

## Assignment 9: Design Methodologies

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### 1. User-centered design

Early computers were usable only by people who devoted effort to mastering the technology. Harnessing the computer's power is a task for designers who combine an understanding of technology with sensitivity to human capacities and needs [1], in which way we could not name it as user-centered design (UCD) since designers are not users anyhow. By UCD, we mean an approach to software and hardware design that identifies four different basic principles [2]:

- 1) An appropriate allocation of function between user and system,
- 2) Active involvement of users,
- 3) Iterations of design solutions and
- 4) Multidisciplinary design teams

Because I studied and worked for architectural design, I always care about users and believe UCD is the right methodology for design. But it raised many problems, such as:

- 1) What is the definition of "users", representative users or real users,
- 2) Communication difficulties between designers and users and,
- 3) Depending on the design problem, how and to what level should users be involved?

### 2. Activity-centered design [3]

Developed by Russian psychologists, Activity Theory became a popular framework for the design of HCI (Human Computer Interaction), especially CSCW (Computer Supported Collaborative Work) and mobile computing system for its emphasis on the social factors of human activities and the context of use.

Activity Centered Design (ACD) compensates for the User Centered Design (UCD) approach with regard to 'usefulness.' The heavy emphasis on individual user's usable interactions in UCD is often criticized for its under representation of other relevant user groups' interests in a social context and the system's overall usefulness for them [4]. A serious drawback of ACD is it is perhaps only fit for users who don't have a great aim, nor do they need worry about getting tired.

**Reference:**

- [1] Jan Gulliksen, Ann Lantz and Inger Boivie, Ben Shneiderman & Catherine Plaisant, "Designing the User Interface - A summary of the 1998 PDC & CSCW workshop" (1998)
- [2] Ben Shneiderman & Catherine Plaisant, "User Centered Design – Problems and Possibilities" (2005)
- [3] <http://www.jnd.org/dn.mss/human-centered.html>
- [4] [http://www.findarticles.com/p/articles/mi\\_qa3982/is\\_200501/ai\\_n13510442](http://www.findarticles.com/p/articles/mi_qa3982/is_200501/ai_n13510442)