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### **ARTS 344: Interactivity 1**

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#### **Course Description:**

This class serves as an introduction to the processes, technologies, and design concepts involved in creating interactive experiences, especially those involving some form of computing.

#### **Course Content:**

The course will include introduction to both the technical fabrication of interactive media, and the conceptual design of such experiences. Through practice, lecture, group design work, and discussion, students will gain an introduction to a series of technical platforms (software and hardware), and to a series of research methods for interactive media.

In our design projects, we'll look to discover what's at stake in design decisions about interactive experience for art and media design. What sort of values and ethics do particular interfaces and experiences engender or deny?

#### **Course Method:**

We'll spend Thursdays in the Computer Lab (Art and Design 336) covering basic technical instruction, and Tuesdays in the design lab (Flagg 320) on group projects and discussion. We'll move through four group design projects, and many more short-term technical exercises. For a full rationale for this, see our page for Course Method.

#### **Expectations:**

As in any introductory course, you may not achieve much in here that you'll be proud to look at for long. The goal will be more to get your hands dirty in a lot of areas, so that you can come back later and continue on your own, or in a subsequent course. I'll expect you to complete course assignments, with special attention to contributing equal time on group projects. Assignments given for the technical part of our course probably won't look very pretty, but if you do them right your group design projects might end up portfolio-worthy as realized prototypes.

I expect full attendance - missing any class at all will put you quite behind in the technical instruction part of the course, and will leave your partners doing more work in the design component of the course. I also expect that you spend classtime on classwork, not checking email or IM or anything else.

#### **Grading**

For introductory courses I tend to grade less on how beautiful your final products are, and more on how thoroughly you address the assignment parameters. If you attend class and are prepared, participate in discussions, complete homework exercises, and contribute fully to your design group, you can easily come out with an "A" in this class. You'll receive an estimation of your grade at mid-term, but likely won't receive grades along the way for individual technical exercises. If at any time you'd like to know more about how you're doing, let me know.

#### **Facilities**

This class comes with a lab fee and materials fee that allows you access to the computer labs and checkout window in Art and Design. These fees also enable me to make some purchases of materials for specific assignments. When we're in Flagg Hall, you'll be sharing a room and a tech pool with other oddball classes like ours. Please see to leaving the space clean and clear for the next class. We'll be using some equipment that either belongs to me or the New Media program, so please act respectfully.

## **Materials**

No textbook is required, but I'll be posting articles on this site for assigned reading. You may have to purchase materials for your design projects, but often this can be improvised. You should, however, bring a small harddrive or jump drive (1GB minimum) to our tech sessions on Thursdays.

## **Prerequisites**

This course expects that you already are familiar with the following:

- the Macintosh OS X operating system
- basic digital file management skills
- operation of a digital camera and scanner
- manipulation of digital images in Photoshop
- rudimentary digital video shooting and editing

This course also assumes that you have some familiarity and experience with creative processes - completing and finishing a drawing, painting, or musical composition, for example.

## **Course Method**

Designing interactive experiences requires equal parts techne and disegno.

Techne is the ancient Greek term for any craft handed down from master to pupil. Here we can think of the apprenticeship model of learning a trade or medium.

Disegno is the term used by artists and architects of the Italian Renaissance to refer to the process of planning a painting, mural, or built structure. Disegno has no easy translation in English, because it refers to both the process of drawing, and the process of composing, designing.

This is because the Italians believed that we can only compose through making, through acting, even if its through a drawing or sketch. Alberti wrote that "Drawing does not strive to imitate matter...With the aid of reason and experience it draws out the entire form of the building, independent of any matter." Disegno strives, through analogy or metaphor, to achieve as much presence and reality in the world as the final piece.

In Renaissance Art and in today's Interaction Design, disegno and techne are often separated as labor tasks - the person who designs the thing will likely not end up building the thing. Education in art and design reflects this split - there are some schools and curricula who emphasize solely the tech, how to build the stuff, and others who emphasize only the design and concept, how to imagine the stuff. In a modern Western economy, this is often a distinction of prestige and paygrade.

At Illinois, we're are caught between these worlds - neither as prestigious and wealthy as some, but more privileged than others. So this course's approach to Interaction Design and Art will reflect our middle-class ways. We'll spend one class meeting each week on techne, and the other meeting each week on disegno.

We'll work on Tuesdays in Flagg Hall, our less programmed space. There we'll discuss, look at examples, and work in small groups on a series of design projects that will only be realized in prototype form. We'll cover some of the different methods of research and design involved in Interaction Design, introduce some design concepts and histories. Assignments here will result in four prototyped designs.

On Thursdays we'll work through a series of technical platforms, giving you enough time with each to just barely start learning it. Assignments here will result in some working examples that might not be very interesting to use or look at.

## **DESIGN PROJECT ONE: Navigating Contested Content**

Task: Navigating a Screen-Based Interface

Research Method: Paper Prototyping

Subject: Anthropological Museum

For class on 1.27, read this old article (with new introduction) on Fred Wilson's art installation, "Mining the Museum."

Please also read up on Paper Prototyping.

### *PROJECT DESCRIPTION*

With your team, you are to create a paper prototype for a touchscreen kiosk guide to the collections of University of Illinois' Spurlock Museum. Your design should reflect a particular point-of-view on the ethics and politics of displaying anthropological artifacts outside of their original and intended context.

Your guide may include the entire collections, or only one part. Include individual pages for at least 10 examples of actual artifacts, using printed reproductions from the website in your final presentation.

