CMP 543 Intro to Systems: Designing for Interactivity
Professor Lien Tran
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Final Project:
Research and Design from Concept to Iterative Prototypes

Project Overview
Come up with a concept for an interactive product that answers a design problem that
you've identified. Do research to determine who would use or benefit from your idea
(i.e. identify your target audience) and to determine the purpose and features of your
design. You should create multiple prototypes over the course of the assignment.

This project can be an individual or group project with instructor approval.

Prototyping
In the beginning, do rapid prototyping (quick and dirty) where each prototype addresses
a particular aspect of your concept: look and feel, role, and possibly implementation.
These prototypes will inform you in what direction to proceed in creating a final refined
prototype.

Final Deliverable
- Your final prototype of the semester should serve as an integrated prototype
  that is informed by your research and prototyping explorations throughout the
  project period.
- Document all steps in your design process on your IMFA website/blog. You will
  need to present your design process both in your final presentation and in your
  final paper.
- Your final project grade will be determined based on an evaluation on your
  design process, the final prototype, and on your written paper. This project is
  worth 20 points: 15 points for the design portion, 5 points for the paper.

Final Project Paper
Your final paper should be well constructed and written (you must proofread!). It must
include the following sections:
- Abstract – 250 words or less about your project *
- Motivation – why inspired or drove you to this idea?
- Design Question – what is the design problem(s) you are trying to answer?
- Concept – In 1-2 sentences describe the problem, audience, and solution you are
  proposing.
- Audience / User Persona – who is your project for
- User Scenario – Give an example of how and why someone would come to find
  your project, how they would use it, and the outcome of using the project.

- Domains – research areas that relate to your project
- Precedents – existing projects that informed the design of your own project
- Methodology – your approach to the design process including user testing and feedback and reflections throughout the design process
- Evaluation – reflection of the final prototype
- Next Steps – plans for when/if you were to continue working on this project, including distribution

* An **abstract** should be finalized at the end of the project but is based on early questions and decisions you made. A proper abstract should generally include the following:

- The situation (domains, field of research, context, audience)
- The problem (what's broken, what's been problematic in the past)
- The idea (project's originality)
- How idea resolves the problem

Conference Submission

All graduate students should consider submitting their final project to a relevant conference. You should research relevant conferences (start by looking at ACM conferences - http://www.acm.org/conferences) and then find their conference submission template (could be an abstract, extended abstract, short paper, or long paper).

The outline for the project paper may not match the format required for your conference's submission, but sections of this project paper outline will certainly be relevant.

After the semester's end, you are strongly encouraged to revise your final paper based on the feedback you receive, including any updates between then and the submission deadline, and submit it to an academic/technology conference.

Project Objectives
1. To define a central premise and design questions for your project
2. To create work in any medium that addresses the impact of design and technology on society
3. To think about the broad definition of prototypes and interfaces (how we access, approach, and make use of art/design/information/resources)
4. To combine observational, primary and secondary forms of research, including user testing
5. To reach conclusions based on your design premise

6. To create work that is publicly accessible through its distribution or documentation (documentation of your project should be online)

Description

The final project deliverables include:

1. Research that will inform your project design
2. Personal design project
3. Research paper

I. *Research*
- You are encouraged to research a number of areas: technical areas of exploration, social observations, artists or designers who have done similar work, cultural/social/political phenomena you are commenting on etc.
- Find precedents (examples of existing, related projects) for your work! These are not only available on the Internet but also in books, magazines, journals, dissertations, etc.
    o Look at peer-reviewed journals like ACM and remember to use the proper APA reference when citing a paper: http://dl.acm.org/
- If you find sources that are generally interesting and that could be useful to the whole class, please share.

II. *Project*

- For your final project you will pursue a design premise, methodology and response of your own choosing
- You are encouraged to consider what your particular interests are in the fields of design, technology and socially based media
- You should concentrate on your own personal design process: what ideas interest you, what question(s) you want to try and answer, how to research your ideas and areas of interest, and how you produce a response to your question(s).
- You are encouraged to think of this project as an opportunity to create something for your personal portfolio and to explore ideas you might pursue for your final capstone project.

III. *Paper*

- Approach: The paper should defend your chosen response to the particular design question you sought to address through a clear, concise presentation of your research.

- In simpler terms, your paper articulates the conceptual background and methodology of your project by forming an argument based on the research you have compiled.
- The paper is not simply a summary of your project, or a research compilation, it must be structured by some argument that takes us through the research to prove the point you are seeking to make with your piece.

Questions: you might consider asking are:

- What particular aspect of your field would you like to concentrate on?
- What are the pressing questions in your field that need to be addressed, and how does your project address them?
- Who else has made interesting work in this field, and how does your project relate to it?
- How are you countering or extending this existing work?
- What can you conclude both from your project and the precedents that you researched?
- What are some open questions that your project attempted to solve that remain to be answered?

Schedule

You will only present your progress to the class each week to get feedback. It is crucial that you make a significant amount of progress each week to complete a well-rounded project in a timely manner.

You should have your project concept well defined and should have completed significant research and even start prototyping before the Thanksgiving break. You should spend the remaining part of the semester doing iterative prototyping and refining your design. Document all along the way.

Presentations of these final projects will be during the assigned exam time Tuesday December 16 from 5-7:30pm. The presentation is mandatory. You will each have 12 minutes to present (with time for feedback from the guest critics).

Final project paper is due via Queso by Tuesday December 16 at 11:59pm.