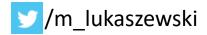
### How to fix a code

to not corrupt an app

Michał Łukaszewski Software Engineer, Intel



# 豊田佐吉

1867-1930



# 豊田 喜一郎 1894-1952

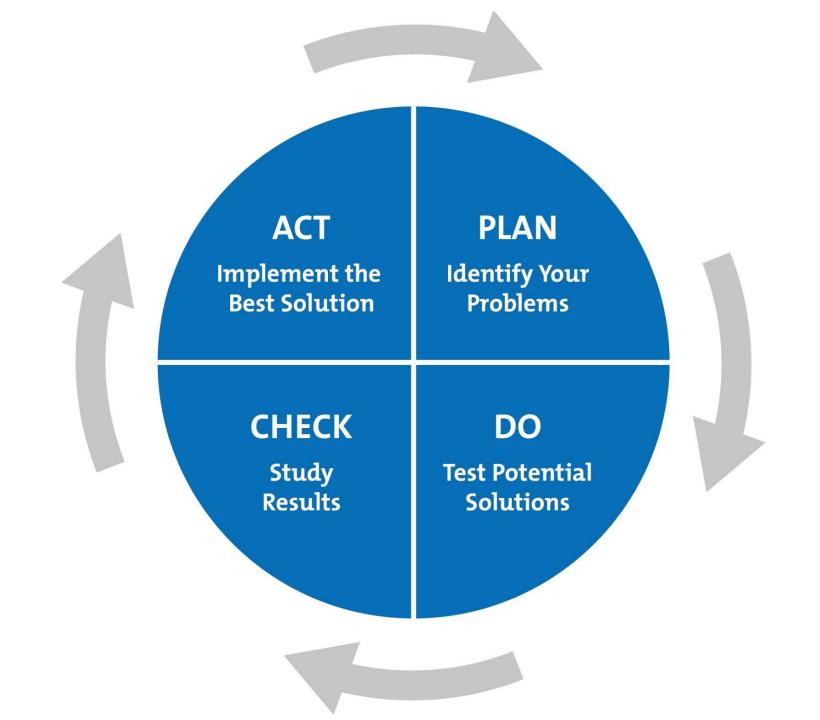


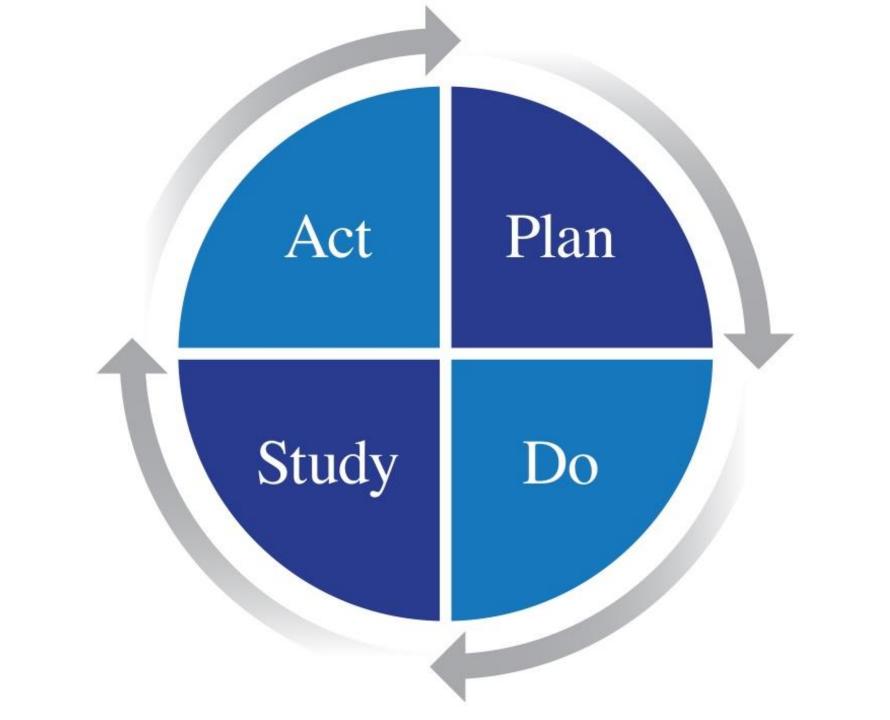
