CART350: WPA Digital Media + Interaction Design I
FALL 2003
Thursdays, 1:30pm to 6pm
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Synopsis

An introduction to the principles of interactivity, typography, and design for a range of digital media, including concepts of interface, information design, play, and an understanding of the relationships between image, typography, and sound. Students will explore the basic concepts surrounding the creation of time-based and interactive experiences, with an emphasis on how these experiences relate to design for games, film and television, and the worldwide web. Methods for analysis and production will be introduced.

Course Objectives

Upon completion of the course, the student will be able to:

1. Recognize and apply principles of visual design, including: typographic form, image production, color, composition, and information hierarchy;
2. Recognize and apply principles of interactivity, including: interface,
3. information design, directed choice, and play;
4. Recognize and apply principles of basic audio design (CART 245, Sound Design is a prerequisite);
5. Critically analyze interactive experiences, including web pages and games;
6. Apply iterative design methods, including: concept sketches, wireframes, storyboards, and user testing;
7. Understand issues surrounding the technology of the worldwide web and computer game platforms.

Required Texts

Moving Type: Designing for Time and Space by Jeff Bellantoni and Matt Woolman
The Design of Everyday Things, Donald Norman
Hypergraphics: Design for the Internet, Roy McKelvey

Attendance, grading, etc

Attendance is mandatory. You will be allowed one unexcused absence per semester. After that, your grade will be effected. Lateness may be treated as an absence. Mercy College policies regarding attendance and tardiness will be fully in effect.

Class participation will account for a significant part of your grade. You will be expected to arrive to class prepared.

No late projects will be accepted. No cell phones, pagers, beepers or gizmos in class. No IM-ing or emailing during class time. We will all take a break midway through class time. You can check email and return messages at that time.

Grades are based on the CART Evaluation Criteria: Process, Realization and Professionalism. In addition to midterm and end of term evaluations, additional projects, in-class assignments, participation in group discussions & activities and attendance will all contribute to your grade. Mercy College policies regarding grading and evaluations will be fully in effect.

Additional reading

Envisioning Information, Edward Tufte,
Flow: The Psychology of Optimal Experience, Mihaly Csikszentmihalyi
The Humane Interface: New Directions for Designing Interactive Systems, Jef Raskin
Information Architecture for the World Wide Web, Louis Rosenfeld & Peter Morville
Mapping Web Sites, Paul Kahn & Krysztof Lenk
Don't Make Me Think, Steve Krug & Roger Black
Home Page Usability: 50 Websites Deconstructed, Jakob Nielsen & Marie Tahir
Multimedia from Wagner to Virtual Reality, Randall Packer & Ken Jordan
Designing from Both Sides of the Screen, Ellen Isaacs & Alan Walendowski
Web Style Guide, 2nd Edition, Patrick Lynch & Sarah Horton

Syllabus

The course will have four primary content modules:

ONE: Foundations: The Language of Digital Media

TWO: Interface: Designed Interaction

THREE: Information Design: Structuring Experience

FOUR: Synthesis

MODULE ONE: Foundations– The Language of Digital Media

4 weeks

In this module, students will be introduced to the elements of digital media: typography, image, sound, time, motion, and interactivity. The objective of the module is to help students learn the qualities and characteristics of each, while also learning how these elements work together within digital media experiences.

Introduction: Digital images and sound

Typography in digital media

Sequence, time + space

Principles of Interactivity

• *Introduction: Digital images and sound*

Sept 4

Discussion

Introduce idea of interactive media and production including

- understanding technical issues
- learning how to collaborate with team members and clients
- using documentation as a tool for managing design projects and communicating with collaborators

Practice

"Choose Your Own Adventure" mapping exercise. Introduce the complexities of designing an interactive system with the basic task of mapping the events, context and behaviors in the story line of the interactive kid's book The Cave of Time by Edward Packard.

Assignment

1. Create a glossary of image & sound file types including suffix, brief history, platform (if necessary), and primary uses. Define at least 15 file types.
2. Reading: "User Interface: A Personal View" (1989) by Alan Kay in *Multimedia from Wagner to Virtual Reality*, edited by Randall Packer and Ken Jordan.

