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Critique 7

Test-Driven Development of Graphical User Interfaces: A Pilot Evaluation

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Summary

Test driven development of GUI elements is very difficult and generally involves complex test code or manual testing. Writing failing tests can be challenging. The authors propose an interface prototyping and usability evaluation system. This was tested in a pilot study of 3 which found the idea useful and made GUI TDD easier, and suggested the need for a bigger, more comprehensive study.

Strengths

- The test subjects had GUI development experience but no experience with UI prototyping, and little GUI test experience compared to development experience. Since GUI testing is difficult, many opt not to do it and thus have little experience -- it seems this idea would target those developers more, so the lack of experience in the test subjects seems like a good idea.
- Extensive detail of prototyping and pilot study procedures.
- The idea seems to have merit, since every participant found it useful and would consider using it in their own development.

Weaknesses

- Pilot evaluation only included 3 developers, which is extremely small sample size.
- The evaluation was short and the range is misleading - from A(1) to E(5), there are 3 positive responses and 2 negative responses. This creates inherent bias in the responses. Instead of very useful, somewhat useful, useful, not useful, the middle answer should be neutral, neither useful nor harmful.
- Low time investment in pilot study and more complicated.
- While the 3 developers having little experience could be seen as a strength, it is also a weakness - the study would have been further strengthened by having an equal amount of experienced GUI testers to see reactions from both experienced and inexperienced developers.