. There is again the difficulty of evaluating the conflicting expert evidence adduced by the contesting parties in an adversarial judicial process. The ability of the Courts to decide scientific issues has indeed been questioned.

The American Supreme Court has, however, sounded a note of warning in the matter of the Courts placing reliance on conclusions of science. In a landmark decision in *Daubert Merrel Dow Pharmaceuticals Inc*³, said:

“...there are important differences between the quest for truth in the courtroom and the quest for truth in the laboratory. Scientific conclusions are subject to perpetual revision. Law, on the other hand, must resolve disputes finally and quickly.”

Hence, by looking to the totality and vividly of the above statement, this research shall connote the comparative study on the matter involving computer generated evidence and it shall be view on several jurisdictions. The countries that shall be discussed involved with the development and the progress of this high complex of science technology, which are United Kingdom, India and Singapore. These jurisdictions shall be compared with the Malaysian perspectives on the said laws and the differences that may be abstract from such legislation. The next chapter will then be continue on the issues involving computer generated documents on its admissibility to be tendered either as the real evidence or hearsay per se.

2. Evidential Status of Computer Generated Evidence in England

Computer-generated evidence has been the object of special legislation in the United Kingdom for several years. The admissibility of electronic evidence, in British law, obeys to different rules than those applicable to traditional documentary evidence. These special provisions are found in the *Civil Evidence Act 1968* and the *Police and Criminal Evidence Act 1984*.

Section 5 of the *Civil Evidence Act 1968* provides that a computer produced document shall be admissible as evidence of the statement contained therein, provided the proponent demonstrates its authenticity. The party who wishes to tender an electronically-produced document as evidence must establish that:

- A) the document was prepared during a period over which the computer regularly stored or processed information
- B) over the relevant period of time, information of this type was regularly supplied by the computer
- C) the computer was operating properly; and
- D) the information contained in the statement reproduces information supplied to the computer.⁴

If one of these conditions is not met, the document is simply inadmissible as evidence. In addition to proving the authenticity of the document, the proponent of an electronically-produced document must also demonstrate its reliability, through the production of a certificate signed by a person responsible for the operation of the computer⁵. As for the probative weight of computer-produced evidence, section 6 of the *Civil Evidence Act 1968* requires that in estimating the weight

4 Civil Evidence Act 1968, s. 5(2).

5 Civil Evidence Act 1968, s.5 (4).

of the document, the Court must examine the contemporaneity of the recording of the information with the events described in that record and the motive of any person to misrepresent the facts recorded. Finally, section 8 of the *Civil Evidence Act* establishes that the Rules of Court must require that the proponent of such evidence give notice to its adversary of its intention to use electronically-produced evidence.

Computer-generated evidence is also the object of special provisions applicable to criminal proceedings. Section 69 of the *Police and Criminal Evidence Act 1984* provides that computer-produced evidence is admissible in criminal proceedings as long as there exists no reasonable grounds for believing that the statement it contains is inaccurate because of improper use of the computer and that, at all material times, the computer was operating properly or that the malfunction did not affect the production of the document or the accuracy of the statement. Finally, section 69 of the *Police and Criminal Evidence Act 1984* requires that the Rules of Court concerning giving notice are satisfied.⁶

The application of section 5 of the *Civil Evidence Act 1968* and section 69 of the *Police and Criminal Evidence Act 1984* has led to many uncertainties. The most often expressed criticism towards section 5 of the *Civil Evidence Act 1968* relates to its ambiguity and complexity opening the door to a number of technical arguments which could result in the exclusion of vital evidence stored or produced by a computer.⁷ The complexity of the legislation dealing with the admissibility of computer-generated evidence has led Courts into different directions, resulting in a somewhat confusing case law. The apparent confusion stems from the qualification given to computer generated evidence: does it constitute hearsay or real evidence? For example, in *R. v. Spiby G*⁸, the Court of Appeal held that printouts from an automatic telephone call logging computer installed in a

6 The *Police and Criminal Evidence Act 1984* requires, as does the *Civil Evidence Act 1968*, that the party who wishes to use computer-generated evidence give notice to its adversary of its desire to do so.

7 R. Bradate, "Evidential Status of Computer Output and Communications", (1960) 6 *Computer Law & Practice*, 142.

8 [1991] *Crim. L.R.* 199 (C.A.Cr.D.).

hotel were admissible as they constituted real evidence. The Court concluded that in the absence of evidence to the contrary, the machine is held to be in working order at the material time.

In *Camden London Borough Council v. Hobson*⁹, the Court stated that computer-generated evidence constituted real evidence if the statement originated in the computer. It would then be admissible as the record of a mechanical operation in which human information had played no part; however, a statement originating from a human mind and subsequently processed by a computer would be inadmissible as hearsay.¹⁰

Proof of the reliability of a computer-generated document is also a crucial condition to its admissibility. In a recent judgment¹¹, the House of Lords accepted into evidence the information provided by an intoximeter although the computer clock was inaccurate. The Lords found that the inaccuracy did not affect the processing of the information supplied to the computer. Section 69 of the Police and Criminal Evidence Act 1984 should be interpreted according to its purpose so as to not exclude otherwise accurate evidence. Lord Hoffman concluded that:

“The purpose of section 69, therefore, is a relatively modest one. It does not require the prosecution to show that the statement is likely to be true. Whether it is likely to be true or not is a question of weight for the justices or jury. All that section 69 requires as a condition of admissibility of a computer-generated statement is positive evidence that the computer has properly processed, stored and reproduced whatever information it received. It is concerned with the way in which the computer has dealt with the information to generate the statement which is being tendered in evidence of

9 The Independent, January 28, 1992, 24 (Clerkenwell Magistrate's Court).
7

10 The Independent, January 28, 1992, 24 (Clerkenwell Magistrate's Court).
7 *Id*

11 *Director of Public Prosecution v. McKeown*, [1997] NLOR No. 135,
(House of Lords)

a fact which it states.”¹²

In the case of *R v Wood*¹³ where the appellant was convicted of handling stolen metals. In order to prove that metal found in his possession and metal retained from the stolen consignment had the same chemical composition cross-checking was undertaken and the figures produced were subjected to a laborious mathematical process in order that the percentage of the various metals in the samples could be stated as figures. This was done by a computer operated by chemists. At the trial, detailed evidence was given as to how the computer had been programmed and used. The computer printout was not treated as hearsay but rather as real evidence, the actual proof and relevance of which depended upon the evidence of the chemists, computer programmer and other experts involved.

So far the discussion has focused on exceptions to the hearsay rule. However evidence derived from a computer constitutes real or direct evidence when it is used circumstantially rather than testimonial, that is to say when the fact that it takes one form rather than another makes it relevant, rather than the truth of some assertion which it contains.

