

Accepted Manuscript

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PII: S0167-4048(18)30302-X
DOI: [10.1016/j.cose.2018.03.015](https://doi.org/10.1016/j.cose.2018.03.015)
Reference: COSE 1322



To appear in: *Computers & Security*

Received date: 8 November 2017
Revised date: 27 November 2017
Accepted date: 31 March 2018

Please cite this article as: Iraklis Symeonidis, Gergely Biczók, Fatemeh Shirazi, Cristina Pérez-Solà, Jessica Schroers, Bart Preneel, Collateral Information Collection by Facebook Applications: a Comprehensive Study, *Computers & Security* (2018), doi: [10.1016/j.cose.2018.03.015](https://doi.org/10.1016/j.cose.2018.03.015)

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Collateral Information Collection by Facebook Applications: a Comprehensive Study

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Abstract

Third-party applications on Facebook can collect personal data of the users who install them, but also of their friends. This raises serious privacy issues as these friends are not notified by the applications nor by Facebook and they have not given consent. This paper presents a detailed multi-faceted study on the *collateral information collection* of the applications on Facebook. To investigate the views of the users, we designed a questionnaire and collected the responses of 114 participants. The results show that participants are concerned about the collateral information collection and in particular about the lack of notification and of mechanisms to control the data collection. Based on real data, we compute the likelihood of collateral information collection affecting users: we show that the probability is *significant* and greater than 80% for popular applications such as TripAdvisor. We also demonstrate that a substantial amount of profile data can be collected by applications, which enables application providers to *profile* users. To investigate whether collateral information collection is an issue to users' privacy we analysed the legal framework in light of the new General Data Protection Regulation. We provide a detailed analysis of the entities involved and investigate which entity is accountable for the collateral information collection. To provide countermeasures, we propose a privacy dashboard extension

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