Testing Culture on a Social Coding Site

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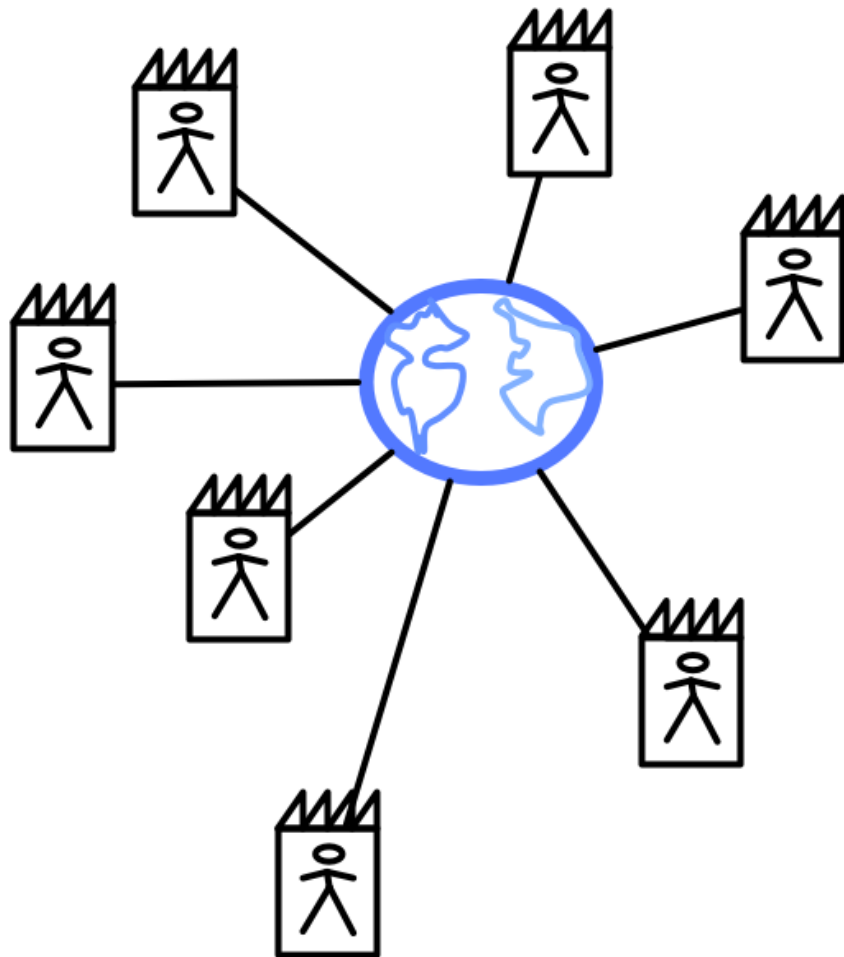
Original Paper Title:
Creating a Shared Understanding of Testing Culture on a Social Coding Site

Testing Culture?

