





# Architecting for Tomorrow

A Pragmatic Perspective

Marcel Schutte @ Devoxx BE 2024

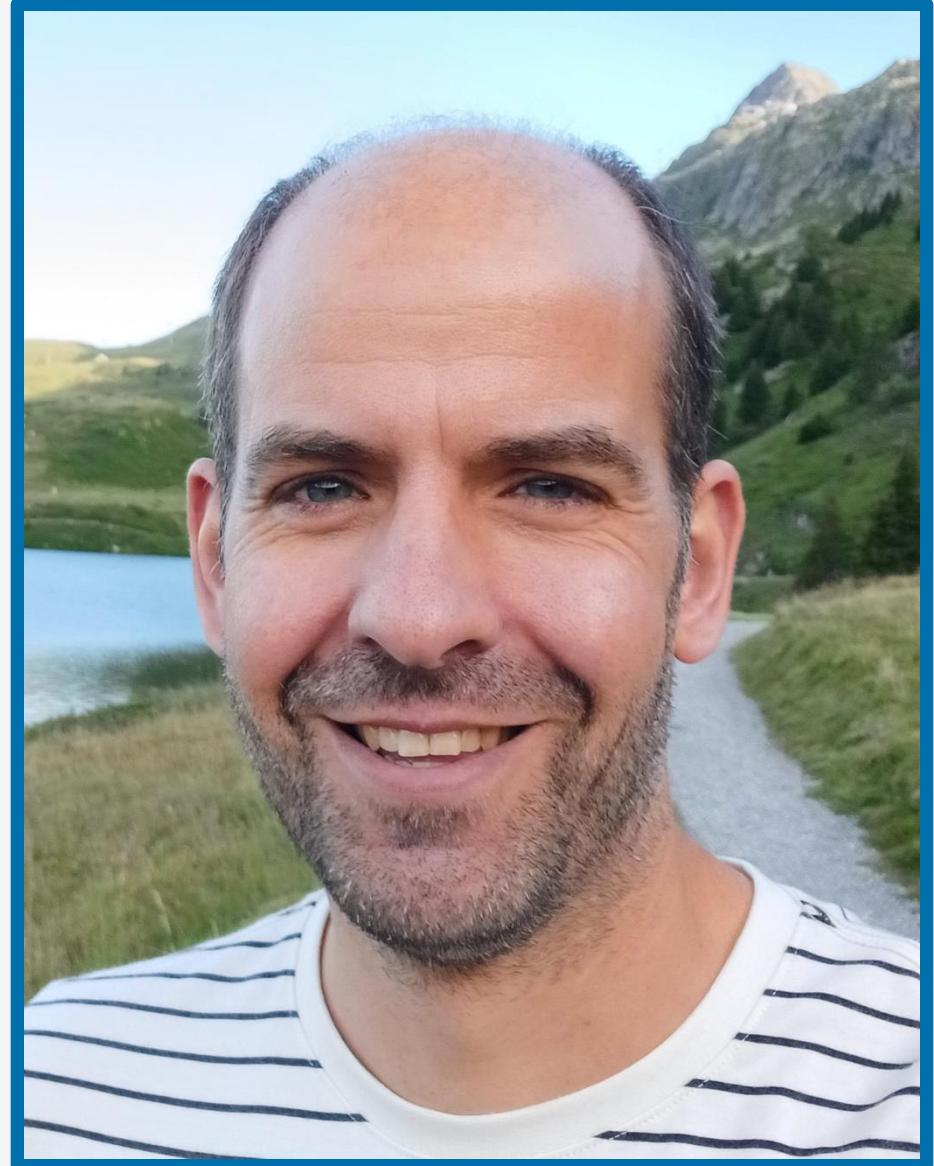




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 @PragArchitect





# Introduction

Times change...