# 大野 耐 1912-1990







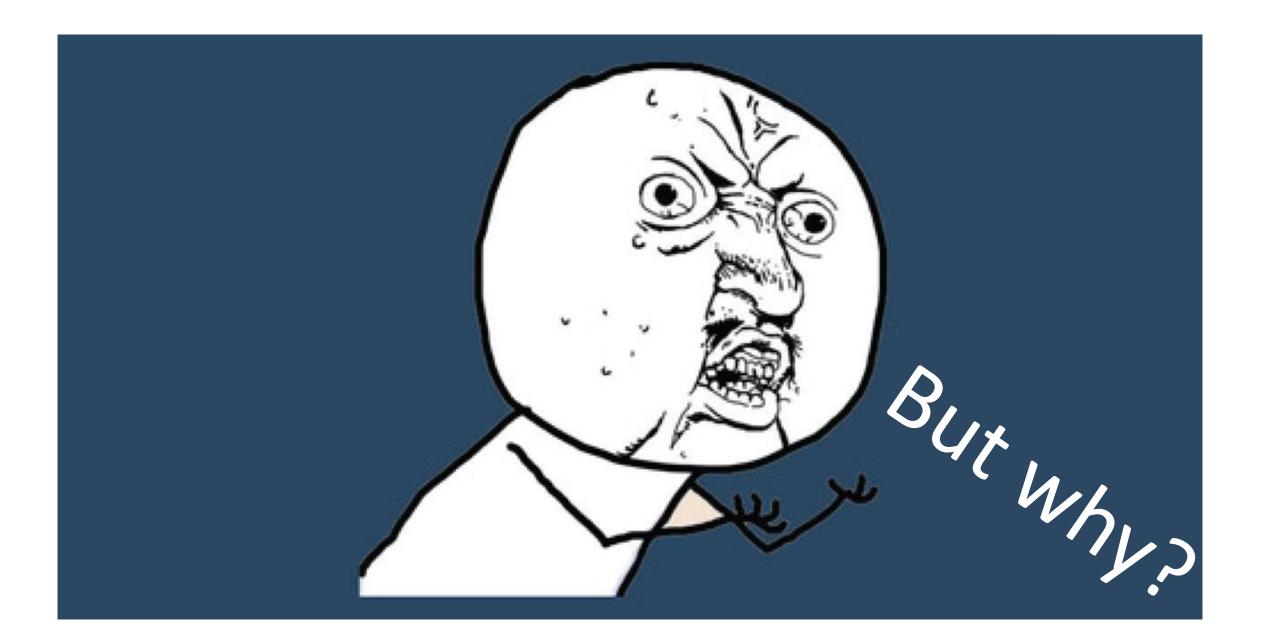




Write a failing test Make the test pass

Nat Pryce

Refactoring is (continuous) process, not an action.



When you look into an abyss, the abyss also looks into you.

