

Capturing the stakeholders' needs in Requirements Engineering

Jann Sigrist, Michael Imhof, Raphael Schär

Stakeholders

"People do not want to sit back and be told how they should deal with your company. They want to decide for themselves."

[Robertson, 2002]

"Project stakeholders—those who affect or are affected by the software—have diverse and even conflicting needs and viewpoints."

[Gottesdiener, 2003]

Elicitation Techniques

- Various techniques to elicit requirements
 - Interviews
 - Protocol analysis
 - etc.
- Beyond the scope of this presentation (covered by group A)

Agenda

1. Contextual design
2. Inquiry Cycle Model
3. Workshops
4. Conclusion

Agenda

2. Inquiry Cycle Model
3. Workshops
4. Conclusion

Contextual Design

- what do customers need and how is the system to be designed **à** agreement
- 6 techniques:
 - Contextual Inquiry
 - Work Modeling
 - Consolidation
 - Work Redesign
 - User Environment
 - Mockup and Test with Customers

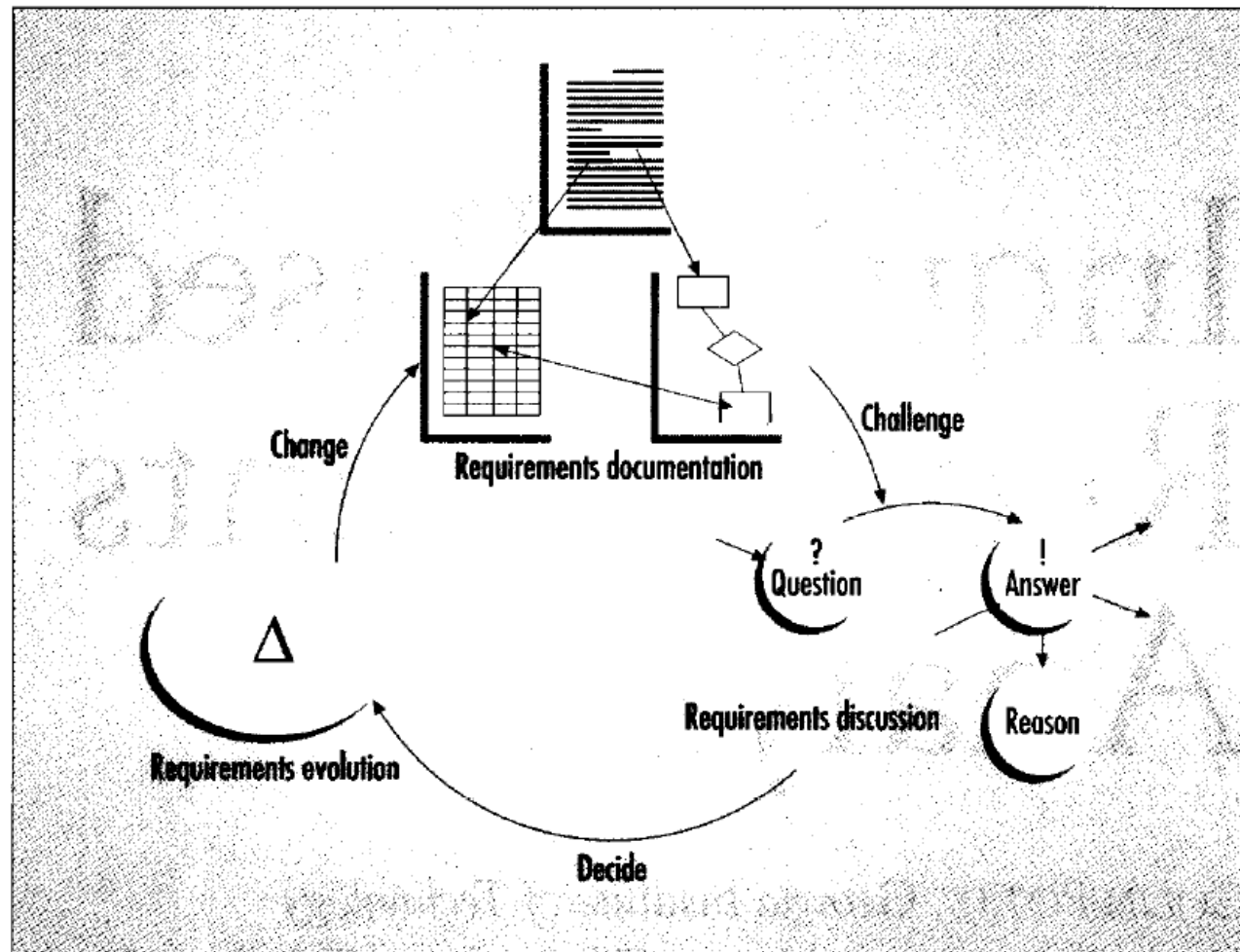
Agenda

1. Contextual design

3. Workshops

4. Conclusion

Inquiry Cycle Model



Inquiry Cycle Model - Phases

- Requirements documentation
 - Scenarios, implementation constraints, requirements themselves
- Requirements discussion:
 - Questions
 - Answers
 - Reasons
- Requirements evolution
 - Commitment to either freeze or change a requirement

Inquiry Cycle Model

- Reviewing existing artifacts (artifact-based approach)
- Shortcuts possible
- Evolution: mutation, restriction, editorial change requests
- Scenarios useful
- Tool support

Agenda

1. Contextual design
2. Inquiry Cycle Model

4. Conclusion

Workshops

- "...efficient, controlled and dynamic setting where you can quickly elicit, prioritize, and agree on a set of high-quality project requirements." [Gottesdiener, 2003]

Workshops - Roles

- Project sponsor
- Product champion
- Users
 - Direct
 - Indirect
- Advisors
- Suppliers

Workshops - Phases

- Forming
- Storming
- Norming
- Performing
- Adjourning

Workshops - Guidelines

- Elicit and then resolve everyone's concerns
- Facilitator to plan and lead
- Structure the workshop around a set of agreed-upon deliverables
- Work iteratively
- Explain everyone's role ahead of time and assign "prework" based on individual roles
