This short paper is based on the presentation made at the first International Conference on Digital Evidence held at London on 26 and 27 June 2008, and primarily deals with the amendments to Indian law, to include the provisions relating to digital evidence and rules regarding the recognition and admissibility of digital evidence under Indian law. The recent decisions of the Indian courts on digital evidence are also discussed briefly.

Law relating to digital evidence in India
The proliferation of computers and the influence of information technology in human lives and the storage of information in digital form required amendments to Indian law to include the provisions regarding the appreciation of digital evidence. In 2000, the Indian Parliament enacted the Information Technology Act, 2000 (IT Act), which brought in corresponding amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCITRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCITRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCITRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible. The IT Act is based on the UNCTRAL Model Law on Electronic Commerce and, apart from providing amendments to existing Indian statutes to make digital evidence admissible.

Evidence
The definition of 'evidence' was amended to include electronic records (section 3(a), Evidence Act). Evidence is of two types: oral and documentary. The definition of documentary evidence has been amended to include all documents, including electronic records produced for the inspection of the court. The term 'electronic records' has been given the same meaning as assigned to it in the IT Act, which provides, 'data, record or data generated, image or sound stored, received or sent in an electronic form or micro film or computer generated micro fiche'.

Admissions
The definition of Admission (section 17, Evidence Act) is changed to include a statement, oral or documentary, or contained in electronic form, which suggests any inference as to any fact in issue or relevant fact. New section 22A has been inserted into the Evidence Act to provide for the relevancy of oral evidence as to the contents of electronic records. It provides that oral admissions as to the contents of electronic records are not relevant, unless the genuineness of the electronic records produced is in question.

Evidence to be given when the statement forms part of electronic record
When any statement of which evidence is contained is part of electronic record (section 39 Evidence Act), evidence must be given of so much and no more of the electronic record as the court considers necessary in that particular case to the full understanding of the nature and effect of the statement and of the circumstances under which it was made. This provision deals with statements that form part of a longer statement or of a conversation or part of an isolated
Section 5 of the Evidence Act provides that evidence can be given only regarding facts that are in issue or where they are relevant, but no other facts, and section 136 empowers a judge to decide as to the admissibility of the evidence.

document, or is contained in a document that forms part of a book or series of letters or papers.

Admissibility of digital evidence

New 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 only regarding facts that are in issue or where they are relevant, but no other facts, and section 136 empowers a judge to decide as to the admissibility of the evidence. A new provision introduced to the Evidence Act, 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, whether it be the contents of a document or communication printed on a paper, or stored, recorded, copied in optical or magnetic media produced by a computer (also referred to as computer output in the Act), it is deemed to be a document and is admissible in evidence without further proof of the production of the original, providing the conditions set out in section 65B (2) – (5) are satisfied.

Conditions for the admissibility of digital evidence

Before a computer output is admissible in evidence, following conditions must be fulfilled, as set out in section 64(B)(2):

(2) The conditions referred to in sub-section

(1) in respect of a computer output shall be the following, namely:

(a) the computer output containing the information was produced by the computer during the period over which the computer was used regularly to store or process information for the purposes of any activities regularly carried on over that period by the person having lawful control over the use of the computer;
(b) during the said period, information of the kind contained in the electronic record or of the kind from which the information so contained is derived was regularly fed into the computer in the ordinary course of the said activities;
(c) throughout the material part of the said period, the computer was operating properly or, if not, then in respect of any period in which it was not operating properly or was out of operation during that part of the period, was not such as to affect the electronic record or the accuracy of its contents; and
(d) the information contained in the electronic record reproduces or is derived from such information fed into the computer in the ordinary course of the said activities.

(3) Where over any period, the function of storing or processing information for the purposes of any activities regularly carried on over that period as mentioned in clause (a) of sub-section (2) was regularly performed by computers, whether-

(a) by a combination of computers operating over that period; or
(b) by different computers operating in succession over that period; or
(c) by different combinations of computers operating in succession over that period; or
(d) in any other manner involving the successive operation over that period, in whatever order, of one or more computers and one or more combinations of computers, all the computers used for that purpose during that period shall be treated for the purposes of this section as constituting a single computer; and references
in this section to a computer shall be construed accordingly.

