

# MOBILE TESTING TOOLS

This briefing reports scientific evidence on the main mobile testing tools based on a Q&A site StackOverflow.

## FINDINGS

- StackOverflow is the most used repository to analyze the state-of-the-practice mobile development and testing. These repositories become a popular source of data to be analyzed.
- Mining these data repository allows getting information to predict future trends and behaviors allowing researchers to understand the area and constantly evolve it.
- Mining Title and Body data of StackOverflow gives detailed information about the topic.
- The main top topics on Android testing are about Testing tools, Test environment, UI testing, Functional testing and Unit testing. These topics are the most relevant in the mobile testing context (Fig.1).
- Among the tools that developers are currently more interested are Appium, Espresso, Monkey, and Robotium.
- There are no many other Q&A sites focused on developers, there is an Android Official site that offers support in testing where developers can find support related to testing Apps. However, there is no option for developers to ask questions.
- The impact of post on StackOverflow, shows that Developers/testers use this repository as a support (Fig.2).
- The topic most viewed by any user is related to how to simulate real features using an emulator, which highlights the need to test mobile apps on multiple devices.
- Users could find the answers of the tools' authors to provide greater confidence.

### Keyboard

Mobile Testing, Model Topics, Stack Overflow

### Who is this briefing for?

Software engineering practitioners who want to make decisions about the main Android testing tools that are used by developers based on scientific evidence.

### Where the findings come from?

All findings of this briefing were extracted from the Experimental Research conducted by Isabel K. Villanes et al. 2017.

### What is included in this briefing?

The main findings of the original Experimental Research.  
Trend Topics about Android Testing.  
The trend of Mobile Testing Tools.

### What is not included in this briefing?

Additional Information presented in the original paper "What are Software Engineers asking about Android Testing on Stack Overflow?"  
A detailed description of how was conducted the Experimental Research.

### To access other evidence briefings on software engineering:

<http://www.lia.ufc.br/~cbsoft2017/en/xxxi-sbes/sbes-cfp/>

### For additional information about ExperTS Research Group

<http://experts.icomp.ufam.edu.br>

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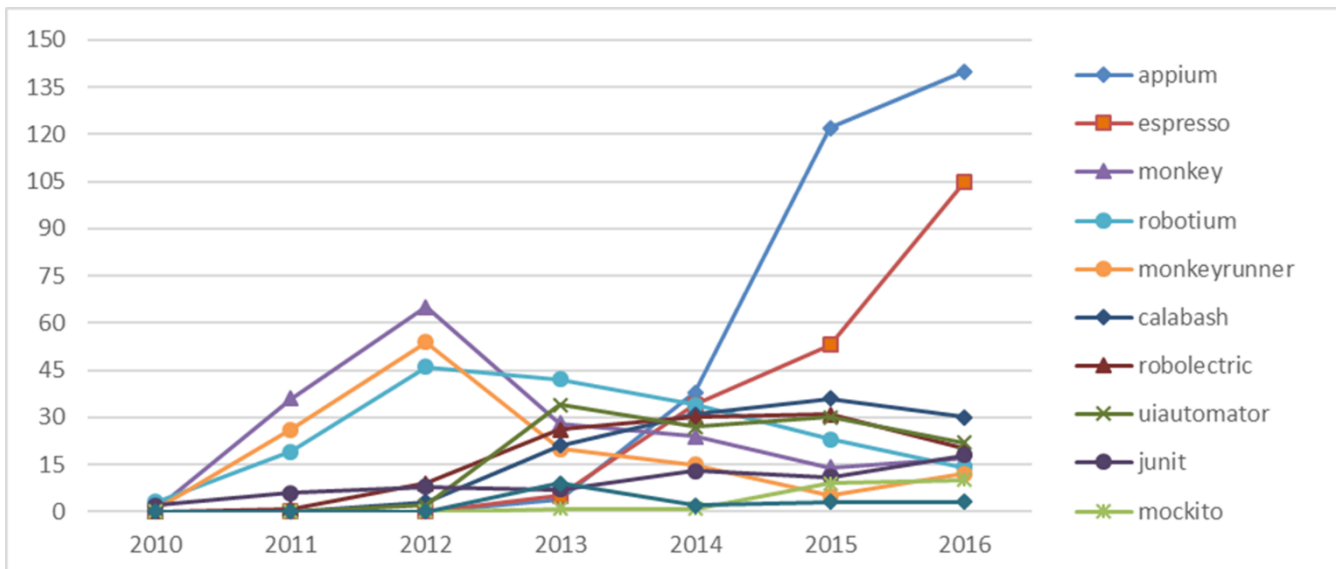


Figure 1: Evolution of questions of Android Testing Tools by year.

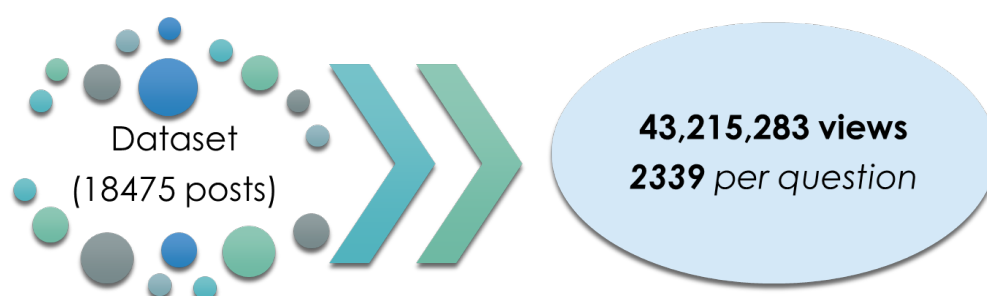


Figure 2: Impact of Posts

## ORIGINAL RESEARCH REFERENCE

Isabel K. Villanes et al. *What are Software Engineers asking about Android Testing on Stack Overflow?*. SBES 2017: 31st Brazilian Symposium on Software Engineering, 2017.