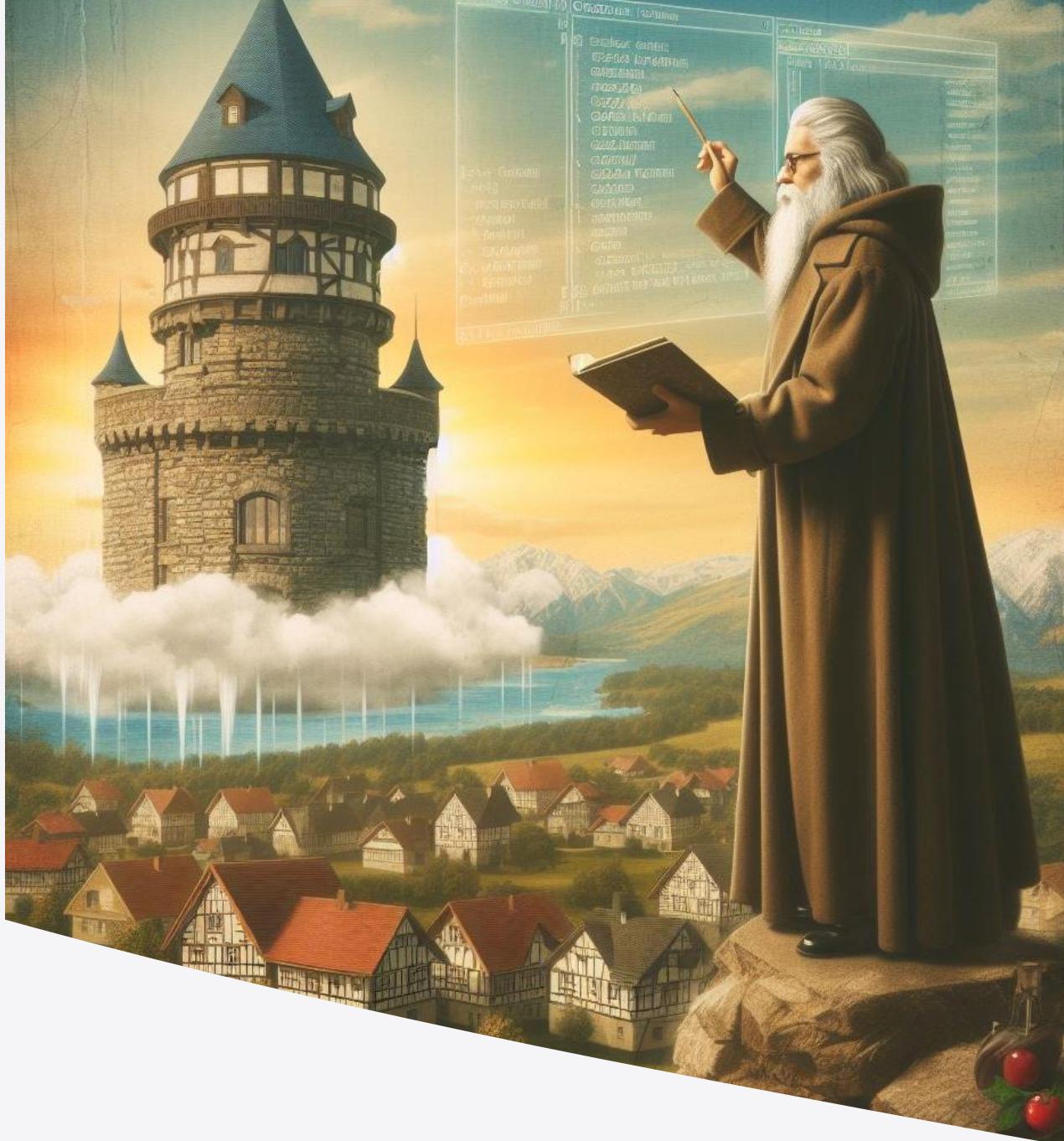


*The role of architects has changed from trying to be the smartest person to making everyone else smarter.*

Gregor Hohpe

# The Ivory Tower

- Detached from everyday development process
- Creating the perfect end product
- Big Design Upfront
- Siloed, up in the Ivory Tower



# Cracks in the Foundation

- Emergence of new technologies
- changing market demands
- Faster release cycles
- Greater adaptability
- Perfect was no longer good enough



# Walls are crumbling

- The rise of Agile
- Emergence of new architectural styles
- Continuous Delivery & DevOps
- Definition of Software Architect evolves



# The Pragmatic Architect

- Guide and facilitator
- Clear direction and guiding principles
- Tools and practices
- Resilient and adaptable architecture



# The Architect as Leader

- Prioritizes collaboration
- Balance stability and evolvability
- Understanding business goals, technical constraints and the evolving software development ecosystem

