Swiss leaders in requirements engineering research + practice
Improving Requirements Engineering in Dynamic Environments

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Employment

• Fuchs-Informatik AG:
  Senior Consultant

• University of Zurich:
  Senior Research Associate

• FHNW:
  Lecturer

Current Research Projects

• Standardization of Education in Software Product Management
  http://certified-spm.org/

• Requirements Communication in Software Ecosystems and in WTO-Regulated Tendering
  http://www.ifi.uzh.ch/rerg/research/handshaking
Stylized Context of a Development Project

Stylized Context of a Development Project

Requirements Communication (from Product Mgr to Dev Team)
Requirements Communication

Requirements Communication

Challenges

• Project Customer:
  • How can I assure that the project team delivers an acceptable solution, already with the first attempt?

• Project Team (Supplier):
  • How can I get the needed inputs for architecting and designing an accepted solution, even if requirements are of low-quality or not even existing?

• Steering Committee:
  • How much effort needs to be invested in requirements engineering?

Push: High-Quality Requirements Specification

Pull: Requirements Elicitation and Validation

Is she really so passive?

Customer

Supplier

Specification

Do things really need to be so complicated?

Proactive Balanced:
QFD, Easy-WinWin

Reactive Balanced: Agile Development

How can you scale up if you implement first?

Customer

Supplier

Specification

Software

None of these approaches really delivers.
The Requirements Value Chain: Nokia

Customers communicate needs upwards the chain. Suppliers communicate capability downwards the chain.

How do you efficiently and effectively ensure usability?
Is production a concern? Why is it not integrated?
The Requirements Value Chain: Nokia

Are these mere implementation resources? How can they contribute to product innovation?
The Requirements Value Chain: A Fortune500 Company „F500“

Customers communicate needs upwards the chain.

Suppliers communicate capability downwards the chain

Senior Product Manager receives too little information about market needs.
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How should requirements engineering and the value chain be changed to address such problems?
Reflections on Impact

Did you encounter similar challenges?

• How much effort was wasted?
• How many people were laid off?
• How much potential product value was not utilized?
Questions

How might requirements engineering be improved?

• What are the minimal documentation requirements and optimal communication media?

• How do we ensure that the interests of one side of the value and production chain (users, customers, etc.) are properly addressed by those on the other side (developers, suppliers, etc.)?

• What collaboration models or processes can be employed?
Agenda

• 15 min    Plenary: Introduction to the Question
• 45 min    Breakout Sessions: Discussing the Question
• 30 min    Plenary: Sharing Opinions
• end       Summary and Conclusions
Thank you!

Please join the Swiss RE knowledge network if you are interested in collaborating with us:

www.anforderungen.ch