Direct evidence produced by a computer is not subject to the hearsay rule. As we have already noted, in *R v Wood* calculations were carried out by a computer specifically for the purpose of the trial to verify whether the composition of stolen metals matched original metals. Computer output was admissible as real evidence since it did not purport to reproduce any human assertion which had been entered into it. It was held that the machine was a tool and that in the absence of any evidence that it was defective, the printout, the product of a mechanical device, fell into the category of real evidence. The court did recognize, however, that the dividing line between admissibility of computer generated evidence as real evidence or hearsay would not always be easy to draw.

12 Ibid., para. 29.

13 (1982) 76 Cr App R 23

The same distinction and result were reached in *Castle v Cross*¹⁴ and in *R v Spiby*¹⁵, CA an automatic telephone logging computer which logged the call details without human intervention was admitted as real evidence. The Court also held that, in the absence of evidence to the contrary, courts would presume that such a computer was in working order at the material time.

Thus as far as the common law is concerned the status of computer evidence as real or hearsay will depend, in each case, on the content of the computer record, the reason for using it in evidence and the way in which it was compiled. Cases like *R v Wood* and *R v Spiby*, however, must now be read in light of the decisions in *R v Shephard*¹⁶, HL and *R v Cochrane*¹⁷CA. In *R v Shephard* the House of Lords held that section 69 PACE 1984 imposes a duty on anyone who wishes to admit a statement in a document produced by a computer to produce evidence that will establish that it is safe to rely on the document; such a duty cannot be discharged without evidence by the application of the presumption that the computer is working correctly expressed in the maxim *omnia praesumuntur rite esse acta*; and it makes no difference whether the statement is or is not hearsay. In *R v Cochrane* [1993] Crim LR 48 it was held that before the judge can decide whether computer printouts are admissible, whether as real evidence or as hearsay, it is necessary to call appropriate authoritative evidence to describe the function and operation of the computer. In that case the prosecution wanted to prove that certain cash withdrawals were made from a particular 'cashpoint'. The machine would only dispense money if the correct Personal Identity Number was entered. The matching was carried out by a mainframe computer and evidence of its proper functioning was thus required by the court. The prosecution did not adduce this evidence and the conviction was set aside on appeal.

It is pointed out that a printout from a computer which has been used as a calculating device, or which records information automatically without human intervention, is admissible as real

14 [1985] 1 All ER 87

15 (1990) 91 Cr App R 186

16 [1993] 1 All ER 225

17 [1993] Crim LR 48

evidence and involves no question of hearsay. On the other hand, where the printout contains information supplied to the computer by a person, it is hearsay if tendered for the truth of what is asserted, but may be admissible under either sections 23 or 24 of the Criminal Justice Act 1988. A statement can only be admitted under sections 23 or s 24 if its maker (or the original supplier) had (or may reasonably be supposed to have had) personal knowledge of the matters dealt with. Furthermore, under section 24 the 'creator' of the document must have been acting in the course of a trade or business etc. A statement in a computer printout which has satisfied the foundation requirements of sections 23 or 24 can only be admitted on satisfaction of the *additional* requirements contained in section 69.

Section 69 is couched in negative terms making it clear that evidence which does not satisfy its requirements is inadmissible. The object of section 69 is to impose a duty on anyone who wishes to introduce a document produced by a computer to show that it is safe to rely on that document and it makes no difference whether the computer document has been produced with or without the input of information provided by the human mind and thus may or may not be hearsay (per Lord Griffiths in *R v Shephard* at p 228). The operation of section 69, therefore, is not limited to printouts that fall within sections 23 or 24 of the 1988 Act.

2. Evidential Status of Computer Generated Evidence in India

In the Indian Evidence Act 1872 ('IEA 1872'), specific provisions exist to cater to the admissibility of electronic records. These provisions which are applicable to both civil and criminal proceedings were inserted by the Indian Information Technology Act ('IITA 2000') in 2000 and were deemed necessary to facilitate *inter alia* the legal recognition for the use of electronic records in ecommerce transactions. The IEA 1872 now provides a comprehensive statutory framework for the admissibility of electronic records. This has been accomplished by expanding the scope of application of the provisions

relating to documentary evidence to include such electronic records. The IEA 1872 defines the term "electronic record" as "data, record or data generated, image or sound stored, received or sent in an electronic form or micro film or computer generated micro fiche" but retains the existing definition of the term "document". However, the definition of the term "evidence" has been extended to include "electronic records"

The IITA has also introduced new definitions to technical terms such as "computer", "computer system", "data", "digital signature", "electronic form", "function" and "information".

Sections 65A and 65B were introduced to the Evidence Act under the Second Schedule to the IT Act. Section 5 of the Evidence Act provides that evidence can be given regarding only facts that are at issue or of relevance. Section 136 empowers a judge to decide on the admissibility of the evidence. New provision Section 65A provides that the contents of electronic records may be proved in accordance with the provisions of Section 65B. Section 65B provides that notwithstanding anything contained in the Evidence Act, any information contained in an electronic record (i.e., the contents of a document or communication printed on paper that has been stored, recorded and copied in optical or magnetic media produced by a computer (,computer output')), is deemed to be a document and is admissible in evidence without further proof of the original's production, provided that the conditions set out in Section 65B(2) to (5) are satisfied.

Among the amendments are the definition of 'evidence' has been amended to include electronic records (Section 3(a) of the Evidence Act). Evidence can be in oral or documentary form. The definition of 'documentary evidence' has been amended to include all documents, including electronic records produced for inspection by the court. The term 'electronic records' has been given the same meaning as that assigned to it under the IT Act, which provides for „data, record or data generated, image or sound stored, received or sent in an electronic form or microfilm or computer-generated microfiche."

The definition of 'admission' has also been changed to include a statement in oral, documentary or electronic form which suggests an inference to any fact at issue or of relevance. New Section 22A has been inserted into the Evidence Act to provide for the relevancy of oral evidence regarding the contents of electronic records. It provides that oral admissions regarding the contents of electronic records are not relevant unless the genuineness of the electronic records produced is in question.

Besides, when any statement is part of an electronic record, the evidence of the electronic record must be given as the court considers it necessary in that particular case to understand fully the nature and effect of the statement and the circumstances under which it was made. This provision deals with statements that form part of a longer statement, a conversation or part of an isolated document, or statements that are contained in a document that forms part of a book or series of letters or papers.

