

A photograph of a desk setup. On the left, a potted plant with green, feathery foliage sits in a dark, textured jar. Behind it, a modern desk lamp with a white, cone-shaped shade is lit, casting a warm glow. In the center, a laptop is open, its screen reflecting the light. To the right of the laptop, a pen and a small black object are visible on the desk surface. The background is a plain, light-colored wall.

WordCamp Lehigh Valley 2018

# CODE IS POETRY — WHY CODE QUALITY REALLY MATTERS

Slides: <https://hsph.me/wclv18>



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CONTEXT

# ABOUT QUALITY AND RELIABILITY



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CONTEXT

# AGILE MANIFESTO - OVERVIEW



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# AGILE MANIFESTO

- ▶ 4 foundational values
- ▶ 12 supporting principles

<http://agilemanifesto.org/>





## AGILE MANIFESTO - 4 VALUES

- ▶ **Individuals and interactions** over processes and tools
- ▶ **Working software** over comprehensive documentation
- ▶ **Customer collaboration** over contract negotiation
- ▶ **Responding to change** over following a plan



## AGILE MANIFESTO - 12 5 PRINCIPLES

- ▶ **Welcome changing requirements**, even late in development. Agile processes harness change for the customer's competitive advantage.
- ▶ **Deliver working software frequently**, from a couple of weeks to a couple of months, with a preference to the shorter timescale.



## AGILE MANIFESTO - 12 5 PRINCIPLES

- ▶ **Working software is the primary measure of progress.**
- ▶ **Continuous attention to technical excellence** and **good design** enhances agility.
- ▶ **Simplicity**--the art of maximizing the amount of work not done--**is essential.**





## CONTEXT OTHER CONSIDERATIONS



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## THE COST OF BAD CODE

- ▶ Software failures cost \$1.1 trillion in 2016
- ▶ IBM: “The costs of discovering defects after release are significant: up to 30 times more than if you catch them in the design and architectural phase” \*\*
- ▶ Karma and Happiness



# WHAT IS GOOD CODE? DEFINING A GOAL



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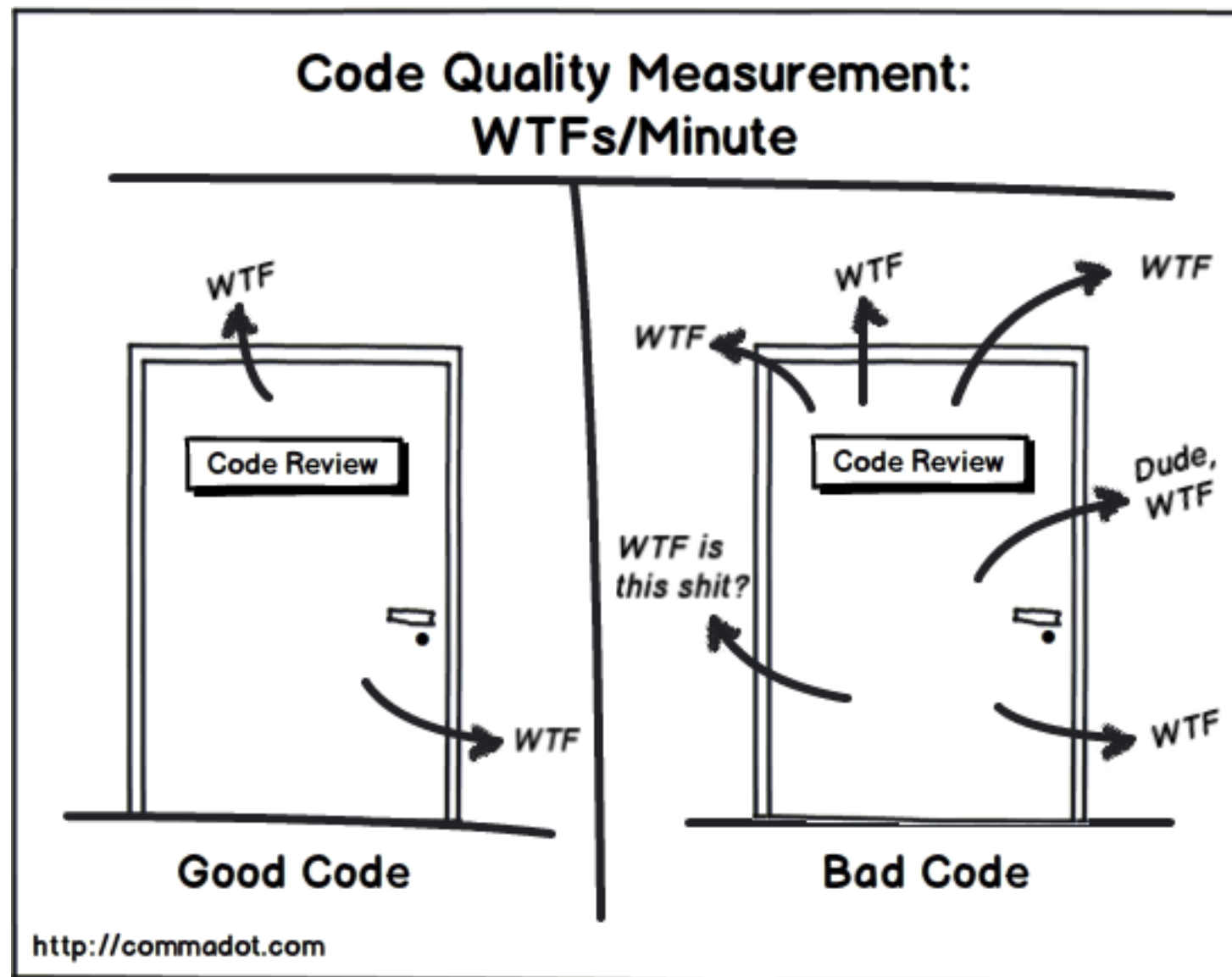
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## GOOD CODE REQUIRES:

