

Tools for Requirements Elicitation and Analysis

Gruppe 1

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Agenda

- Mobile technology for elicitation
- Tools for GUI design
- Influence of process on tool choice
- Summary

Use of Mobile Technologies in Requirements Elicitation

- enable analysts to understand stakeholder needs in their work context
- requirements are captured where they appear - in the workplace of the future system user
- software applications can be applied anywhere at any time
- options of applicable mobile technologies
 - general-purpose tools that come with mobile devices
 - mobile web logs
 - examples: ARENA-M, Mobile Scenario Presenter

Advantages of Mobile Technologies in Requirements Elicitation

- use of mobile technologies does not distract stakeholders from their work
- analyst can adopt a focus and ask stakeholders relevant questions
- actors can be directly questioned in the workplace

Limitations of Mobile Technologies in Requirements Elicitation

- usability challenges
- infrastructure problems

Tools for GUI design

- Pencil and paper
- Analysis and modeling tools
- HTML editors
- ...

→ tools that :

- Are relatively simple
- Encourage communication
- Allow for creativity

Tools for GUI design

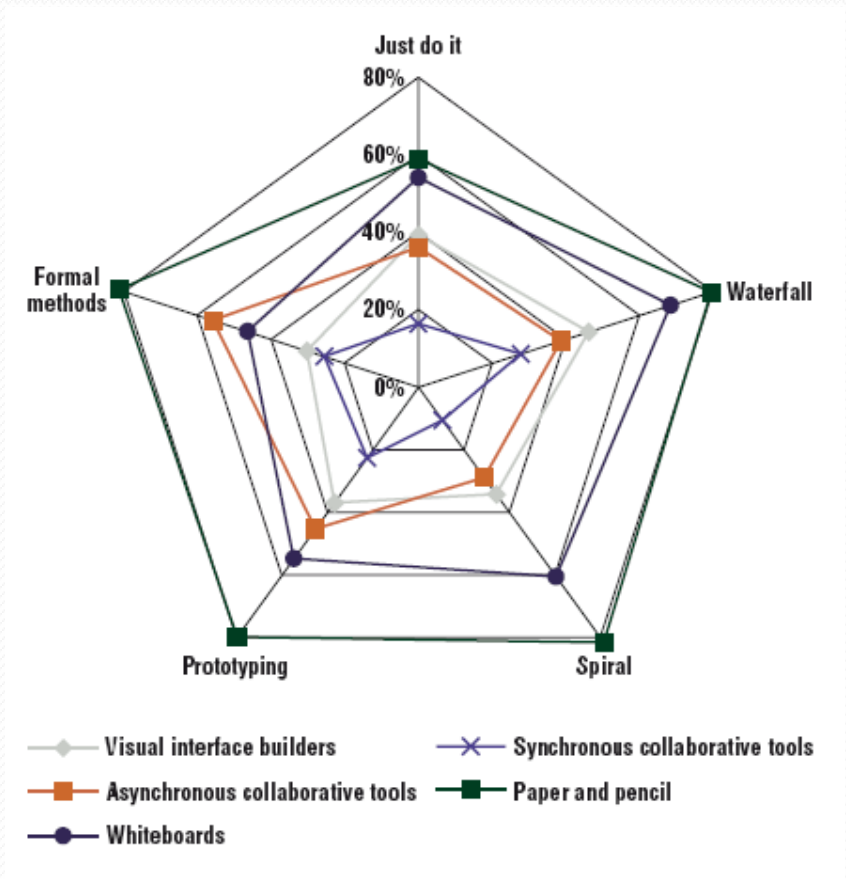
- Campos & Nunes, 2007
 - Users switch between workstyles
 - Need for a tool that provides different views
 - Proposed tool with several views :
 - UML class diagram
 - Canonical abstract prototype
 - HTML prototype
- (Demo)

Influence of process

- The used development process influences the best tool choice
- Case studies validate that the productivity of tools depends on the used development process [Bruckhaus, et al.]
- Rule of thumb:
Tool use in simple process decline the productivity
Tool use in complex process enhance the productivity

Influence of process

- Examples [Campos, Nunes]:
- Avg. 20% less tool use in “Just do it”-processes
- Highest tool use with formal methods



Summary

- Mobile technologies can be useful to help elicit requirements but have to have some problems (infrastructure, usability,...)
- RE-Tools help to analyse and show different views in GUI developing
- Usefulness of RE-Tools depend on the used development process