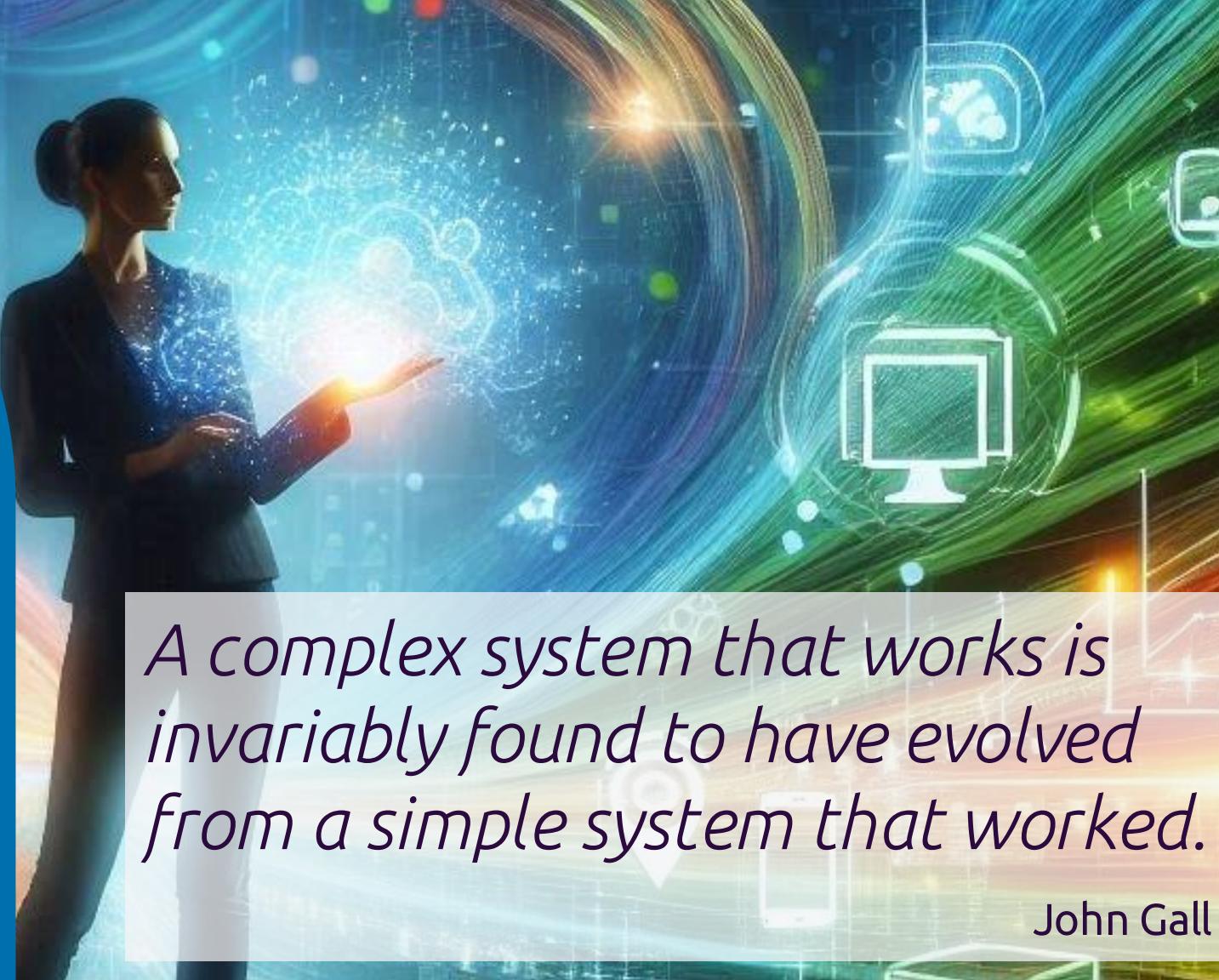


# Evolving Impact, Shape the Future

- Deeper understanding of organizational structures, communication patterns and business drivers
- Leader and change agent
- Connecting the technical with the strategical



# Characteristics Of a Pragmatic Architect



A complex system that works is invariably found to have evolved from a simple system that worked.

John Gall

# Ivory Tower to Collaborative Guide

## Past:

- Isolated figures, focused on creating detailed technical specifications in a top-down manner.

## Present:

- Collaborative and pragmatic approach to software architecture.

## Future:

- Guide and facilitator



# Embracing Change

- Change is inevitable
- Create framework
- Fitness Functions



# Collaboration and Communication

- Prioritize clear and open communication
- Engage with developers, business stakeholders and other architects
- Use tools like ADRs for traceability, transparency and accountability



# Balancing Vision with Practicality

- Technical ideals vs. Real-world constraints
- Elegant solutions that are also practical maintainable and deliver value
- Ultimate goal is to support the success of the business



# Continuous Learning & Adaptation

- Change is the constant
  - Continuous learning
  - Re-evaluate assumptions
  - Learn from their and others experiences
  - Adapt to the ever changing digital landscape



