

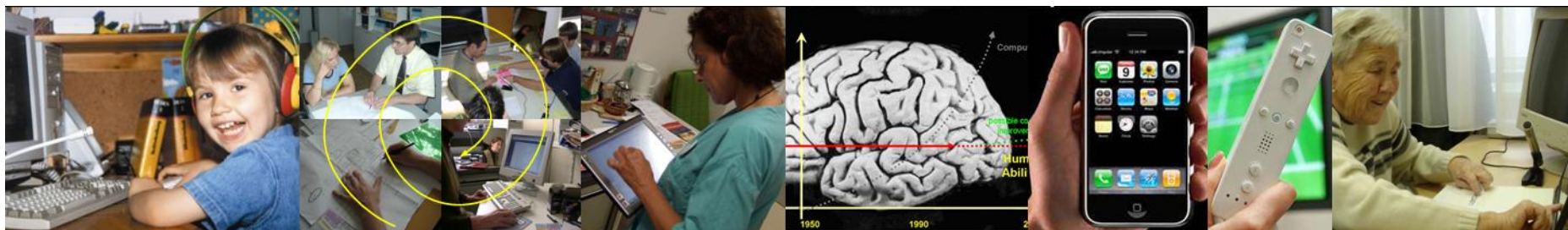
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AK HCI: Applying User-Centered Design

706.046, 5 ECTS

Graz, Mo, 19.04.2010, 14:00 (s.t.)

<http://hci4all.at/projects4students.html>





- Today, we will learn a little bit about **agile usability methodologies** ... in order to provide a good fit between end user and application
- ... you present your practical project (introduction and motivation, background and related work, ...)
- However, repetition first ...

- How do you proceed within the UCD process model?
- What is the difference between Inspection Methods and Test Methods?
- What can be measured can be done ... but what *can* we measure in Usability Engineering?
- Why do we need models of Human Information Processing?
- Why is attention the most important human issue?

- Software development is facing melting budgets and shorter time to markets
- Engineering processes have to come up along with new user interface design approaches
- Guarantee quality in terms of functionality, reliability, usability and user performance (UP) and user experience (UX)
- Design with special end user groups, e.g. medical professionals, children, elderly people etc. is additionally difficult

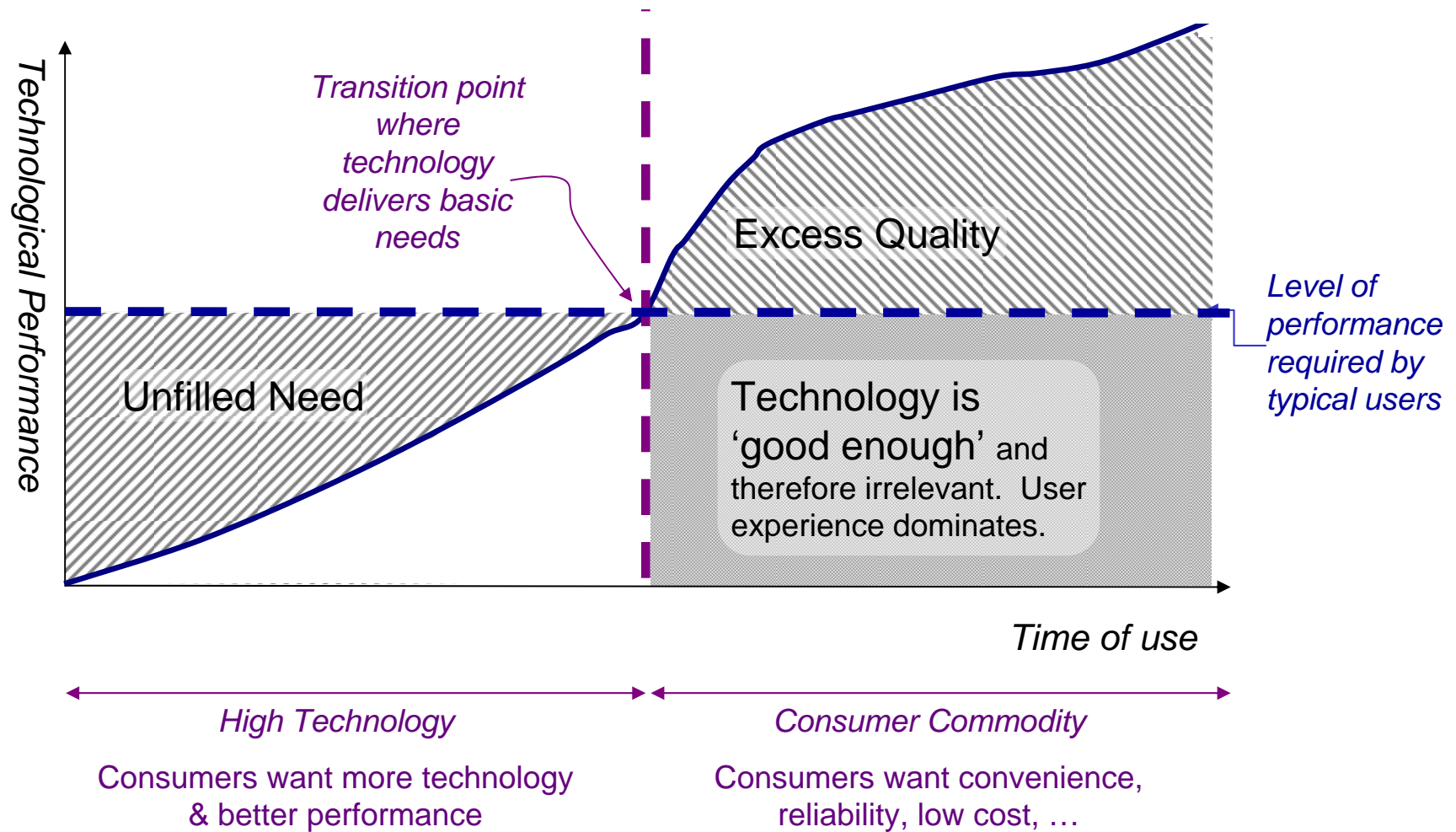
(Memmel, Reiterer & Holzinger, 2007)

