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<td>Author(s)</td>
<td>Sreenivasan, Rajesh.</td>
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New Media and Learning Technologies in Asia
Asian Media Information and Communication Centre
18 November 1998, Carlton Hotel, Singapore

Day Three

New Technologies: Legal Issues

By:

Rajesh Sreenivasan
Information Technology Law Practice Group
Rajah & Tann - A member firm of the Andersen Worldwide network of international law firms.
New Technologies - Legal Issues
By Rajesh Sreenivasan LL.B (Hons.)
Information Technology Law Practice Group
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Communication Centre

Outline
• Intellectual Property Rights
• Electronic Commerce
• Computer Misuse Act
• Year 2000 issues

Intellectual Property Rights
• Copyright
  - A "property" right existing in literary works including computer software, artistic works, musical works and sound recordings.
  - Owner has exclusive right to e.g. make copy, distribute or sell.
  - Governed by Copyright Act (Cap. 63).

Intellectual Property Rights
• Copyright (cont.)
  - Exists in electronic publishing of works e.g.
    - CD-ROM
    - Internet webpages
    - Electronic Public Broadcasts e.g. Teletext

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Intellectual Property Rights

- **Trademarks**
  - Section 2(1), Trade Marks Bill 1998 - "‘trade mark’ means any visually perceptible sign capable of being represented graphically and which is capable of distinguishing goods and services so dealt with or provided in the course of trade by a person from goods or services so dealt with or provided by any other person.”

- **Patents** - Patents Act (Cap 221)
  - provide a monopolistic right over an industrially applicable invention.
  - Patents provides protection for up to 20 years for the inventor (almost monopolistic protection)
  - patents must be precisely defined and must meet very exacting standards before they can be registered

- **Electronics Commerce**
  - This will be a key area in the provision of educational services on-line e.g. Virtual Universities.
  - Key Statute to note is the Electronic Transactions Act 1998.
  - The Act sets out how contracts may be formed electronically
  - The Act also puts in place the legal infrastructure to enable digital signatures to be recognised
Electronic Commerce (Cont.)

- Electronic Contracts - Sections 11-15 of the ETA
- Digital Signatures - Sections 19 - 46
- Be aware of main problems in e-commerce
  - Formation of Contract
  - Jurisdiction
  - Identification
  - Taxation

Outline
- Intellectual Property Rights
- Electronic Commerce
- Computer Misuse Act
- Year 2000 Issues

Computer Misuse Act

- This will be of relevance as computer systems are often abused.
- This abuse can take several forms
  - hacking
  - mailbombing
  - impersonation
  - fraud

Outline
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Computer Misuse Act

- These offences are now addressed in CMA and the Penal Code.
  - Sections 3 to 7 CMA
- Hacking into computers of educational systems will increase with greater adoption of IT in our educational institutions.

Outline
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Year 2000 - Legal Issues

- What is the Year 2000 computer problem?
  - 1 January 2000 and several other key dates in 1999 and 2000 will trigger off potentially serious flaws in date sensitive processing by computers. The problem at its simplest is that at the turn of the century, some computers will reflect the year as 1999 and not as 2000. This occurs as a result of the practice adopted by early computer programmers of representing years in two digits (e.g. "1998" as simply "98" and "2000" as "00"). A computer that is not Y2K ready will presume "98" to mean either 1990 or 1980 and not the year 2000.
Year 2000 (cont.)

- Be aware of your legal rights and liabilities
- Look out for exclusion clauses, limitation of liability clauses and indemnity clauses regarding the Year 2000
- Ensure a thorough Y2K technical and legal audit is undertaken
- Do not assume that new computer systems are Year 2000 ready.
The following Act was passed by Parliament on 29th June 1998 and assented to by the President on 3rd July 1998:—

THE ELECTRONIC TRANSACTIONS ACT 1998

(No. 25 of 1998)  

ARRANGEMENT OF SECTIONS

PART I

PRELIMINARY

Section
1. Short title and commencement
2. Interpretation
3. Purposes and construction
4. Application
5. Variation by agreement

PART II

ELECTRONIC RECORDS AND SIGNATURES GENERALLY

6. Legal recognition of electronic records
7. Requirement for writing
(b) the infringement of any rights subsisting in or in relation to such material.

(2) Nothing in this section shall affect —
   (a) any obligation founded on contract;
   (b) the obligation of a network service provider as such under a licensing or other regulatory regime established under any written law; or
   (c) any obligation imposed under any written law or by a court to remove, block or deny access to any material.

