

tool-recommender-bot

Chris Brown and Emerson Murphy-Hill

Department of Computer Science

North Carolina State University

Raleigh, NC

Email: dcbrow10@ncsu.edu, emerson@csc.ncsu.edu

Abstract—Automated recommendation systems are important for improving tool discovery and increasing user productivity. Here's ours...

Index Terms—Software Engineering; Tool Recommendation; Tool Discovery; Open Source

I. INTRODUCTION

Tool discovery is a problem...

Automated recommendation systems can help solve this problem...

But existing recommendations systems are ineffective...

Peer interactions and receptiveness are effective[?]...

We created tool-recommender-bot to solve this...

RQ1: How often can we expect tool-recommender-bot to make recommendations?

RQ2: How useful are recommendations from tool-recommender-bot to developers?

Contributions...

II. RELATED WORK

Existing automated tool recommendation systems...

III. TOOL

tool-recommender-bot is awesome. Here's how...

A. Implementation

Technical details...

B. Receptiveness

How we integrated receptiveness...

a) *Desire*:

b) *Familiarity*:

IV. METHODOLOGY

A. Projects

Trending open source java projects on Github that build with maven used for evaluation...

B. Study Design

We divided our study into two segments to address each research question:

1) *RQ1*: Last n pull requests on repositories...

2) *RQ2*: Followed up with developers to gather responses...

V. RESULTS

A. How often can we expect tool-recommender-bot to make recommendations?

Number of recommendations...

0 false positives...

B. How useful are recommendations from tool-recommender-bot to developers?

Response rate...

Qualitative responses...

VI. DISCUSSION

A. Implications

What do results say about ways to improve tool recommendation systems...

B. Threats to Validity

C. Future Work

VII. CONCLUSION

REFERENCES

- [1] C. Brown, J. Middleton, E. Sharma, and E. Murphy-Hill. How software users recommend tools to each other. In *Visual Languages and Human-Centric Computing*, 2017.