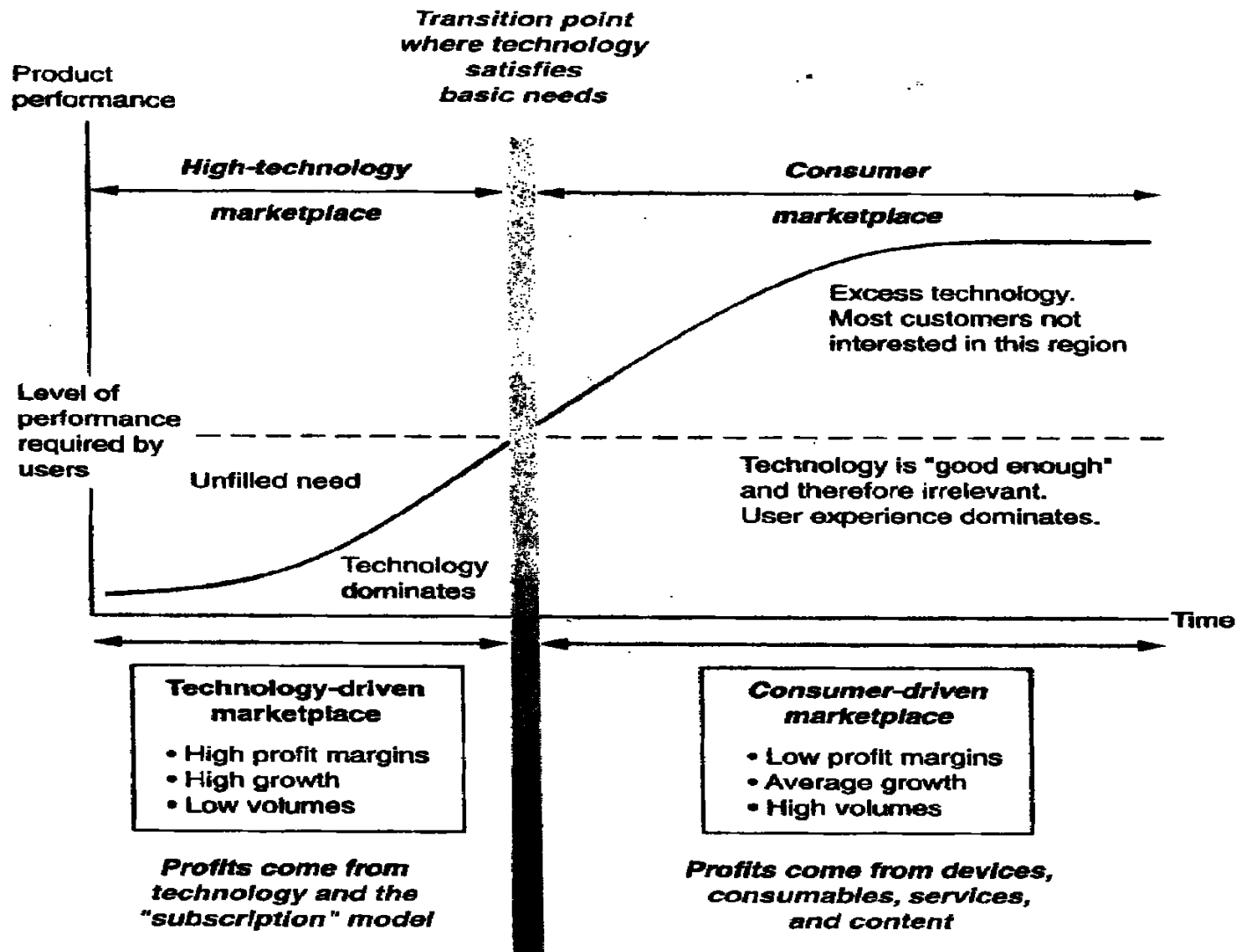


“When technology reaches the point that it satisfies user needs, consumers no longer seek the best technology; they seek the most convenient one, the one with the most satisfactory user experience, the lowest cost, and the highest reliability.” p.251,

