ABSTRACT

Crowdsourced testing is an emerging trend in software testing, especially for mobile testing due to Android fragment issues. Gaining the productive outputs of high quality always comes with the assumption that the workers are experienced. However, the crowd of testers are not usually professionals. Thus, it becomes an interesting topic to guide the crowd to obtain domain knowledge and fulfill tasks. Motivated by an article in Science\cite{1}, we propose an approach in this paper to enhance the power of the crowd. (1) Along with professionals taking the task, exception information is recorded into database to provide hints for the crowd. (2) With the feedback from new exceptions caught in processing of crowd, the database is enriched. Such an iterative process will guide the crowd to finish their tasks effectively.

CCS Concepts

- Software engineering \rightarrow Software verification and validation; Software testing and debugging; Human-centered computing \rightarrow Human computer interaction;

Keywords

Crowdsourced testing; crowdsourcing platform; mobile testing

1. INTRODUCTION

Crowdsourced testing is an emerging trend in software testing. By outsourcing testing tasks online to a large group of people in the form of an open call\cite{2}, requesters can complete the task at a low cost. By taking the testing task on crowdsourced platforms, workers are provided with more job opportunities and extra income. Despite its popularity, one important problem in crowdsourced testing is the quality\cite{3}. Both unskilled workers and unclear instructions provided by requesters contribute to the subpar responses. Thus, there is an urgent demand on guiding the crowds to get familiar with the flow quickly for easier and better work\cite{4}.

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In the following testing process, hints about this exception will introduce more mining and recommendation algorithms to verify whether they are bugs or not, which is a resource-consuming task in software testing. After the task is published on the Kikbug, workers can take the tasks and do testing with the help of Kikbug equipment of basic acknowledge. The database for patterns workers can explore more unknown exceptions with the effective feedbacks. After the task is published, it can enjoy an easy and professional testing process, while the workers who are less professional to finish the work sooner can do a better guide.

Such an iterative way enriches the database during crowdsourced testing for Android apps. Hints are available to lead the testers to complete the testing request to local sufficiency. In such a framework as shown in Figure 1, the crowds sourced testing works in batches. Their operations for each testing task are considered as related hints of identified exceptions will not be given to avoid duplicate data. For requester-workers so that the times the exception recurs over a threshold, it will be removed from the exception found database. As described above, once the number of times an exception recurs is over a threshold, it will be removed from the exception found database. As described above, once the number of times an exception recurs is over a threshold, it will be removed from the exception found database. As described above, once the number of times an exception recurs is over a threshold, it will be removed from the exception found database. As described above, once the number of times an exception recurs is over a threshold, it will be removed from the exception found database.

Acknowledgement

Figure 2: screenshot of kikbug driver

3. CONCLUSION

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4. REFERENCES

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