(3) For the purposes of this section —

   “provides access”, in relation to third-party material, means the provision of the necessary technical means by which third-party material may be accessed and includes the automatic and temporary storage of the third-party material for the purpose of providing access;

   “third-party”, in relation to a network service provider, means a person over whom the provider has no effective control.

PART IV

ELECTRONIC CONTRACTS

Formation and validity

11.—(1) For the avoidance of doubt, it is declared that in the context of the formation of contracts, unless otherwise agreed by the parties, an offer and the acceptance of an offer may be expressed by means of electronic records.

(2) Where an electronic record is used in the formation of a contract, that contract shall not be denied validity or enforceability on the sole ground that an electronic record was used for that purpose.

Effectiveness between parties

12. As between the originator and the addressee of an electronic record, a declaration of intent or other statement shall not be denied legal effect, validity or enforceability solely on the ground that it is in the form of an electronic record.
Attribution

13.—(1) An electronic record is that of the originator if it was sent by the originator himself.

(2) As between the originator and the addressee, an electronic record is deemed to be that of the originator if it was sent —

(a) by a person who had the authority to act on behalf of the originator in respect of that electronic record; or

(b) by an information system programmed by or on behalf of the originator to operate automatically.

(3) As between the originator and the addressee, an addressee is entitled to regard an electronic record as being that of the originator and to act on that assumption if —

(a) in order to ascertain whether the electronic record was that of the originator, the addressee properly applied a procedure previously agreed to by the originator for that purpose; or

(b) the data message as received by the addressee resulted from the actions of a person whose relationship with the originator or with any agent of the originator enabled that person to gain access to a method used by the originator to identify electronic records as its own.

(4) Subsection (3) shall not apply —

(a) from the time when the addressee has both received notice from the originator that the electronic record is not that of the originator, and had reasonable time to act accordingly;

(b) in a case within subsection (3) (b) , at any time when the addressee knew or ought to have known, had it exercised reasonable care or used any agreed procedure, that the electronic record was not that of the originator; or

(c) if, in all the circumstances of the case, it is unconscionable for the addressee to regard the electronic record as that of the originator or to act on that assumption.

(5) Where an electronic record is that of the originator or is deemed to be that of the originator, or the addressee is entitled to act on that assumption, then, as between the originator and the addressee, the addressee is entitled to regard the electronic record received as being what the originator intended to send, and to act on that assumption.
(6) The addressee is not so entitled when the addressee knew or should have known, had the addressee exercised reasonable care or used any agreed procedure, that the transmission resulted in any error in the electronic record as received.

(7) The addressee is entitled to regard each electronic record received as a separate electronic record and to act on that assumption, except to the extent that the addressee duplicates another electronic record and the addressee knew or should have known, had the addressee exercised reasonable care or used any agreed procedure, that the electronic record was a duplicate.

(8) Nothing in this section shall affect the law of agency or the law on the formation of contracts.

Acknowledgment of receipt

14.—(1) Subsections (2), (3) and (4) shall apply where, on or before sending an electronic record, or by means of that electronic record, the originator has requested or has agreed with the addressee that receipt of the electronic record be acknowledged.

(2) Where the originator has not agreed with the addressee that the acknowledgment be given in a particular form or by a particular method, an acknowledgment may be given by —

(a) any communication by the addressee, automated or otherwise; or

(b) any conduct of the addressee, sufficient to indicate to the originator that the electronic record has been received.

(3) Where the originator has stated that the electronic record is conditional on receipt of the acknowledgment, the electronic record is treated as though it had never been sent, until the acknowledgment is received.

(4) Where the originator has not stated that the electronic record is conditional on receipt of the acknowledgment, and the acknowledgment has not been received by the originator within the time specified or agreed or, if no time has been specified or agreed within a reasonable time, the originator —

(a) may give notice to the addressee stating that no acknowledgment has been received and specifying a reasonable time by which the acknowledgment must be received; and
(b) if the acknowledgment is not received within the time
specified in paragraph (a), may, upon notice to the
addressee, treat the electronic record as though it has never
been sent or exercise any other rights it may have.

(5) Where the originator receives the addressee’s acknowledgment
of receipt, it is presumed, unless evidence to the contrary is adduced,
that the related electronic record was received by the addressee, but
that presumption does not imply that the content of the electronic
record corresponds to the content of the record received:

(6) Where the received acknowledgment states that the related
electronic record met technical requirements, either agreed upon or
set forth in applicable standards, it is presumed, unless evidence to
the contrary is adduced, that those requirements have been met.

