

Important do's and don'ts with electronic material objects:-

Once any electronic material object i.e., computer, pen drive, mobile phone etc is recovered it shall never be operated further for the reasons that if the computer is switched on the time stamp / meta data will be altered, if the time stamp on the hard disk is later than the date and time of recovery then it will be fatal to the prosecution case.

	<p>Metadata is data that describes other data. Meta is a prefix that in most information technology usages means "an underlying definition or description." Metadata summarizes basic information about data, which can make finding and working with particular instances of data easier. For example, author, date created and date modified and file size are examples of very basic document metadata. Having the ability to filter through that metadata makes it much easier for someone to locate a specific document.</p> <p>In addition to document files, metadata is used for images, videos, spreadsheets and web pages. The use of metadata on web pages can be very important. Metadata for web pages contain descriptions of the page's contents, as well as keywords linked to the content. These are usually expressed in the form of metatags.</p> <p>Thus, it is "data [information] that provides information about other data".</p> <p>Three distinct types of metadata exist: descriptive metadata, structural metadata, and administrative metadata.</p> <p>Descriptive metadata describes a resource for purposes such as discovery and identification. It can include elements such as title, abstract, author, and keywords.</p> <p>Structural metadata is metadata about containers of metadata and indicates how compound objects are put together, for example, how pages are ordered to form chapters.</p> <p>Administrative metadata provides information to help manage a resource, such as when and how it was created, file type and other technical information, and who can access it.</p>	
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Electronic MO – Handling:-

With regard to the electronic MO an important do is, when ever any electronic material object is recovered it may be forwarded to forensic science laboratory (FSL) for analysis and report. The important reasons for forwarding electronic MO to FSL are as follows:-

- The data in the electronic MOs i.e., hard disk, pendrive may be permanent to some extent, but it is not permanent for ever because accidentally the data may be lost. If the MO is fallen to the ground, moisture, strong magnetic field, high voltage electricity and extreme temperature may cause damage to the contents. Sometimes even the static current of human body may cause damage to the sensitive parts of the hard disk. While handling the hard disk care shall be taken and it shall be held on its sides. The printed circuit board shall not be touched with hands or tools. Further, hard disk shall not be dropped, bumped or shacked. Care shall also be taken that water or coffee etc liquids are not fallen on to it, it shall not be exposed to the strong magnetic field, high voltage electricity or extreme temperatures.
- The data or contents of the electronic MO are not visible for a normal view. Hence, if it is forwarded to an expert along with a letter of advise or forwarding note, then the expert will be in position to open the data or contents of the electronic MO with special forensic tools, analyses the contents and provides expert report /opinion.
- The presiding judicial officer relies on the expert's report about the electronic evidence and further the prosecution cannot expect the presiding officer to open the contents of an MO and perceive for himself.

Thus for the reasons sated above it is recommended that whenever any electronic material object is recovered it shall be forwarded to FSL for analysis and report.

Electronic MO - Letter of Advise (Forwarding Note):-

In the letter of advise (forwarding note), some general questions like whether the material object is working condition or not, the data that is recorded on to such material object is recorded in normal course of activity? etc may be asked. Then specific questions may be raised. If the material object is recovered in a case of obscene e-mail then question may be raised for analysis of disk memory for retrieving and furnishing the contents of the alleged e-mail. In a fake Facebook profile case the associated contents of such profile can be collected.

If a mobile phone is forwarded the questionnaire may include the analysis of phone, SIM and memory card memory and for retrieving SMS and MMS messages, recovering call logs, recovering contact lists, pictures, dialled numbers etc., identification of the IMEI, IMSI, ICCID numbers and internal contents etc.

With advent of smart phones the questionnaire that may be raised may include for recovering web browsing activity, emails, chat messages, social networking service posts, wireless network settings including information about previously connected WIFI access points etc. The following are some model questionnaire that may be asked in a case of harassment through WhatsApp chat and calls.

1. Whether the MO (mobile phone) is working condition or not?
2. If so whether the contents / data recorded is in normal course of functionality or not
3. The memories of phone and SIM card etc may be analysed and all WhatsApp messages /chat (text, images, videos etc) that were sent from mobile No 1234567899 (Accused) and to the mobile number 9987654321 (Victim) may be retrieved and furnished.

4. The memories of phone and SIM card may be analysed and data / logs pertaining to WhatsApp calls from mobile No 1234567899 (Accused) and to the mobile number 9987654321 (Victim) may be retrieved and furnished.
5. Analyse the settings of the MO and any information to establish that the mobile number 1234567899 of accused is blocked on the MO may be furnished.
6. The IMEI, IMSI and SIM numbers of the MO may be identified and furnished.

The I.Os shall take special care while transporting the electronic material object to the FSL. Any electronic material object shall be transported through a special messenger who also may be made to understand that the M.O is sensitive and shall never be exposed to moisture, heat, high voltage electricity, any magnetic field and high sound in the transit.
