Live Scan Detection of Masked Fingerprints

Name: Chantelle Foster

SFU Faculty/Major: Faculty of Environment,

Archaeology

Presentation Description:

Can people get away with using nail polish, liquid bandage, white out, or glue to cover up their fingerprints? This research looks at whether a fingerprint recording machine can detect a fingerprint cover up.

Abstract:

When an individual is fingerprinted it is usually a frontline police officer, a jail guard, or an investigator who scans the individuals prints, not a fingerprint expert. Thus, the fingerprint recording machine, Live Scan, is heavily relied upon to produce high quality fingerprint scans. When someone covers up their fingerprint, they are temporarily altering the print. This can be done using different materials such as nail polish or glue. Fingerprints hold a large amount of individualizing information, but once they are covered-up this information is lost. This research examines how the Live Scan reacts to attempts at covering up fingerprints. Will the Live Scan detect the altered fingerprint, or will it scan the print with no error? This presentation will show you multiple images of scanned fingerprints with different materials covering up the prints. You will see what a scan of real fingerprints should look like and what a scan of covered-up fingerprints looks like. Overall, the fingerprint recording machine did accept the covered-up fingerprints but not without some warning to the individual running the machine. This research was conducted to provide frontline police officers, jail guards, and investigators with an idea of what a scan of a fingerprint cover up could look like.

References/Acknowledgments:

A special thank you to the RCMP Federal Integrated Forensic Identification Section, especially Lindsay LeGrice and Erika Bélanger, for their assistance and guidance with this research