Friedrich Nietzsche









### Technical



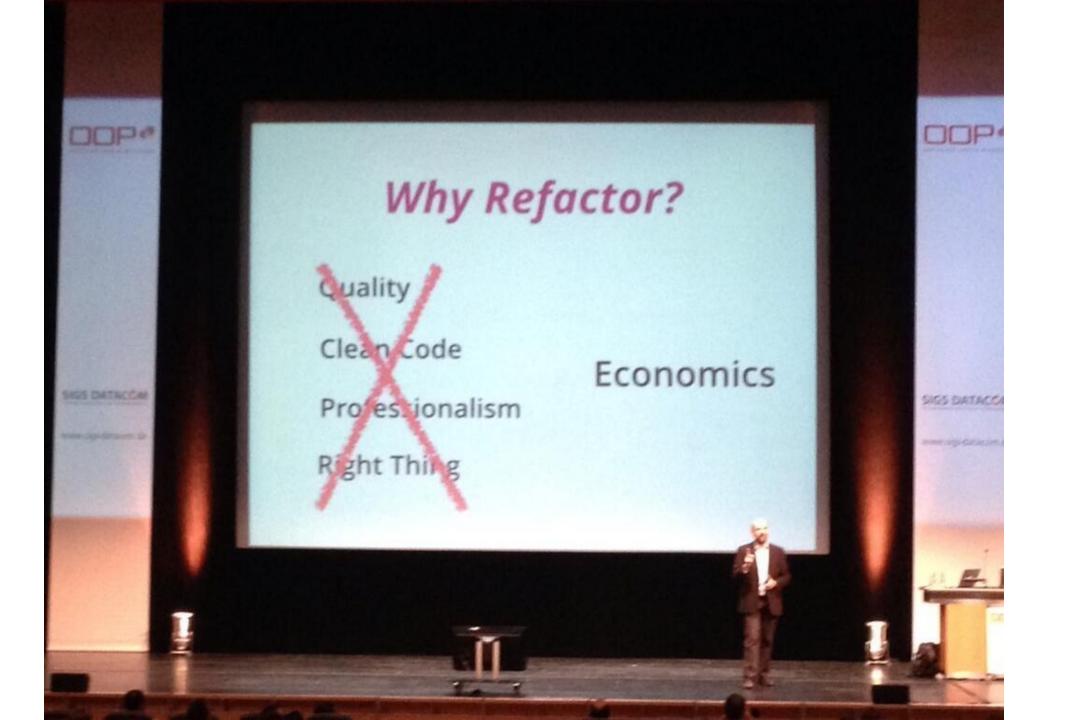
- Refactoring is (continuous) process, not an action.
- Refactoring is not
  - Bugfix,
  - Security fix,
  - Optimization.