There are several judicial pronouncements on the matter regarding the computer generated evidence in India. In the case of *Societe des Products Nestle SA v. Essar Industries*, AIR 2007 Delhi 11, the High Court of Delhi has noted that the rapid rise in the field of information and technology in the last decade of 20th century and the increasing reliance placed upon electronic record by the world at large necessitated the laying down of a law relating to admissibility and proof of electronic record. The legislature responded to the crying need of the day by inserting into the Evidence Act section 65A and 65B, relating to admissibility of computer generated evidence in the only practical way it could so as to eliminate the challenge to electronic evidence.

Therefore the later recited cases involve the judgment made by the court regarding the kinds of electronic record such as examination of a witness by video conference. In the case of *State of Maharashtra v Dr Praful B Desai*¹⁸ involved the question of whether a witness can be examined by means of a video conference. The Supreme Court

18 *State of Maharashtra v Dr Praful B Desai* (2003) 4 SCC 601.

observed that video conferencing is an advancement of science and technology which permits seeing, hearing and talking with someone who is not physically present with the same facility and ease as if they were physically present. The legal requirement for the presence of the witness does not mean actual physical presence. The court allowed the examination of a witness through video conferencing and concluded that there is no reason why the examination of a witness by video conferencing should not be an essential part of electronic evidence.

This Supreme Court decision has been followed in other high court rulings such as in *Amitabh Bagchi v Ena Bagchi*.¹⁹ Recently, the High Court of Andhra Pradesh in *Bodala Murali Krishna v Bodala Prathima*²⁰ held that necessary precautions must be taken to identify the witness and ensure the accuracy of the equipment being used. In addition, any party wishing to avail itself of the facility of video conferencing must meet the entire expense.

3. Evidential Status of Computer Generated Evidence in Singapore

Significant amendments were made to sections 35 and 36 of the Singapore Evidence Act 1996 to provide for the admissibility and weight of computer output as evidence in both civil and criminal proceedings. As noted in the case of *Lim Mong Hong v Public Prosecutor*²¹, the pervasive role played by computers in today's society and the increase in computerization of records will no doubt lead to more and more computer output being presented in evidence. The Evidence (Amendment) Act 1996 introduced new provisions to the Evidence Act to "facilitate the use of information technology" and to "provide for the admissibility and weight of computer output produced by any computer or network as evidence in both criminal and civil proceedings". These amendments repealed the then existing

19 *Amitabh Bagchi v Ena Bagchi* AIR 2005 Cal 11

20 *Bodala Murali Krishna v Bodala Prathima* 2007 (2) ALD 72.

21 [2003] 3 SLR 88

provisions regarding admissibility of statements produced by computers that were loosely based on certain provisions of the UK Civil Evidence Act 1968 and the UK Police and Criminal Evidence Act 1984. In its place, a comprehensive set of computer related provisions was inserted.

Before computer output can be admitted in evidence "for any purpose whatsoever", it must first be relevant or admissible under the Evidence Act or any other written law. It must in addition satisfy one of the three modes of admissibility set out in sections 35 and 36 of the Evidence Act. "Computer output" is a term that has received a statutory definition under the 1996 amendments.

Singapore has attempted to keep in step with developments in electronic communications by updating the Evidence Act, and by giving legal authority and evidential weight to electronic records and electronic signatures through the ETA, and through accompanying regulations. Singapore also attempts to harmonise its laws and regulations to keep in line with those of its major trading partners by working with the UNCITRAL Model Laws, the OECD Guidelines, ICC's Guidec, APEC, the WTO and other international organisations.

4. Evidential Status of Computer Generated Evidence in Malaysia

Amendments to the Evidence Act 1950 in 1993 provided for the admissibility of computer-generated documents. Section 90A, 90B and 90C of the Act relate to documents produced by computers and were introduced by the Evidence (Amended) Act 1993(Act A851) with effect from 15 July 1993. This section is an exception to the hearsay rule and provides that a document produced by computer shall be admissible as evidence of any fact stated therein whether or not the person tendering the same is the maker of such document or statement. It applies to criminal and civil proceedings. The law regarding the computer generated documents cannot be read at the sphere of section 90A, 90B and 90C per se, but it is needed to be

scrutinizing throughout the Evidence Act in several sections that will be discussed later in order to get the comprehensive application of the admissibility of computer-generated evidence.

As preliminary on the recognition of sections deal with computer generated document, section 3 of the Malaysian Evidence Act 1950 (,EA') provides that, evidence includes –

- (i) all statements which the court permits or requires to be made before it by witnesses in relation to matters of fact under inquiry (such statements are called oral evidence); and
- (ii) all documents produced for the inspection of the court (such documents are called documentary evidence).

It is to be noted that under the EA *documents* means any matter expressed, described or howsoever represented, upon any substance, material thing or article, including any matter embodied in a disc, tape, film, sound track or other device whatsoever, by means of:

- (1) letters, figures, marks, symbols, signals, signs or other forms of expression, description or representation whatsoever;
- (2) any visual recording (whether of still or moving images);
- (3) any sound recording or any electronic magnetic, mechanical or other recording whatsoever and howsoever made, or any sounds, electronic impulses or other data whatsoever;
- (4) a recording or transmission (over a distance of any matter by any) or any combination of the means mentioned in (1), (2) or (3), or by more than one of the means mentioned in (1), (2), (3) and (4), intended to be used, or which may be used for the purpose of expressing, describing or howsoever representing, that matter.

For that matter the examples of documents has been highlighted in the illustration to include:

- (i) any writing;
- (ii) words printed, lithographed or photographed;
- (iii) a map, plan, graph or sketch;
- (iv) an inscription on wood, metal, stone or any other substance, material or thing;
- (v) a drawing, painting, picture or caricature;
- (vi) a photograph or a negative;
- (vii) a tape recording of a telephonic communication, including a recording of such communication transmitted over distance;
- (viii) a photographic or other visual recording, including a recording of a photographic or other visual transmission over a distance; and
- (ix) a matter recorded, stored, processed, retrieved or produced by a computer.

For our further discussion in circulating this topic, a ,computer' is defined in the EA as ,any device for recording, storing, processing, retrieving or producing any information or other matter, or for performing any one or more of those functions, by whatever name or description such device is called'. Thus, by looking to the totality and vividly of the above named sections, it postulate that the definition for ,computer' and ,document' are sufficiently wide to include all forms of electronically produced and/processed evidence.

With regard to the provisions relating the computer generated documents, section 90A (1) emphasized that in any criminal or civil proceedings, a document produced by a computer or a statement contained in such document, shall be admissible as evidence of any fact stated therein if: (1) the document was produced by the computer in the course of *its ordinary use*, and (2) whether or not the person tendering the same is the maker of such document or statement. The section also provides for the manner of establishing this condition.

