

***Introduction to Computer Forensics***  
***CSCI 3800***  
***Lecture Notes***  
***Chapter 8***

Investigative Reconstruction with Digital Evidence

- A lot of times crime is complicated: you don't always answer all of your questions when the investigation is complete.
- Investigative reconstruction: the systematic process of piecing together evidence and information gathered during an investigation to gain a better understanding of what transpired between the victim and the offender during a crime. [Casey, p255]
- Investigative reconstruction is useful for large crimes with multiple victims an/or suspects, e.g. computer crimes.
- Reconstruction involves taking physical imprints a step further and using them to infer offense-related behavior.
- Behavior imprints can be used to answer the questions who, what, when, where, and how.
- Can use it to establish MO.
- Elements of reconstruction are equivocal forensic analysis, victimology, and crime scene characteristics.
- Make sure that when you form conclusions that you are relying on the evidence.
- Equivocal forensic analysis is the process of evaluating available evidence objectively, independent of the interpretations of others, to determine its true meaning. [Casey, p259]
- You are looking for any errors or oversights that might have been made.
- Before relying on evidence gathered by others, it is imperative to assess its reliability and significance.
- Corpus delicti means the "body of the crime". They are the essential facts that show a crime occurred. In LE circles this is called the elements of the crime.
- What does equivocal mean?
- Make sure that when you offer opinions that you are basing it on sound evidence.
- Digital evidence is a rich source of information and is often over-looked. It can provide behavioral evidence that paint a clear picture of what happened and why (facebook example).
- Types of reconstruction: temporal (when), relational (who, what, where), and function (how).
- Victimology
- Victim-Offender risk assessment
- Crime scene characteristics
- Look at the totality of the choices that an offender made when committing the crime.
- What did the offender HAVE to do to commit the crime versus what did they CHOSE to do.

- Threshold assessments
- Shorter than a full report.
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