Section 65B (4) provides for the requirement of a certificate of authenticity in order to satisfy the conditions set out above, signed by a person occupying a responsible official position. Such a certificate will be evidence of any matter stated in the certificate. The certificate must identify the electronic record containing the statement, describe the manner in which it was produced, and also give such particulars of any device involved in the production of the electronic record as may be appropriate for the purpose of showing that the electronic record was produced by a computer. The certificate must also deal with any of the matters to which the conditions for admissibility relate.

**Presumptions regarding digital evidence**

A fact which is relevant and admissible may not have to be construed as a proved fact. The judge has to appreciate the fact to come to conclusion that it is proved fact. The exception to this general rule is the existence of certain facts specified in the Evidence Act that could be presumed by the court. The Evidence Act has been amended to introduce various presumptions regarding digital evidence, as described below.

**Gazettes in electronic form**

Under the provisions of section 81A, the court presumes the genuineness of electronic records purporting to be the Official Gazette or an electronic record directed by any law, providing the electronic record is kept substantially in the form required by law, and it is produced from proper custody.

**Electronic agreements**

Section 84A provides a presumption that a contract is concluded where the digital signatures of the parties are affixed to an electronic record that purports to be an agreement.

**Secure electronic records and digital signatures**

Section 85B provides that where a security procedure has been applied to an electronic record at a specific point of time, then the record is deemed to be a secure electronic record from such point of time to the time of verification. Unless the contrary is proved, the court is to presume that a secure electronic record has not been altered since the specific point of time to which the secure status relates. The provisions relating to a secure digital signature are set out in section 15 of the IT Act, and such a signature is a digital signature, which by application of a security procedure agreed by the parties concerned, at the time it was affixed, was:

(a) unique to the subscriber affixing it;
(b) capable of identifying such subscriber;
(c) created in a manner or using a means under the exclusive control of the subscriber and is linked to the electronic record to which it relates in such a manner that if the electronic record was altered the digital signature would be invalidated.²

In the case of a secure digital signature, there is a presumption that the secure digital signature was affixed by the subscriber with the intention of signing or approving the electronic record, and in respect of digital signature certificates (section 85C), it is presumed that the information listed in the certificate is correct, with the exception of information specified as subscriber information that has not been verified, if the certificate was accepted by the subscriber.

**Electronic messages**

Under the provisions of section 88A, there is a presumption that an electronic message forwarded by the sender through an electronic mail server to the addressee to whom the message purports to be addressed, corresponds with the message fed into his computer for transmission. However, there is no presumption as to the person by whom such message was sent. This provision only presumes the authenticity of the electronic message, and not the sender of the message.

**Electronic records five years old**

The provisions of section 90A make it clear that where an electronic record is produced from any custody which the court in a particular case considers proper, and it purports to be or is proved to be five years old, it may be presumed that the digital signature affixed to the document was affixed by the person whose signature it was or any person authorized by them on their behalf. An electronic record can be said to be in proper custody if it is in the place in which, and under the care of the person with whom, they naturally be. At the same time, the custody is not improper if it is proved to have had a legitimate origin, or the circumstances of the particular

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¹ Although note the flaws in these characteristics in Stephen Mason, Electronic signatures in Law (Tottel, 2nd edn, 2007), 4.6 – 4.10.
case are such as to render the origin probable. The same rule is also applicable to the Official Gazette in electronic form.

**Changes in the Banker’s Book Evidence Act, 1891**

The definition of ‘banker’s book’ has been amended to include the printout of data stored in a floppy, disc or any other electro-magnetic device (section 2 (3)), and section 2A provides that the printout of an entry or a copy of a printout must be accompanied by a certificate stating that it is a printout of such entry or a copy of such printout by the principal accountant or branch manager, together with a certificate by a person in charge of the computer system containing a brief description of the computer system and certain other particulars of the safeguards adopted by the system.

