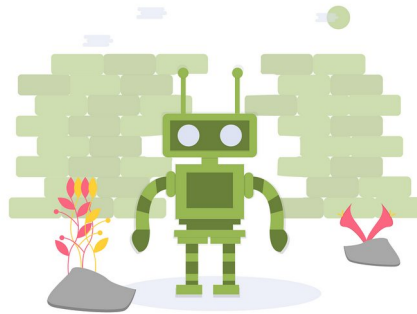


# Software Engineering und Projektmanagement Teil III

Projektgruppe 642 SoSe 2021



O'REILLY®

# Software Engineering at Google

Lessons Learned  
from Programming  
Over Time



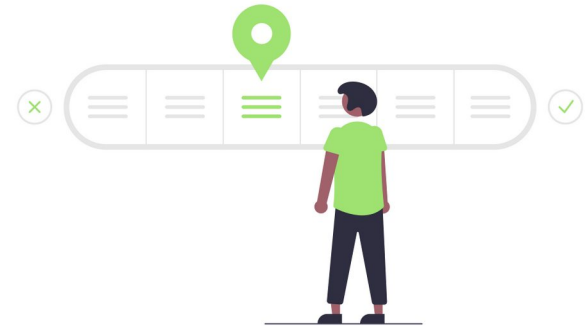
Curated by Titus Winters,  
Tom Manshreck & Hyrum Wright

## Google's software engineering landscape

- Culture
- **Processes**
- Tools

# Agenda

1. Code Review
- 2. Style Guides and Rules**
3. Dokumentation



# 1. Code Review



## **Why Have Rules?**

- Consistency
- Readability
- No Voodoo
- Avoiding error-prone constructs
- Robustness

## **Creating Rules: Guiding Principles**

- Benefit vs. Expense
- Focus on the reader
- Be consistent
- Respect the standard

## **Creating Rules: Style Guide**

- Avoding danger
- Enforcing best practices
- Ensuring consistency



## **Consistency**

- Scaling
- Resilience/Robustness

## **Applying The Rules**

- Code Formatters
- Style Checkers

## Tools

- Eclipse → Checkstyle
- Visual Studio Code → Prettier

## Literature

- Clean Code (Robert C. Martin)
- ISO C++ Core Guidelines
  - <http://isocpp.github.io/CppCoreGuidelines/CppCoreGuidelines>
- The Zen of Python
  - <https://www.python.org/dev/peps/pep-0020/>