It is important that the proof that a document was produced by a computer in the course of its ordinary use can be in the form of a *certificate* signed by a person who either before or after the production of the document by the computer is responsible for the management of the operation of that computer, or for the conduct of the activities for which that computer was used. In fact *Primary evidence* means the document itself produced for the inspection of the court as has been highlighted in section 62 of the Evidence Act. A document produced by a computer is primary evidence. Thus computer-generated evidence may be admitted in court without difficulty and such evidence is *primary evidence* even though it is not possible to distinguish between 'original' and 'copy'. The provisions in s 90A ostensibly provide the necessary safeguards. Section 90B deals with the weight or probative value to be attached to a document or statement contained in document, admitted by virtue of s 90A. This section must be read with section 90A of the Act and deals with the weight to be attached to a document, or a statement contained in a document, admitted under that section. It must be noted that subsection (a) of the section is not exhaustive as it provides that the court may draw any reasonable inference from circumstances relating to the document or statement and provides only some of the matters that may be taken into account by the court. The use of the word 'including' in the subsection makes this clear. Subsection b (i) of the section provides that the court shall have regard to the interval of time between the occurrence of the fact and the supply of the relevant information into the computer. Subsection b (ii) empowers the court to have regard to the fact as to whether the person who supplies the information or has custody of the document had any incentive to conceal or misrepresent all or any of the facts stated in the document.

Moving on is the principle and scope of section 90C. This section postulates that the provisions of section 90A and 90B shall prevail over any other provisions of the Act or in the Bankers' Boos (Evidence) Act 1949 or in any other written law relating to certification, production or extraction of documents. In *Bank Utama (M) Bhd v Cascade Travel & Tours Sdn Bhd*²² (HC) it was held that

section 90A(2) of the Act prevails over the Bankers' Books (Evidence) Act 1949, while in *Hanafi Mat Hassan v Public Prosecutor*²³, it has been emphasized in the judgment:

"...so s 90A (6) must have some other purpose to serve. Its true scope and meaning will become clear if it is read in the light of s 90C. It provides that the provisions of sections 90A and 90B shall prevail over any other provision of the Evidence Act 1950 thereby making s90A the only law under which all documents produced by computer are to be admitted in evidence..."

Upon acknowledgment on the sections circulate the computer generated document, it is vital to this discussion to elaborate and scrutinize on the issues that involve in the application of the above section specifically section 90A of the Evidence Act. This is needed as the wording of the section may sometimes lead to confusion as to the true meaning of the section. Among the issues involved were the manner of establishing that a document was produced by a computer in the course of its ordinary use, whether the requirement of certificate is mandatory and the meaning of the deeming provision in section 90A(6) of the Evidence Act.

In *Gnanasegaran a/l Pararajasingam v Public Prosecutor*, it is the *locus classicus* or one of the early cases where direction was sought as to the admissibility and probative value of computer generated documents from the Court of Appeal, His Lordship Mahadev Shankar JCA, clarified that s 90A was enacted to bring the 'best evidence rule' up to date with the realities of the electronic age. The effect of s 90A(1) in the present scenario is that it is no longer necessary to call the actual teller or bank clerk who keyed in the data to come to court provided he did so in the course of the ordinary use of the computer. This is a relaxation of the direct evidence rule in s 60 beyond the extent to which its provisions have been diluted by s 32(b) in the case of documents made in the ordinary course of business. A situation could thus arise under s 90A (1) where the particular person who keyed in the information may not be individually identifiable, but the document would nevertheless be admissible.'

In section 90A, subsection (2) deals with the certificate in the course of its ordinary use and Subsection (3) and (4) deal with the evidential effect of such certificate. In answering on the issue of the requirement of certificate as a mandatory requirement for the admissibility of computer generated document, it should be referred to the case of *Hanafi bin Mat Hassan v Public Prosecutor* [2003] 6 CLJ 459, HC. where per Augustine Paul JCA referred to the case of *Gnanasegaran a/l Pararajasingam v Public Prosecutor*²⁴. In this case, the learned counsel submitted that the computer produced document could only be admitted under sec 90A if the prosecution proved not only that it was produced by computer but also it was produced in the course of its ordinary use and that in order to do so it was incumbent upon the prosecution to produce a certificate signed by someone solely in charge of the computer which produced the printout as required by sec 90A (2). He further submitted that a failure to produce the certificate was fatal and would render the document inadmissible.

The facts circulated in this case were the accused was convicted of the offences of rape and murder respectively. In the words of the learned trial judge, the accused „had mercilessly and brutally raped and murdered the deceased, Noor Suzaily, in the bus WDE 4265 driven by him in the morning of 7 October 2000 at the time and place as stated in the charges”. The chemist, who carried out DNA tests on blood samples taken from the accused, prepared the summary of the DNA profiling results thereof and confirmed that the semen found in the vagina of the deceased belonged to the accused. The accused contended that the findings of the trial judge were flawed and unsustainable in law and had hence appealed against the same.

Consequently, before the Court of Appeal, arguments were put forth by the accused: (i) that a computer produced document could only be admitted under s. 90A if the prosecution proved not only that it was produced by a computer but also that it was produced in the course of its ordinary use and that in order to do so it was incumbent upon the prosecution to produce a certificate as required by s. 90A(2). Shaik Daud JCA in writing for the Court of Appeal did not agree with the submission and His Lordship proceeded to hold that a document

produced by a computer is admissible under s 90A(1) if it was produced by a computer and that it was produced by the computer in the course of its ordinary use. With regard to the need to tender in evidence the certificate it was held that since s 90A uses the word 'may' a certificate need not be produced in every case. In commenting, His lordship stated that

"once the prosecution adduce evidence through a bank officer that the document is produced by a computer, it is not incumbent upon them to also produce a certificate under sub-s. (2), as sub-s. (6) provides that a document produced by a computer shall be deemed to be produced by the computer in the course of its ordinary use... It would be superfluous to have a provision such as in sub-s (6) if in every case a certificate must be produced. It follow, therefore that such a certificate need only be tendered if an officer like Zainal is not called to testify that the statement is produced by a computer. Then the certificate becomes relevant to establish that the computer is produced by a computer in the course of its ordinary use. It is our view that when such an officer is not called, the court cannot rely on the deeming provision of sub-s (6)."

It is implicit in the judgement of Shaik Daud JCA that what is required to be proved in order to render a document admissible under s 90A are only that it was produced by a computer and in the course of its ordinary use, It was held that these matter could be proved by tendering the oral evidence to show that the document was produced by a computer thereby activating the presumption in s 90A(6) to show that the computer was produced by the computer in the ordinary course of its use or alternatively, by the production of a certificate to established the same presumed fact. In the other words, s 90A (6) has been construed only as an alternative mode of proof to the use of a certificate.

