Managing the Agile Process of Human-Centred Design and Software Development

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Outline

• Introduction
• Influences
  • Agile Software Development
  • Human-Centred Design Process
  • Process Patterns
• Existing Approaches for Combining Ideas
• Own Approach
• Summary & Outlook
Introduction

• Software is still developed by two different communities
  • Software engineers
  • HCI specialists
• Idea of agile software development is accepted by both communities
• A joined vision of the development process is still missing
• Tool support would be appreciated.
Influences of Agile Software Development

Focus on a Specific Approach - SCRUM

http://en.wikipedia.org/wiki/Scrum_software_development
HUMAN-Centred Design Process
ISO 9241 – 210

https://thestandardinteractiondesignprocess.wordpress.com/
Usability Engineering Repository (UsER)  
(University of Lübeck)

**Tool support for HCD**
Agile Usability Patterns for UCD Early Stages

(Bertholdo et al. [2], In Marcus A. (Ed.) DUXU 2014 Part I; LNCS 8517, pp. 33 – 44.)

• **Sprint Zero**
  • ”A short Sprint before the code implementation to define a broader view of the product, general goals, to roughly plan the next sprints and to define design principles” because of “Missing the big picture of the system in the beginning ....”.

• **One Sprint Ahead**
  • ”The UX team works at least one iteration ahead of the development team” because of “Making the development and the UX team synchronized, that both can collaborate and provide input to the development workflow”.

• **Parallel Tracks**
  • “UX or usability team work in a parallel track with the development team in order to synchronise their activities”.

Agile User-Centred Design Process
(Paelke et al. [5])
Suggested Human-Centred Design Process for SCRUM
Suggested Human-Centred Design Process for SCRUM

1. Plan the HCD-Process
2. Collect Requirements
3. Understand and Describe the Current State
   - [user model, task model, context model, interconnection model]
4. Evaluate Solutions
   - [evaluation, annotations]
5. Specify Requirements
   - [goals, requirements]
6. Produce Solutions and Refine Requirements
   - [interface/interaction design, requirements]
7. Iterate appropriately

Needs

Product Backlog
Summary and Outlook

Summary
• Agile Development (SCRUM), HCD & Agile Usability Patterns
• Tool support for HCD (Usability Engineering Repository - UsER)
• Combination of UCD & SCRUM
• Combination of HCD, UsER & SCRUM

Outlook
• Evaluation with project partners
• Inclusion of ideas of the workshop
  • e.g. UX in game development
Thank you very much for your attention!

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