**Human-Computer Interaction**

Project #2

10% of your final grade

Assigned: Monday 1/29/2021

Form teams due date: Monday 2/8/21

Due: Friday, 2/19/2021 5 PM. Only one submission per team

**Overview:**

1. Form a team of three. Choose role: User Experience Coordinator, Project Team Coordinator, and User Studies Coordinator
2. Find clients with a problem to be addressed.
3. Interview potential clients about issues they face.
4. Identify an HCI concept to apply that might improve the problem.
5. Research existing solutions and research papers to influence your approach.
6. Propose a solution.
7. Write a proposal for your course project

**Team Roles**

***User Experience Coordinator***

Talks to customers and determines the product requirements. You will be the product owner and represent their needs.

Evaluation: if your interface addresses customer needs

***Project Team Coordinator***

Ensures that the product development gets done on time.

Evaluation: if the team implements the planned features and completes the planned tasks.

***User Studies Coordinator***

Designs and carries out the user studies.

Evaluation: Quality of the study design, conducting the study, and analysis of data.

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| --- | --- |
| A. Interview Clients | |
| Interview clients to determine:   1. their impressions of the problem you are trying to address 2. existing solutions 3. improvements the clients want 4. clients’ solutions to the interface   Conduct a **remote focus group** of at least four clients. If there is a logistical reason why that is not possible (okayed by TA), you can email questions to clients. | Grading Criteria:   * Number of client interviews * Analysis of what the clients are saying about the interface * Turn in as an appendix to your project: recap of the interview clients (you do NOT need to submit the entire transcript). This appendix does not count towards the six page total. |
| B. Identify Problem | |
| 1. Study the current problem  2. Identify existing solutions  3. Why do existing solutions not address the problem?  4. What HCI concept are you applying to address the issue? | Grading Criteria   * Clarity and the logic of arguments * Comprehensiveness of the research into existing solutions * Identification and argument for a HCI guideline, principle or theory to address issues |
| C. Existing Research | |
| 1. Find supporting scientific literature. Identify 5 papers from SIGCHI, UIST, or an IEEE/ACM conference or journal. Other sources require TA review. 2. For each paper, write one paragraph that encapsulates the results and one paragraph on how the paper impacts your design decisions. 3. Include links to the papers. | Grading Criteria:   * Quality of papers * Summarization of paper * Applicability to your project * Impact on your design * Use a formal citation method for references (e.g. MLA style) |
| D. Propose Interface Design | |
| 1. Describe your design. Explain how you are leveraging the literature references and client interview. 2. Discuss the technology you will use, design decisions, risks identified in your approach | Grading Criteria   * Quality of proposed solution based on client interview and literature * Integration of cited papers |

Estimate building the interface to take (for each teammate) about 30 hours for each student.

Report Guidelines: (7 pages - 12 point font, single space, 1” margins, PDF)

-10 points if you exceed length.

Page 1 – Interview Clients (20 points)

Describe population interviewed (including # of people) (6 points)

List questions asked and discuss the answers and the variance in responses to your questions (10 points)

Identify the pressing issues users had (4 points)



Page 2 – Current Interface (20 points)

Describe the current interface (5 points)

Describe problems with the current interface (5 points)

Describe existing solutions (5 points)

Describe HCI guideline, principle, or theory you plan on applying to address the issue (5 points)

Page 3 and 4 – Research (30 points)

Summary and appropriateness of each paper (3 points), Integration of findings into your project (3 points)

Page 5 – Proposed Interface Design (25 points)

Describe how the research and client interviews impact your design - 10 points

Describe your interface – 10 points

Technical description (software, hardware, languages) of your design – 5 points

Page 6 - Sketch a design of your interface

Page 7 - Plan for remote user evaluation (n=30) given the Covid-19 restrictions - 5 points

Project notes:

1) Do not propose small interface fixes. Identify how applying a formal model or theory will improve the existing interface.

2) You can work on existing research or other class projects, but cannot get double credit for the same work (“double dip”).

Coming up with a project:

1) Identify a client population (be very specific... e.g. not just novices, but novices at email who are unfamiliar with any email client)

2) Identify what the problem is with the existing interface (only choose one thing, and be specific again... not just 'it is confusing')

3) Read papers to identify other prior approaches

4) Integrate those ideas into a proposed solution

What makes a good issue? Something you are passionate about!

Within the guidelines mentioned on this page, you are free to choose any area or topic for your project. All of us have a hobby, a passion - it could be music, sports, cooking, design or programming. Here is your chance to use computers to explore things related to your passion as part of a class project. Choose an area you are fond of and think about an interface problem worth solving in that area - this will make an interesting and rewarding project. Something that you will be proud of and can talk about at interviews!

Common project areas:

* 1) Writing a browser plug-in for Chrome or Firefox
* 2) Mobile app development
* 3) Assistive Technologies

Common populations to help:

1. New students to UF
2. Student groups with a similar interest

If you email myself or the TA about ideas, please email with the following answered:

* 1) What HCI concepts are you applying?
* 2) How are the papers influencing your proposed design?
* 3) What other solutions/programs already exist?
* 4) Have you programmed for that platform before? If not, you should at least be able to create a hello world app before proposing your project using specific hardware or software
* 5) Is what you are proposing \*clients\* of the interface are \*asking for\*? (as opposed to you suggesting)
* 6) How are you going to find users to test it?
* 7) What tasks are you going to have users do?
* 8) What is the programming component?

Finding clients: You must use participants from your target demographic (e.g. elderly, children). Doing so requires significant planning, and discuss with me about if your project requires a very specific demographic.

Equipment: If you want to develop for a specific piece of equipment, e.g. tablet, phone, etc. you need to develop ON that item (not just use an emulator) as to ensure validity.