• *Typography in digital media*

Sept 11

Discussion: Part 1

Review key concepts of "User Interface: A Personal View"

Discussion: Part 2

The power of typography to aid or detract from a user experience. Introduce concepts of requirements gathering and user profiles as tools in designing an impactful user experience

Assignment

1. Reading *Moving Type: Designing for Time and Space* by Jeff Bellantoni and Matt Woolman
   Typographic Design: Fundamentals
   Technology 01: Legibility
   Technology 02: Color
2. Find examples of typography (paper or screen) that reinforce or contradict brand, experience, usability. Produce an informal critique of 3-4 instances of either particularly good or particularly bad uses of type and images. Specifically reference key points in reading.

• *Sequence, time + space*

Sept 18

Discussion

Everyone will give a short presentation of informal critique projects.

Assignment

1. Reading: *Moving Type: Designing for Time and Space* by Jeff Bellantoni and Matt Woolman
   • Technology 03: Animation
   • Technology 04: Pre-Production
2. Word Opposites- Word Transitions
   See Moving Type, page 72

• *Principles of Interactivity*

Sept 25

Discussion: Part 1

Look at Word Opposites, Word Transitions assignment and discuss success, problems, questions, etc

Discussion: Part 2

1. Defining interactivity
2. Active vs. passive interaction: what role is the user given to play in the designed experience? Are they making choices or following a pre-scripted path?
3. Linear vs. non-linear (or branching) structures: linear structures lead a user along a single path; non-linear structures allow for multiple paths. How do forms of digital media utilize these structures to create radically different experiences?
4. Embedded vs. emergent narrative: embedded narrative refers to pre-scripted elements; emergent narrative refers to elements that arise out of a user's interaction. Do certain kinds of digital media use one form more often than the other? What are the differences between the two in the context of games, web sites, or animations?
5. Rules vs. play: how does a strict set of rules allow for play in the context of new media objects (games, websites, animations)? What is the role of the designer in creating "rules" for interaction? How does a designer create experiences of "play?"

Practice

Us e lab time for demo of tools or time to practice with programs

Assignment

1. Reading: *The Humane Interface* by Jef Raskin, Chapters 1 and 2

MODULE TWO: Interface: Designed Interaction

3 weeks (Oct 2- Oct 16)

In this module, students will explore basic principles of interface design. They will learn to integrate image, type, and audio elements within simple interactive structures. Emphasis will be placed on designing interfaces for a range of user experiences, from the poetic to the pragmatic. Students should learn to recognize how the design of an interface communicates about the experience, while also helping a user navigate through the experience.

Key concepts

1. What is an interface?
2. What media contain interfaces?
   - Broadcast
   - Print
   - Broadband/ITV
   - Internet
   - Telephone
   - PDAs
   - Architecture
   - Packaging
   - Clothing
3. Navigation: moving through information
4. Providing feedback: text, image, and sound cues
5. Hierarchy and organization of data: mapping relationships
6. Developing storyboards and wireframes: visualizing the system
7. Creating behavioral prototypes to test basic interactions
8. Usability and human-computer interaction: user-testing
9. Representation: interface as structural metaphor

MIDTERM PROJECT

Due Oct 23

MODULE THREE: Information Design– Structuring Information

3 weeks

In this module, students will focus on learning the fundamentals of information design within digital media contexts, particularly within web-based applications. They should be exposed to visual, spatial, and time-based strategies for the design of textual, pictorial, graphic, and sound information. In addition, emphasis should be placed on teaching students how the representation of information affects how people perceive and process its meaning.

Key Concepts

1. What is information design?
2. Classifying information: metadata
3. Managing complexity
4. Micro and macro readings
5. Layering and separation: creating hierarchy
6. Color and information
7. Narratives of space and time: series and sequence
8. Information and representation: creating meaning

MODULE FOUR: Synthesis

4 weeks

Final Project

Due Dec 18

MODULE FOUR of the course provides a context for students to design a complex project that integrates material from the previous three content modules. The final project will be comprehensive in scope, encouraging students to apply knowledge about visual form, interactivity, interface, and information design to their solutions. Students might propose a project, or specific guidelines might provide. The project could be developed in teams, or by individual students, and will run over the course of approximately weeks. Part of the project might involve the redesign of an existing website or content could be developed from scratch. Students should develop a concept brief, storyboards, wireframes, behavioral prototypes, and visual design mock-ups, before implementing their ideas within a final design. User-testing should be included in the process, both during development and in final presentation.