

Data depiction in Forensics

- Presenting data/reports is the most crucial part as it has the potential to influence justice.
- This report holds so much weight that it is actually a decision.
- Other than preparing a report data depiction is also very important in the investigation.
- In a report on sometime in the courtroom, Data needs to be presented.

Essential mandates to depict data:

- Objectives and Principles should be mentioned.
- It should be clear and crisp and keep it simple.
- Maintain the originality of the evidence.
- Photographs should be presented with a scale bar.
- Appropriate tools should be used so that the least manipulations are possible.
 - Charts
 - Tables
 - Texts and typography
 - Maps
 - Java script charts
 - Images
 - Shapes
 - Canvas
 - Flow chart
 - Power point presentations
 - Welllabelled figures/microscopic pictures

What is a Forensic report?

- A forensic report is written for judicial purposes and is of high importance as it influences the court's decision. It is about the subject. Because of this, it is considered as more than just a report. It is used as evidence.
- It is a coherent/clear and comprehensive document used to present the evidence in the court so that the court can reason the admissible and bring the guilty to justice.
- With the help of this report, retelling the events in a structured manner that had occurred at the crime scene, while backing up every claim with concrete evidence becomes easy and it helps in fair justice. As it is factual and very objective in nature.
- They are the interdisciplinary focal point that tells the truth of what happened and documents the findings, all while presenting them in a factual yet understandable manner.
- Digital forensics reports play an instrumental role in coordinating the work between multiple investigators, law enforcement officers, and administrative, and legal personnel involved in the case, not all of which may share the same professional background and field of expertise.
- Section 45 of the Indian Evidence Act allows the expert to give opinions and reports to the court in India.

➤ **Familiarize Yourself with the Best Practices of Writing a Forensic Report**

- **Don't break the law while collecting, processing, analyzing, or handling evidence.**
- **Keep it simple. Only mention the information that's relevant.**
- **Focus on concrete facts rather than your subjective opinions.**
“Anyone can argue with someone's opinion, but facts are indisputable”.
- **Utilize any forensics notes you've made during the investigation itself**
“Can add value and enrich the section where you talk about the stages of the investigation and how you came to your conclusions”.
- **Avoid using complex terms and focus on conveying the relevant information in a manner that is coherent and simple to understand.**
- **Be familiar with multidisciplinary areas as investigation reports can be an amalgamation of all.**
- **The report should have professional appearances.**
- **They are the property of the court so should be kept confidential.**
- **Report could be short, long or comprehensive.**

Continued.....

- **Answer specific questions.**
- **Legal standards that define the forensic purpose of evaluation should be clearly stated.**
- **Do mention the list of sources of data for the evaluation.**

Organization and style

- The report should assist the reader.
- In the Report data should be mentioned in the database section and inferences should be in different sections.
- It should be written in a professional manner but in simple language.
- It should be free from typographical errors.

➤ Study Some Generic and Recommended Forensic Report Examples before Writing

Studying a computer forensic evidence report example written by others will not only get your creativity flowing, let you in on some ideas about what to include in your report, and give you a good overall image of what the finalized version is supposed to look like.

“Read before you write”

➤ Write the Forensics Report

a) Title

Please include the name of the case, the investigator in charge, and the relevant dates.

b) Table of contents

c) Case summary

This section should provide a general overview of the case.

d) Evidence

The summary of the evidence submitted comes first. After that, list one after another and include photos if needed, besides, make sure to provide an explanation for each.

e) Objectives

In essence, the objectives section should attempt to answer the question of what you're trying to prove. Include your hypothesis and any relevant search terms.

f) Steps were taken during an investigation (aka. Forensic Analysis).

Should outline the steps taken during the investigation, including the methodology used and any interactable parts of the process. Also, mention additional explanations.

g) Tools used

Outline the tools used briefly and explain what purpose each of them served, including any limitations of said tools.

h) Relevant findings

Only mention the most important conclusions. This is where you explain each piece of evidence and clearly pinpoint what it proves in a way that even non-industry professionals can understand.

i) Recommended next steps

In it, suggest what the council can do with these findings and how to go from here.

Should criminal charges be filed?