# Skills

Of a Pragmatic Architect

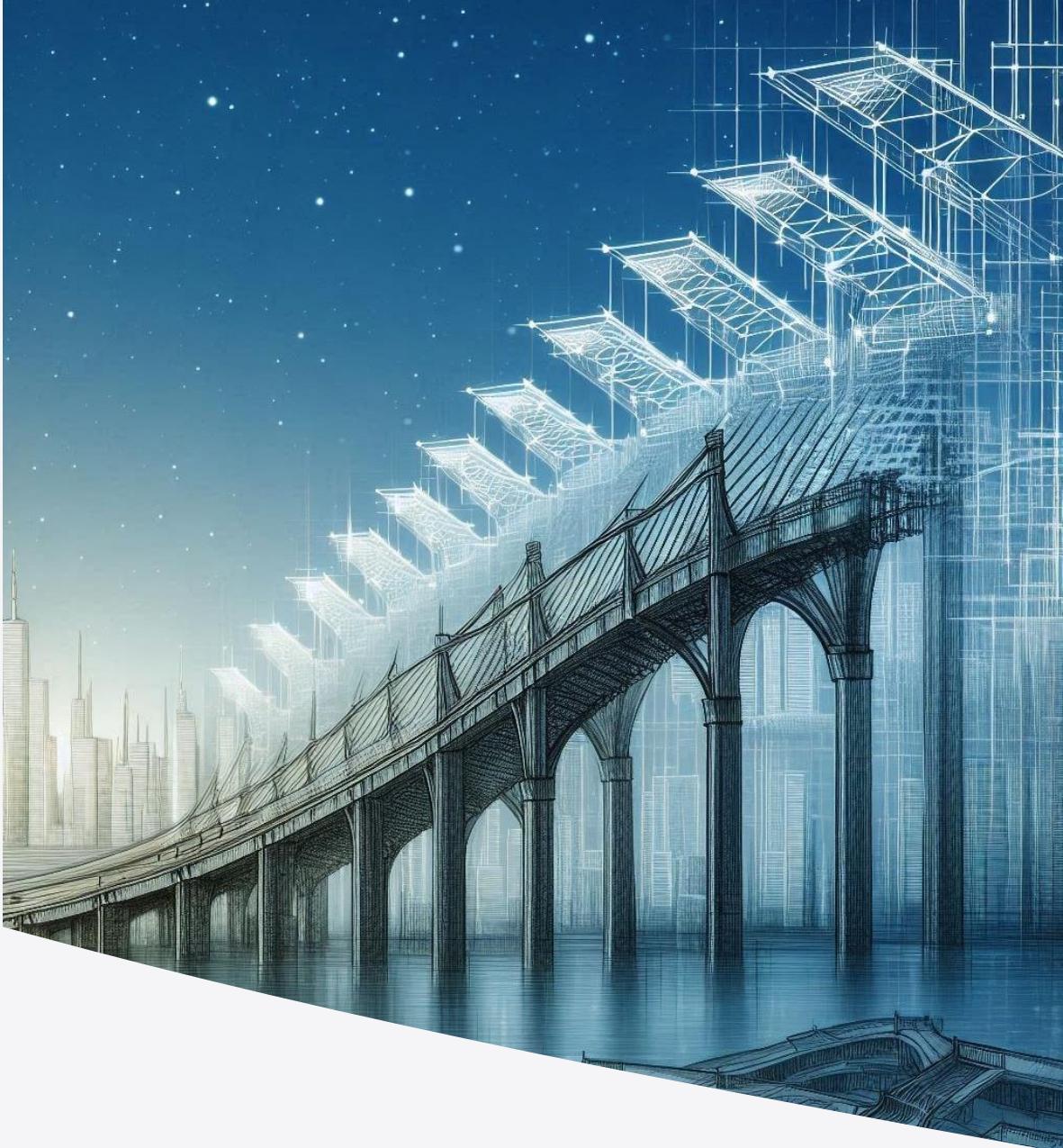


*Omitting noise and focusing on the essence requires abstraction - one of the major skills architects should possess!*

Gregor Hohpe

# Evolving skillset

- More than a technical expert
- Communicators, collaborators, negotiators and leaders
- Essential for navigation complexities of modern software development