(7) Except in so far as it relates to the sending or receipt of the
electronic record, this Part is not intended to deal with the legal
consequences that may flow either from that electronic record or
from the acknowledgment of its receipt.

Time and place of despatch and receipt

15.—(1) Unless otherwise agreed to between the originator and
the addressee, the despatch of an electronic record occurs when it
enters an information system outside the control of the originator or
the person who sent the electronic record on behalf of the originator.

(2) Unless otherwise agreed between the originator and the
addressee, the time of receipt of an electronic record is determined as
follows:

(a) if the addressee has designated an information system for
the purpose of receiving electronic records, receipt occurs —
(i) at the time when the electronic record enters the
designated information system; or
(ii) if the electronic record is sent to an information
system of the addressee that is not the designated
information system, at the time when the electronic
record is retrieved by the addressee; or
(b) if the addressee has not designated an information system,
receipt occurs when the electronic record enters an
information system of the addressee.
(3) Subsection (2) shall apply notwithstanding that the place where the information system is located may be different from the place where the electronic record is deemed to be received under subsection (4).

(4) Unless otherwise agreed between the originator and the addressee, an electronic record is deemed to be despatched at the place where the originator has its place of business, and is deemed to be received at the place where the addressee has its place of business.

(5) For the purposes of this section —

(a) if the originator or the addressee has more than one place of business, the place of business is that which has the closest relationship to the underlying transaction or, where there is no underlying transaction, the principal place of business;

(b) if the originator or the addressee does not have a place of business, reference is to be made to the usual place of residence; and

(c) "usual place of residence", in relation to a body corporate, means the place where it is incorporated or otherwise legally constituted.

(6) This section shall not apply to such circumstances as the Minister may by regulations prescribe.

PART V

SECURE ELECTRONIC RECORDS
AND SIGNATURES

Secure electronic record

16.—(1) If a prescribed security procedure or a commercially reasonable security procedure agreed to by the parties involved has been properly applied to an electronic record to verify that the electronic record has not been altered since a specified point in time, such record shall be treated as a secure electronic record from such specified point in time to the time of verification.

(2) For the purposes of this section and section 17, whether a security procedure is commercially reasonable shall be determined having regard to the purposes of the procedure and the commercial circumstances at the time the procedure was used, including —
PATENTS ACT

(CHAPTER 221)

Act
21 of 1994
A 40/95

REVISED EDITION 1995
(15th March 1995)
PART III

PATENTABILITY

13.—(1) Subject to subsections (2) and (3), a patentable invention is one that satisfies the following conditions:

(a) the invention is new;
(b) it involves an inventive step; and
(c) it is capable of industrial application.

(2) It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of:

(a) a discovery, scientific theory or mathematical method;
(b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;
(c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer; or
(d) the presentation of information,

but the foregoing provisions shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or an application for a patent relates to that thing as such.

(3) An invention the publication or exploitation of which would be generally expected to encourage offensive, immoral or anti-social behaviour is not a patentable invention.

(4) For the purposes of subsection (3), behaviour shall not be regarded as offensive, immoral or anti-social only because it is prohibited by any law in force in Singapore.

(5) The Minister may, by order published in the Gazette, vary the provisions of subsection (2) for the purposes of maintaining them in conformity with developments in science and technology.

14.—(1) An invention shall be taken to be new if it does not form part of the state of the art.
(2) The state of the art in the case of an invention shall be taken to comprise all matter (whether a product, a process, information about either, or anything else) which has at any time before the priority date of that invention been made available to the public (whether in Singapore or elsewhere) by written or oral description, by use or in any other way.

(3) The state of the art in the case of an invention to which an application for a patent or a patent relates shall be taken also to comprise matter contained in an application for another patent which was published on or after the priority date of that invention, if the following conditions are satisfied:

(a) that matter was contained in the application for that other patent both as filed and as published; and

(b) the priority date of that matter is earlier than that of the invention.