Be prepared to present your final product for a new user in our class - members of your team will serve as the "computer" to help a user's navigation through your site (ie. You will shuffle paper to help the prototype function.)

For the sake of time, you can substitute ("more like this" or "etc.") pages for where your design delves into larger collections of duplicated pages about specific artifacts, etc.

For the sake of time, you may also invent content or context for the Spurlock collection, as long as your fictions are based in some existing detail. (For example, you may invent that there is a whole collection of nurse's uniforms from Malaysia, collected by former Illini football star Red Grange, if you find something in the collection that suggests such a thing, and the display of such a collection makes sense for your design structure and theme.)

## **DESIGN PROJECT TWO: Branding as Feedback Loop**

Using what you've learned through Wizard-of-Oz-ing an interactive experience that provokes prolonged use through a feedback loop, construct an experience using the same form that works as a pitch for a new brand.

In essence, you'll be making a dynamic "moodboard."

Your final Wizard-of-Oz-ed prototype should function as a way to "sell" a new brand concept to potential investors, or to explain the concept to designers who would then move forward to develop marketing collateral, video promotion, marks and logos, etc. Please be prepared to pitch your concept through a combination of narration/performance and user-experience.

To that end, unity of design (through color, sound, texture, etc.) is NOT as important here - what's most important is that your experience be compelling as a feedback loop, so as to embody just what a unique and energetic mash-up of experiences your concept will be.

You may use any sounds, images, videos, props, colors, music that you like - your brand may or may not include a logo or mark, and you may also incorporate existing brands into your designed experience.

The most important part of this project is that your "pitch" for a new brand provoke prolonged, interactive interest.

In preparation for this project, you should watch the Frontline documentary "The Persuaders" to learn about how branding-concepts function, before they ever reach the designer's office. Watch online here, or look for it in the Undergrad Library on DVD (not reserved), or at That's Rentertainment video rental in campustown.

For other research into this area, you might look around at this great blog on re-branding. Pay particular interest to some of the design briefs published there, the elaborate ways in which these concepts are pitched.

Consider:

- By creating a short transition in imovie, you can go between two images or colors, then scrub the playhead in quicktime to create your changes.
- Audio can establish mood not only through associations created by specific musics, but by creating "sonic brands." Think of the opening tone of a Mac,PC, or gaming system.

You might also consider how the pop mash-up functions in the same way as an effective and new branding strategy, combining the familiars to make a new strange that "works". The 2 Many Djs series of compilations on Soulwax were among the first to popularize this approach.

### **DESIGN PROJECT THREE: The Performed Interaction**

Task: A non-verbal, gestural interface for a display-less mp3 player

Research Method: Scenarios and Personas

Subject: bodies in social relation

Create a gestural interface for operating a display-less ipod-shuffle-style mp3 player. I'm defining gestures here as any non-verbal input that is neither key/button nor mouse-based,

You should design gestures for each component of standard operation:

- play
- stop
- next track
- previous track
- volume up
- volume down
- mute / unmute

Design your set of gestures to be used with or without any object - ie, it can be while you're holding something or without any object reference at all.

You don't have to figure out how to make it work - imagine there are sensors for anything. All parts of the body are game.

Consider your set of motions as:

- easily identifiable and distinct from one another
- either exaggerated or obvious, but choose one for a reason
- either closely connected to one another in an intuitive way, or NOT, but choose one strategy for a reason
- recognizable or not

Once you've designed your set, create a series of pictograms using digital photos and drawing or vector graphics. Assemble these into a Powerpoint presentation for use in class.

Lastly, use Scenarios and Personas to prototype and evaluate your design. Imagine at least four different actors in four different settings engaged in four different specific tasks. (At least one of your scenarios should involve playback of the device without headphones, with speakers, for another to hear.) Draft them up and talk them through with your crew. Be prepared to present one slide for each scenario, and discuss with the class how your design changes for each scenario.

## **DESIGN PROJECT FOUR: Locating Good Questions**

Task: Mobility and Location-based Informatics

Research Method: Storyboarding and Video Simulation

Subject: Locative Storage and Retrieval

Locative Media examples:

Murmur

Yellow Arrows

Grafedia

Christian Nold

Justice Mapping Center

Teri Rueb

Proboscis

Sort of related

Task:

Create a video prototype for a new mobile device (or a new application for an existing device) that facilitates the storage and retrieval of digital information according to geo-spatial location (GPS).

- The task should require a user's presence at a particular location to store or retrieve the data.
- The information can take any form, but only one form – either images, text, video, or sound.
- Your audience/user-group should be some subset of the University population – student, staff, faculty

Design Goal:

Your chief goal is to identify a new problem to solve that has not been approached before. This goal may have as wide or narrow an appeal as you wish, but decide with your team why this problem is worth solving, and for whom.

Formal Considerations:

- Will the acts of storage and retrieval be voluntary or involuntary?
- Can items be stored and retrieved by just anyone?
- Will personal identity be stored along with items? Or will items be stored and retrieved anonymously?
- Is your design intended for routine use, or one-time, ephemeral use?
- How much time will pass between storage and retrieval?
- Will items expire, or be always accessible?
- Will the act of storing or retrieving be obvious to others watching?
- What will be the nature of the relationship between storer and retriever? Are they the same person, strangers, friends?
- Is your device intended to be used alone, or in groups?
- How legible will geo-spatial location be in your project? Will the user at either end be expected to pay active attention to her geo-spatial location?
- Will you approach geo-spatial location as an absolute or relative grid?