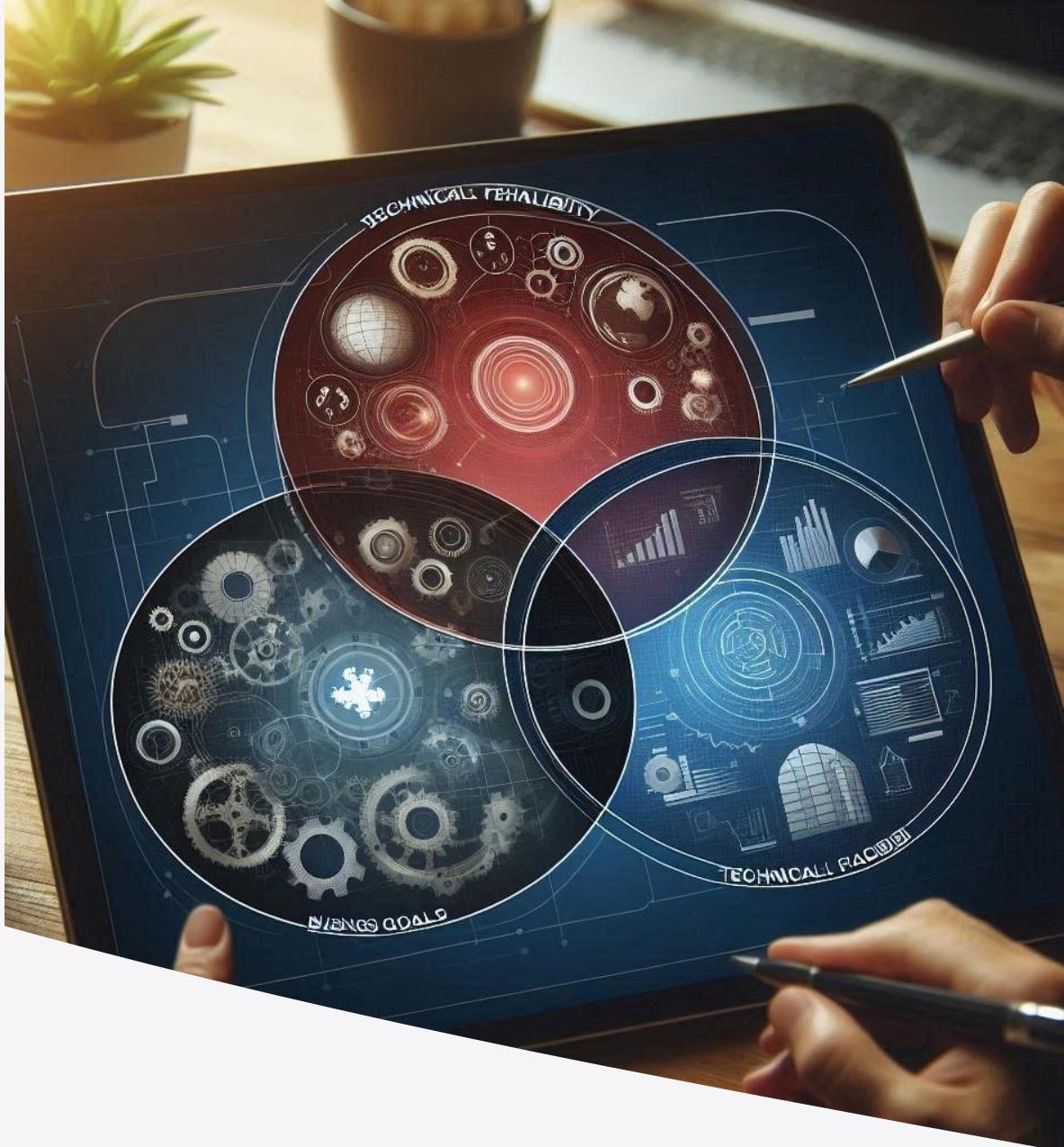
# Communication and Collaboration

- Bridge the gap between technical and business worlds
- Clear concise communication is key
- Visual aids, real-world examples, and jargon-free explanations



# Negotiation and Facilitation

- Mediate between stakeholders
- Active listening
- Identifying shared goals
- Exploring compromises
- Solutions that balance business needs with technical realities



# Guiding Architectural Vision

- Inspire and empower
- Clearly communicate vision and the “why”
- Foster culture of learning
- Encourage experimentation and adaptation



