Multimedia Design (1)

Marilyn Rose McGee-Lennon
F133 Lilybank Gardens
Tel: 0141 330 6034
Mail: mcgeemr@dcs.gla.ac.uk
Web Page: http://www.dcs.gla.ac.uk/~mcgeemr

Multimedia Design

- What is this course about?
  - The media (text, graphics, audio, video, haptics,…)
  - Choosing the right media
  - Combining them effectively
  - Tools / technologies to apply or implement the media
  - Implementing a multimedia application (prototype)
  - Communicating your multimedia design/product
  - Evaluation (expert critical evaluation and user evaluation)

Today…..

- Overview of the Multimedia Design Cycle
- Multimedia Design principles
Next week

- Design methodologies
  - The City Design Method
  - The Reeves Model (1994)

- Design documents
  - Used to document design and process
  - Used to communicate product

Multimedia Design

Remember Basic HCI Concepts

- Effective
- Efficient
- Enjoyable

Users

- Multimedia must support or enhance the user(s) experience
- There are different types of user
  - Novice / casual / expert
  - Language / cultural barriers
  - Disabilities
  - Preferences
**Multimedia Design should be User Centered**

- *User-centered design*
  - Usability of an application depends upon the designer’s understanding of:
    - The limitations and capabilities of the target user group(s)
    - The limitations and capabilities of the available media
  - Always design the system to be adaptable
    - Novice users, experienced users, users with special-needs…..

**What’s Special About Multimedia Design?**

- Multimedia applications involve more than just traditional media
  - They involve combinations of text, audio, images, video, animation……
    - Interactive television
    - Audio/video conferencing
    - Virtual worlds
    - Games
    - Digital audio and/or video editing and production systems
    - World Wide Web
    - ……………

**Multimedia applications introduce:**

- Rich forms of
  - Information delivery
  - Interaction

BUT………..

- Challenges of
  - Perception
  - Comprehension
  - Integration & attention

**What’s Special About Multimedia Design?**

- It is important therefore to learn:
  - About the different media and their associated tools and technologies
  - How to use the different media in combination effectively
What's Special About Multimedia Design?

- A multimedia product has to (at least):
  - communicate information effectively
  - deliver functionality and usability (work!!!)

- How can we guarantee that our application will achieve both of these?

Multimedia Design

- There are guidelines for designing multimedia applications
  - based on research from cognitive psychology, computer science, social psychology, technology, design, ………
  - guidelines are often based on minimal evidence and there is no accepted standardised set of guidelines for all multimedia applications

- Use a tailored design process suitable to the multimedia application being developed
  - Existing design methods can be adapted to our needs

Multimedia Design Cycle

- Requirements capture
  - Finding out what the user wants
- Initial design & prototype
  - Produce a mock up
  - Present to user
- Implementation
  - Build the end product
- Evaluation
  - How well are their requirements met by your design?

Multimedia Design Principles
**Guidelines - ISO 14915 Part 3**

- Support user tasks
- Support communication goals
- Ensure compatibility with users' understanding
- Select media appropriate for the users' characteristics
- Support user preferences
- Consider the context of use
- Use redundancy for critical information
- Avoid semantic conflicts
- Avoid conflicting perceptual channels
- Combine media for different viewpoints
- Avoid information overload
- Choose media combinations to elaborate information
- Design for simplicity
- Guard against degradation
- Preview media selections
- Use static media for important messages

**Format and Structure in Multimedia Design**

- Consistency -
- Completeness -
- Functionality -
- User Control -
- Feedback -
- Forgiveness -
- Simplicity -
- Media Use -

**Design and Style in Multimedia Design**

- Navigation scheme
- Page Layout
- Buttons
- Colour
- Graphics
- Bullet
- Analogy/Metaphor

**Feedback and Help in Multimedia Design**

Types of assistance users require varies

*Feedback* - conveys state of system to user to reassure they are on the right track

*Help* - should be easily available when and if user requires help in performing a specific task
- Quick reference
- task-specific help
- full explanation or tutorial
Feedback and Help in Multimedia Design

- Feedback and Help should be:
  - Available
  - Accurate
  - Consistent
  - Flexible
  - Functional
  - Usable

Multimedia Design Methods

- Any Multimedia Design Model should include attention to:
  - analysis
  - design
  - production/implementation
  - evaluation

- Design artefacts/documents often produced along the way to assist each stage of design
  - We will look at some examples of these next week

Next lecture
- look at the City Design Method
- Look at the Reeves Model (1994)
- Look at different stages/activities in the design cycle
- Look at various design artefacts/documents that can result from the design cycle