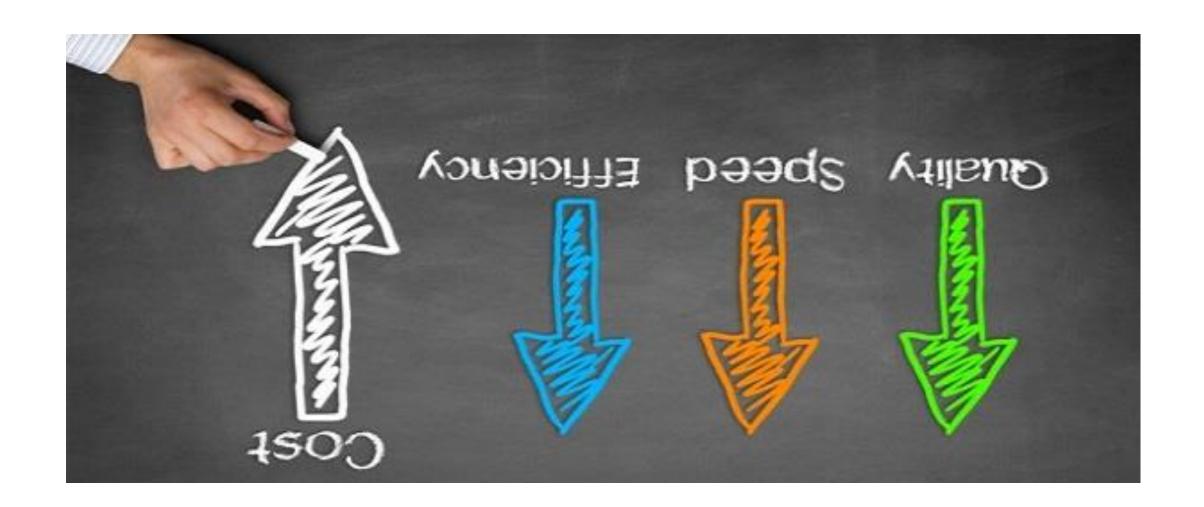




### Martin Fowler



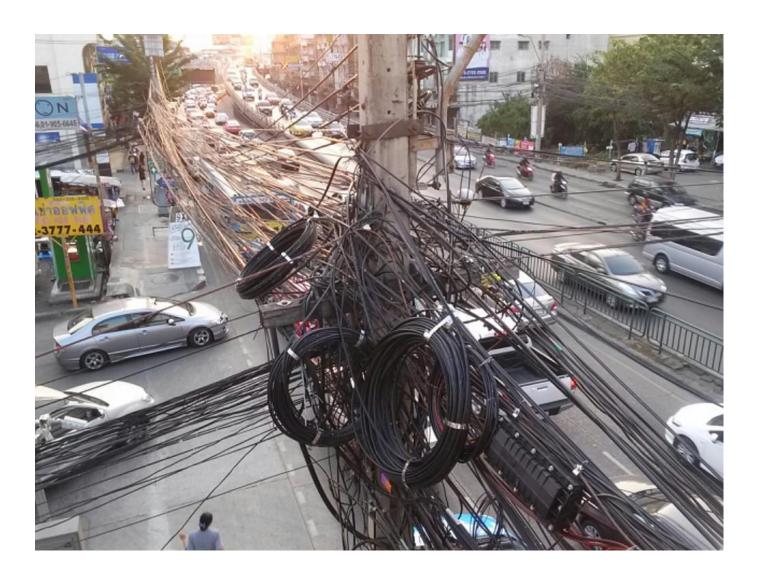




- Refactoring is (continuous) process, not an action.
- Refactoring is not
  - Bugfix,
  - Security fix,
  - Optimization.
- Refactoring should provide (a lot of small) improvements.



Is it mess?



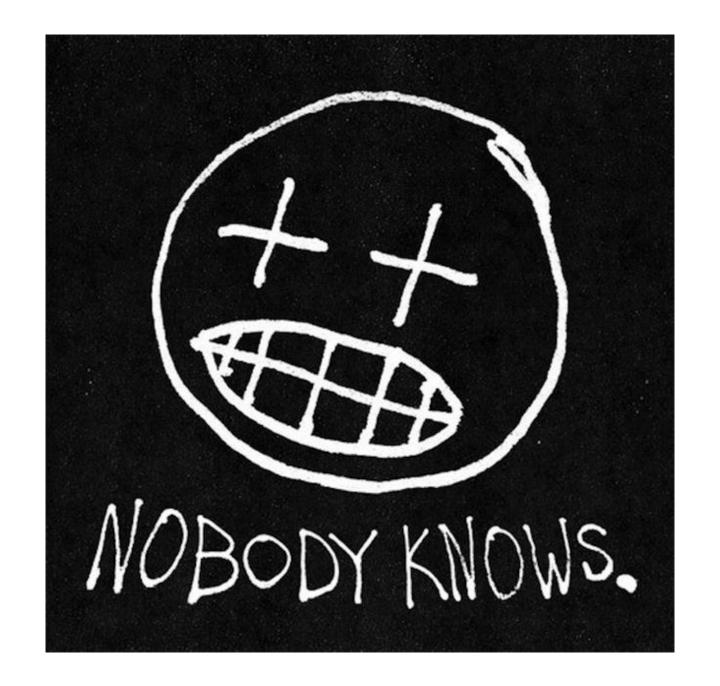
### Or complex?



Or too complex for human being?



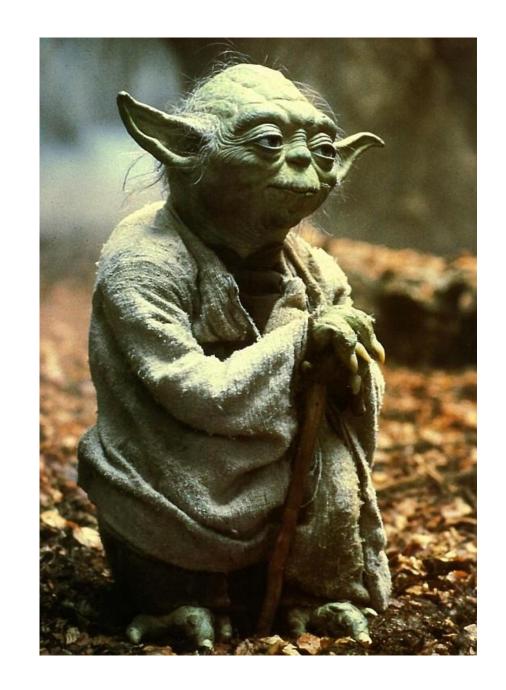
Team changed?