- ▶ Communication
- ▶ Experience
- ▶ To be reasonable





Robert C. Martin “Clean Code” > Thom Holwerda



## WHAT IS GOOD CODE? CODE THAT:

- ▶ Works
- ▶ Is easy to understand
- ▶ Is easy to maintain
- ▶ Ships fast



## CODE THAT WORKS

- ▶ Self testing
  - ▶ *Local dev with vvv or Docker*
- ▶ Automated testing
  - ▶ *Unit tests (PHPUnit)*
  - ▶ *Front-end testing (Selenium)*
- ▶ Code reviews



# CODE THAT IS EASY TO UNDERSTAND

- ▶ Coding standards and conventions
  - ▶ *WPCS and PHP Code Sniffer*
- ▶ Naming
- ▶ Readability over “optimization/smart”



# CODE THAT IS EASY TO MAINTAIN

- ▶ Architecture
- ▶ Build for the present design for the future
  - ▶ *Action and filter hooks*



# CODE THAT SHIPS FAST

- ▶ AGILE Project Management
- ▶ Automation
- ▶ Be lazy: re-use, fork and extend
- ▶ Checklists



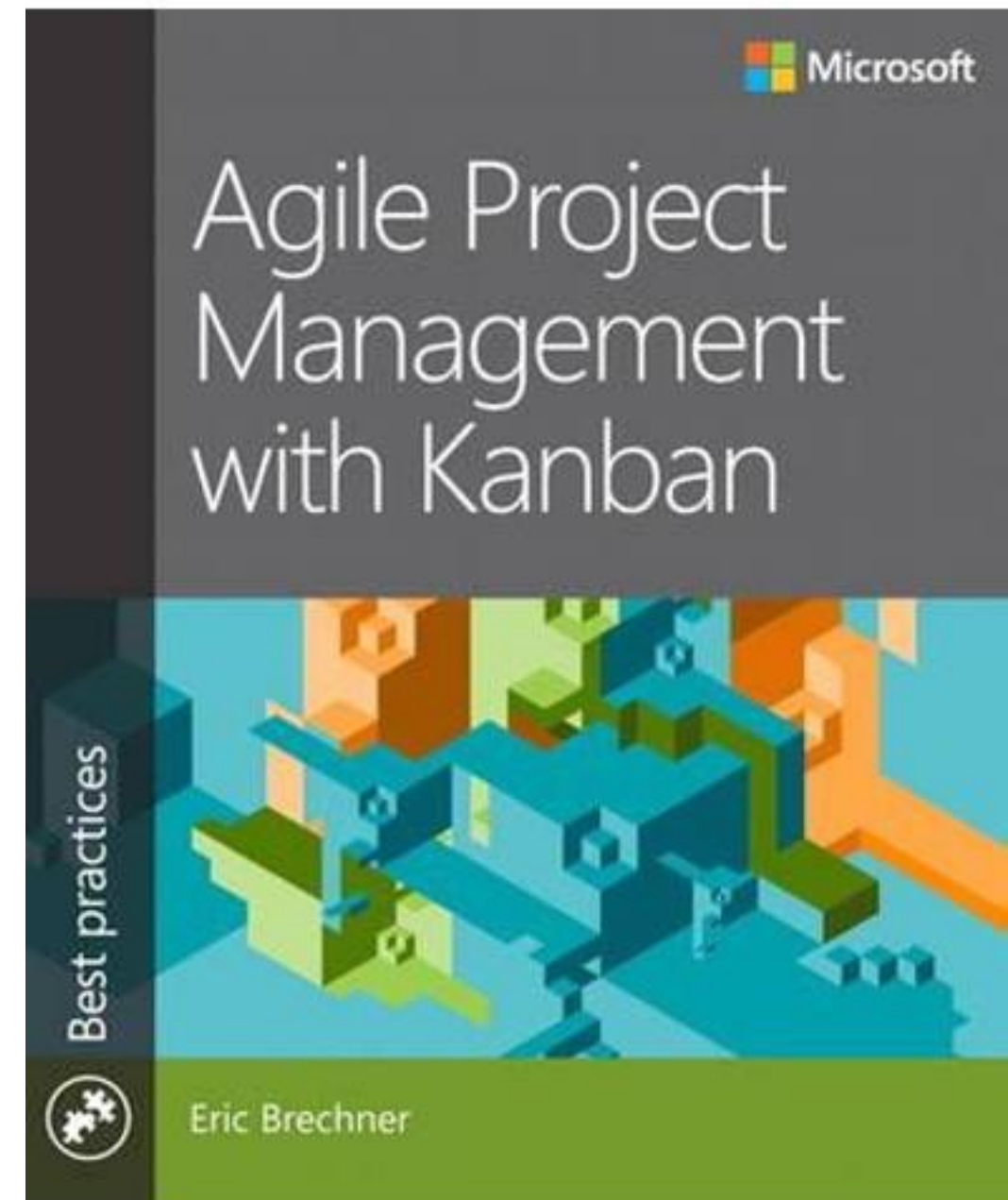
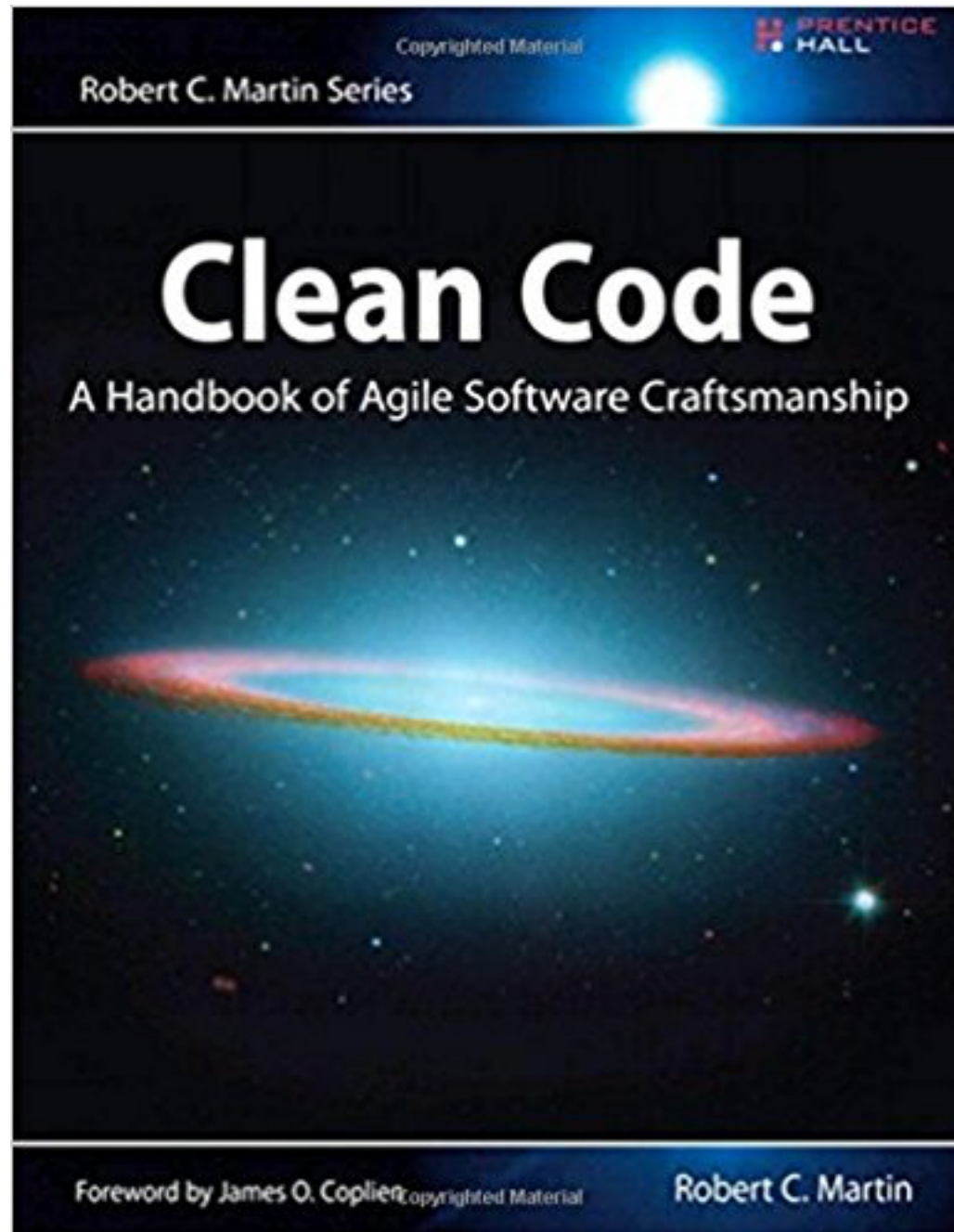






