# Getting to Know the Enemy: Utilization of Phone Record Analysis Simulations to Uncover a Target's Personal Life Attributes

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**Abstract :** The purpose of this paper is to understand how phone record analysis can enable identification of subjects in communication with a target of a terrorist plot. This study also sought to understand the advantages of the implementation of simulations to develop the skills of future intelligence analysts to enhance national security. Through the examination of phone reports which in essence consist of the call traffic of incoming and outgoing numbers (and not by listening to calls or reading the content of text messages), patterns can be uncovered that point toward members of a criminal group and activities planned. Through temporal and frequency analysis, conclusions were drawn to offer insights into the identity of participants and the potential scheme being undertaken. The challenge lies in the accurate identification of the users of the phones in contact with the target. Often investigators rely on proprietary databases and open sources to accomplish this task, however it is difficult to ascertain the accuracy of the information found. Thus, this paper poses two research questions: how effective are freely available web sources of information at determining the actual identification of callers? Secondly, does the identity of the callers enable an understanding of the lifestyle and habits of the target? The methodology for this research consisted of the analysis of the call detail records of the author's personal phone activity spanning the period of a year combined with a hypothetical theory that the owner of said phone was a leader of terrorist cell. The goal was to reveal the identity of his accomplices and understand how his personal attributes can further paint a picture of the target's intentions. The results of the study were interesting, nearly 80% of the calls were identified with over a 75% accuracy rating via datamining of open sources. The suspected terrorist's inner circle was recognized including relatives and potential collaborators as well as financial institutions [money laundering], restaurants [meetings], a sporting goods store [purchase of supplies], and airline and hotels [travel itinerary]. The outcome of this research showed the benefits of cellphone analysis without more intrusive and time-consuming methodologies though it may be instrumental for potential surveillance, interviews, and developing probable cause for wiretaps. Furthermore, this research highlights the importance of building upon the skills of future intelligence analysts through phone record analysis via simulations; that hands-on learning in this case study emphasizes the development of the competencies necessary to improve investigations overall.

**Keywords :** hands-on learning, intelligence analysis, intelligence education, phone record analysis, simulations

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