Don Norman (1998)

Change from Tech-driven to Consumer-driven Products



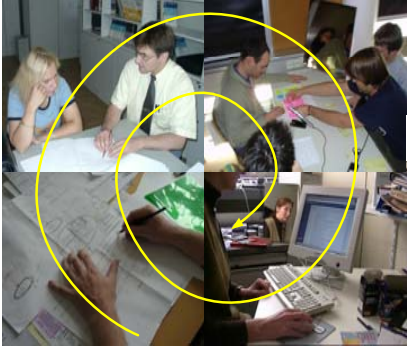


(Norman, 1998)

- Values include:
- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

<http://agilemanifesto.org/>

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
- Business people and developers must work together daily throughout the project.
- Working software is the primary measure of progress.

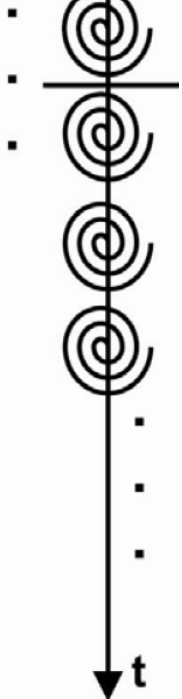


XP + **UE** → **XU**

Beck (1999)

Nielsen (1993)

Holzinger & Slany (2006)

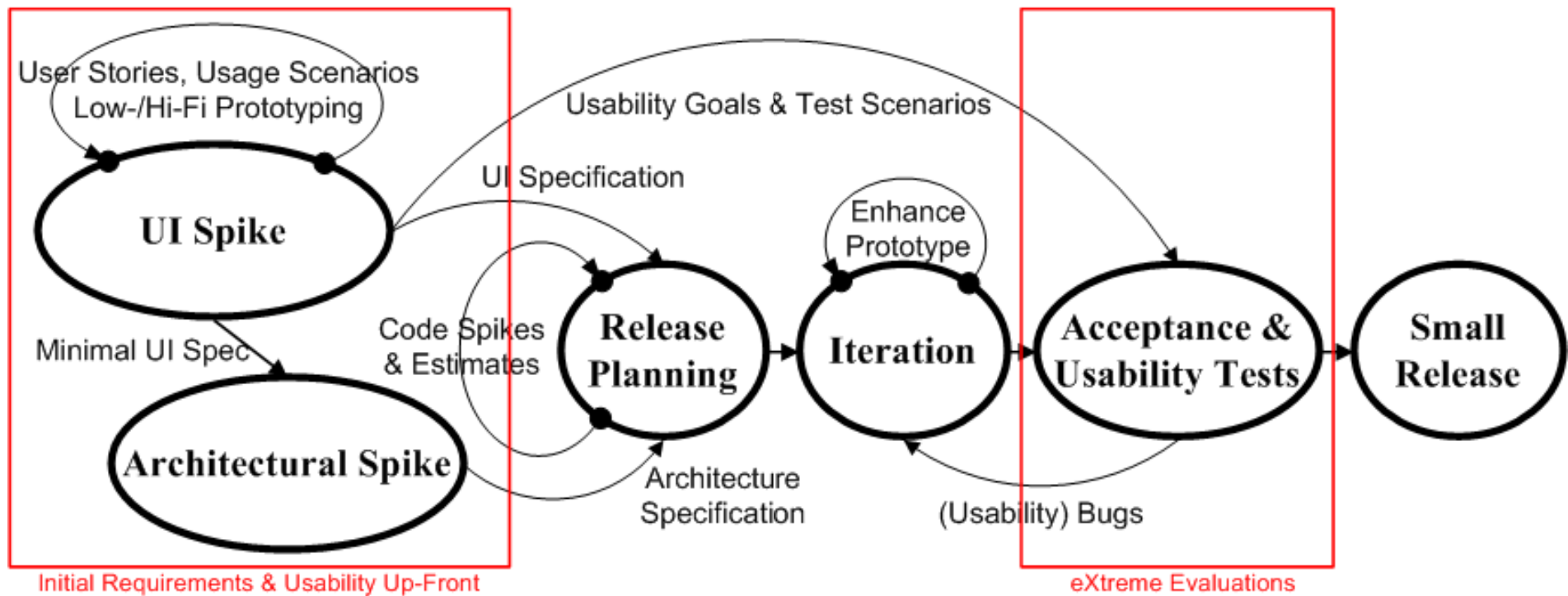


(Holzinger et al., 2005)