To measure this, you have.



# NOU

"Software Engineering is a discipline that should be founded on knowledge and not on believe."

Markus Sprunck

# Michael Feathers







Q&A

TOPICS

RESOURCES

**EVENTS** 

JOBS BLOG

### Getting Empirical about Refactoring [article]

By Michael Feathers - February 15, 2011









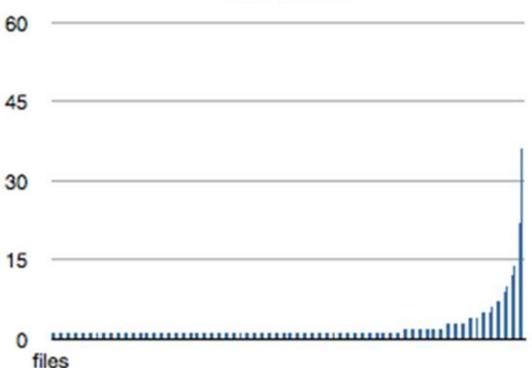


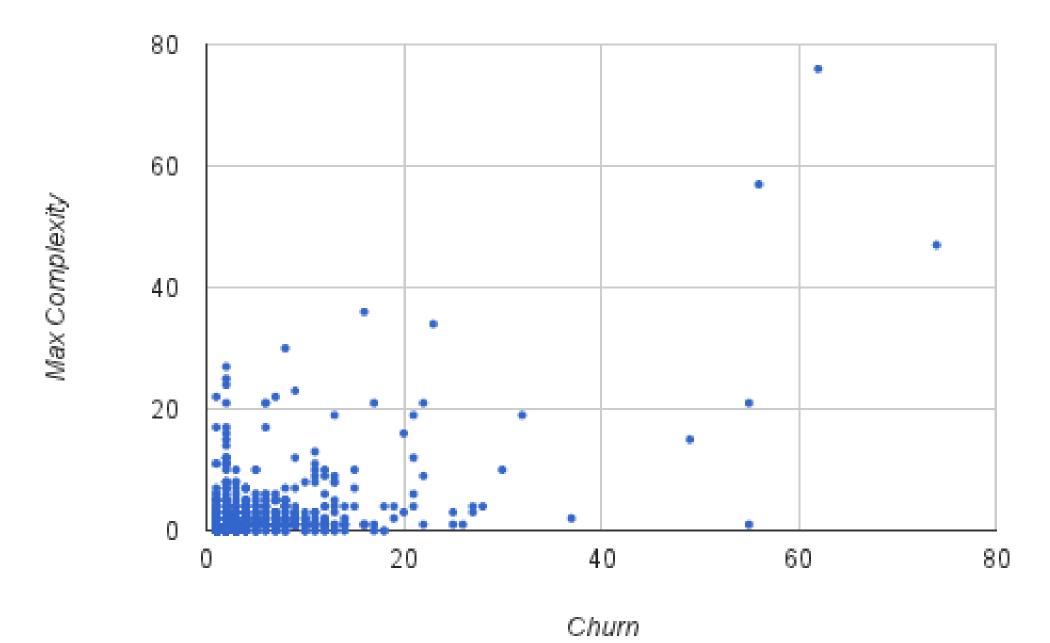


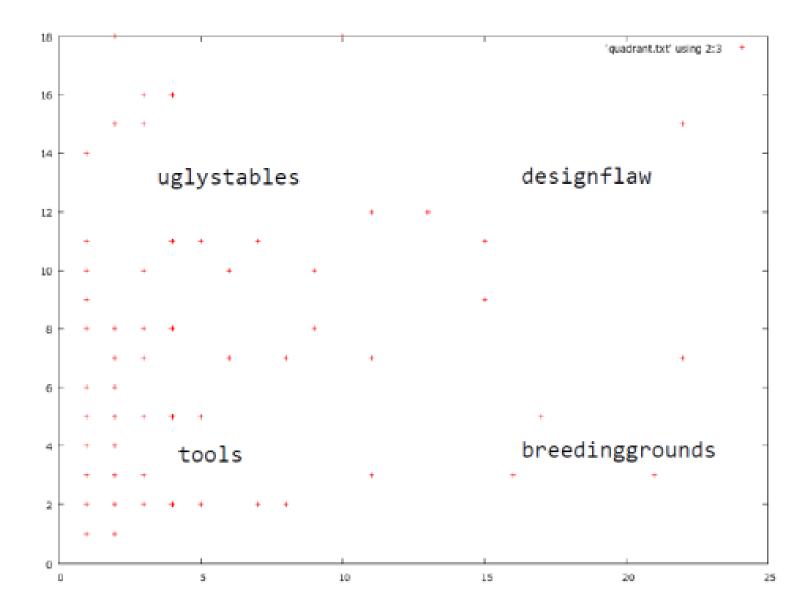
Share URL

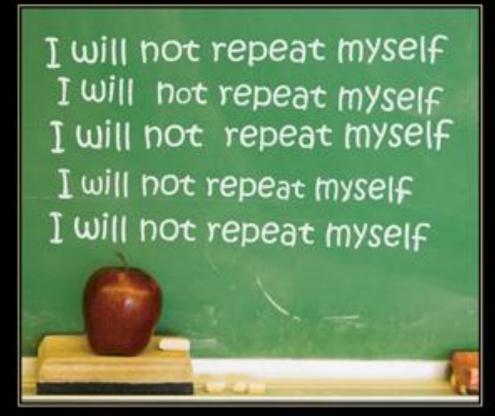