Developers

Testers

Rules

Training

Guidelines
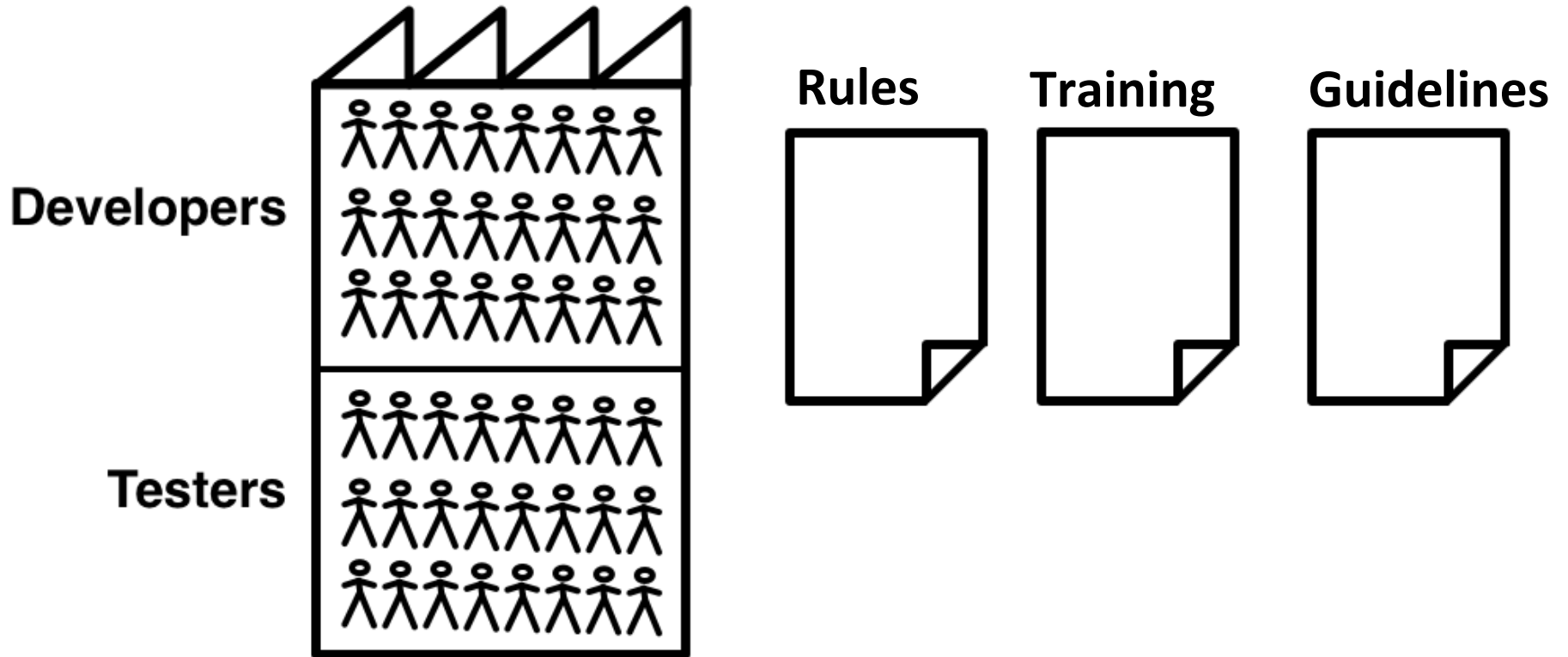
Testing Culture?