In the case of *Hanafi*, Augustine Paul J had made a good explanation on the working of Section 90A by which he stated that

“A careful perusal of s 90A(1) reveals that in order for a document produced by a computer to be admitted in evidence it must have been produced by the computer in the course of its ordinary use. It is therefore a condition precedent to be established before such a document can be admitted in evidence under s 90A (1). The manner establishing this condition has been prescribed. It can be proved by tendering certificate as stipulated by s 90A (2) read with s 96A (3). Once the certificate is tendered in evidence the presumption contained in s 90A(4) is activated to establish that the computer referred to in the certificate was in good working order and was operating properly in all respects throughout the material part of the period during which the document was produced. s90A (4) must therefore be given its full effect as it has a significant role to play in the interpretation and application of s 90A. Ordinarily a certificate under s 90A (2) must be tendered in evidence in order to rely on the provisions of s 90A (3) and (4). However the use of the words ‘may be proved’ in s 90A (2) indicates that the tendering of a certificate is not a mandatory requirement in all cases”.

In *Public Prosecutor v Chia Leong Foo*²⁵, a plethora of authorities was referred to in ruling that facts to be presumed can, instead, be proved by other admissible evidence which is available. Thus the use of the certificate can be substituted with oral evidence as demonstrated in *R v Shepherd*²⁶ in dealing with a provision of law similar to s 90A. Needless to say, such oral evidence must have the same effect as in the case of the use of a certificate. It follows that where oral evidence is adduced to establish the requirements of s 90A(1) in lieu of the certificate the presumptions attached to it, in particular, the matters presumed under s 90A(4) must also be proved by oral evidence. In commenting on the nature of the evidence required to discharge the burden in such event Lord Griffiths said in *R v Shepherd* at page 231:

“ the nature of the evidence to discharge the burden of showing that there has been no improper use of the computer and that it was operating

25 [2000] 6 MLJ 705

26 [1993] 1 All ER 225

properly will inevitably vary from case to case. The evidence must be tailored to suit the needs of the case. I suspect that it will very rarely be necessary to call an expert and that in the vast majority of cases it will be possible to discharge the burden by calling a witness who is familiar with the operation of the computer in the sense of knowing what the computer is required to do and who can say that it is doing it properly. “

In relying to the principle in *R v Shepherd*, the Lordship in *PP v Chia Leong Foo* stated that it must be added that the condition precedent in s 90A (1) coupled with the stipulation on the manner of its proof makes it clear in unmistakable terms that a document made admissible by the section is only one that was produced by a computer in the ordinary use; and applicable to one that was so not produced. The views expressed in the above passages were approved by the Federal Court in *Ahmad Najib bin Aris v. Public Prosecutor*²⁷.

“failure to cross-examine the witness on such matters, when the required evidence has not been adduced in examination-in-chief, does not mean that the requirement of proof of those matters has been waived. There is no obligation on a party to cross-examine a witness on a matter that the latter is required to prove but has not done so.”

In this case, the appellant was convicted in the High Court of the rape and murder of one Canny Ong Lay Kian (,victim'), and was sentenced to twenty years' imprisonment and whipping of ten strokes for the rape, and to death for the murder. Appellant appealed and in dismissing the appeal Per Abdul Aziz Mohamad JCA states “The swabs and smears obtained by the pathologist from the victim's upper vagina proved the presence in the vagina of semen. The semen was established to belong to the appellant. The stains on the Jack Blue Classics jeans belonging to the appellant were established to be stains of the blood of the victim. These proofs were established by DNA profiling and the results of the DNA profiling were obtained by the use of a computer.

It was submitted on behalf of the appellant in the appeal that the documents concerned that were produced by the computer, which established those results, or from which those results were established, were not admissible in evidence under s. 90A of the Evidence Act 1950. This court had, however, decided in Gnanasegaran Pararajasingam v. PP, that because the word used in subsection (2) is "may", a certificate under the subsection is not mandatory for proving that a document was produced by a computer in the course of its ordinary use and that so long as there is proof that a document is produced by a computer subsection (6) applies to deem the document to be produced by the computer in the course of its ordinary use.

The issue has continued to arise as in the case of *PB Securities Sdn Bhd v Justin Ong Kian Kuok*.²⁸ The plaintiff's claim against the defendant was in respect of contra losses incurred in the defendant's share trading account arising from the purchase and sale of shares. The defendant contended that he did not give instructions to the remisier of the plaintiff's company to conduct the shares trading for and on his behalf which resulted in losses in the defendant's account and that the share trading was manipulated by the said remisier. The defendant also alleged against the plaintiff that numerous transactions were done far in excess of the trading limit. The plaintiff furnished the certificate under s 90A of the Evidence Act 1950 and by virtue of s 90A(1) all the contract notes, contra statements and monthly statements were held to be properly admissible as evidence of the facts stated therein, namely, what shares had been bought and sold by the order of the defendant.

In *Public Prosecutor v Hanafi Mat Hassan*²⁹ the accused, Hanafi bin Mat Hassan, was charged for the crimes of murder and rape. A bus ticket bought by the accused which was produced by a ticket machine was adduced by the prosecution and its production was objected to by the defence counsel as being computer generated evidence. The High Court adopted the Court of Appeal's decision in *Gnanasegaran a/l Pararajasingam v Public Prosecutor* and held

28 *PB Securities Sdn Bhd v Justin Ong Kian Kuok* ; [2006] 1 LNS 137, HC.

29 *Public Prosecutor v Hanafi Mat Hassan* [2003] 6 CLJ 459, HC.

that the ticket machines installed on the buses were computers. There was the evidence of two prosecution witnesses to the effect that the ticket machines recorded and stored information and produced tickets, status reports, shift reports and audit reports. Thus they were devices for *recording, storing, and producing information* and the ticket as well as the information printed on it was admissible as evidence.

In *Public Prosecutor v Goh Hoe Cheong & Anor*³⁰ the accused were charged under s 39B(1)(a) of the Dangerous Drugs Act 1952, for trafficking, punishable with death under s 39B(2). Here the prosecution unsuccessfully sought to adduce baggage tags in evidence. The facts were that based on information received a team of police personnel planned to nab three suspects when they were about to board their flight at KLIA. At 9pm, PW8 and his police team took their respective positions at KLIA. The suspects checked in their bags and had a blue ribbon tied to each of their baggage handles. They then left the check-in counter and proceeded for the departure gate of their flight at the Satellite Building. The police personnel followed but did not arrest them:

- (1) either before or after the three suspects had passed through Immigration/Passport Control, or
- (2) stop them from boarding the aero train to proceed to the Satellite Building.

