

ABSTRACT

In today's digital era, instant messaging applications such as Telegram are often misused for illegal activities, including online prostitution and the distribution of pornographic content. This research aims to analyze and obtain digital evidence from the Telegram application on Android smartphones suspected of being involved in cybercrime activities. Using the Digital Forensic Research Workshop (DFRWS) method, this research involves six forensic stages: identification, preservation, collection, examination, analysis, and presentation of evidence. This research focuses on rooted Android smartphones by using forensic tools such as MOBILedit Forensic Express, Magnet Axiom, and DB Browser for SQLite to acquire and analyze data from the Telegram app. The analysis showed that various digital artifacts such as chats, photos, videos, and audio were successfully identified and acquired as evidence. Some important evidence included chat IDs, pornographic photos and videos, and other data relevant to online prostitution. The findings of this study emphasize the importance of systematically maintaining and collecting digital evidence to identify illegal activities through instant messaging applications. The results of the study are expected to help in law enforcement and raise awareness regarding the use of digital forensics in cybercrime cases.

KeyWords: *Telegram, Android Smartphone, Online Prostitution, Cybercrime, Data recovery, DFRWS.*