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

+ | **Social Transparency**

GitHub

Collaboration on GitHub

project owner

contributor

pull request

merge

project

fork
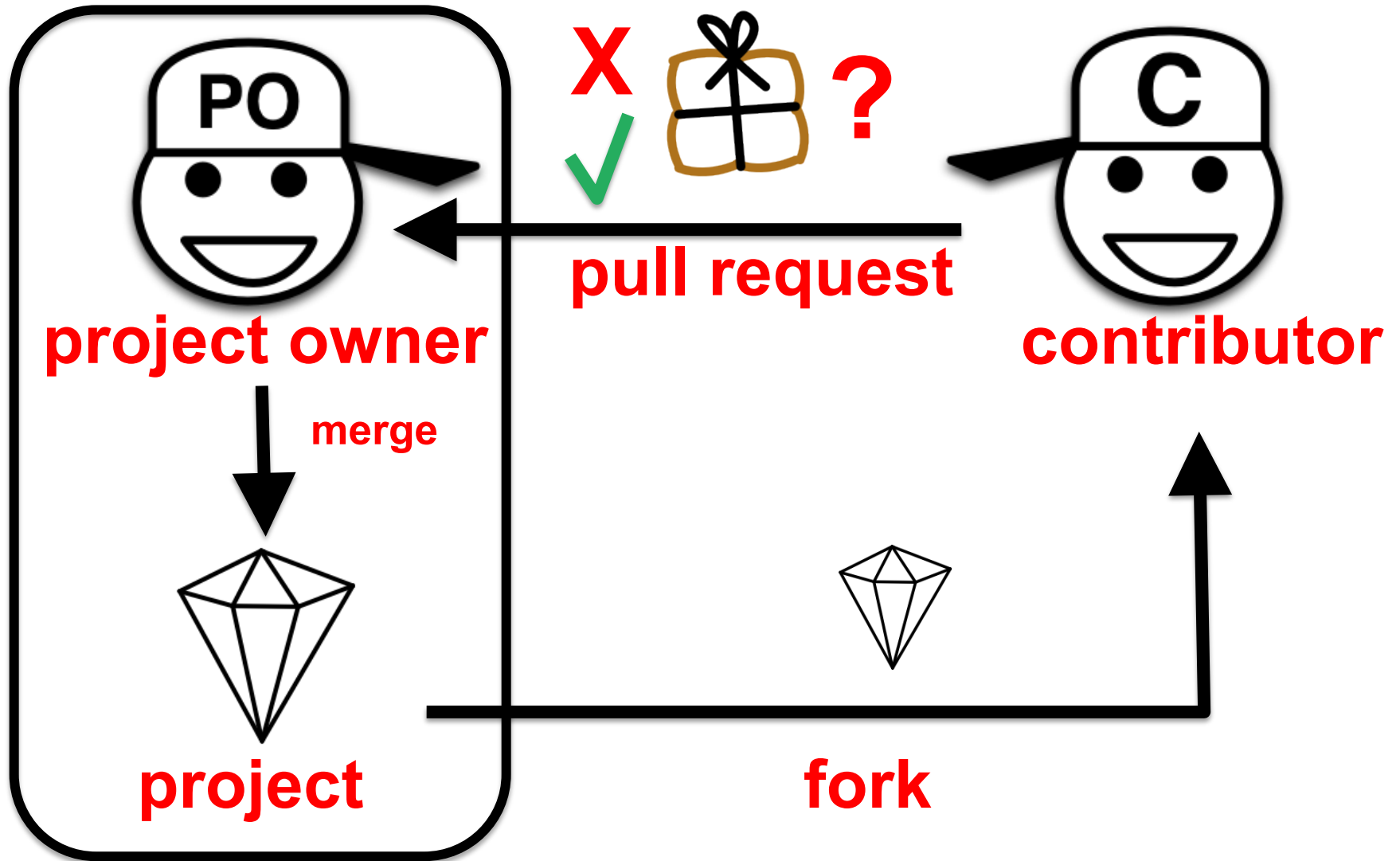
How do developers collaborate on GitHub regarding testing?

Research Approach

We used Grounded Theory.

Initial interviews   (10 random, 3 Coderwall)
  – no lonely wolves

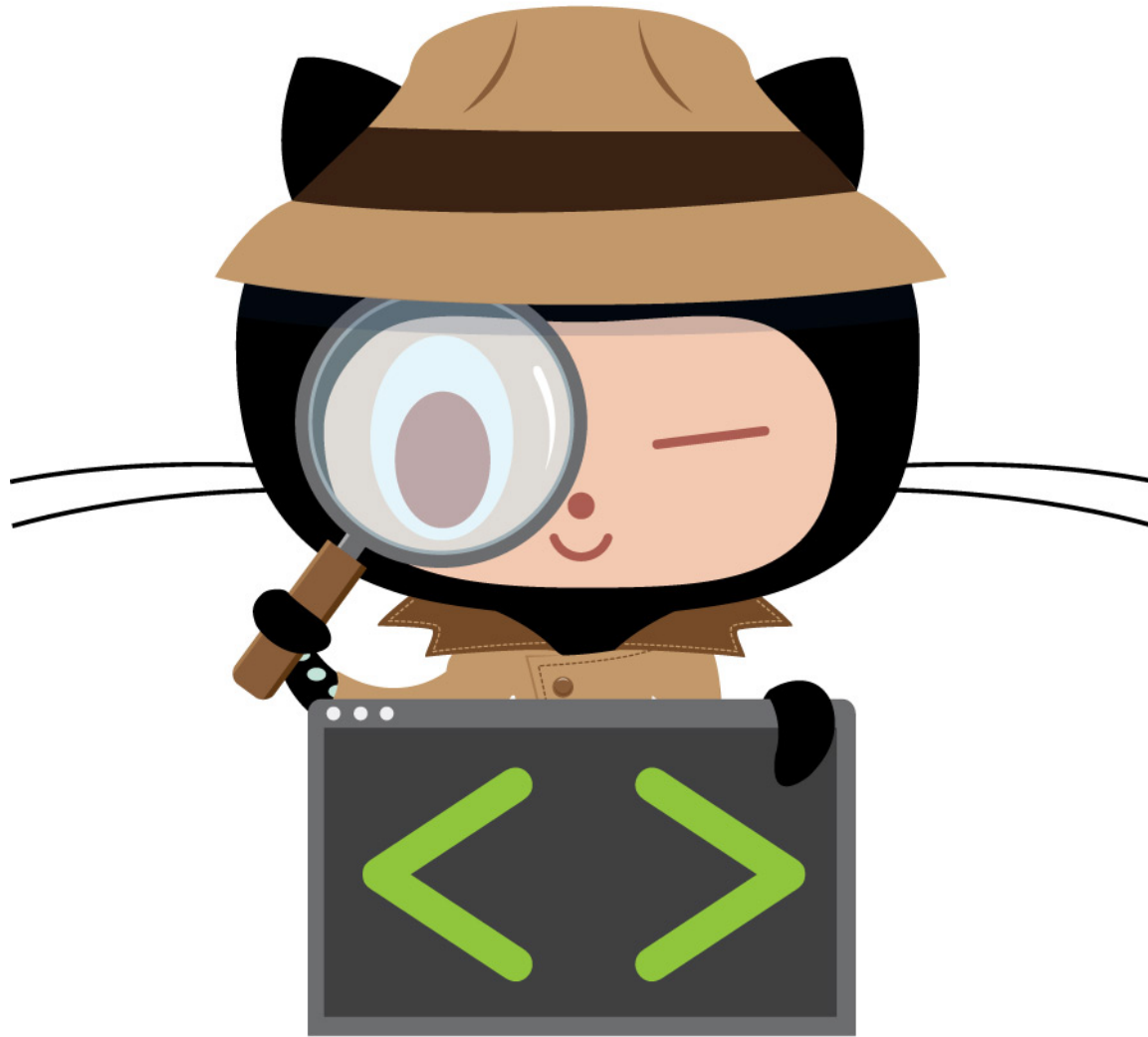Focus interviews   (20 Intw.)

