IN4MATX 232: Research in HCI

Class 3:

Anatomy of an HCI Paper

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Announcements

- First assignment is posted
- Reverse outline of two papers of your choosing, much like today's class
- Due Monday, January 27
- Next week is Health week! Readings are up for both Tuesday and Thursday
- After that, Critical Computing (Josa, Sohyun)

Why is paper structure important?

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- Signposting for the reader; easier to get the main takeaways
- Supporting readers with no knowledge of the topic as well as experts
- Demonstrating how this new work adds to pre-existing scholarship

Articulating the contribution

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- Something having not been studied (absence of literature) is insufficient
 - Why does it matter to society? Scholars? Anyone?
 - Importance is subjective, and changes over time. But it does need to be articulated
- "Thesis" in the reverse outlining sheets is, more or less, the demonstration of how your contributions answer the research question
 - But no need to get too caught up in the terminology

"The first"

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- I don't like explicitly stating that my study is "the first" study to do something
 - Often gets caught up in identity, e.g., "the first" study to consider X with Y population
 - Misses on articulating the importance of the study
 - If you're wrong, you have egg on your face
- Instead, I try to highlight the research gap as previously described
- But this is a stylistic choice, many people use "first" and it's fine

Other small things

- Keywords: up to the authors discretion,
 the ACM classification words fall out of date quickly
- Related work: Need to articulate how your work expands on prior work, but structurally can be either in each subsection or at the end of the whole section
- Limitations: I prefer to put them at the end of methods, to head off reader critique prior to results

Other small things

- Discussion: you can include points for multiple audiences.
 I often see separate "researcher" and "practitioner" subsections, for example
- Conclusion: reiterate the main takeaways and their implications.
 No need to reintroduce the problem and its importance
- Abstract: <u>describe your findings</u>, there's nothing more frustrating than an abstract that says "we found things which answer XYZ research question"
- Repetition: there's a lot of it in papers. It helps make papers more readable, and forces authors to clearly articulate their contributions.

Let's practice! Get into groups of 2-3.

For Hsueh et al...

Practicing reverse outlining

- In the introduction...
 - What's the problem being solved or studied? Is it a societal problem?
 A technology problem? A problem with the research field?
 - How does the paper transition from this problem to their specific study?
 - How does the paper transition to the methods employed?
 - How does the paper introduce the takeaways?

Practicing reverse outlining

- Throughout the paper...
 - What are the related areas of research introduced? How does the paper articulate how it builds on or extends that literature?
 - What are the main findings of this work? Where in the paper are these articulated?
 Where are they reiterated?
 - What are the main takeaways from those findings? Where in the paper are these articulated? Where are they reiterated?

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