Continued.....

j) Appendices (optional)

k) Formatting (optional)

This is mainly for the sake of the document having a professional appearance. For e.g.- having each page marked with a number makes it easy to detect if someone tried to tamper with the report by removing a page (or if one of them accidentally goes missing). Make sure the logo of your law enforcement organization is clearly visible in the header and footer of each page, as well as the corresponding address and the person in charge.

l) Figures (optional) but always better

It is always good to supplement the result with relevant data or figures with proper descriptions.

m) Glossary (optional)

It is good to provide a catalog of some technical or industry-specific terms, although the best practice is to avoid them in general or at least keep them to a minimum to help non-industry professionals understand the complex terms.

*Make sure to include only those that you actually referenced during writing.

General Structure of a Forensic Report-1

- **Title of the Examination Report-**

It means whether it is toxicological/handwriting opinion/ballistics etc. with proper legal section of the evidence act of that particular country or region.

- **Name and address of the laboratory with contact information like telephone, mobile, fax, email.**

- **Affiliation of the laboratory**

(showing its legal entity and accreditation status. In case you are a freelancer, your all credentials with your expertise and experience must be mentioned on the letterhead of the report or at the end of the report.)

- **Unique ID No. of the report with date (if applicable)**

- **Name of the customer (client/attorney/individual) with reference letter number and date (assignment letter)**

- **Case Enquiry/ DD/ FIR no.dateu/s.....Police Station, under which court (if applicable)**

- **Mode of receipt of material (evidences/specimens):**

Through messenger or by post / by mail

- **Sampling Method-**

How the sampling done by the IO/ Investigator/ Forensic Expert

- **Reference to the Test Method(s)**

Reference to lab procedure manual/ books/published standard method- used in the examination, or sometimes to the previous cases solved or convicted.

- **Condition of Parcels/Test samples and seals**

Received. One sealed/ unsealed ..parcel. The seals were intact and tallied with the specimen seal as per the forwarding authority letter.

- **Description of Specimens/Parcels/Samples/Exhibits etc.**

- **Methodology of Examination**

- **Result of Examination & Opinion**

- **Signature or examining officer along with seal**

General Structure of a Forensic Report - 2

- **Introduction –**

The introduction typically includes information about the referring part and the purpose of the evaluation, identifying information about the subject, and the general procedures used. Like-

- The case name,
- Date,
- Examinee Name
- Examiner's Name with degree
- License number
- Contact information.

- **Summery of the report-**

Especially important for long reports, this allows the reader to get the high level view of important findings without having to go for looking on all the pages.

- **Instruments-**

A list of instruments and the systems used for conducting the tests with the model and version informations (for further use if needed).

- **Results-**

The obtained results should be explained with statical graphs and tables for a better understanding and comparing with normal person. (where needed)

- **Time-** The test was started on ----/--/-- at-----AM/PM and ended on ----/--/-- at-----AM/PM

- **Remarks/Notes-**

If any. Something that can add value to the investigation like the behaviour of the examinee

- **Conclusion-**

Highlight important issues. Form in a form of numbered list of concise findings.

- **Opinions and Recommandations-**

Start like- “This leads me to believe that----” ; “It is my professional opinion.....” ; “The evidence indicates.....”

*opinion regarding mental state should be only written when ordered or requested.

➤ Re-check Your Report for Factual Correctness and Apply Edits as Needed

It is a mandatory step where you should re-check that everything is in order, and factually correct.

As you refine the final version of the document, you should ask yourself:

Do the numbers check out?

Does the report list all crucial pieces of evidence and the people in charge?

Is it brief and to the point or do you feel like you could trim out some irrelevant parts?

Is it based on facts? If you catch yourself writing 'I believe X', perhaps it's better to word it as 'the evidence suggests that X happened because of Y'.

Could certain sections be explained using layman's terms instead of using complicated jargon?

Once everything checks out and you feel no further improvements can be made, you're good to proceed to the final step!

➤ Present the Report to the Court

Once you've double-checked everything, you can confidently present the report to the court.

For your quick glance, please find a brief summary below:

- Secure the evidence.
- **Make sure to maintain the chain of custody.**
- Verify that the evidence is authentic.
- **Sort the evidence according to its relevance.**
- Convert the files into the right format.
- **Get acquainted with the presentation procedure.**
- Label the exhibits.
- **Complete the final preparations.**