Validation by questionnaire   (569 assessments)
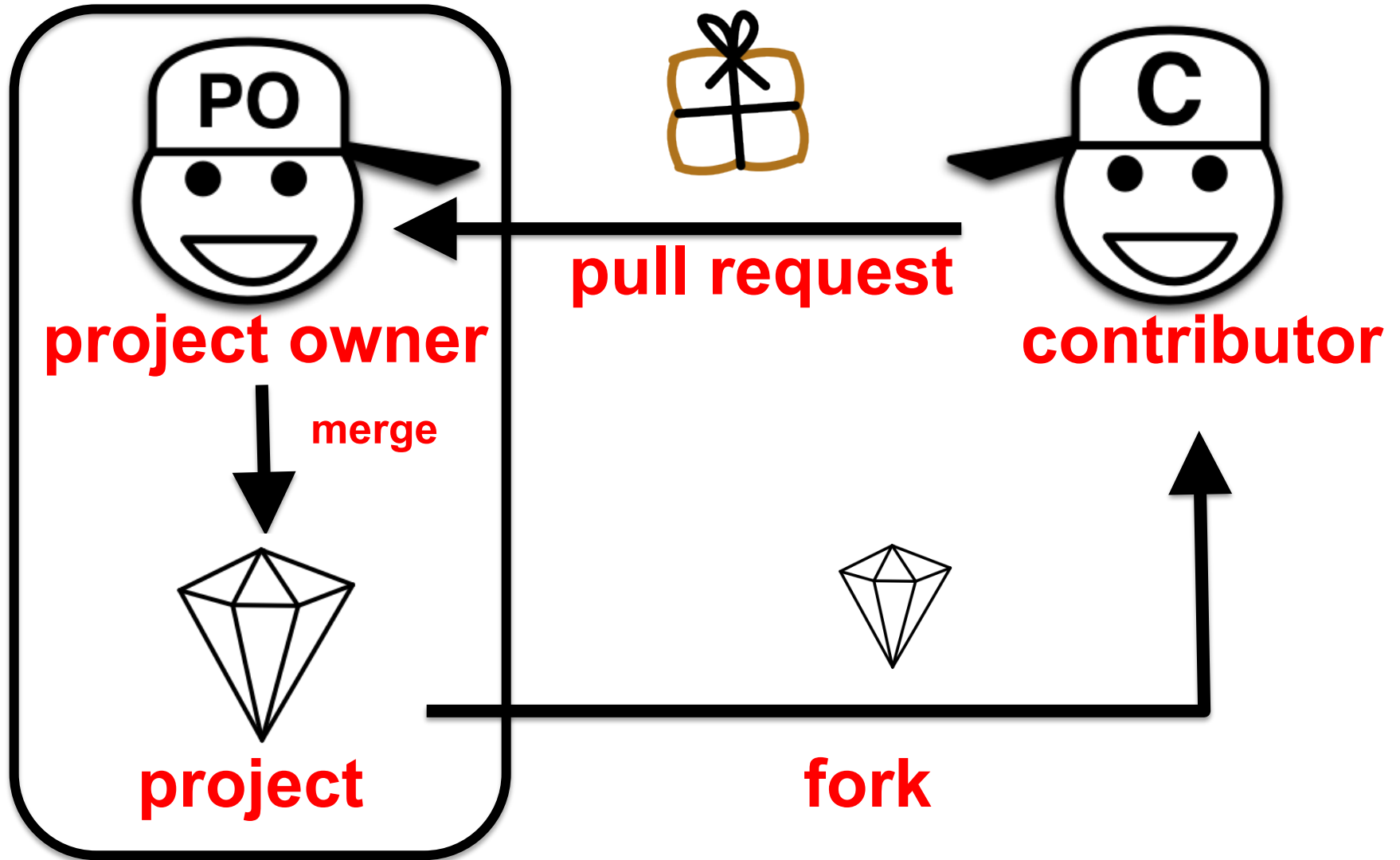 – 569 users assessed findings

