

ABSTRACTS

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Are Simple Signatures So Easy to Simulate?

Liv Cadola, Pierre Margot, Raymond Marquis

Is it possible to perfectly simulate a signature, in the particular and challenging case where the signature is simple? A set of signatures of six writers, considered to be simple on the basis of highlighted criteria, was sampled. These signatures were transferred to forgers requested to produce freehand simulations. Among these simulations, those capable of reproducing the features of the reference signatures were submitted for evaluation to forensic document experts through proficiency testing. The results suggest that there is no perfect simulation.

With the supplementary aim of assessing the influence of forger's skills on the results, forgers were selected from three distinct populations, which differ according to professional criteria. The results indicate some differences in graphical capabilities between individuals. However, no trend could be established regarding age, degrees, years of practice and time dedicated to the exercise. The findings show that simulation is made easier if a graphical compatibility exists between the forger's own writing and the signature to be reproduced. Moreover, a global difficulty to preserve proportions and slant as well as the shape of capital letters and initials has been noticed.

Predictors of Disguised and Simulated Handwritten Text

Carolyne Bird, Bryan Found and Doug Rogers

Assessing the authorship of writings created using disguise and simulation behaviour has been reported to be problematic for forensic handwriting experts (FHEs). When examining questioned disguised and simulated samples and providing an opinion on process, a propensity has been found for calling simulated samples disguised. These results suggest that FHEs' expectations of the predictor features of these unnatural writing types are not accurate. This paper investigates the relationship between FHEs' responses on the process of production of questioned disguised and simulated handwriting samples and their verbal statements relating to the features they observed as indicative of the particular unnatural writing behaviour. A clear relationship between these will enable elucidation of predictor features of disguised versus simulated writings. Results suggest that the identification of altered slope in a questioned sample when compared to a naturally written sample may be a predictor of disguise behaviour. Features of construction and the presence of tremor may be used as predictors of simulation behaviour in questioned samples. However, the diversity in disguise strategies employed and the discordant responses of FHEs impose limitations on the analysis undertaken. A predictor model could be created based on the results of a concordant group of experts and would require testing on a validation set.

An Examination of the Techniques for Sequence Determination of Original Writing Ink and Toner Printing

Kevin P. Kulbacki

Forensic Document Examiners frequently conduct examinations to determine the sequence in which intersecting entries were written. This paper arises from casework and subsequent research undertaken to determine the reliability of various techniques for the removal of toner in a sequence examination.

Tests were conducted using a Canon Color Image Runner C1022i printer and a variety of different writing instruments. The test intersections were prepared using a standardized template with varying sequences of ink before toner and ink after toner. The techniques being tested included using different sharp tools for the removal of the toner as well as a process of pre-treating the document through freezing. The techniques being tested are destructive in nature and therefore this study is being completed primarily as a theoretical exercise.

Shredded Document Reconstruction

Donald Moryan

A technical note that discusses one method of reconstructing shredded documents. Along with the preferred method and procedures of reconstructing shredded documents, a short history of paper shredders and different types of paper shredders are presented.

The Role of Print Mode Determination for Classification of Inkjet Printers

Ning Liu, M.A.

The purpose of this paper is to propose an effective method for the classification of inkjet printers. One of the challenges when examining inkjet-printed documents is the variety of print modes that can be used. In this study, 80 different models of inkjet printers were used to print samples in various print modes, which were then examined using a microscope. It was shown that changing print modes resulted in variation of some features in print, such as the increment of paper feed stepping, satellite droplets, halftone algorithm, halftone dot structure, and color configuration. However, the laws that govern this variation can be understood and followed. The author drew a conclusion that print mode determination could contribute to the reliable and efficient classification of inkjet printers, and should be considered as an essential part of the examination.