Summary: Often when we refactor, we look at local areas of code. If we take a wider view, using information from our version control systems, we can get a better sense of the effects of our refactoring efforts.

### File Churn









### Don't repeat Yourself

Repetition is the root of all software evil.

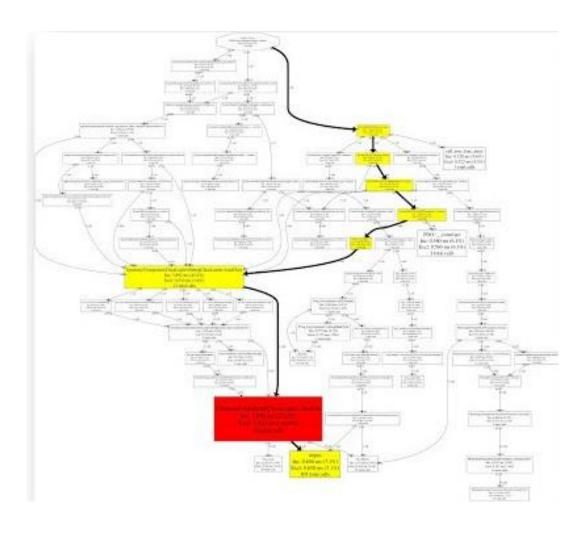
#### Christophe Philemotte

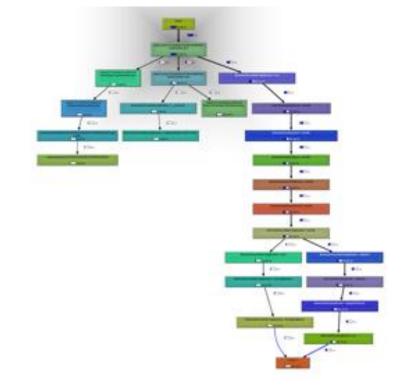


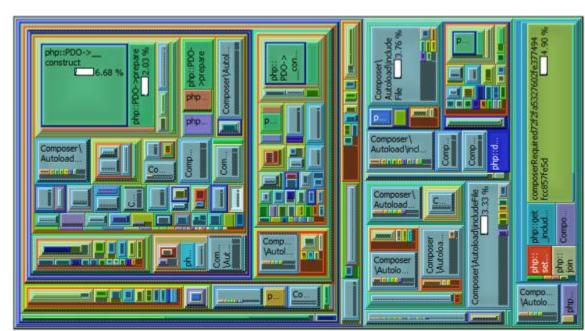


DRY is not about identical chunks of bits or characters in different places.

