

# User Centred Design

以用户为中心的设计

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This presentation contains material taken from a Master's level module, Electronic Publishing, taught at the Department of Information Studies, University College London and several workshops run in Chinese Universities. For more details and the rest of the collection see the cover sheet at: <http://ucloer.eprints-hosting.org/55/>

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## Opening images 首页图片

For an explanation of the images, particularly the door, on the opening page see:

关于首页上图片的信息，尤其是门的信息，请参见：

Donald Norman (2013) *The Design of Everyday Things*, MIT Press; chapter 1.

# Poorly designed systems are everywhere

## 设计粗劣的系统随处可见

- Users are people  
使用者：人
- If the user can't use it, then it doesn't work  
如果用户无法使用，就是无用功
- If the user doesn't need it, then it doesn't work  
如果用户不需要，也是无用功

# Features of a well designed system

## 设计良好的系统所应具备的特点

- Efficiency 高效性
- Effectiveness 有效性
- Easy to learn 易学性
- Easy to use 易用性
- Easy not to make errors 不易出错

# User testing

## 用户测试

- Testing of systems 系统测试
- Approaches include: 方法:
  - User feedback 用户反馈
  - Observations / interviews of practice 观察／访谈实践
- Users don't know possibilities 对用户而言的未知性
  - What information is needed 需要什么样的信息
  - What is the task 要实现什么样的目标

# New designs create new opportunities for use

## 新的设计为使用创造新的机会

- Design and use evolve together  
设计与使用是协同发展的
  - Some new uses may be positive 一些新的用途可能是积极的
  - Others expose design limitations 而其他的可以显露出设计的不足
- Methods for understanding evolved practices:  
有助于理解的实践方法
  - Interviews 访谈
  - Observations 观察
  - Contextual Inquiry (in the workplace) 情景探究 (基于工作场所)



# Understand your users

## 了解你的用户

Who will the users be?  
谁将会成为你的用户?

User testing - working with users to identify difficulties  
用户测试 – 和用户一起工作来识别问题

- Usually late in the development process 通常在开发流程的后期
- Tasks may be defined by analyst or user 目标可能被分析者或用户定义
- Setting may be more or less realistic 初期设定可能过于或者不够现实化
- Measures may be quantitative 测量方式可以被量化
  - time to complete task; number of errors 完成任务所需时间; 错误的数量
- or qualitative 或者质量
  - user difficulties or perceptions 用户的困难或者其认知理解



# Gathering data on your users

## 从用户处进行数据采集

- Interviews 采访
  - Unstructured – simple discussion  
非结构式 – 简单的讨论
  - Structured – tight script for the questions  
结构式 – 紧密有规划的问题
  - Semi-structured – more flexible with a guide  
半结构式 – 基于大纲的灵活访谈
- Questionnaires 调查问卷
  - Fill out a form with questions 完成问卷
- Observation 观察
  - Direct observation (workplace) 直接观察 ( 工作场所 )
  - Indirect observation – tracking activity / diary etc. 间接观察 – 追踪活动 / 记录等

# Key approaches

## 主要的方式

- Triangulation 多角度方法
  - use more than one method 多种方法
- Pilot study 实验研究
  - Small trial of main study 先遣性尝试
- Always an iterative process 不断迭代的过程

# Design problems

## 设计问题

- Prioritise them 优先考虑
  - How easy to fix 解决问题的简易性
  - How critical 辩证性
  - Now or later? 现在或者未来?
- Need to understand user requirements  
理解用户需求
- To design the future, you need to understand the present  
为未来而设计，你需要理解当下
- Need to understand users' needs and practices  
理解用户的需求与操作

**Example of a well designed object. No instructions needed!**

优秀的设计产品示例：无需操作指南！