Only when the bags of the three suspects arrived at the 'baggage assembly area', prior to loading on to the plane at 10.35pm, PW8 detained them and gathered them together in front of Gate C14. He then took them below the aerobridge to his team mates who were with the three bags. Subsequently, they were brought to the Narcotics Office where a physical body examination as well as an examination of their belongings was conducted. A physical check of the accused

30 *Public Prosecutor v Goh Hoe Cheong & Anor* [2007] 7 CLJ 68.

revealed nothing. Subsequently the baggage keys were obtained from the trouser pocket of the accused. The bags were opened, searched, interior lining cut and drugs found.

The issues before the court were:

- (i) whether there was admissible evidence before the court; and
- (ii) whether the prosecution had adduced prima facie evidence that the accused had custody and control of the bags.

The court found that:

(1) the police had allowed the suspects to board the aero train to proceed to the departure gate to board their scheduled flight without a hint of any imminent arrest. In the meantime, PW8 had left his position at the vicinity of the check-in counter E14 and proceeded to Gate C14 Bangunan Satelit KLIA. He did not seize the bags of the suspects, checked in, from the airport personnel who processed the check-in, at the check-in counter itself;

(2) there was no evidence given by the authority responsible for the management of the airport or the air carrier concerned, giving rise to serious doubts whether the exhibit bags were in fact the same bags checked in at counter E14 by the accused, notwithstanding the carrier's baggage tags were found attached to the bags, and the baggage claim tags attached to the respective tickets of the first and second accused, found in their possession. In fact and in law, in the absence of any express provisions as soon as a passenger checks in his bag at the check-in counter for his scheduled flight, the said bag was in the custody and control of the carrier or its agents, until the same is claimed by the passenger, and the bag thereupon delivered to the passenger;

(3a) no evidence that the packages suspected to contain drugs found in the bags had been concealed by accused since there was:

- (i) no fingerprints of either of the accused on any of the packages; and
- (ii) no witness from the carrier and/or the authority managing KLIA

called by the prosecution to prove the aspect of physical checking-in of the bags by the first and second accused, therefore, the computer generated documents ie the baggage tags P6A, P23A and the respective baggage claim tags P16A and P31A, could not be admitted in evidence unless s 90A of the Evidence Act 1950 was complied with by the prosecution,

(3b) no certificate was tendered to the court signed by a person who either before or after the production of the documents by the computer was responsible for the management of the operation of that computer, or for the conduct of the activities for which that computer was used.

In the circumstances, baggage tags were inadmissible as evidence. Therefore, there was no admissible evidence before this court.

As the chain of custody and control had not been established, there was no admissible evidence that the bags were in the custody and control of the accused, either at the time they were arrested by PW8 at the departure Gate C14, or at any time before the bags were checked-in.

Now we shall moving to the next issue on section 90A (2) and 90A (6) and shall be read together with section 90A(5) as if to be read on its plain meaning, it is seems to be inconsistent with each other thus may lead to overlapping of the meaning of the provision. Subsection (5) of the section provides that a document shall be deemed to have been produced by a computer even if it was produced in any of the ways enumerated therein. In deriving on the meaning of the deeming provision on section 90A (6). Augustine Paul JCA in *Hanafi bin Mat Hassan v Public Prosecutor* [2006] 4 MLJ 134 mentioned that:

“ the resultant matter for consideration is the proper meaning to be ascribed to the deeming provision in s 90A(6) in order to determine whether it can be a substitute for the certificate. A deeming provision is a legal fiction and is would not other wise prevail. As Viscount Dunedin said in *CIT Bombay v Bombay Corporation* AIR 1930 PC 54,

- “ now when a person is ‘deemed to be’ something the only meaning possible is that whereas he is not in reality that something the Act of Parliament requires him to be treated as if he were”

Its primary function is to bring in something which would other wise be excluded. It must be remembered that the purpose of tendering in evidence a certificate under section 90A (2) is to establish that a document was produced by a computer in the ordinary course of its use. On the other hand, section 90A (6) deems that a document produced by a computer to have been produced by a computer in the course of its ordinary use. They are incompatible and inconsistent with each other. A fact cannot be deemed to have been proved when specific provision has been made for the mode of proof of the same fact. If therefore section 90A (6) is to function as a substitute for the certificate it will render nugatory section 90A (2). This will not accord with the basic rules of statutory construction. It is perhaps pertinent to bear in mind *Madanlal Fakirchand Dudhediya v Shree Changdeo Sugar Mills Ltd*³¹ where Gajendragadkar J said at page 1551:

“In construing s 76(1) and (2), it would be necessary to bear mind the relevant rules of construction. The first rule of construction which is elementary is that the words used in the section must be given their plain grammatical meaning. Since we are dealing with two sub-sections of s 76, it is necessary that the said two sub-sections must be construed as a whole ‘each portion throwing light, if need be, on the rest’. The two sub-sections must be read as parts of an integral whole and as being interdependent; an attempt should be made in construing them to reconcile them if it is reasonably possible to do so, and to avoid repugnancy. If repugnancy cannot possibly be avoided, then a question may arise as to which of the two should prevail. But that question can arise only if repugnancy cannot be avoided.”

Such a reconciliation exercise will be great facilitated by a consideration of the object of section 90A (6). Section 90A (1) provides for the admissibility of a document produced by a computer in any criminal or civil proceeding. Such a document is in fact a reference to a document whether or not it was produced by a computer after the commencement of any criminal or civil proceeding. Accordingly the applicability of section 90A (6) to documents produced by a computer '...whether or not.. .' they were produced after the commencement of any criminal or civil proceeding etc will strike at very foundation of section 90A (1) as those documents constitute the very basic of the section. It will result in section 90A (1) being rendered otiose. Such documents cannot therefore, be within the contemplation of section 90A (6). So section 90A(6) must have some other purpose to serve, Its true scope and meaning will become clear if it is read in the light of section 90C. It provides that the provisions of section 90A and 90B shall prevail over any other provision of the Evidence Act 1950 thereby making section 90A the only law under which all documents produced by a computer are to be admitted in evidence.

To recapitulate, in the case of section 90A (6) once its deeming part becomes applicable to a document which was not produced by a computer in the ordinary course of its use the condition precedent in section 90A(1) would have been satisfied in order to render it admissible. However, the requirements of section 90A (4) must still be established. This can be done by tendering in evidence the certificate under section 90A (2) or by way of oral evidence. It must be stressed that section 90A only deals with the admissibility of a document produced by a computer and not to the weight to be attached to it which will be the subject matter of a separate exercise.

