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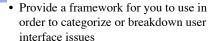
Usability Goals, User Experience Goals, Heuristics and Design Principles

Human Computer Interaction COMP3511/COMP9511

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Aim



Practise

 The first assignment asks you to consider these attributes and critique various user interfaces against these frameworks

Goals vs Tasks



- We make the distinction between goals and tasks (see Cooper About Face)
- Goals are time invariant
- Tasks could be related to the technology available at the time
- People have goals, in order to achieve them they have to carry out tasks (steps) to reach the goal

Readings



- Chapter 1 in Interaction Design
- In particular see section 1.6 Interaction Design
- Norman The Design of Everyday Things
- Also see section 15.2.1 in ID

Exercise

What makes a good or bad user experience?



Goals of interaction design



- Develop usable products
 - Usability means easy to learn, effective to use and provide an enjoyable experience
- Optimise user interaction with a system, environment or product so that they support and extend user's activities in effective, useful and usable ways (p6, Preece et al, 2007)
- Involve users in the design process

Example



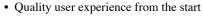
From: www.baddesigns.com

Example of bad and good design



- Elevator controls and labels on the bottom row all look the same, so it is easy to push a label by mistake instead of a control button
- People do not make same mistake for the labels and buttons on the top row. Why not?
- See baddesigns.coms

Why was the iPod user experience such a success?



• Simple, elegant, distinct brand, pleasurable, must have fashion item, catchy names, cool, etc.,

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What is involved in the process of interaction design

- · Establishing requirements
- Developing alternatives
- Prototyping
- Evaluating

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Core characteristics of interaction design

- users should be involved through the development of the project
- specific usability and user experience goals need to be identified, clearly documented and agreed at the beginning of the project
- iteration is needed through the core activities

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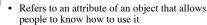
Why go to this length?

- Help designers:
 - understand how to design interactive products that fit with what people want, need and may
 - appreciate that one size does not fit all
 e.g., teenagers are very different to grown-ups
 - identify any incorrect assumptions they may have about particular user groups
 e.g., not all old people want or need big fonts
 - be aware of both people's sensitivities and their capabilities

Affordances

- "the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used"
- "affordances give strong clues to the operations of things"
- Norman (1988)

Affordances: to give a clue

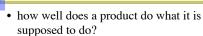


- e.g. a mouse button invites pushing, a door handle affords pulling
- Norman (1988) used the term to discuss the design of everyday objects
- Since has been much popularised in interaction design to discuss how to design interface objects
- e.g. scrollbars to afford moving up and down, icons to afford clicking on

Usability goals

- Effective to use (effective)
- Efficient to use (efficiency)
- Safe to use (safety)
- Have good utility (utility)
- Easy to learn (learnability)
- Easy to remember how to use (memorability)

Effective



• does it help people achieve their goals?

Efficiency

- does it help people carry out their tasks with minimal steps
- removes unnecessary tasks that are more likely to be "system related" rather than what people would do naturally

Safety



- doesn't kill or injure people
- helps avoid people from making mistakes
- actions too close together?
- doesn't delete user's important information
- · undo provided

Utility



- does the product have the functions that the user needs to achieve the goals
 - not too many (feature bloat) and not too few
- a library web site that does not allow students to reserve books could be an example of poor utility

Learnability



- is the system easy to use
- can the user walk up to the system and start using it with minimal confusion / cognitive load
- doesn't take a long time to become productive
- · similar tasks have similar interactions

Memorability



- once you have used the system once, will they recall how to use the system the next time or will they have to "start from scratch"
- how often do people use this system? everyday, once every quarter or year

User experience



- how the system "feels" to the user
- · emotional connection
- positive or negative

User experience goals Desirable aspects Satisfying helpful fun motivating Enjoyable provocative Engaging challenging surprising Pleasurable enhancing sociability rewarding supporting creativity emotionally fulfilling Exciting Entertaining cognitively stimulating

User experience goals

Undesirable aspects

boring unpleasant frustrating patronizing

making one feel guilty making one feel stupid

annoying cutesy childish gimmicky

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