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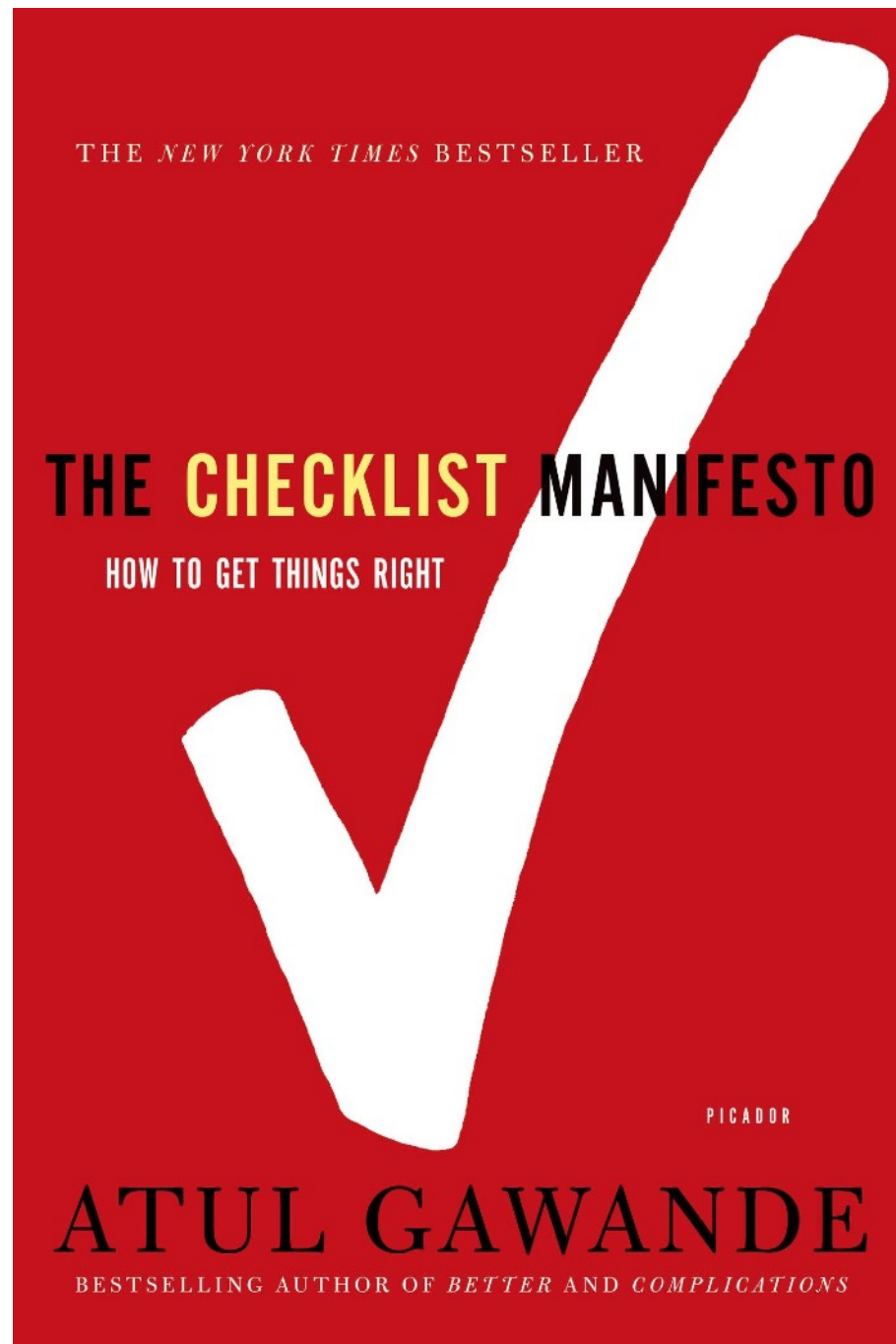
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**Several People Are Coding**

Applause from you and 131 others



Slack Engineering

Feb 22, 2016 · 4 min read

## How About Code Reviews?



By Mark Christian and Duretti Hirpa



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**QUESTIONS?**

Slides: <https://hsph.me/wclv18>



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