What we found ...

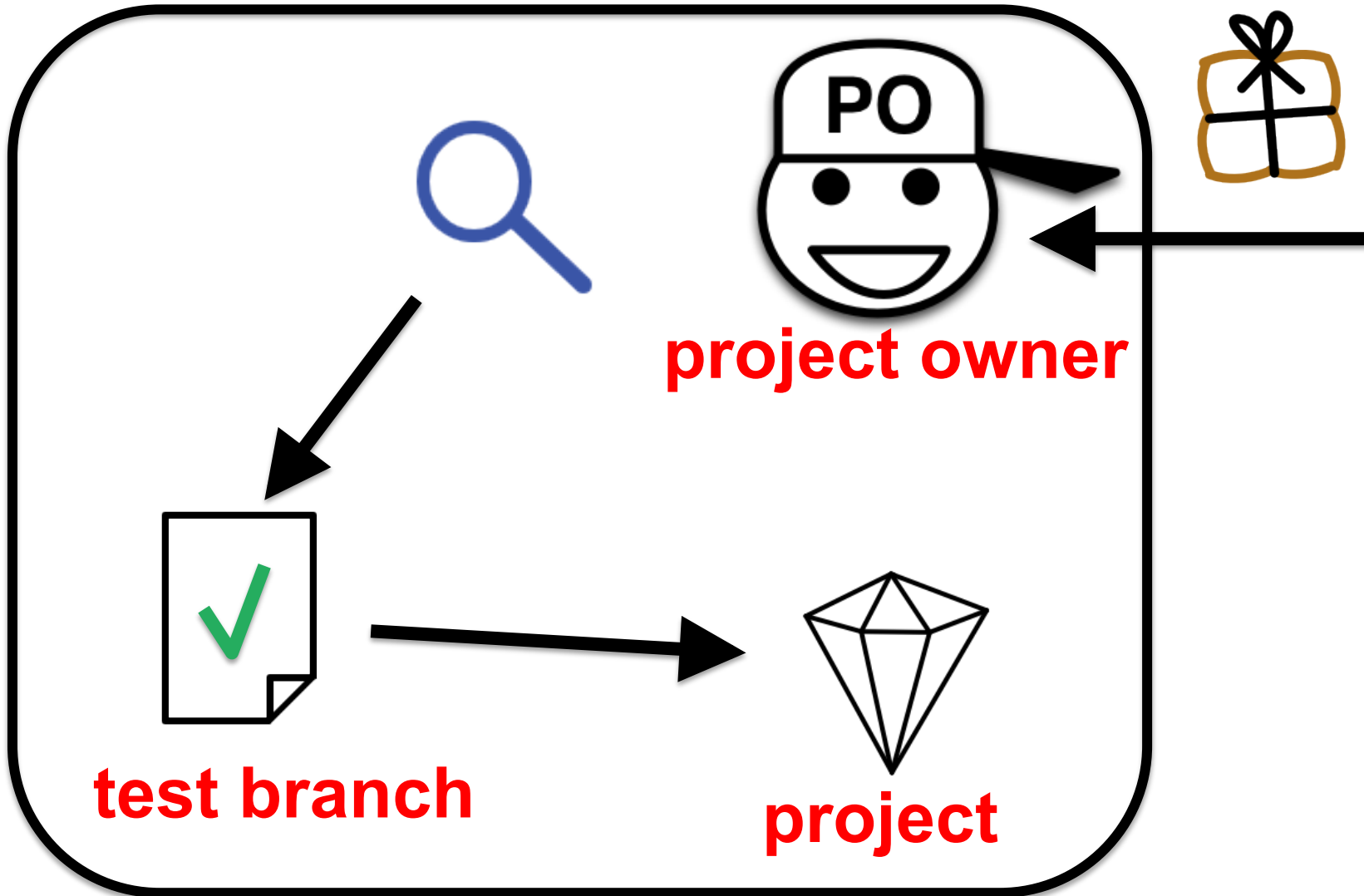Octocat taken from: http://octodex.github.com
Raphael Pham - Creating a Shared Understanding of Testing Culture on a Social Coding Site - ICSE 2013 in SF 8

