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Letter to the Editor

Comments on "A method and a case study for the selection of the best available tool for mobile device forensics using decision analysis" [Digit Investig 16S, S55–S64]

Since some statements in the paper may be misinterpreted, we would like to indicate that:

- 1. Our research is a case study where specific forensics tools and mobile devices were only used to illustrate the utility of a formal method called decision analysis. To the best of our knowledge such a technique for tool testing has not been published in a peer-reviewed journal in the past.
- 2. Decision theory and analysis draw on a very serious body of work from probability, utility, and epistemic and doxastic reasoning about uncertainty theories. Indeed, decisions analysis have been applied, inter alia, in various situations such as for instance (a) devising national strategies to deal with different types of natural disasters, and (b) conflict resolution in policy matters where diverse and opposing stakeholders have been involved.
- 3. The results in the paper are not intended to be conclusive, but rather to illustrate the applicability and the rationale of using a formal method paradigm.
- 4. The numbers generated by the application of the formal method and after mathematically balancing the requirements for both performance and relevance using DecideIT (a decision support system, developed at the DSV, Stockholm University) are published for both the alternatives. The test datasets generated on older phone models were only used for the purpose of demonstrating how the formal method can be utilised in testing digital forensic tools.
- 5. The forensic tools and the mobile devices as posited in (4) were old. It is worthy to note that with regards to newer versions of

the tested forensic tools and by adding more types of digital evidence, we do expect that the actual results may and will change significantly.

6. Neither the names nor the versions of the tools are masked (hidden) to provide scientific rigour and attain reproducibility (and hence assist fellow scientists in repeating the work and evaluating the formal method approach and ideas presented in our paper).

We hope that we have clarified all of the outstanding issues with regards to our work.

Sincerely,

Shahzad Saleem*

School of Electrical Engineering and Computer Science, National University of Science and Technology, H-12, Islamabad, Pakistan

Oliver Popov

Department of Computer and Systems Sciences, Stockholm University, Postbox 7003, SE-164 07, Kista, Sweden

Ibrahim Baggili

Tagliatela College of Engineering, University of New Haven, 300 Boston Post Road, West Haven, CT 06516, USA

^{*} Corresponding author. *E-mail address: shahzad.saleem@seecs.edu.pk* (S. Saleem).

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