5. Comparative Appraisal

In the United Kingdom, ('UK') unlike the codified rules of evidence that exist in Malaysia, the admissibility of computer evidence is governed by a mixture of statutory provisions and common law rules. The statutory provisions governing the admissibility and proof of

documentary evidence in the Civil Evidence Act 1995 ('CEA 1995') and in the Criminal Justice Act 1988 ('CJA 1988') are designed to apply to documents containing computer-stored information. This has been accomplished by providing broad identical definitions in both the CEA 1995 for civil proceedings and the CJA 1988 for criminal proceedings to the term "document". In Malaysia on the other hand, it is a mixture of statutory provision regarding the computer evidence that has been enumerated in Evidence Act 1950 that shall be apply to both criminal and civil proceedings. It is a different approach taken by Malaysian legislation even though the root of the law regarding the evidence itself is originated from the common law. Malaysian approach is more similar to the Indian's position as both do not separate the elements of computer evidence in different statutory provision.

The difficulty in the application of this rule in UK lies in its interaction with the hearsay rule. Evidence is hearsay where a statement in court repeats a statement made out of court in order to prove the truth of the content of the out of court statement³² Similarly evidence contained in a document is hearsay if the document is produced to prove that statements made in court are true³³ The evidence is excluded because the crucial aspect of the evidence, the truth of the out of court statement (oral or documentary), cannot be tested by cross-examination. The problem, however, occurs because some statements, although in form assertive and inadmissible if they were to originate in the minds of human beings, in fact originate in some purely mechanical function of a machine and can be used circumstantially to prove what they appear to assert.

The basis for this view was laid down in a case having little to do with computers. In the *Statute of Liberty*³⁴ a collision occurred between two vessels on the Thames estuary. The estuary was monitored by radar and a film of the radar traces was admitted into evidence. Simon P rejected the argument that the film was hearsay - he held that it constituted real evidence and not hearsay and he placed

32 — *Sparks v R* [1964] AC 964).

33 *Myers v DPP* [1965] AC 1001).

34 [1968] 2 All ER 195

it on a par with direct oral testimony. Where machines have replaced human beings, it makes no sense to insist upon rules devised to cater for human beings but rather, as Simon P said, the law is bound these days to take cognisance of the fact that mechanical means replace human effort' (at p 196).

This useful distinction was apparently overlooked in *R v Pettigrew*³⁵ where the prosecution wished to prove that some bank notes found in the possession of the accused were part of a particular consignment dispatched by the Bank of England. A computer printout was used to prove this but the Court of Appeal held that such evidence was inadmissible under the statutory provision concerned (section 1 Criminal Evidence Act 1965 - now repealed). The Court took the view that the operator did not have the requisite personal knowledge of the numbers of the bank notes rejected from the machine since they were compiled completely automatically by the computer. This conclusion is quite accurate and a perfect application of the hearsay rule but it failed to consider the use of the print-out as real evidence. This confusion between hearsay and real evidence is unfortunate and it may explain why it was necessary to create special rules for computer evidence.

As comparison in Malaysian perspective into the computer generated evidence, it has been consider that the section of 90A, 90B and 90C is an exception to the hearsay rule and provides that a document produced by computer shall be admissible as evidence of any fact stated therein whether or not the person tendering the same is the maker of such document or statement. Primary evidence means the document itself produced for the inspection of the court as has been highlighted in section 62 of the Evidence Act. A document produced by a computer is primary evidence. Thus computer-generated evidence may be admitted in court without difficulty and such evidence is primary evidence even though it is not possible to distinguish between 'original' and 'copy'. This matter same goes to the Singapore's position as the laws embodied in their Evidence Act acted as uniform laws and can be applicable in civil and criminal

proceedings. This could be seen in 1996, significant amendments were made to sections 35 and 36 of the Singapore Evidence Act to provide for the admissibility and weight of computer output as evidence in both civil and criminal proceedings.

Apart from the codification of the laws, among the issues that need to be highlighted in this discussion circulates on the matter of SMS as admissible evidence. As been emphasized in India, one of the pieces of circumstantial evidence sought to be relied by the prosecution in the *Pramod Mahajan Murder Trial* (2009) 4 SCC 501., was a threatening SMS (Short Message Service) sent by Pravin Mahajan (the accused) to Pramod Mahajan. It emerges from newspaper reports that the defense, (a) gave a demonstration that a SMS could emanate from a particular handset/mobile number and when received could display another mobile number; (b) referred to certain provisions of the Indian Evidence Act, 1872 and stated that the SMS was inadmissible as evidence in trials since, "only secured electronic evidence (could) be accepted as valid evidence.

Reference here may be made to Section 65B (1) of the Indian Evidence Act, 1872. It states that, "Notwithstanding anything contained in this Act, any information contained in an electronic record which is printed on a paper, stored, recorded or copied in optical or magnetic media produced by a computer (hereinafter referred to as the computer output) shall be deemed to be also a document, if the conditions mentioned in this section are satisfied in relation to the information and computer in question and shall be admissible in any proceedings, without further proof or production of the original, as evidence of any contents of the original or of any fact stated therein of which direct evidence would be admissible." Thus evidence in an electronic form is admissible under the Indian Evidence Act, 1872. Certain requirements need to be met under Section 65B (1) if computer outputs are sought to be adduced as evidence.

"Secured electronic evidence" merely creates a presumption in favour of the person adducing it, and shifts the onus of proof to the other party. Refer to Section 85B which states that, "(1) In any

proceedings involving a secure electronic record, the Court shall presume unless contrary is proved, that the secure electronic record has not been altered since the specific point of time to which the secure status relates.”

On an interesting note, the Honorable Judge dismissed the defense contentions on the grounds that (a) the practical demonstration was conducted by defense witness, P Balakrishnan, on a Motorola handset similar to that of Pramod, but not Pramod's phone; and (b) Balakrishnan was “not an expert” as per law as he doesn't have the authorized qualifications.

The controversial issue on the usage of SMS as evidence has been dismissed in the Indian case. However in Malaysia, it tends to occur the same matter of admissibility of evidence since it does have some relation to the current murder case of Susilawati. In this case, there are some SMS been sent to the witness from the victim and thus occur the question whether the SMS can acted as the evidence in court? Indian case has shown the negative answer as provisions of the Indian Evidence Act, 1872 and stated that the SMS was inadmissible as evidence in Trials since, “only secured electronic evidence (could) be accepted as valid evidence. However the provisions does not stipulate in Malaysian Evidence Act as has been pointed out in the definition of *documents* means any matter expressed, described or howsoever represented, upon any substance, material thing or article, including any matter embodied in a disc, tape, film, sound track or other device whatsoever, by means of:

- (1) letters, figures, marks, symbols, signals, signs or other forms of expression, description or representation whatsoever;
- (2) any visual recording (whether of still or moving images);
- (3) any sound recording or any electronic magnetic, mechanical or other recording whatsoever and howsoever made, or any sounds, electronic impulses or other data whatsoever;

(4) a recording or transmission (over a distance of any matter by any) or any combination of the means mentioned in (1), (2) or (3), or by more than one of the means mentioned in (1), (2), (3) and (4), intended to be used, or which may be used for the purpose of expressing, describing or howsoever representing, that matter.

