

A photograph of a blacksmithing process. A glowing red-hot metal bar is being shaped by a large, heavy hammer. The hammer is held by a gloved hand and is in the middle of a downward strike. The background shows a stack of wooden logs and some blurred industrial equipment.

# Software Craftsmanship

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# Agile Manifesto (2001)

**Individuals and Interactions** over processes and tools

**Working Software** over comprehensive documentation

**Customer Collaboration** over contract negotiation

**Responding to Change** over following a plan

# The Hangover





# What's Wrong?

# What's Missing?

- In a software product, the most important deliverable is the software itself



## A Naive Approach to Software Projects

- Well-defined industrial process
- Engineers and Architects
- Developers as factory workers
- More developers, more production
- Monitoring
  - number of lines
  - % comments



## A Software Developper...

- uses **his** knowledge and tools to create a specific product to satisfy a client need
- continuously improve its skills, to become a better developper
- Each developper is different
- ➔ Craftsmanship Metaphor



## Manifesto (2009)

Not only working software, but also **well-crafted software**

Not only responding to change, but also **steadily adding value**

Not only individuals and interactions, but also a **community of professionals**

Not only customer collaboration, but also **productive partnerships**

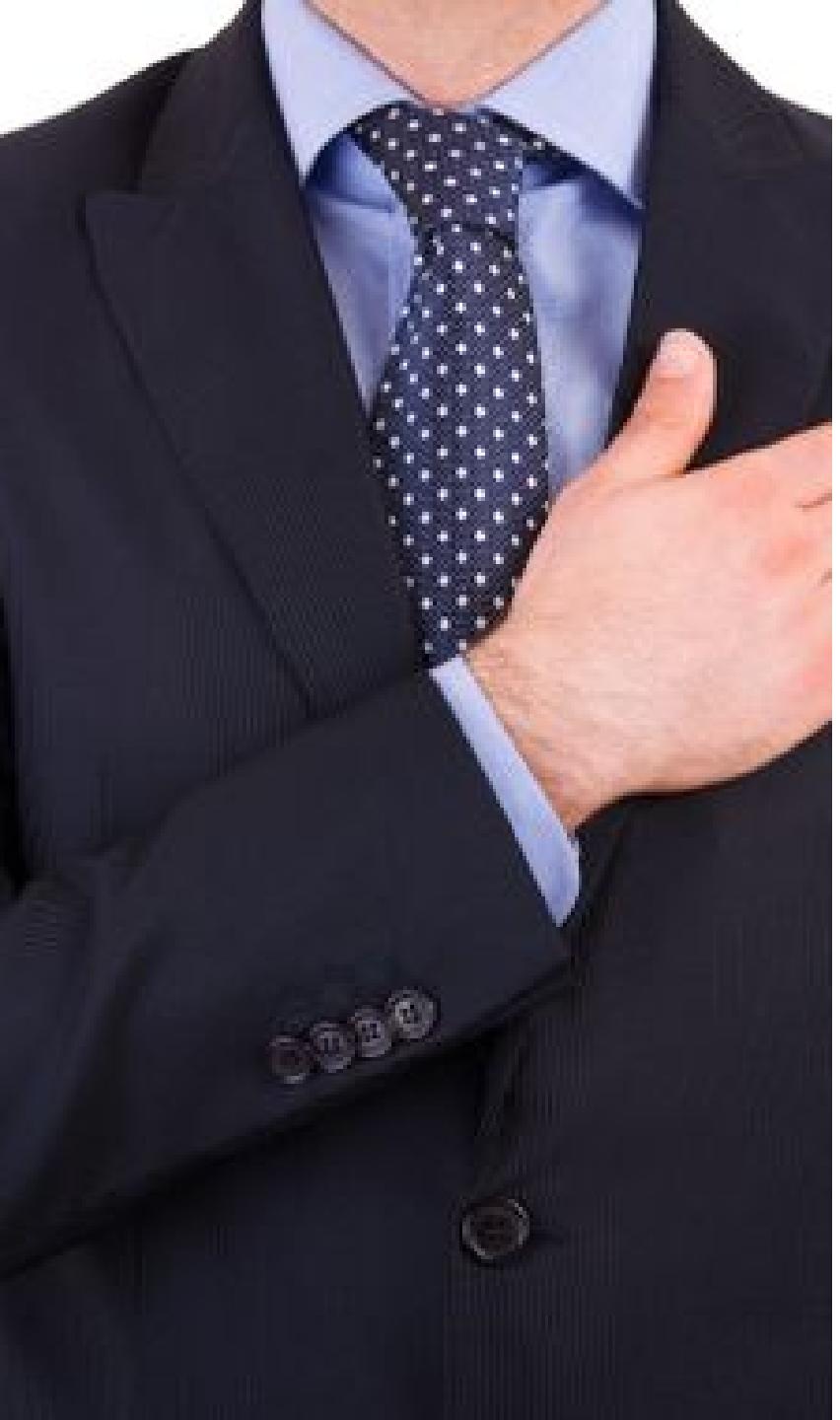


## Software Craftsmanship: A Mindset

“ Software Craftsmanship is all about putting responsibility, professionalism, pragmatism, and pride back into software development.

*Sandro Mancuso, The Software Craftsman, 2014*

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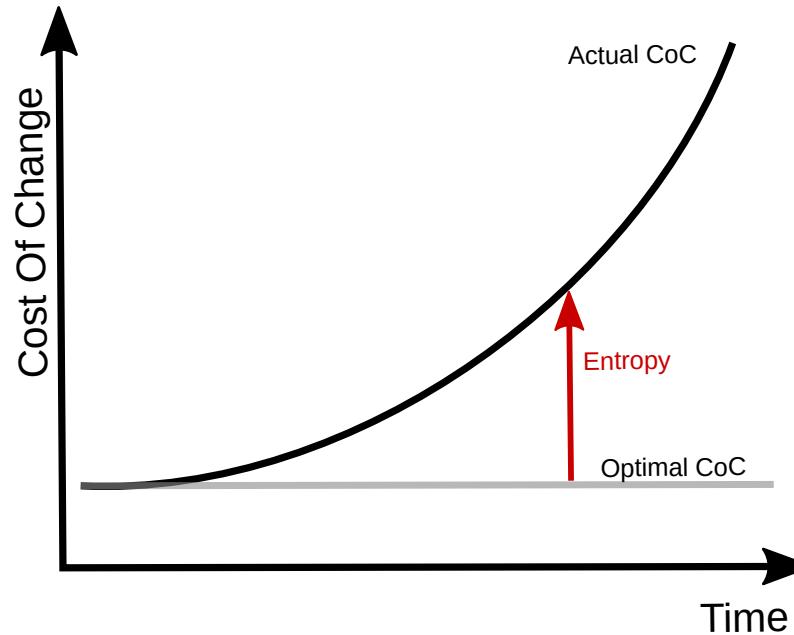


# Mindset and Behaviors

- Never stop learning
- Never stop improving his craft
- Learn how to say no
- Provide options
- Be responsible
- Share your knowledges



