3012 / GC25 Interaction Design

Introduction
Goals of this lecture

1. Introduce course team
2. Administration
   1. Lecture plan
   2. Coursework
   3. Assessment
3. Resources
4. Identifying requirements and opportunities
The Course Team

• Lecturers
  – M. Angela Sasse (responsible)
  – Sven Laqua
  – Will Seager

• Researchers setting coursework
  – Will Seager

• Guest lecturers
The course structure

• ~ 20 lectures
  – core: design process, approaches, methods and tools
  – Plus: lectures on emerging technologies and their design and usability issues

• Coursework & Lab classes
  – 2 design projects
    • Coursework 1: Identifying requirements for a mobile map-based service
    • Coursework 2: Design: new mobile map-based service

• See attached Lecture Plan for timetable of lectures, lab classes, and deadlines
Assessment

• 50% exam, 50% coursework
  – both parts must be passed to pass the course (40% UG, 50% MSc), coursework is mandatory (you don’t submit → you are incomplete)

• Courseworks (design projects) are done in groups – design marked (through submitted documentation & presentation)

• Attendance of Lab Classes is mandatory (attendance will be checked)

• A separate short individual coursework reflecting on design project has to be submitted

• Both group and individual parts count equally
  – (12.5% group cwk 1 + 12.5% individual cwk 1 + 12.5% group cwk 2 + 12.5% individual cwk 2)
Resources

- Important: please subscribe to mailing list (3012) immediately
- Lecture notes, additional reading, links to interesting sites
- Course website Moodle – Enrolment Key = iD2009
- Also on: http://hornbeam.cs.ucl.ac.uk/hcs/teaching/3C12.html
General Reading


*plus: references will be given for each unit*
Reminder: Framework for Design

- USER interacts with SYSTEM
- USER has general & specific characteristics
- SYSTEM interacts with USER
- to attain GOAL

and interaction takes place in a CONTEXT

physical
social
cultural
temporal
Design philosophy

• Human needs
  – individual or collective
  – support human goals and activities
  – make technology fit to human needs and characteristics.

• Involve users/customers whenever possible
• Mix analytical and creative approaches
• Pick from range of design tools
• Draw on existing HCI knowledge and good practice, but look for improvements at the same time
• Planning and monitoring of design process, and reflecting on design activities
UXP and Lived Experience

1. What is UXP?
2. How do we find out what the UXP we should aim at?
3. Lived Experience – what is it?
What is UXP?

"User experience encompasses all aspects of the end-user's interaction with the company, its services, and its products. The first requirement for an exemplary user experience is to meet the exact needs of the customer, without fuss or bother. Next comes simplicity and elegance that produce products that are a joy to own, a joy to use. True user experience goes far beyond giving customers what they say they want, or providing checklist features. In order to achieve high-quality user experience in a company's offerings there must be a seamless merging of the services of multiple disciplines, including engineering, marketing, graphical and industrial design, and interface design."

Nielsen Norman Group
User-centred …

“User experience and interface design in the context of creating software represents an approach that puts the user, rather than the system, at the center of the process. This philosophy, called user-centered design, incorporates user concerns and advocacy from the beginning of the design process and dictates the needs of the user should be foremost in any design decisions.”

Microsoft
... but quickly becomes product-centred

“The user experience for Mac OS X applications encompasses the visual appearance, interactive behavior, and assistive capabilities of software. With the Aqua graphical user interface, Universal Access features, and user-assistive technologies like the Address Book framework, Apple Help, and VoiceOver, you can deliver the cohesive and professional user experience that Macintosh users have come to expect. It's easy to leverage the user experience technologies of Mac OS X to make great Macintosh software.”

Apple
Bad UXP

• “Technology that does not work the way they expect makes people feel stupid.”
• “if you intend to drive people away from your site, it’s hard to imagine a more effective approach than making them feel stupid.”

J J Garrett: Elements of User Experience
Impact on users’ lives

• User: “… so I have all these files and documents, all over my desktop, different versions of documents in different folders, and documents I don’t need any more. I never get round to tidying up. I keep emails because I might need because of the address, or the content. But I never get round to putting them into the address book and deleting the mails, so they just pile up. My electronic workspace is a mess.”

• Q: How does that make you feel?
• User: [thinks] “It makes me feel that I am a bad person.”

From Richard Boardman’s PhD thesis (2005)
Lived Experience

- John McCarthy, Peter Wright 2004: Technology as experience. MIT Press
- Any account of what is often called the user experience must take into consideration the “felt” experience: emotional, intellectual, and sensual aspects of our interactions with technology.
- “We don't just use technology, we live with it.”
80,000 passport photos rejected

Tens of thousands of photos in passport applications have been rejected for failing to meet new rules introduced in September last year to combat fraud.

UK Passport Service (UKPS) figures showed that of 597,863 applications in the eight weeks from 12 September some 81,927 photos – 13.7% – were rejected.

The most common problems were obscured eyes, an unsuitable facial expression and incorrect paper, the UKPS said.

A spokesman said rejections were now below 10% and would continue to fall.

