

## User Centered Design and Participatory Design

Keeping the user in the centre of the design process...

### So what does wikipedia have to say...

- In broad terms, **user-centered design (UCD)** is a design philosophy and a process in which the needs, wants, and limitations of end users of a product are given extensive attention at each stage of the design process. User-centered design can be characterized as a multi-stage problem solving process that not only requires designers to analyze and foresee how users are likely to use a product, but also to test the validity of their assumptions with regards to user behaviour in real world tests with actual users. Such testing is necessary as it is often very difficult for the designers of a product to understand intuitively what a first-time user of their design experiences, and what each user's learning curve may look like.

### So what does wikipedia have to say...

- The chief difference from other product design philosophies is that user-centered design tries to optimize the product around how users can, want, or need to use the product, rather than forcing the users to change their behavior to accommodate the product.

### Design Questions...

- Major challenge for designers:

"... to pay heed to the stable and compelling routines of the home, rather than external factors, including the abilities of the technology itself. These routines are subtle, complex, and ill-articulated, if they are articulated at all ... Only by grounding our designs in such realities of the home will we have a better chance to minimize, or at least predict, the effects of our technologies.." Edwards & Grinter (2001)

- Dependable, trustable and reliable systems...

Edwards, W. K. and Grinter, R. E. 2001. At Home with Ubiquitous Computing: Seven Challenges. In *Proceedings of the 3rd international Conference on Ubiquitous Computing* (Atlanta, Georgia, USA). Springer-Verlag, London, pages: 256-272. See: <http://www.cc.gatech.edu/~keith/pubs/ubicomp2001-challenges.pdf>

### Participatory Design (PD)

- **Participatory design** is an approach to design that attempts to actively involve the end users in the design process to help ensure that the product designed meets their needs and is usable
- In PD end-users are invited to cooperate with researchers and developers during an innovation process. Potentially, they participate during several stages of an innovation process: they participate during the initial exploration and problem definition both to help define the problem and to focus ideas for solution, and during development, they help evaluate proposed solutions.

### PD vs. UCD...

- Participatory design can be seen as a move of end-users into the world of researchers and developers,
- ... UCD is a useful and important construct, but one that suggests that users are taken as centers in the design process, consulting with users heavily, but not allowing users to make the decisions, nor empowering users with the tools that the experts use.

