

SWEN 444 Human Centered Requirements and Design

Research Paper

Research Experience (100 pts) -- Done as a **PAIR**

The objective is see what industry and academia is doing to push the HCI envelope. Pick a topic, and research online and in the library to discover what innovations are underway for the user experience in terms of new hardware and software technology, and techniques for user interaction with new technology. What question or hypothesis do you want to explore about your topic?

Each pair must have a unique topic **approved by the instructor**. The topic should be current (within the last 3 years). Marketing material does not count nor can the topic be a specific product or language/platform. There are great resources online from industry and from academia (research groups/labs). The sources must primarily be scholarly sources - Wikipedia and similar sources won't count as sources though they can help you find sources.

Literature review resources:

Conferences such as ACM SIGCHI, ASSETS, CSCW
ACM journals such as TOCHI, TiiS, and TACCESS (<http://dl.acm.org>)
<http://scholar.google.com>
Hint: use <http://library.rit.edu/> to get free access to the research papers

The final paper should be in the range of 8 to 10 pages (quality over quantity). Be sure to include a list of **at least eight references** that you used for your topic. Use either the **ACM or APA research paper template**.

Research Paper Milestones

1- Research paper idea (proposal):

Submission: Provide an abstract paragraph about the topic and contents of the paper.
List at least **four references**.

2- Research paper (draft):

Submission: Introduction, literature review, and **six** references

In the introduction, describe in more detail the topic of your paper. What technology is involved? Who are the users, what are the possible applications? What are the UX implications? Why do you think it is important topic in the field of HCI design? What questions/hypotheses do you want to explore?

In the literature review section, write a short paragraph about each reference paper you reviewed and how it impacted the field. At the end of the literature review section, write a summary for what you learned from all these papers.

3- Research paper (final):

Submission: Introduction, literature review of all references, your analysis of the UX implications for the technology, and the list of references (at least **eight**).

Your analysis should compare, consolidate, and critique the reference content to address the following questions. What should the UX designer consider in utilizing the technology in applying the UX life cycle, especially in doing design? What are the pros and cons of utilizing the technology from the perspective of the users' experience? What is your assessment of the rate and timing of mainstream adaptation of the new technology into products including barriers to adaptation? As a user would you use an interface based on the technology, why or why not? Overall, were your initial hypotheses answered?

Grade rubric:

- Research proposal: 15 pts
- Draft (intro, lit review): 25 pts
 - The introduction provides an adequate context for the paper. The who, what, and why questions are answered.
 - The six references are appropriate and the reviews provide an adequate overview.
 - A summary of references is provided.
- Final (intro, lit review, analysis): 50 pts
 - The introduction is updated as appropriate.
 - The eight references appropriate and the reviews provide an adequate overview.
 - The analysis addresses the questions of UX life cycle implications, UX pros and cons, adaptation rate, your interest, and your conclusions.
- For all deliverables, make sure to have the following criteria: 10 pts
 - Good technical writing (e.g. grammar, spelling, style)
 - Use of either the ACM or APA research paper template
 - Legibility: lack of it will be a penalty, as it is important
 - Scholarly references