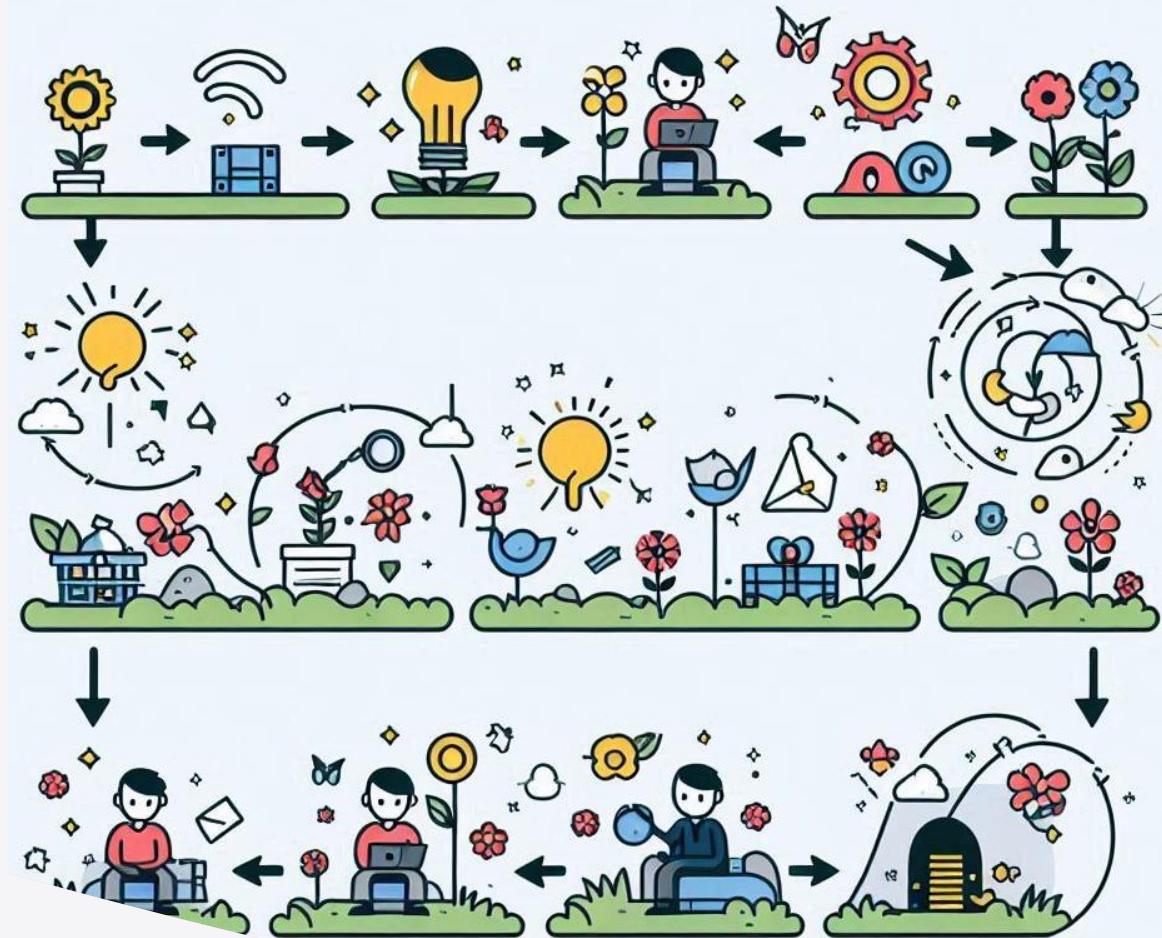
# Embracing Evolutionary Design

- Continuous process of evolution
- Design adaptable systems
- Prioritise modularity, loose coupling and well-defined interfaces



# The Power of Storytelling

- Using narratives to communicate complex ideas
- Can help understand the “why”
- Use case scenarios, success stories, failure stories are powerful ways to convey architectural vision



# Adaptive decision making

- Decisions based on incomplete information
- Involves gathering information, evaluating options, making informed choices and iterating based on feedback
- Architectural Decision Records
- Experimentation and learning



# Tools

Of a Pragmatic Architect



*The tools we use have a profound influence on our thinking habits, and, therefore, on our thinking abilities.*

Edsger Dijkstra

# The Toolkit of a Pragmatic Architect

- Diverse toolkit
  - Software, methodologies and frameworks
  - ADR's, Fitness Functions and Diagramming tools



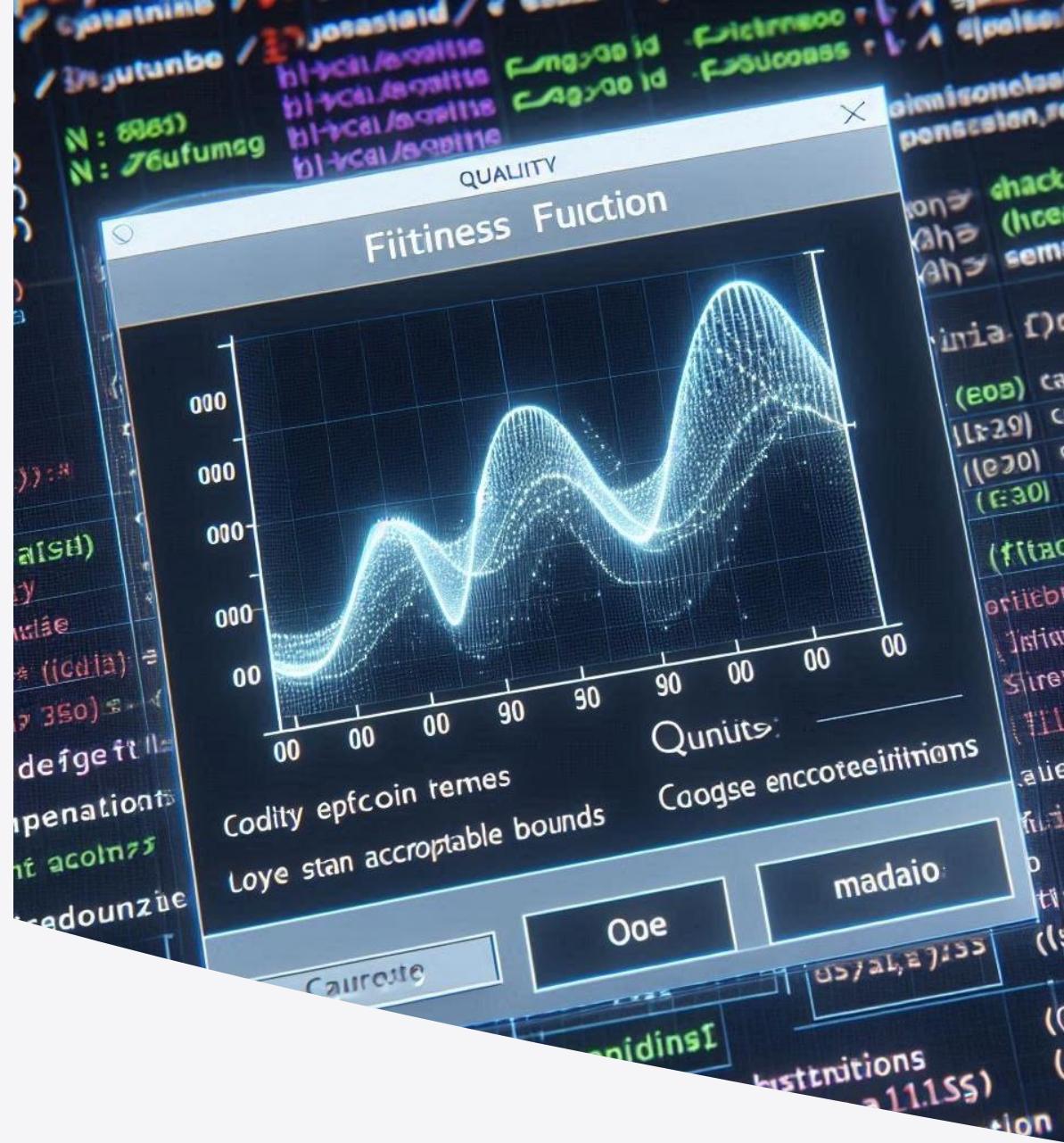
# Documenting the 'Why'