A ,*computer*' is defined in the EA as ,any device for recording, storing, processing, retrieving or producing any information or other matter, or for performing any one or more of those functions, by whatever name or description such device is called'. Thus, by looking to the totality and vividly of the above named sections, it postulate that the definition for ,*computer*' and ,*document*' are sufficiently wide to include all forms of electronically produced and/processed evidence. Therefore, it is advisable that the SMS be admitted as the evidence in the case since the application of SMS has been accepted by the Syariah Court in the case of divorce. However some safeguards and limitation should be imposed in accepting such evidence and in my humble opinion it shall based upon the discretionary of a judge according to the circumstances of particular case to decide on the admissibility of the evidence. In brief, in accepting the SMS as the evidence to be tendered in the court, it shall be regard as the lowest rank of evidence and should be fully scrutinize as to its authentication. In my opinion, it is not wrong to accept this kind of evidence since the usage of high technology device in tracking the truth and authentication of the SMS may be executed if it is needed.

6. Conclusion

This paper investigates the comparative study on the computer generated evidence in several jurisdictions such as Malaysia, United Kingdom, New Zealand, India, Australia and Singapore. As mentioned earlier in the introduction, the purpose of this study was examine the issue in this study as to whether the concept of enumerating the law of computer generated documents in Evidence Act 1950 can be well efficiency be realized in admissibility of the computer generated evidence and to administer the smoothness of Malaysian judicial

system.

The following conclusions can be drawn from the study, science and law; two distinct professions have increasingly become commingled, for ensuring a fair process and to see that justice is done. On one hand, scientific evidence holds out the tempting possibility of extremely accurate fact-finding and a reduction in the uncertainty that often accompanies legal decision making. At the same time, scientific methodologies often include risks of uncertainty that the legal system is unwilling to tolerate.

There are many obstacles and challenges to the admissibility of electronic evidence in court. Electronic evidence challenges the traditional rules on the admissibility of evidence, for example, the best evidence rule. New obstacles are created because of the nature of computer technology itself such that it is necessary to re-examine the application of the hearsay rule, or to make evidentiary presumptions for or against the hearsay rule.

Electronic evidence may sometimes have better evidential weight than paper-based evidence. For example, encryption technology in electronic communications can almost make it fairly certain that electronic records can be attributed to the correct signatory. Most electronic mail communications can be attributed to the correct signatories through secure passwords and access codes. The storage of electronic evidence, very often in disk files not known to the creator of the electronic evidence, may actually make it easier to rebut or corroborate the evidence. At best, it can make it harder to totally delete unwanted electronic evidence.

The above analysis brings out clearly that though the Malaysian and other evidence law cannot be said to be withered in the wake of new scientific challenges, as suitable amendments have been incorporated, however much remains to be done to make it comprehensively adequate to face any modern challenges that may arise. The need of the hour therefore is to fill the chasms where no law exists and to reduce it into writing where judicial pronouncements have held up the system so far.

To recapitulate, it is submitted that technological advancement is inescapable and the legal system is geared towards this change. As white collar crime gets technically sophisticated there is a need for all parties involved to be trained in these areas to competently assess the probative or prejudicial value of such technical evidence adduced and apply the relevant principles of law. The use of electronic evidence is an evolving one. Rules have to be formulated as to how, and for what duration electronic data must be stored, who may have access to it, for what purpose and conditions for search and seizure as well as for discovery and divulging of such information

References:

1. Albert J Jr, Marcella.(2002). Cyber Forensics: A Field Manual for Collecting, Examining and Preserving Evidence of Computer Crimes, Boca Raton, FL, USA. Auerbach Publishers.
2. Amanda Hoey LL.M. (1996). Analysis of The Police and Criminal Evidence Act, s.69 - Computer Generated Evidence. First Published in Web Journal of Current Legal Issues in association with Blackstone Press Ltd.
3. Augustine Paul (2009). Evidence Practice and Procedure. Fourth Edition. Malaysia. Lexis Nexis
4. Chin Tet Yung.(1988). Evidence. Singapore: Butterworths.
5. Cross and Tapper. (2000). Evidence. 6th edition. London: Butterworths.
6. Gita Radhakrishna (2009) Legal Issues in Electronic Evidence. MLJ v. 4. LexisNexis Asia (a division of Reed Elsevier (S) Pte Ltd)
7. Hamid Ibrahim, (1993). The Law of Evidence. Kuala Lumpur: Central Law Book Corporation Sdn. Bhd.
8. Hamid Sultan. 2011. The Criminal Procedure & Evidence in Malaysia and Singapore.

Kuala Lumpur: Janab.

9. J.D. Heydon. (1996). Cross on Evidence. 5th edition. Australia: Butterworths.
 10. Jeremy Gans, Andrew Palmer. (2005) Australian Principles of Evidence. Second Edition. Cavendish Publishing Limited.
 11. Johanne Gauthier Partner.(2003). The Admissibility of Computer-Generated Evidence: An overview. McGraw: UK
 12. Law Reform Commission.(2009). Consultation Paper: Documentary and Electronic Device. UK
 13. Phipson. Evidence. (2000). Evidence. 12th edition. London: Sweet and Maxwell.
 14. Pinsler J. 1992. Evidence Advocacy and the Legal Process. Singapore: Butterworths.
 - 15.R.K. Nathan. (1993). A Practical Approach to Evidence in Malaysia and Singapore. Kuala Lumpur: Malaya Law Journal.
 16. Rafiah Salim. (1994). Evidence in Malaysia and Singapore: Cases, Materials and Commentary. 2nd edition. Kuala Lumpur: Butterworths.
 17. Ratanlal & Dhirajal. (1987). The Law of Evidence. India: Wadhwa and Co.
- Ratanlal Ranchhoddas, Dhirajlal Keshavlal Thakore: Ratanlal & Dhirajlal's The Law of Evidence (Act 1 of 1872). Twentieth Edition 2002 Reprint 2003. Wadhwa and Company Nagpur, India.

18. RK NATHAN. (1993). A Practical Approach to Evidence in Malaysia and Singapore. Butterworths. Asia.

19. Sarkar. (1999). The Law of Evidence. 15th edition. India: Wadhwa & Co.

20. Stephen J.F. (1904). A Digest of the Law of Evidence. New York: MacMillan & Co. Ltd.