

Dear Editors:

We submit our manuscript entitled “Why API Documentation is Insufficient for Developers: an Empirical Study” to **SCIENCE CHINA Information Sciences Letter**. All authors have seen the manuscript and approved to submit to your journal.

This research present an empirical study about the insufficient of API documentation, based on a hybrid approach (including manual inspection and online survey). The official documentations are more authoritative and rigorous, which can effectively reduce bugs, standardize programming, and spread APIs to crowd. API documentation plays an important role in the process of software development. We aim to figure out what causes developers seeking help from other sources and abandon official API documentation, and we believe our results can be used to improve the quality of API documentation. In our study, we explore the crowd discussions about Android API in Stack Overflow, compare them with the official documentation and identify what questions had troubled the third-party developers and why they are confused even there are official documentation. In addition, we conducted an extensive online survey on these developers who involved in the discussions to understand their trouble, which mutual verifies our discovery. Finally, an empirical study of 1000 posts of StackOverflow and 319 questionnaire responses was conducted.

Thank you very much for your attention and consideration.

Sincerely yours,

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