- Architecture Decision Record
- Ensure traceability, preserve the rational behind choices
- Standard template
- Markdown
- Version control



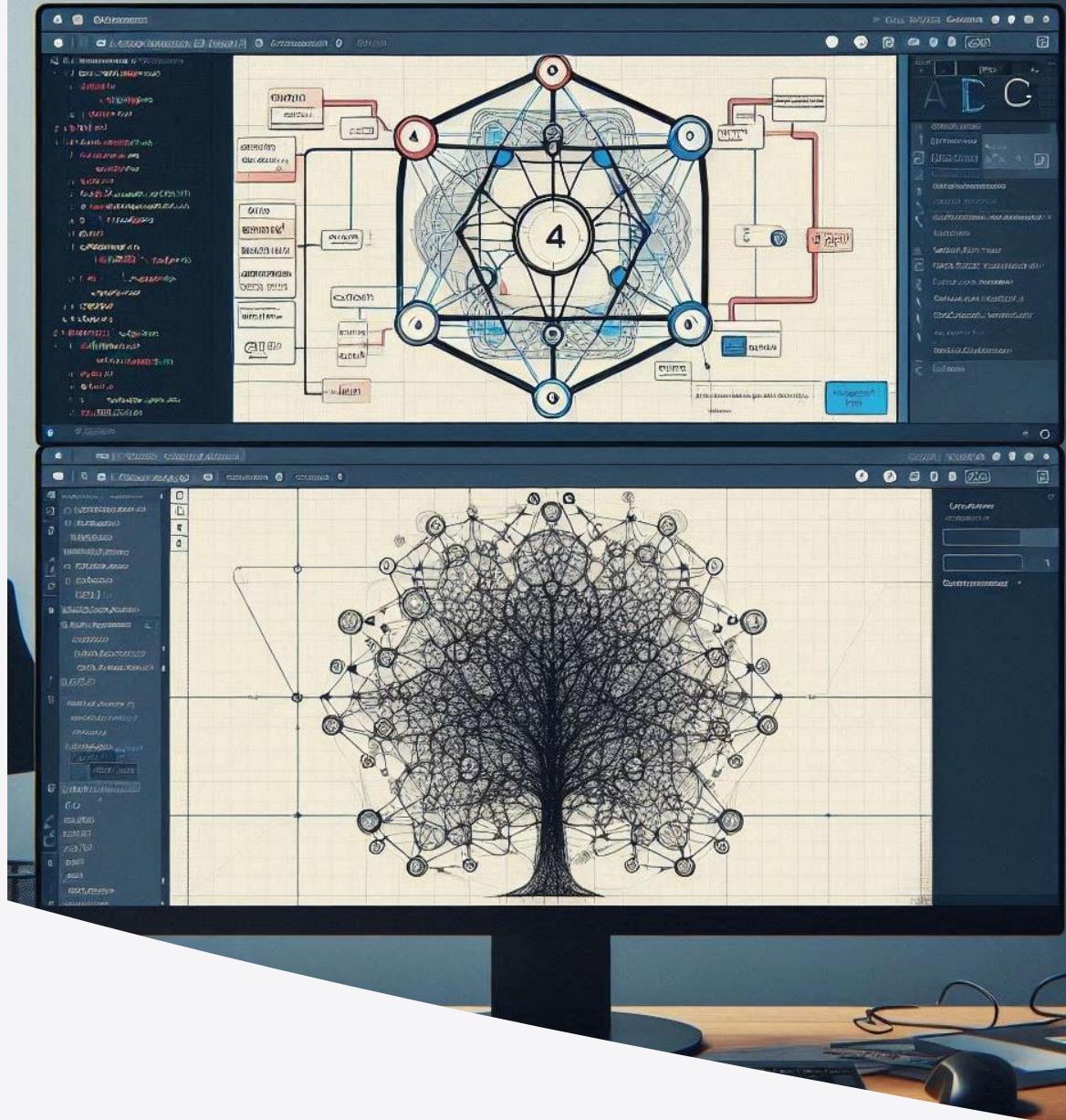
# Fitness Functions

- Automated guardians of architectural characteristics
- Monitor codebases for violations of architectural principles



# C4 - Communicating Your Vision

- Clear and Concise diagrams
- Lightweight and effective diagramming
- Different levels of detail
- Technical and non-technical



# C4 & Structurizr

- Create and manage C4 models
- Structured and maintainable
- Textbased
- Version control
- Empowers agile development teams to maintain accurate and up-to-date documentation



A photograph of a modern building's glass facade. The glass panels reflect the bright blue sky and scattered white clouds. The perspective is from below, looking up at the building's corner.