# The Invisible Threat



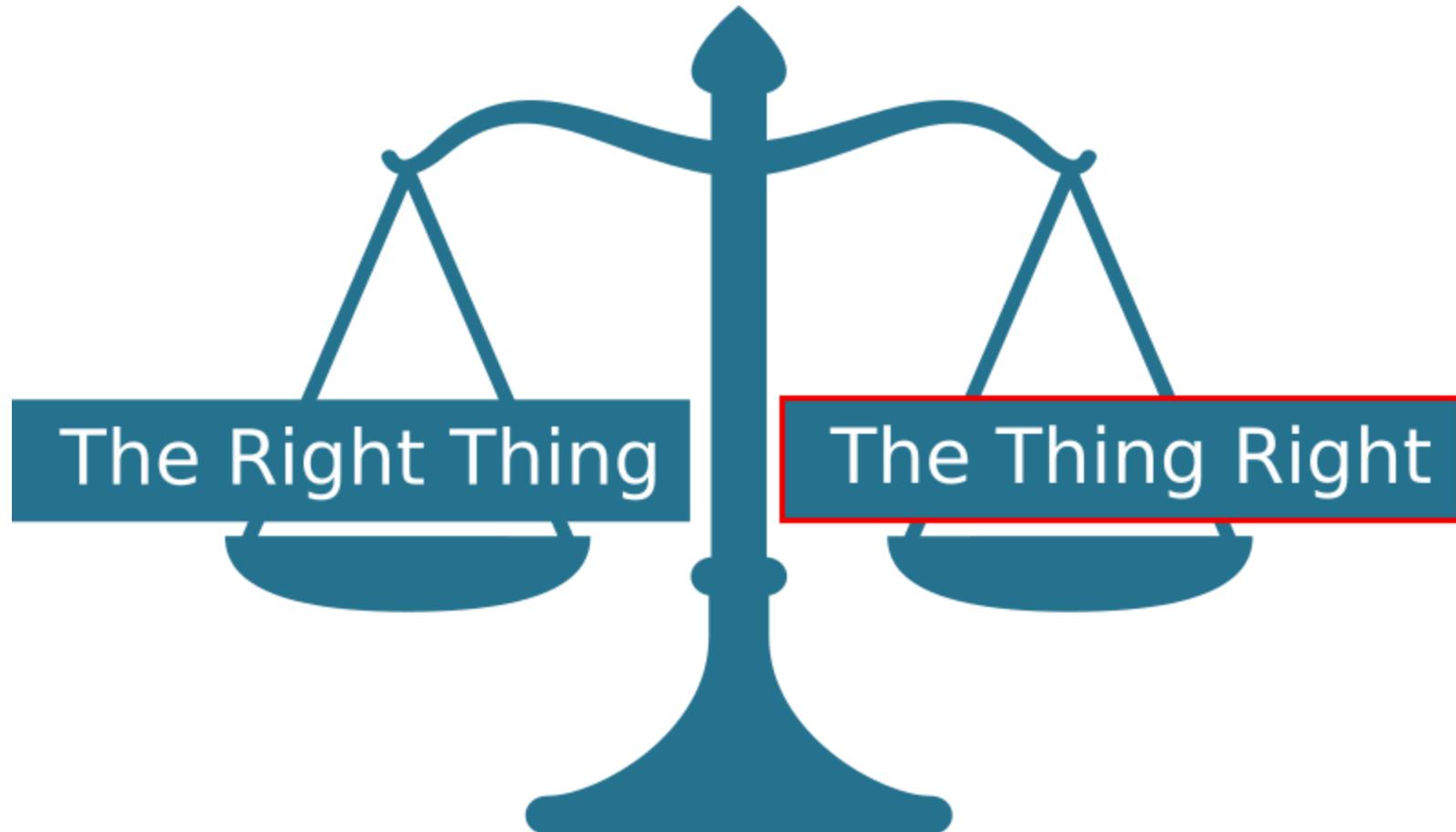
- Software Entropy
  - Complexity
  - Technical Debt



# Technical Practices

- Clean Code
  - Keep It Simple, Stupid (KISS)
  - Boy Scout Rule
  - YAGNI
  - Naming, Coupling...
  - Refactoring
- TDD (Test Driven Developpement)
- Pair Programming

# TL;DR



“ Software Craftsmanship promises to take our industry to the next level, promoting professionalism, technical excellence, the death of the production line and factory workers attitude.”

*Sandro Mancuso*

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# Ressources

- Book "Clean Code: A Handbook of Agile Software Craftsmanship", Robert S. Martin, 2008
- Book "Software Craftsmanship : Professionalism Pragmatism Pride", Sandro Mancuso, 2014
- Conference "The Craftsman's Oath", Robert S. Martin - SCLConf 2018