Contribution Process

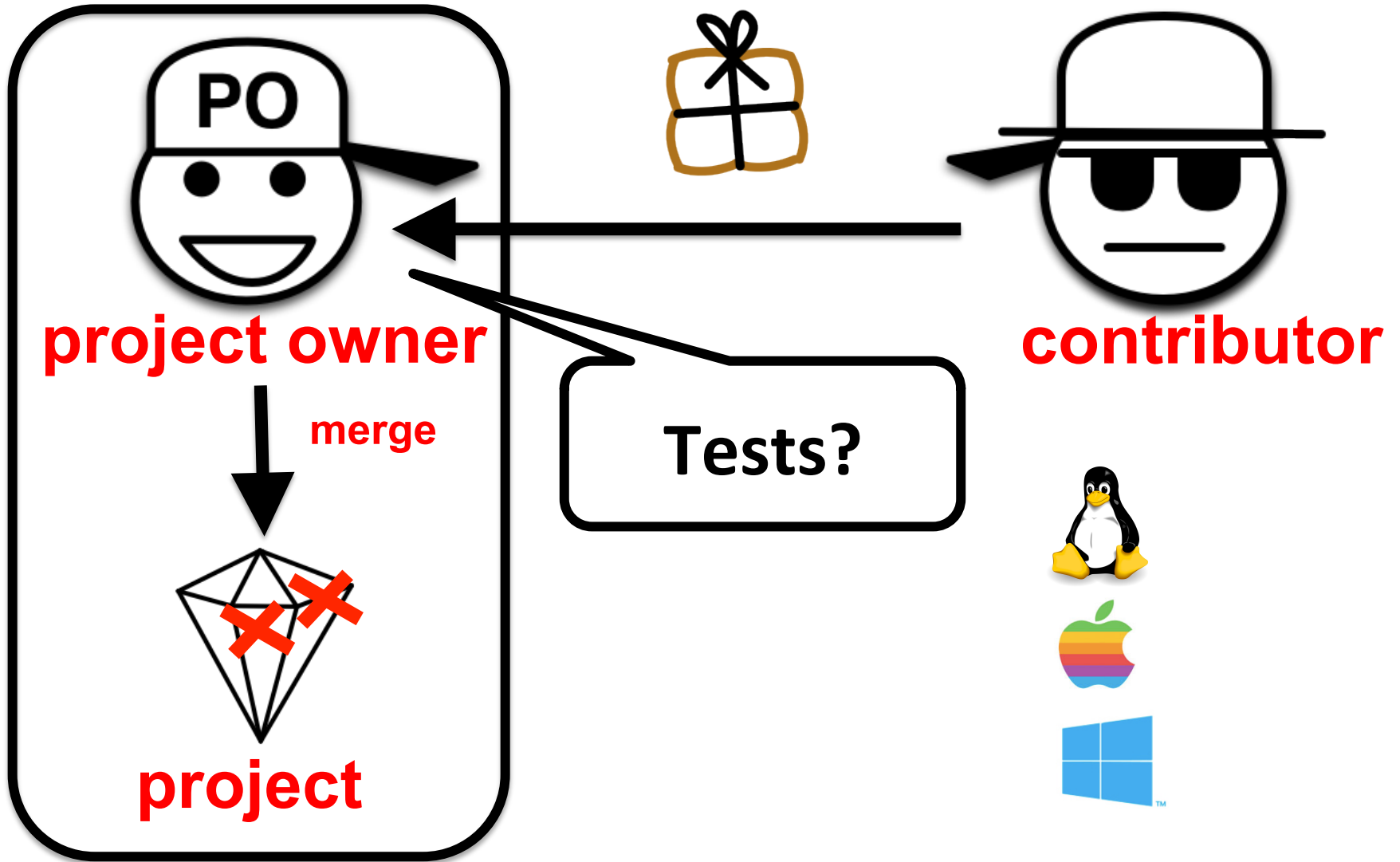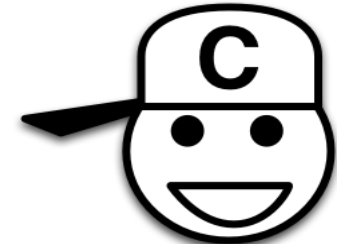# Contribution Process