**Changes in Indian Penal Code, 1860**

A number of offences were introduced under the provisions of the First Schedule of the IT Act, amended the Indian Penal Code (IPC) with respect to offences for the production of documents that have been amended to include electronic records. The range of additional offences includes absconding to avoid the production of a document or electronic record in a court (section 172, IPC); intentionally preventing the service of summons, notice or proclamation to produce a document or electronic record in a court (section 173, IPC); intentionally omitting to produce or deliver up the document or electronic record to any public servant (section 175, IPC); fabricating false evidence by making a false entry in an electronic record or making any electronic record containing a false statement, intending the false entry or statement to appear in evidence in judicial proceedings (sections 192 and 193, IPC); the destruction of an electronic record, where a person secrets or destroys an electronic record, or obliterates or renders illegible the whole or part of electronic record with an intention of preventing the record from being produced or used as evidence (section 204, IPC); making any false electronic record (section 463 and 465, IPC).

**Recent rulings of Indian courts on digital evidence**

**Search and seizure**

The case of State of Punjab v. Amritsar Beverages Ltd. (2006) 7 SCC 607, involved a search by the Sales Tax Department and the seizure of computer hard disks and documents from the dealer’s premises. The computer hard disk was seized under the provisions set out in section 14 of the Punjab General Sales Tax Act, 1948, which requires the authorities to return the seized documents within the stipulated period (section 14 (3)) provided the dealer or the person concerned is given a receipt for the property:


(5) The commissioner or any person appointed to assist him under sub-section (4) of section 3 not below the rank of an [Excise and Taxation Officer], may, for the purpose of the Act, require any dealer referred to in section 10 to produce before him any book, document or account relating to his business and may inspect, examine and copy then same and make such enquiry from such dealer relating to his business, as may be necessary.

Provided that books, documents and accounts of a period more than five years prior to the year in which assessment is made shall not be so required.

(2) Every registered dealer shall -

(a) maintain day to day accounts of his business;
(b) maintain a list of his account books, display it along with his registration certificate and furnish a copy of such list to the Assessing Authority;
(c) Produce, if so required, account books of his business before the Assessing Authority for authentication in the prescribed manner;
(d) retain his account books at the place of his business, unless removed therefrom by an official for inspection, by any official agency, or by auditors or for any other reason which may be considered to be satisfactory by the assessing authority.

(3) If any officer referred to in sub-section (1) has reasonable ground for believing that any dealer is trying to evade liability for tax or other dues under this Act, and that anything necessary for the purpose of an investigation into his liability may
be found in any book, account, register or document, he may seize such book, account, register or document, as may be necessary. The officer seizing the book, account, register or document shall forthwith grant a receipt for the same and shall,-

(a) in the case of book, account, register or document which was being used at the time of seizing, within a period of ten days from the date of seizure; and
(b) in any other case, within a period of sixty days from the date of seizure;

Return it to the dealer or the person from whose custody it was seized after the examination or after having such copies or extracts taken therefrom as may be considered necessary, provided the dealer or the aforesaid person gives a receipt in writing for the book, account, register or document returned to him. The officer may, before returning the book account register or document affix his signature and his official seal at one or more places thereon, and in such case the dealer or the aforesaid person will be required to mention in the receipt given by him the number of places where the signature and seal of such officers have been affixed on each book, account, register or document.

(4) For the purpose of sub-section (2) or sub-section (3), an officer referred to in sub-section (1) may enter and search any office, shop, godown, vessel, vehicle, or any other place of business of the dealer or any building or place except residential houses where such officer has reason to believe that the dealer keeps or is, for the time being, keeping any book account, register, document or goods, relating to his business.

(5) The power conferred by sub-section (4) shall include the power to open and search any box or receptacle in which any books, accounts, register or other relevant document of the dealer may be contained.

(6) Any officer empowered to act under sub-section (3) or sub-section (4) shall have power to seize any goods which are found in any office shop, godown, vessel, vehicle or any other place of business or any building or place of the dealer, but not accounted for by the dealer in his books, accounts registers, records and other documents.

The section entitles the officer concerned to affix his signature and seal at one or more places on the document seized, and to include in the receipt the number of places where the signature and seal of the officer had been affixed. In this instance, the officers concerned called upon the dealer, but the dealer failed to pay heed to their requests.