(Holzinger & Slany, 2006)

(Hussain, Slany & Holzinger, 2009)

Example Agile Usability Model

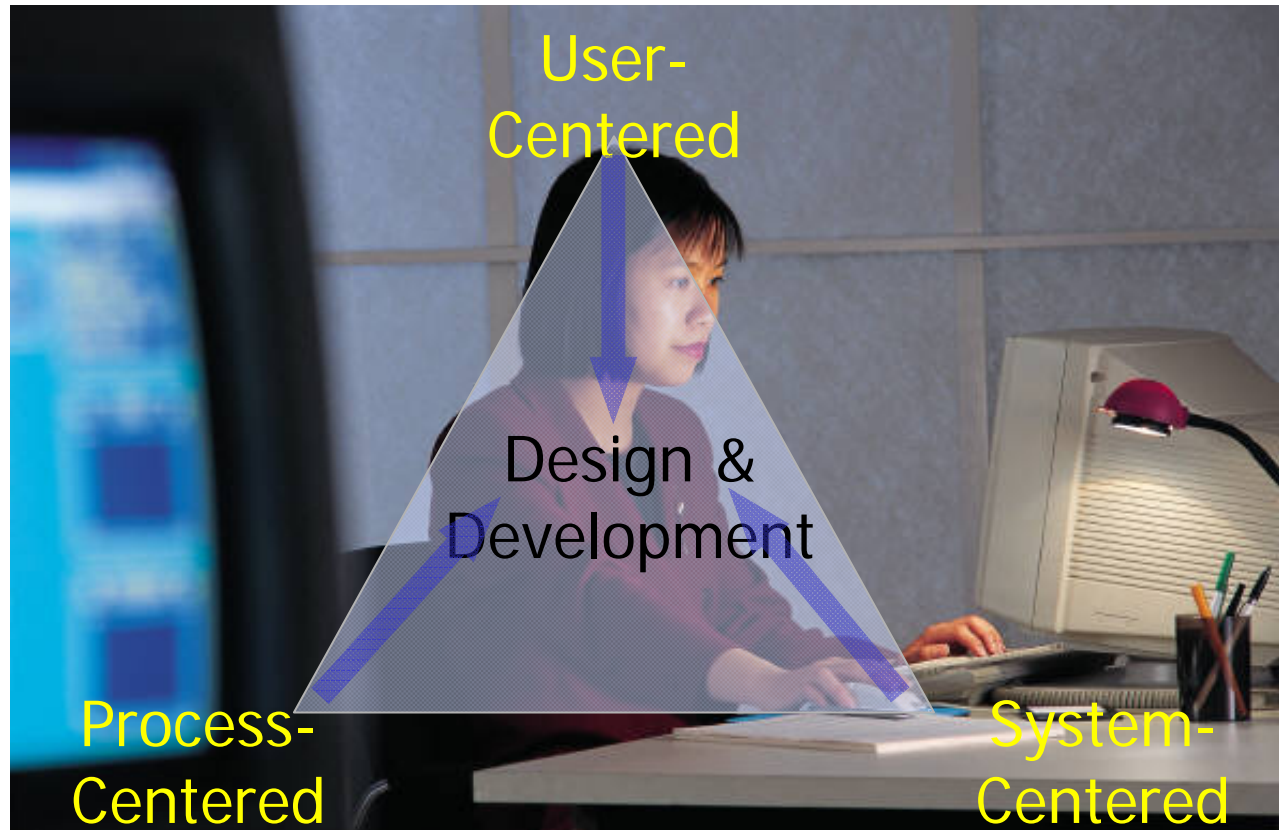


Memmel, Reiterer, Holzinger, (2007)

- If we want to design and develop applications for our end users –
- We must first UNDERSTAND exactly three parts:
 - 1) our systems and tools
 - 2) our end users and
 - 3) the context and process of their interaction

Please remember: Three Developers Perspectives

Human-Centered Design Methods



Business Process Modeling & Engineering

Computer Architectures & Models

(Holzinger, 2005)

Thank you for your attention!



Let us make together, today
Computer Applications
of tomorrow
more usable for all!

Herzlichen Dank für Ihre Aufmerksamkeit!



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- Norman, D. A. (1998) *The Invisible Computer*. Cambridge (MA), MIT Press.

Further Online Reading on Agile Usability

Memmel, Thomas (2006). *Agile Usability Engineering*. Retrieved 22 April 2010 from Interaction-Design.org:

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