project owner

test branch

project

Assessment

project owner

merge

project

Tests?

contributor

Motivation for Testing Effort

- **feeling obliged to**

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

project owner

contributor

"[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**"
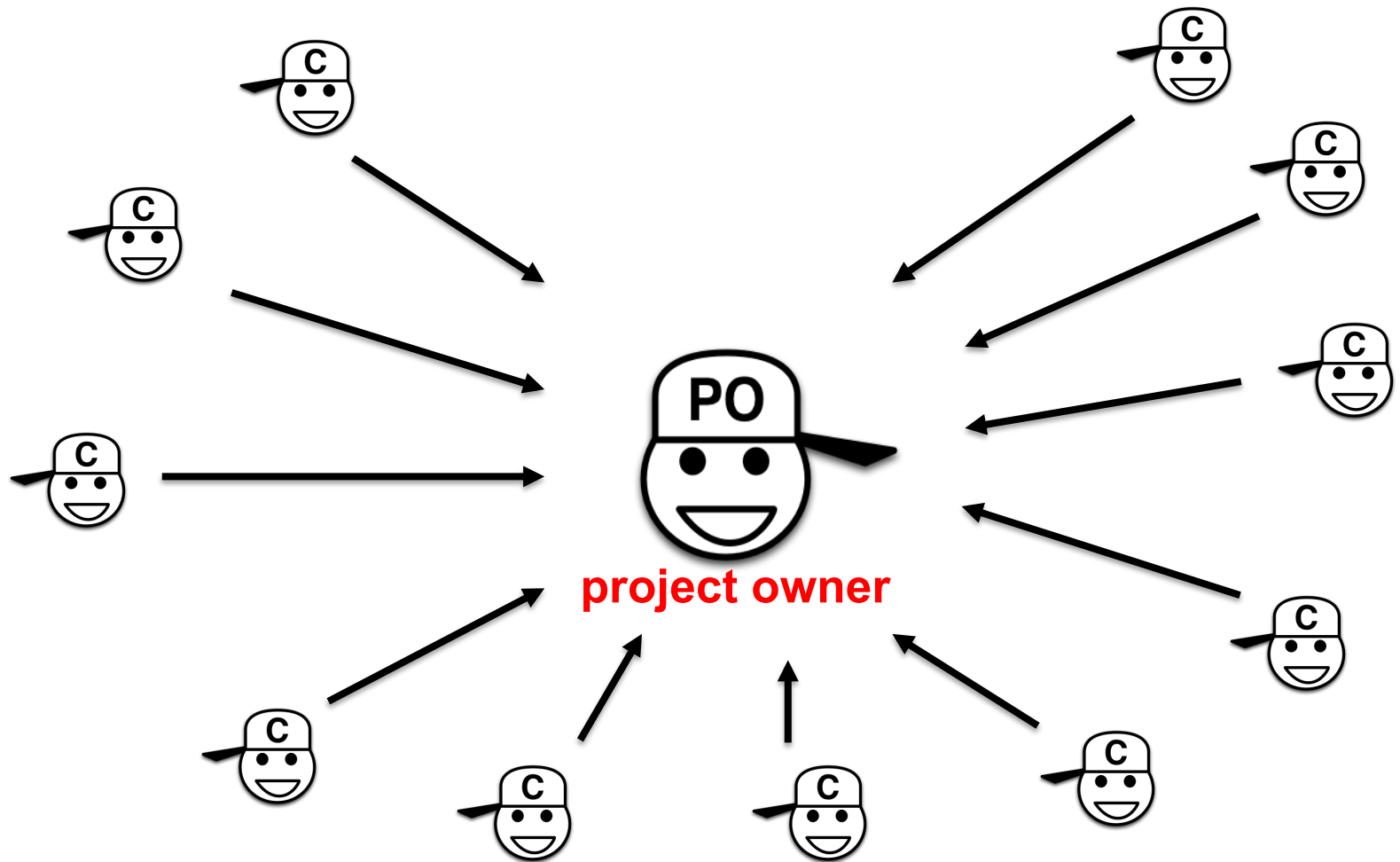
Challenges and Risks