The Sales Tax Authority was required to return all the documents seized after examination within 60 days. However, the Authority failed to return the hard disk, claiming it is not a document. When the matter came before the Supreme Court, a creative interpretation was adopted, taking into account the fact that the Act was enacted in 1948, when information technology at that time was far from being developed. It was determined that the Constitution of India is a document that must be interpreted in the light of contemporary life. This mean a creative interpretation was necessary to enable the judiciary to respond to the development of technologies, and the court could use its own interpretative principles to achieve a balance in the absence of the failure of Parliament to respond to the need to amend the statute having regard to the developments in the field of science. The court stated that the Evidence Act, which is part of the procedural laws, should be construed to be an ongoing statute, similar to the Constitution, which meant a creative interpretation was possible, in accordance with the circumstances.

It was held that the proper course for the officers in such circumstances was to make out copies of the hard disk or to obtain a hard copy and affix their signatures or official seal in physical form upon the hard copy and furnish a copy to the dealer or the person concerned.

Evidence recorded on to CD

In the case of Jagjit Singh v. State of Haryana (2006) 11 SCC 1, the Speaker of the Legislative Assembly of the State of Haryana disqualified a Member for defection. The Supreme Court, whilst hearing the matter, also considered the appreciation of digital evidence in the form of transcripts of digital media including the Zee News television channel, the Aaj Tak television channel, and the Haryana News of Punjab Today television channel. Y.K. Sabharwal, CJ, indicated the extent of the relevant digital materials at paragraph 25:
The original C.D.s received from Zee Telefilms, true translation into English of the transcript of the interview conducted by the said channel and the original letter issued by Zee Telefilms and handed over to Ashwani Kumar on his request were filed on 23rd June, 2004. The original C.D.s received from Haryana News channel along with English translation as above and the original proceedings of the Congress legislative party in respect of proceedings dated 16th June, 2004 at 11.30 a.m. in the Committee room of Haryana Vidhan Sabha containing the signatures of three out of four independent members were also filed.

The learned Chief Justice went on, in paragraphs 26 and 27, to indicate that an opportunity had been given to the parties to review the materials, which was declined:

26. It has to be noted that on 24th June, 2004 counsel representing the petitioners were asked by the Speaker to watch the interviews conducted in New Delhi on 14th June, 2004 by Zee News and Haryana News (Punjab Today Television Channel) which was available on the compact disc as part of the additional evidence with application dated 23rd June, 2004 filed by the complainant. The counsel, however, did not agree to watch the recording which was shown on these two channels. The copies of the application dated 23rd June, 2004 were handed over to the counsel and they were asked to file the reply by 10 a.m. on 25th June, 2004. In the replies, petitioners merely denied the contents of the application without stating how material by way of additional evidence that had been placed on record was not genuine.

27. It is evident from the above facts that the petitioners declined to watch the recording, failed to show how and what part of it, if any, was not genuine but merely made general denials and sought permission to cross-examine Ashwani Kumar and opportunity to lead evidence.

The Speaker was required to rule on the authenticity of the digital recordings, as indicated by the learned Chief Justice at paragraph 30:

Under these circumstances, the Speaker concluded that ‘there is no room for doubting the authenticity and accuracy of the electronic evidence produced by the petitioner’. The Speaker held:

In this regard, it is to be noted that the petitioner has produced the original Compact disks (CDs), containing the interviews conducted by Zee News and Haryana News (Punjab Today Television channel) of the six independent Members of the Haryana Vidhan Sabha including the respondent and the same have been duly certified by both the Television Channels as regards its contents as well as having been recorded on 14.6.2004 at New Delhi. It has also been certified by both the Television Channels through their original letters (P-9 and P-12) duly signed by their authorized signatures that the original CDs were handed over to Ashwani Kumar who was authorized by the petitioner in this regard and whose affidavit is also on the record as Annexure - P-8 wherein he states that he had handed over the original CDs to the petitioner. The letters, Annexures P-9 and P-12, also give out that the coverage of their interviews on 14.6.2004 was also telecast by both the Television Channels. In fact, the certificate given by the Haryana News (Punjab Today Television Channel) authenticates the place of the interview as the residence of Mr. Ahmed Patel at 23, Mother Teresa Crescent in Delhi which interview as per the certificate was conducted by the correspondent of the said Television Channel, namely Shri Amit Mishra on 14.6.2004, the same certificate P-12 also authenticates the coverage of the CLP meeting held in Chandigarh on 16.6.2004 conducted by their correspondent Mr. Rakesh Gupta.

