Human factors & Agile process

SYSTEEMONTWIKKELPROCES VERSUS USER-CENTRED DESIGN?!

DR. MICHEL VARKEVISSE
ENGINEERING PSYCHOLOGIST
THALES RESEARCH & TECHNOLOGY
Gas leak reported in pipeline ZSD20-R.

Where is that?!
This is pipeline indicator ZDS21-R.

Pipeline indicator is ZSD20-R here.
≠ safer or more efficient
AGILE (SCRUM)

SCRUM high level process

- DAILY SCRUM
- SPRINT REVIEW & RETROSPECTIVE
- POTENTIALLY SHIPABLE PRODUCT INCREMENT

PRODUCT BACKLOG
- SPRINT PLANNING
- SPRINT BACKLOG
- 24 HOURS
- 2-4 WEEKS
Problems with Agile (SCRUM)

- Agile is good for refining, not defining
- System/software development from day 1
- Use cases/scenarios
- Homogenous teams
- Bird’s eye view
- Iterative process?
HF process (simplified)
AGILE UCD: proposed process
AGILE UCD: Deliverables

- Goal(s) definition
- Current operations
- Black box solution

- Covering part of scenario
- Technological solutions
- Environmental embedding

- Wireframe/Mock-up
- Look/feel of solution
- (Low) Fidelity simulation

- Contextual reqs
- User reqs (non-functional)
- System reqs (functional)
Example CZman

Scenario

- Use Cases
  - kick-off meeting
  - workshop 1
- Design
  - building scenario's
  - interface brainstorms

Build

- Reqs
  - Peregrine Sword
  - feedback 1
  - feedback 2
  - start implementation
  - design detailing
  - design improvements
  - requirements
  - interface walkthrough
- Test/Validate
  - pilot
  - interface walkthrough
  - workflow scenario's
  - recommendations
  - experiments

TEAM END-USERS

June

August

September

October

November

December

January

February

March

April
First sketches

Primary screen
Map based

Secondary screen
Information based
After 1st workshop/brainstorm
After 2nd workshop
Experiment
Recommendations
Lessons learned

- Heterogenous team
  - Researcher / designer / software architect + developer + sales person
- Think, plan, do!
- Agreement in team about scenario
- Dare to brainstorm (divergence / convergence)
- Try out & validate multiple concepts