- Plan to complete certain tasks ("post-work") after the workshop
- Allow enough time for the team to reach closure on a subset of important deliverables

[Source: Gottesdiener, 2003]

Agenda

1. Contextual design
2. Inquiry Cycle Model
3. Workshops

Conclusion

- Various methods to capture stakeholders needs
- Each method has pros and cons.
- Method to be chosen and customized depending on project

Backup-Folien

Contextual Inquiry

- Reveals the details and motivations in people's work
- Makes the customer and their work needs real to the designers
- Introduces customer data as the basis for making decisions
- Creates a shared understanding of the data throughout the team

[Source: Robertson, 2002]

Work Modeling

- Provides a language for talking about work that can be shared across teams
- Shows structure of work and makes data from interview coherent
- Grounds the team conversation in explicit representations

[Source: Robertson, 2002]

Consolidation

- Provides a map of the customer population
- Makes sense of vast amounts of qualitative data quickly
- Identifies the needs of the customer
- Shows underlying structure of work across customers without losing variation
- Results in corporate data that can be reused by future projects

[Source: Robertson, 2002]

Work Redesign

- Focuses the team on improving work, not delivering technology
- Ensures that systems, business alliances, and services fit into the customer's overall work practice
- Collects and integrates ideas from the whole team

[Source: Robertson, 2002]

User Environment

- Maintains coherence of the system from the user's point of view
- Captures the structure, function, and flow of the system
- Focuses the design team on what the system does, not the user interface or implementation
- Allows for planning and keeps team members focused on the whole system, not just their part

[Source: Robertson, 2002]

Mockup and Test with Customers

- Finds and ~~fixes~~ errors in the new design before any commitment to code
- Makes users a design partner in developing the new system
- Shortens arguments in the team through a quick way to resolve disagreements
- Keeps the team from arguing over user interface detail before the basic structure is right

[Source: Robertson]

Inquiry Cycle Model - Discussion

