Testing Culture on a Social Coding Site

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Original Paper Title:
Creating a Shared Understanding of Testing Culture on a Social Coding Site
Testing Culture?

Developers

Testers

Rules

Training

Guidelines
Testing Culture?

- unknown devs
- voluntarism
- different skills
- ...

Social Transparency

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Collaboration on GitHub

project owner

merge

project

pull request

contributor

fork

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How do developers collaborate on GitHub regarding testing?
We used Grounded Theory.

Initial interviews
  – no lonely wolves

Focus interviews

Validation by questionnaire
  – 569 users assessed findings
What we found ...

Octocat taken from: http://octodex.github.com
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Contribution Process

1. **Project Owner (PO)**
   - **Fork**
   - **Merge**

2. **Contributor (C)**
   - **Pull Request**

- **Project**
- **Fork**
Contribution Process

- Project owner
- Test branch
- Project

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Motivation for Testing Effort

- feeling obliged to
- highlight value
- confidence
- feeling obliged to
  - seeing other tests

“[There were no guidelines set up], not so much formally, but it was **pretty clear how it was supposed to be tested** and there was already an existing spec file [...] with a pretty **substantial list of tests**”

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Challenges and Risks

project owner

“… a lot of people are contributing to [the project] and quality control is becoming more and more important to us. Automated testing is the only way to get that…”
Challenges and Risks

project owner
Coping Strategies and Impact

PO

- test frameworks
- educate

C

- conficende, eager to experiment
- use existing tests for own test cases

“I can point them to one of the existing tests. «Check this one, it is really similar to what you need», and in most cases it’s enough. Sometimes, [...] I do Skype conferences with screen sharing where I can explain, show.”

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Coping Strategies and Impact

- set up guidelines

- make testing visible
- show explicit testing signals

project owner

Now I know!

contributor

“if you see that image, it **immediately rings the bell** that there is continuous integration in this project, and as such, there is some kind of automated testing.”

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Final Questionnaire Results

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Final Questionnaire Results

I need automated testing for this amount of pull requests.

Tests in my project help contributors in writing tests.
Final Questionnaire Results

When I see tests, I will write tests.

I heavily use existing tests for my tests.
Take Home

- high employee churn ...
- efficiently convey testing culture?

- make your testing culture visible
  - guidelines
- existing tests
  - education sources, tutorials
  - frameworks, easy setup
- discussions, issues, good solution