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… "
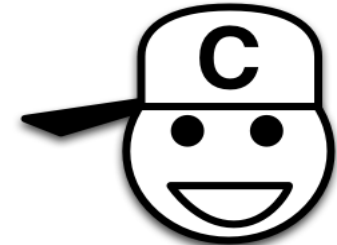
Challenges and Risks

project owner

Coping Strategies and Impact

- **test frameworks**
- **educate**

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

PO

project owner

C

contributor

"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."
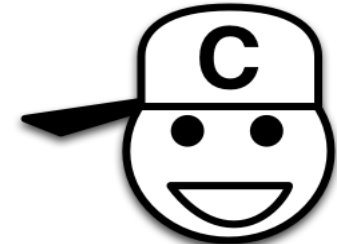
Coping Strategies and Impact

- **set up guidelines**

Now I know!

- **make testing visible**
- **show explicit testing signals**

project owner

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."
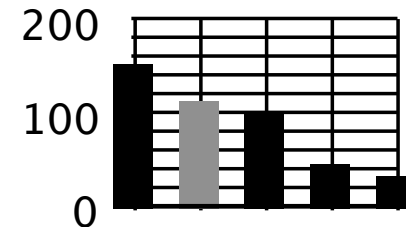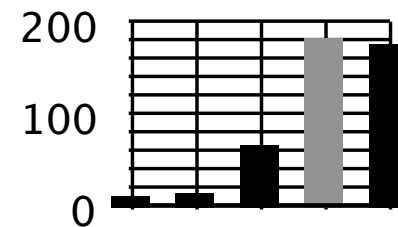
Final Questionnaire Results

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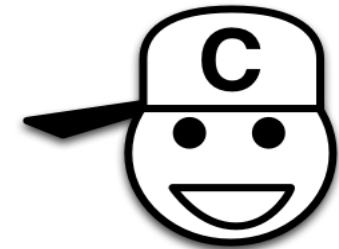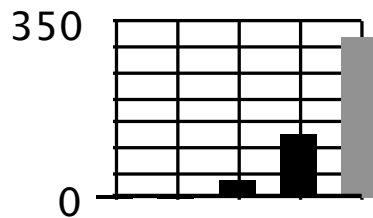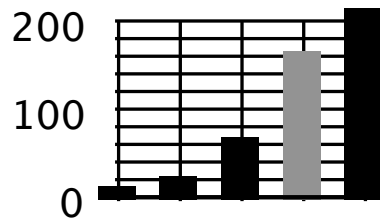
Take Home

YOU: 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