The court determined that the electronic evidence placed on the record was admissible, and upheld the reliance placed by the Speaker on the interview recorded on the CDs for reaching the conclusion that the persons recorded on the CDs were the same as those taking action, and their voices were identical. The Supreme Court found no infirmity in the reliance placed on digital evidence by the Speaker, and the conclusions reached by Y.K. Sabharwal, CJ, in paragraph 31 bear repeating in full:

Undoubtedly, the proceedings before the Speaker which is also a tribunal albeit of a different nature has to be conducted in a fair manner and by complying with the principles of natural justice.
However, the principles of natural justice cannot be placed in a strait-jacket. These are flexible rules. Their applicability is determined on the facts of each case. Here, we are concerned with a case where the petitioners had declined to avail of the opportunity to watch the recording on the compact disc. They had taken vague pleas in their replies. Even in respect of signatures on CLP register their reply was utterly vague. It was not their case that the said proceedings had been forged. The Speaker, in law, was the only authority to decide whether the petitioners incurred or not, disqualification under the Tenth Schedule to the Constitution in his capacity as Speaker. He had obviously opportunity to see the petitioners and hear them and that is what has been stated by the Speaker in his order. We are of the view that the Speaker has not committed any illegality by stating that he had on various occasions seen and heard these MLAs. It is not a case where the Speaker could transfer the case to some other tribunal. The doctrine of necessity under these circumstances would also be applicable. No illegality can be inferred merely on the Speaker relying upon his personal knowledge of having seen and heard the petitioners for coming to the conclusion that persons in the electronic evidence are the same as he has seen and so also their voices. Thus, even if the affidavit of Ashwani Kumar is ignored in substance it would have no effect on the questions involved.

The comments in this case indicate the trend of Indian courts: judges are beginning to recognize and appreciate the importance of digital evidence in legal proceedings.

Admissibility of intercepted telephone calls
The case of State (NCT of Delhi) v. Navjot Sandhu, (2005) 11 SCC 600, AIR 2005 SC 3820, , 2005 Cri LJ 3950, 122 (2005) DLT 194(SC) was an appeal against conviction after the attack on Indian Parliament on 13 December 2001, in which five heavily armed persons entered the Parliament House Complex and killed nine people, including eight security personnel and one gardener, and 16 people, including 13 security men, received injuries. This case also dealt with the proof and admissibility of the records of mobile telephone calls. While considering the appeal against the accused for attacking the Indian Parliament, a submission was made on behalf of the accused that no reliance could be placed on the mobile telephone call records, because the prosecution failed to produce the relevant certificate under section 65B (4) of the Evidence Act. The Supreme Court concluded that a cross-examination of the competent witness acquainted with the functioning of the computer during the relevant time and the manner in which the printouts of the call records were taken was sufficient to prove the call records.

Examination of a witness by video conference
The State of Maharashtra v. Dr. Praful B Desai (2003) 4 SCC 601 involved the question as to whether a witness can be examined by means of a video conference. The Supreme Court observed that video conferencing is an advancement of science and technology, which permits one to see, hear and talk with someone far away with the same facility and ease as if they are physically present. The requirement of law for the presence of the witness does not mean actual physical presence. The court came to conclusion, while allowing the examination of witness through video conferencing, that there is no bar to the examination of a witness by video conferencing being essential part of the electronic method.

This decision of the Supreme Court of India has been followed in other rulings of the High Court, such as Amitabh Bagchi v. Ena Bagchi AIR 2005 Cal 11, and more recently, the High Court of Andhra Pradesh in the case of Bodala Murali Krishna v. Bodala Pratima 2007 (2) ALD 72 held that necessary precautions should be taken to identity the witness and the accuracy of equipment used for the purpose of video conferencing, and the party who intends to avail themselves of the facility of video conferencing shall be under an obligation to meet the entire expense.

Concluding remarks
The changes made to Indian Law with respect to digital evidence and the positive approach of Indian courts in recognizing and appreciating digital evidence indicate that the law with respect to the admissibility and appreciation of digital evidence in India has to go a long way in keeping pace with the developments globally.