UKPS had expected 20–25% of photos to be rejected immediately after the rules came in.

"We thought there would be far more rejections initially but the public is getting used to the new rules," the spokesman said.

The UK is one of 40 countries preparing biometric passports

SEE ALSO:
- UK passport price to rise to £51
  17 Nov 05 | UK
- New passport photo standards due
  05 Sep 05 | UK
- Passport applicants face grilling
  28 Jun 05 | Politics
- 'No decision' on passport prints
  12 Apr 05 | Politics
- Interviews for passports in 2006
  24 Mar 05 | UK

RELATED INTERNET LINKS:
- UK Passport Service
  The BBC is not responsible for the content of external internet sites

TOP UK STORIES
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- Suffolk murder trial due to begin

Feed | News feeds
Good UXP

- Efficiency: helping people work fast, fewer mistakes
- People like experience more when things are natural and easy to use: good mood, builds confidence, ...
- Beyond usability: making people feel exited, connected, delighted, genuinely attached, ...
- Cosmesis: the effect that the appearance of a device has on the perception of the person who is using it; its "fashion statement". The degree to which the user can feel attractive and socially acceptable in using the device.
- Captology: “seducing the user”, e.g. to order something, keep returning to the service→ persuasive design
Introduction

Persuading through Tailoring and Customisation

Where is the line between simplification/convenience and manipulation, tailoring/customisation and social sorting?
Handsets get taken to the grave

More people than ever are asking to be buried or cremated with their mobile phones when they die, say researchers.

The trend, which began in South Africa, has now spread to a number of countries, including Ireland, Australia, Ghana, and the US.

Martin Raymond, director of international trend-spotting think-tank, The Future Laboratory said that this had started off "in the realm of the urban myth", but was fast becoming fact.

"You hear about it, the idea that people are being buried with their mobile phones, but you can't really believe it," he told the BBC World Service's Culture Shock programme.

He explained that the first cases of people asking to be buried with their phone originated in Cape Town, where some people's belief in witchcraft meant they feared that "they could fall under a spell, be put to sleep and actually be buried."

"In fact, they were asking for the phones to be put into the coffins with them in case they woke up."

'Limelight funerals'
How do you create good UXP?

- User-centred design: take the user into account every step of the way
- No aspect of user’s experience with your site happens without designer’s conscious, explicit intent
- take into account every possibility of every action the user is likely to take
- understand users’ expectations every step of the way
Garrett’s planes

- **Strategy plane**: what users want to get out of the site
- **Scope plane**: what features and functions site should have
- **Structure plane**: navigation how pages are linked and grouped
- **Skeleton plane**: placement of buttons, tabs, photos and blocks of text
- **Surface plane**: series of web pages with text, pics, links
“When choices designer makes choices that do not align with planes above and below, you end up with a jumble of components that don’t fit.”

Garrett’s planes of UXP

- Strategy
- Scope
- Structure
- Skeleton
- Surface
Reminder: Levels of Interaction

**User’s/corporate goals**

- User’s knowledge of task domain
- User’s knowledge of language
- User’s hands, eyes

**Output in the Real World**

- Computer’s representation of task domain
- Computer command language
- Computer keyboard, display

**GOAL LEVEL**

**TASK LEVEL**

**DIALOGUE LEVEL**

**INPUT / OUTPUT LEVEL**

**Human Structures**

**Computer Structures**
Personas

- Representing user groups identified through personas
- System may be used by one or several personas
  - Different characteristics
  - Different goals
- E.g. Buyers of a new car
  - Alessandro (Playboy): go fast, impress chicks
  - Marge (Soccer Mum): fit in many kids, be safe
  - Dale (The Builder): haul big loads, be reliable
Scenarios

- Persona-based scenario = concise narrative description of how persona interacts with system to achieve goals
- Context-based scenario = how product can serve needs of persona
- Scenarios focus on illustrate requirements (the WHAT), top-down decomposition leads to functionality (the HOW)
Increase happiness, reduce suffering

- Deliver
- Remove

Negative Experience

Positive Experience
“… scenarios are an interactive means of defining the behavior of a product from the standpoint of specific users (personas). This includes not only the functionality of the system, but the priority of functions and the way those functions are expressed in terms of what the user sees and how she interacts with the system. Use cases, on the other hand, are based on exhaustive descriptions of the functional requirements of the system, often of a transactional nature, focussing on low-level user actions and accompanying system response.”
Methods for eliciting UXP requirements

- in-depth qualitative data
- Interviews and focus groups
- Use in-depth analysis such as Grounded Theory and Discourse Analysis
- Ethnographic methods
  - Mostly observational
  - Can be combined with surveys, interviews, qualitative studies
Summary points

1. User experience basics = good design: no unnecessary workload, hassle, don’t make user feel stupid
2. All elements of service contribute (including help desk, recovery)
3. Lived experience: How does it make the user feel? What is the impact on life, well-being, self-image?
4. In e-commerce, games, entertainment, UXP = cosmesis and captology
5. Methods for eliciting/understanding: see forthcoming lecture