INTRODUCTION TO HUMAN-COMPUTER INTERACTION AND INTERACTION DESIGN

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Norman’s Stages of Action Model

- User Goals
- Intentions
- Action Specification
- Interface Mechanism
- Physical System
- Interface Display
- Interpretation
- Evaluation

Hutchins, Hollan, & Norman, 1986
Affordances

• An attribute of an object that supports a particular interaction with it
  – Chairs afford sitting
Affordances

Quick-Think Exercise

• Consider google as a physical system.
  – What user goals might motivate the use of google?
  – What interface mechanisms are provided for interaction?
  – What sensory, cognitive, physical, and functional affordances does google’s search interface provide?
  
  – What interface display characteristics can support interpretation and evaluation?
  – What sensory, cognitive, physical, and functional affordances does google’s results list provide?
Where does interaction design begin?

- Understand the intended users
- Understand the goals they want to accomplish
Consider the design of this building
Does the quality of the design make a difference?

- Yes, because people won’t use a system that is usable
Designing interactions

• Design: To create, fashion, execute, or construct according to plan (Merriam-Webster online dictionary)
The Design Lifecycle

Quick-Think Exercise

• Imagine that you are re-designing the website for the Charles University Institute of Information Studies and Librarianship.
  – Who should you consult about their needs for the website? Be sure to consider both its users and other stakeholders.
  – What information would you try to find out from each group or person?
Quick-Think Exercise

• Have you ever been involved in the design of a computer system? Something similar?

• How closely does your experience match with the systems development lifecycle described by Gulliksen and his colleagues?
What are the characteristics of a “good” design?

• The system is usable
  – Effective, efficient, safe, useful, easy to learn, easy to remember

• The system provides a satisfactory user experience
  – Enjoyable, engaging, fun to use

Based on Sharp, Preece & Rogers, 2006
User experience examples

• From architecture:
  – New Czech national library
  – Liberec Library

• From museum websites:
  – Mucha Museum
  – Museum of Communism

• From e-commerce websites:
  – Lord & Taylor
  – H&M
  – WalMart
  – Tesco

• J.K. Rowling website
Quick-Think Exercise

• For each example, list a few adjectives describing how your group “feels” about the example.

• Are there any particular aspects of the design that give you these feelings?
New Czech National Library
Knihovna Liberec
Some online examples

• Go on the internet to see examples:
  – Mucha Museum
  – Museum of Communism
Museum of Communism image
More online examples

• Go on the internet to see:

  – Lord & Taylor
  – H&M
  – WalMart
  – Tesco
  – J.K. Rowling website (active)
Summary

• Human-computer interaction is an iterative cycle
• We can design information systems to afford (and even encourage) particular user behaviors
• User-centered design requires careful analysis of user characteristics and the goals that users want to achieve
• Good quality designs should be usable and enjoyable to use
References