# Pragmatic Architect

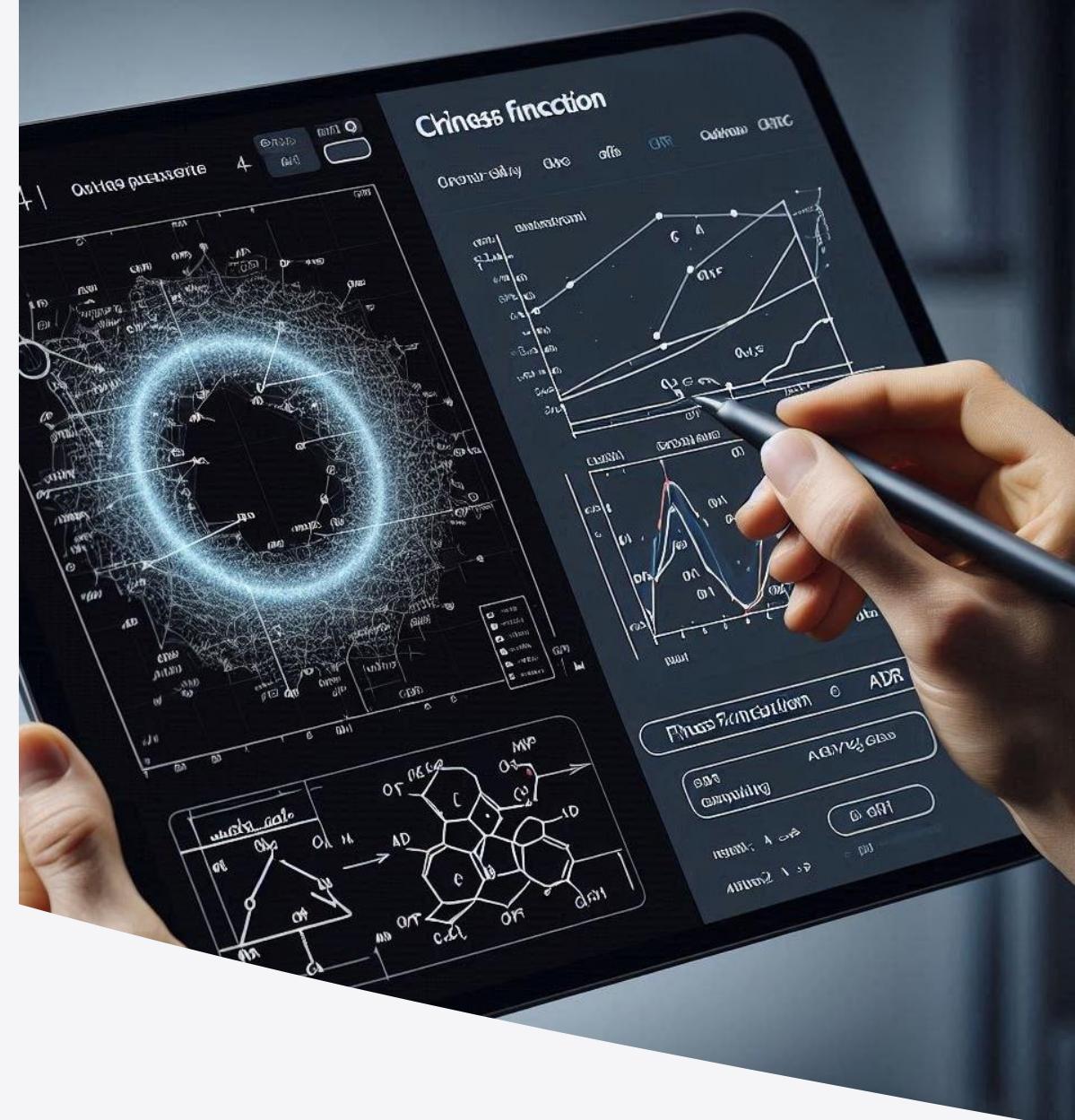
# A Bridge Builder and Guide

- More than code
- Bridging Worlds
- Guiding Vision
- Storytelling for Success



# From Decisions to Visualisation

- Documenting Decisions
  - Guiding Evolution
  - Visualising Complexity
  - Agile Documentation



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# Pragmatic Architect

# Thank you for your attention!

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<https://github.com/marceljschutte/slidedecks>

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