CENTRIC / ICSNC Panel

Applying User-centered Approaches in a Technology-driven World: Indispensable Premise or Dazzling Promise?

Moderator
Stephan Böhm, RheinMain University of Applied Sciences, Germany

Panelists
Till Halbach, Norwegian Computing Center, Norway
Lasse Berntzen, Vestfold University College - Tønsberg, Norway
Colin Potter, Defence Science and Technology Laboratory, UK
James Granger, Technology Survey Group/Department of Defense, USA
Stephan Böhm, RheinMain University of Applied Sciences, Germany
User Centered Design (UCD) is a dazzling promise but ...

TODAY:
User-Centered Design
(e.g. ISO 9241, SAP)

PAST:
Waterfall Model
(e.g. Royce 1970)

Development Models

Picture Sources: http://projectcommunityonline.com/wp-content/uploads/2012/06/developmentprocess1.gif,
(How) Can UCD be successfully used to produce real innovations?

- Google Glass (Head-mounted Display)
- Gear, Samsung (Smartwatch)
- MYO, Thalmiclabs (Muscle Activities)
- Muse, Interaxon (Brain Sensing)
- Google Glass
- Gear, Samsung
- MYO, Thalmiclabs
- Muse, Interaxon
(How) Can UCD be used to develop innovative products that require the user to change habits or behavior?

„The telephone that Alexander Graham Bell had invented was exhibited at the Centennial Exhibition in Philadelphia in 1876, but it aroused little more than curiosity.

For quite some time, it was regarded generally as a mere scientific toy, and there is no occasion to wonder at this when we consider the crudity of the early instruments.“

Herring/Gross 1936: 46
(How) Can UCD be applied for the development of “low-cost software” with small budgets?

Source: VisionMobile

(How) Can we use UCD tools to reflect complex (mobile) usage contexts?

Picture Sources:  
(How) Can we better align user needs and corporate requirements?

Sources:  
http://www.cio.com/article/739940/Look_at_Risk_Before_Leaping_Into_BYOD_Report_Cautions,  
http://blog.matrix42.com/content/consumerization-it-nothing-new
“[…] Some of these studies have found that research findings are often couched in jargon, are overly technical, and are sometimes simply irrelevant to practitioners.

Authors attribute the problem to “academics’ ignorance of business realities”, to an apparent lack of understanding of real-world problems or to the way these are tackled in the practitioner community.

Others have found that practitioners appreciate and recognize the value of theory-driven research, provided its relevance is made clear to them.

In their self-defense, researchers point out that “as soon as you start doing something for the industry, it’ll become applied and it won’t have the same kind of academic value and that there are no rewards for applied work when it comes to salary and promotion.”

Prof. Dr. Stephan Böhm  
RheinMain University of Applied Sciences  
Media Management  
Unter den Eichen 5  
65195 Wiesbaden, Germany  

stephan.boehm@hs-rm.de
The Sixth International Conference on Advances in Human-oriented and Personalized Mechanisms, Technologies, and Services

Colin Potter
Conference Panelist

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Background

- Nearly forty years of Engineering experience
- In the computer business since 1982
- Worked for Kodak, Raytheon, BAE Systems, IBM, Lockheed Martin, Sun Microsystems
- Now working at Defence Science and Technology Laboratory supporting MOD procurement of complex systems
Issues facing user centric development and testing of defence systems

• Extended development lead times
  – Normally measured in years
  – Could be decades for safety critical systems

• More and more complexity on the battlefield
  – but systems need to be simple to use under all conditions

• More integration of systems
  – major players tending to be system integrators, with development being done several steps removed
  – almost no interaction with the end user
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Lasse Berntzen
Vestfold University College
User Centric Design is about getting the users involved in all stages of the product/service lifecycle.

Need to learn from the users in order to be a good designer.

Users also need to learn from designers (limits, thinking etc.).

User-centricity is a mindset.
User centric design is not obvious, many projects fail.

Users may not know the best solution, therefore:

- Observe users in real settings
- Validate results through prototyping or other techniques
Users

- Users are diverse.
- Include all categories of users in the product/service lifecycle.
- Accessibility etc. (Inclusive design).
Quantity vs. quality.

Small number may not be bad.

But inclusion of all categories of users are important.
Colin gave a good example: Playstation generation may have other user interface requirements than the “old school”.

Universities need to teach soft skills, let students work with users.
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Setting

- Customer-driven projects
- Process-driven projects
- User-centered design
Where's the focus?
Optimization problem
Key take-aways

1. UCD + Inclusive Design = true
2. Automated → expert → user testing
3. 4+ development stages
Till Halbach
Norwegian Computing Center
Mail: till.halbach@nr.no
Twitter: tillhalbach
Web: nr.no