Engineering Village™

1. **On the Violation of Honesty in Mobile Apps: Automated Detection and Categories**
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Author affiliation:
Monash University, HumaniSE Lab, Melbourne, VIC, Australia
Data Science Nigeria, Nigeria
Deakin University, Applied Artificial Intelligence Inst, Melbourne, VIC, Australia
RMIT University, School of Computing Technologies, Melbourne, VIC, Australia
CSIRO, Data61, Melbourne, VIC CSIRO, Australia
University of Oulu, Finland

Abstract: Human values such as integrity, privacy, curiosity, security, and honesty are guiding principles for what people consider important in life. Such human values may be violated by mobile software applications (apps), and the negative effects of such human value violations can be seen in various ways in society. In this work, we focus on the human value of honesty. We present a model to support the automatic identification of violations of the value of honesty from app reviews from an end-user perspective. Beyond the automatic detection of honesty violations by apps, we also aim to better understand different categories of honesty violations expressed by users in their app reviews. The result of our manual analysis of our honesty violations dataset shows that honesty violations can be characterised into ten categories: unfair cancellation and refund policies; false advertisements; delusive subscriptions; cheating systems; inaccurate information; unfair fees; no service; deletion of reviews; impersonation; and fraudulent-looking apps. Based on these results, we argue for a conscious effort in developing more honest software artefacts including mobile apps, and the promotion of honesty as a key value in software development practices. Furthermore, we discuss the role of app distribution platforms as enforcers of ethical systems supporting human values, and highlight some proposed next steps for human values in software engineering (SE) research. (0 refs.) **Inspec controlled terms:** computer crime - data privacy - ethical aspects - mobile computing - software engineering

Uncontrolled terms: human value violations - app reviews - honesty violations - mobile apps - key value - mobile software applications

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