

1. Why are Android apps removed from Google Play?: A large-scale empirical study

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Source: *Proceedings - International Conference on Software Engineering*, p 231-242, May 28, 2018, *Proceedings - 2018 ACM/IEEE 15th International Conference on Mining Software Repositories, MSR 2018*; **ISSN:** 02705257;

ISBN-13: 9781450357166; **DOI:** 10.1145/3196398.3196412; **Conference:** 15th ACM/IEEE International Conference on Mining Software Repositories, MSR 2018, co-located with the 40th International Conference on Software Engineering, ICSE 2018, May 28, 2018 - May 29, 2018; **Sponsor:** ACM Special Interest Group on Software Engineering (SIGSOFT); IEEE Computer Society; IEEE Technical Council on Software Engineering (TCSE);

Publisher: IEEE Computer Society

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Abstract: To ensure the quality and trustworthiness of the apps within its app market (i.e., Google Play), Google has released a series of policies to regulate app developers. As a result, policy-violating apps (e.g., malware, low-quality apps, etc.) have been removed by Google Play periodically. In reality, we have found that the number of removed apps are actually much more than what we have expected, as almost half of all the apps have been removed or replaced from Google Play during a two year period from 2015 to 2017. However, despite the significant number of removed apps, there are almost no study on the characterization of these removed apps. To this end, this paper takes the first step to understand why Android apps are removed from Google Play, aiming at observing promising insights for both market maintainers and app developers towards building a better app ecosystem. By leveraging two app sets crawled from Google Play in 2015 (over 1.5 million) and 2017 (over 2.1 million), we have identified a set of over 790K removed apps, which are then thoroughly investigated in various aspects. The experimental results have revealed various interesting findings, as well as insights for future research directions. © 2018 ACM. (90 refs)

Main heading: Mobile security

Controlled terms: Android (operating system) - Commerce - Malware

Uncontrolled terms: Android - Android apps - App stores - Empirical studies - Future research directions - Google plays - Low qualities

Classification Code: 723 Computer Software, Data Handling and Applications - 723.2 Data Processing and Image Processing

Database: Compendex

Data Provider: Engineering Village

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