DRY aims at not repeating domain concepts.

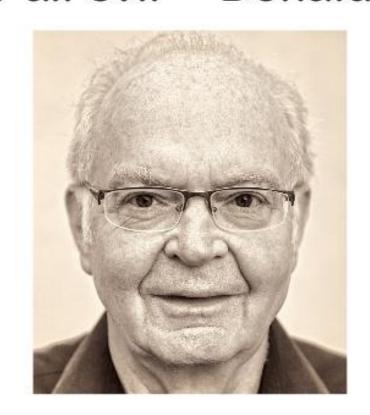




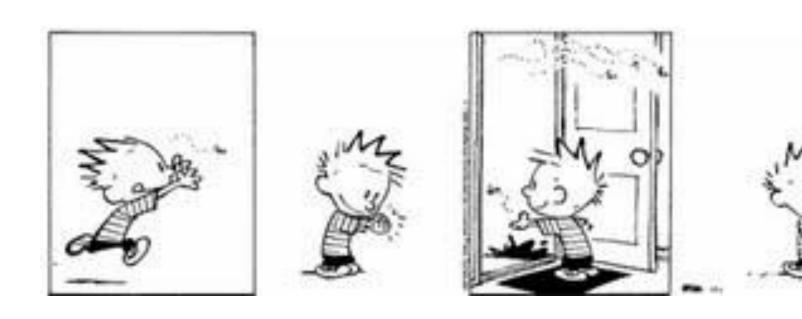


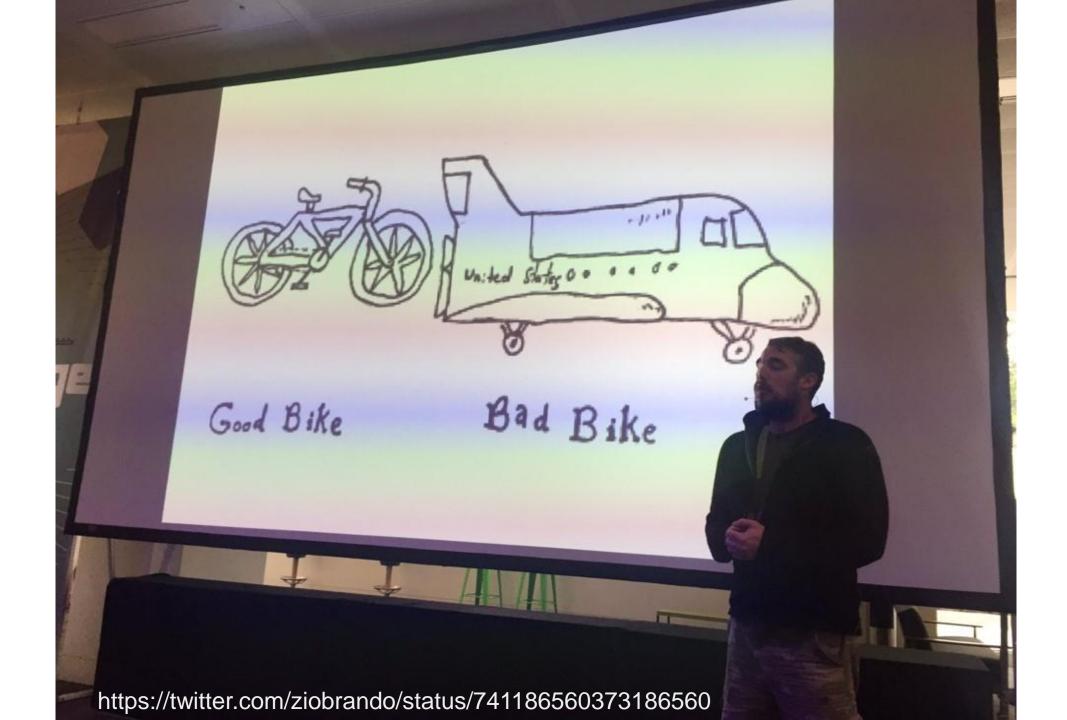
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- Refactoring should provide (a lot of small) improvements.
- Refactoring should be founded on knowledge (measures).

