1. Towards a generic framework for automating extensive analysis of Android applications (*Open Access*)

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Abstract: Despite much effort in the community, the momentum of Android research has not yet produced complete tools to perform thorough analysis on Android apps, leaving users vulnerable to malicious apps. Because it is hard for a single tool to efficiently address all of the various challenges of Android programming which make analysis difficult, we propose to instrument the app code for reducing the analysis complexity, e.g., transforming a hard problem to a easy-resolvable one. To this end, we introduce in this paper Apkpler, a plugin-based framework for supporting such instrumentation. We evaluate Apkpler with two plugins, demonstrating the feasibility of our approach and showing that Apkpler can indeed be leveraged to reduce the analysis complexity of Android apps. (19 refs)
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