

Accepted Manuscript

Title: Applications of social network analysis in behavioural information security research: concepts and empirical analysis

Author: Duy Dang-Pham, Siddhi Pittayachawan, Vince Bruno

PII: S0167-4048(17)30063-9

DOI: <http://dx.doi.org/doi: 10.1016/j.cose.2017.03.010>

Reference: COSE 1125

To appear in: *Computers & Security*

Received date: 16-1-2016

Revised date: 1-12-2016

Accepted date: 21-3-2017



Please cite this article as: Duy Dang-Pham, Siddhi Pittayachawan, Vince Bruno, Applications of social network analysis in behavioural information security research: concepts and empirical analysis, *Computers & Security* (2017), <http://dx.doi.org/doi: 10.1016/j.cose.2017.03.010>.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Applications of social network analysis in behavioural information security research: concepts and empirical analysis

Duy Dang-Pham*, Siddhi Pittayachawan, Vince Bruno

School of Business IT and Logistics, RMIT University, Australia

Corresponding author's email address: duy.dang@rmit.edu.au

Biographical Sketch

Duy Dang-Pham is completing his Ph.D. (Business Information Systems) in the School of Business IT and Logistics, RMIT University, Australia. He has been actively publishing in conference proceedings and journals since his undergraduate study. His primary research interests include information security/privacy behaviour and management, social media risks and supply chain management.

Dr. Siddhi Pittayachawan holds a Ph.D. in Business Information Systems from RMIT University, Australia. He is a Senior Lecturer of Information Systems and Supply Chain Management and a Program Director, Bachelor of Business (Honours), in the School of Business IT and Logistics, at RMIT University. His research interests focus on information system adoption, information security behaviour, green business, business education, measurement, and latent variable modelling.

Dr. Vince Bruno holds a Ph.D. in Business Information Systems from RMIT University, Australia. He is a Lecturer of Information Systems in the School of Business IT and Logistics, at RMIT University. His research interests focus on usability, application development, databases, and IS education.

Abstract: The rapid digital transformation and technological disruption in modern organisations demand the development of people-centric security workplaces, whereby the employees can build up their security awareness and accountability for their actions via participation in the organisation's social networks. The social network analysis approach offers a wide array of analytical capabilities to examine in-depth the interactions and relations within an organisation, which assists the development of such security workplaces. This paper proposes the novel and practical adoption of social network analysis methods in behavioural information security field. To this end, we discuss the core features of the social network analysis approach and describe their empirical applications in a real case study of a large organisation in Vietnam, which utilised these methods to improve employees' information security awareness. Towards the end of the paper, a framework detailing the strategies for conducting social network analysis in the behavioural information security field is developed and presented.

Keywords: information security behaviour; information security compliance; information security management; information security governance; social network analysis

Download English Version:

<https://daneshyari.com/en/article/4955466>

Download Persian Version:

<https://daneshyari.com/article/4955466>

[Daneshyari.com](https://daneshyari.com)