Survey PICT

This is a study carried out at RMIT University (Melbourne, Australia). Participation in this study is completely voluntary. If you decide not to participate there will not be any negative consequences. Please be aware that if you decide to participate, you may stop participating at any time and you may decide not to answer any specific question.

The following survey is organised in three sections and should take about 5 minutes to answer. The sections are: basic demographics about you, questions about your testing practices in R code, and questions about the tools that you may (or not) use in your testing code practice.

You can withdraw from the survey at any moment, but not after submitting your responses.

By submitting this form, you are indicating that you have read the description of the study, are over the age of 18, and that you agree to the terms as described.

[ ] YES

[ ] NO

SURVEY QUESTIONS

Section: demographics

Basic demographics:

A. Number of R packages authored? [<2, 2-5, 5-10, >10]
B. Years of experience as R programmer? [<2 years, 2-5 years, 5-10 years, 10+ years]

Section: Testing Practices

1. How do you test your code?

    Options: manually, don't test, testing packages

2. What type of testing do you do? [Options are presented as items to simplify the reviewer's work]

- Unit, evaluating functions individually.
- Integration, evaluating clusters of functions.
- Systems, using my package externally.
- Other

3. If you use testing packages, what are the names of them? [Free form text]

4. Why do you use testing packages for?

- Options: Generating test cases, executing test cases, creating and evaluating test execution results, analysing code coverage, finding potential bugs, reporting bugs, fulfilling CRAN/rOpenSci requirements.

5. Do you face the following challenges during testing either manually or using automated testing tools and if you do how serious are they? [Matrix analysis]

- Challenges: Time constraints, compatibility issues, lack of exposure to tools, emphasis on development rather than testing, lack of support from employer/organization, unclear benefits of tools, poor documentation, lack of experience, steep learning curve.
- Seriousness levels: Very serious, serious, insignificant, do not face, no opinion

6. Given the availability of testing tools for app development, in your opinion what are the top 2 things you look for/need/would like to see? [Free form text]

Section: Testing Tools

7. Do you use coverage visualisation tools?

    - Options: Always, Never, Occasionally

8. If you use coverage visualisation tools, what are the names of them? [free form text]

9. Do coverage visualisation affect you?

    - Options: it motivates me, it makes me anxious (because I have too much work left), it makes me more confident in my code, I trust my code is bug-free.

10. Have you ever had all test passing, but still found a bug in your code?

    - Options: Yes, at least once. Yes, more than one time. I don’t remember. Never.