### "Premature optimization is the root of all evil" - Donald Knuth

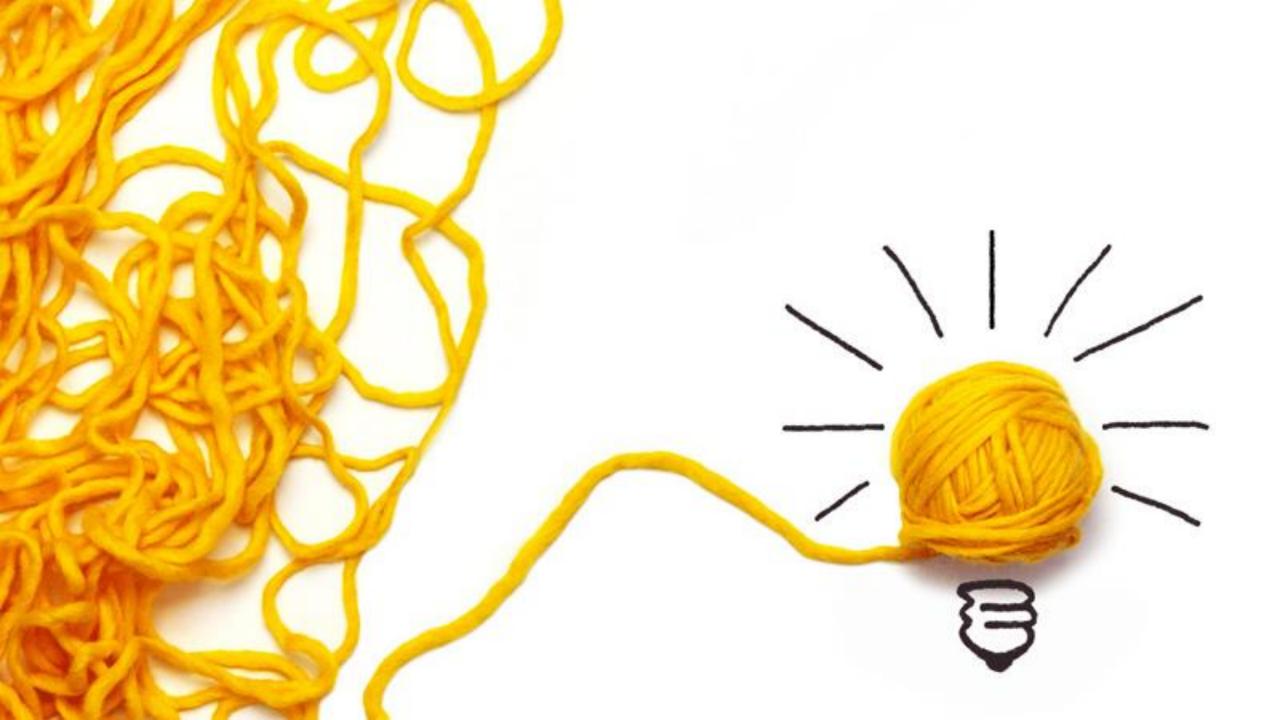


## Regression: "when you fix one bug, you introduce several newer bugs."













- Refactoring is (continuous) process, not an action.
- Refactoring is not
  - Bugfix,
  - Security fix,
  - Optimization.
- Refactoring should provide (a lot of small) improvements.
- Refactoring should be founded on knowledge (measures).
- Refactoring should improve only what needs improvement.





# 改善

# 改善

Kai Zen