(4) For the purposes of this section, the disclosure of matter constituting an invention shall be disregarded in the case of a patent or an application for a patent if occurring later than the beginning of the period of 12 months immediately preceding the date of filing the application for the patent and either —

(a) the disclosure was due to, or made in consequence of, the matter having been obtained unlawfully or in breach of confidence by any person —

(i) from the inventor or from any other person to whom the matter was made available in confidence by the inventor or who obtained it from the inventor because he or the inventor believed that he was entitled to obtain it; or

(ii) from any other person to whom the matter was made available in confidence by any person mentioned in sub-paragraph (i) or in this sub-paragraph or who obtained it from any person so mentioned because he or the person from whom he obtained it believed that he was entitled to obtain it;
(b) the disclosure was made in breach of confidence by any person who obtained the matter in confidence from the inventor or from any other person to whom it was made available, or who obtained it, from the inventor;

(c) the disclosure was due to, or made in consequence of, the inventor displaying the invention at an international exhibition and the applicant states, on filing the application, that the invention has been so displayed and also, within the prescribed period, files written evidence in support of the statement complying with any prescribed conditions; or

(d) the disclosure was due to, or made in consequence of, the inventor describing the invention in a paper read by him or another person with his consent or on his behalf before any learned society or published with his consent in the transactions of any learned society.

(5) For the purpose of subsection (4) (d), “learned society” includes any club or association constituted in Singapore or elsewhere whose main object is the promotion of any branch of learning or science.

(6) In this section, references to the inventor include references to any proprietor of the invention for the time being.

(7) In the case of an invention consisting of a substance or composition for use in a method of treatment of the human or animal body by surgery or therapy or of diagnosis practised on the human or animal body, the fact that the substance or composition forms part of the state of the art shall not prevent the invention from being taken to be new if the use of the substance or composition in any such method does not form part of the state of the art.

15. An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 14 (2) and without having regard to section 14 (3).
16.—(1) Subject to subsection (2), an invention shall be taken to be capable of industrial application if it can be made or used in any kind of industry, including agriculture.

(2) An invention of a method of treatment of the human or animal body by surgery or therapy or of diagnosis practised on the human or animal body shall not be taken to be capable of industrial application.

(3) Subsection (2) shall not prevent a product consisting of a substance or composition being treated as capable of industrial application merely because it is invented for use in any such method.

17.—(1) For the purposes of this Act, the priority date of an invention to which an application for a patent relates and also of any matter (whether or not the same as the invention) contained in the application is, except as provided by the provisions of this Act, the date of filing the application.

(2) If in or in connection with an application for a patent (the application in suit) a declaration is made, whether by the applicant or any predecessor in title of his, complying with the relevant requirements of the rules and specifying one or more earlier relevant applications for the purposes of this section made by the applicant or a predecessor in title of his and each having a date of filing during the period of 12 months immediately preceding the date of filing the application in suit, then —

(a) if an invention to which the application in suit relates is supported by matter disclosed in the earlier relevant application or applications, the priority date of that invention shall instead of being the date of filing the application in suit be the date of filing the relevant application in which that matter was disclosed or, if it was disclosed in more than one relevant application, the earliest of them;

(b) the priority date of any matter contained in the application in suit which was also disclosed in the earlier relevant application or applications shall be the date of filing the relevant application in which that matter was disclosed or, if it was disclosed in more than one relevant application, the earliest of them.
(3) Where an invention or other matter contained in the application in suit was also disclosed in two earlier relevant applications filed by the same applicant as in the case of the application in suit or a predecessor in title of his and the second of those relevant applications was specified in or in connection with the application in suit, the second of those relevant applications shall, so far as it concerns that invention or matter, be disregarded unless —

(a) it was filed in or in respect of the same country as the first; and

(b) not later than the date of filing the second, the first (whether or not so specified) was unconditionally withdrawn, or was abandoned or refused, without —

(i) having been made available to the public whether in Singapore or elsewhere;

(ii) leaving any rights outstanding; and

(iii) having served to establish a priority date in relation to another application, wherever made.

(4) This section shall apply for determining the priority date of an invention for which a patent has been granted as it applies for determining the priority date of an invention to which an application for that patent relates.

(5) In this section and section 18, “relevant application” means any of the following applications which has a date of filing:

(a) an application for a patent under this Act; or

(b) an application in or for a convention country specified under section 89 for protection in respect of an invention or an application which, in accordance with the law of a convention country or a treaty or international convention to which a convention country is a party, is equivalent to such an application.

18.—(1) It is hereby declared for the avoidance of doubt that where an application (the application in suit) is made for a patent and a declaration is made in accordance with section 17 (2) in or in connection with that application specifying an earlier relevant application, the application in