WRITING A SUCCESSFUL CHI PAPER (IN TWO(?) PARTS)

or, my perspective on it…

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Spring 2015
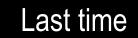
OUTLINE

- Part 1:
  - About CHI
  - What makes CHI different
  - ~~Anatomy of a CHI paper~~

- **Part 2:**
  - **Anatomy of a CHI paper**
  - **CHI submission quirks**
  - **Tips & tricks**
  - **Other CHI venues to consider**

Last time

TODAY

WRITING A SUCCESSFUL CHI PAPER (PART 2)

02/10/2015

OUTLINE

- Anatomy of a CHI paper
  - Start with your Abstract
  - Make sure to generalize!

- CHI submission quirks
  - Choosing a subcommittee
  - Keywords

- Tips & tricks

- Other CHI venues to consider
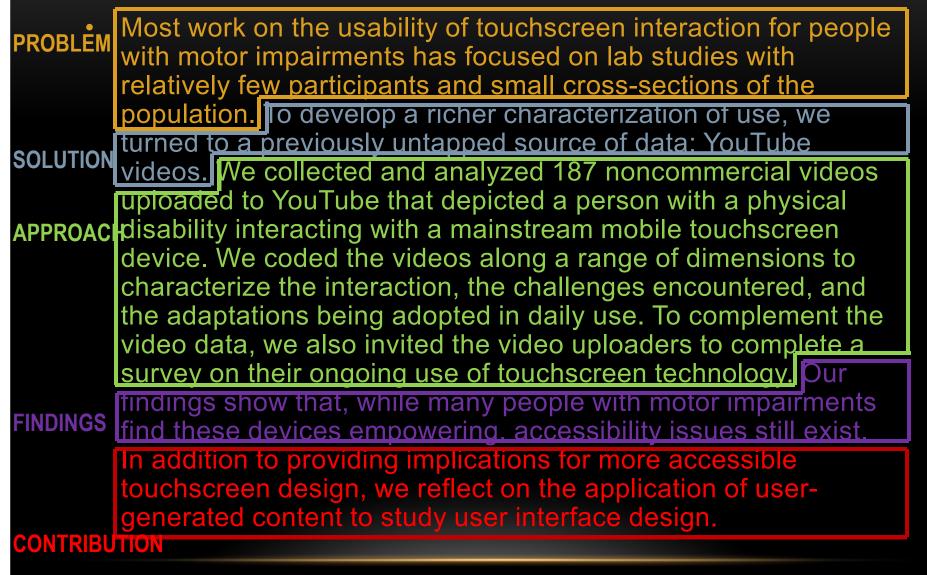
ANATOMY OF A CHI PAPER

START WITH AN ABSTRACT

- I use this formula to write all my paper abstracts:

    1. What is the problem? (1 sentence)

    2. What is our solution? (1 sentence)

    3. What did we do specifically? (specific approach, 1-3 sentences)

    4. What are top 1-2 findings to take away? (biggest impact)

    5. How will this help the field of HCI? (1 sentence)

EXAMPLE ABSTRACT #1

- Most work on the usability of touchscreen interaction for people with motor impairments has focused on lab studies with relatively few participants and small cross-sections of the population. To develop a richer characterization of use, we turned to a previously untapped source of data: YouTube videos. We collected and analyzed 187 noncommercial videos uploaded to YouTube that depicted a person with a physical disability interacting with a mainstream mobile touchscreen device. We coded the videos along a range of dimensions to characterize the interaction, the challenges encountered, and the adaptations being adopted in daily use. To complement the video data, we also invited the video uploaders to complete a survey on their ongoing use of touchscreen technology. Our findings show that, while many people with motor impairments find these devices empowering, accessibility issues still exist. In addition to providing implications for more accessible touchscreen design, we reflect on the application of user-generated content to study user interface design.

EXAMPLE ABSTRACT #1

PROBLEM

SOLUTION

APPROACH

FINDINGS

CONTRIBUTION

Most work on the usability of touchscreen interaction for people with motor impairments has focused on lab studies with relatively few participants and small cross-sections of the population. To develop a richer characterization of use, we turned to a previously untapped source of data: YouTube videos. We collected and analyzed 187 noncommercial videos uploaded to YouTube that depicted a person with a physical disability interacting with a mainstream mobile touchscreen device. We coded the videos along a range of dimensions to characterize the interaction, the challenges encountered, and the adaptations being adopted in daily use. To complement the video data, we also invited the video uploaders to complete a survey on their ongoing use of touchscreen technology. Our findings show that, while many people with motor impairments find these devices empowering, accessibility issues still exist. In addition to providing implications for more accessible touchscreen design, we reflect on the application of user-generated content to study user interface design.

EXAMPLE ABSTRACT #2

- Current measures of stroke gesture articulation lack descriptive power because they only capture absolute characteristics about the gesture as a whole, not fine-grained features that reveal subtleties about the gesture articulation path. We present a set of twelve new relative accuracy measures for stroke gesture articulation that characterize the geometric, kinematic, and articulation accuracy of single and multi-stroke gestures.   To compute the accuracy measures, we introduce the concept of a gesture task axis. We evaluate our measures on five public datasets comprising 38,245 samples from 107 participants, about which we make new discoveries; e.g., gestures articulated at fast speed are shorter in path length than slow or medium-speed gestures, but their path lengths vary the most, a finding that helps understand recognition performance. This work will enable a better understanding of users' stroke gesture articulation behavior, ultimately leading to better gesture set designs and more accurate recognizers.

EXAMPLE ABSTRACT #2

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Current measures of stroke gesture articulation lack descriptive power because they only capture absolute characteristics about the gesture as a whole, not fine-grained features that reveal subtleties about the gesture articulation path. We present a set of twelve new relative accuracy measures for stroke gesture articulation that characterize the geometric, kinematic, and articulation accuracy of single and multi-stroke gestures. To compute the accuracy measures, we introduce the concept of a gesture task axis. We evaluate our measures on five public datasets comprising 38,245 samples from 107 participants, about which we make new discoveries; e.g., gestures articulated at fast speed are shorter in path length than slow or medium-speed gestures, but their path lengths vary the most, a finding that helps understand recognition performance. This work will enable a better understanding of users' stroke gesture articulation behavior, ultimately leading to better gesture set designs and more accurate recognizers.

INTRODUCTION MIRRORS ABSTRACT

- I usually start with the abstract pasted again, and expand each item out into its own paragraph to go into more detail.

  1. What is the problem? (establish societal need, context)

  2. What is our solution? What did we do specifically? (1 paragraph together, add a little more relevant detail)

  3. What are top 1-2 findings to take away? (biggest impact again but also include a summary of more detailed findings, try to include a figure too)

  4. How will this help the field of HCI? (describe contributions in detail, bulleted list, what would be next steps)

- See my **Anthony et al, CHI 2013** and **Vatavu et al, ICMI 2013** papers again for examples.

WRITING THE REST OF THE PAPER

- Don't get creative! Using a **standard structure** helps your reader (and reviewers) follow your paper.

- Think of writing the paper as a **user-centered design** problem.
  - Your reader is your user.
  - Make it easy to understand.
  - Make it fit user's mental model.

TYPICAL OUTLINE FOR STUDY PAPER

- Abstract

- Introduction

- Related work

- Methodology / Procedure

  - Participants

- Analysis / Results

- Discussion / Design recommendations / General contributions

- Conclusion

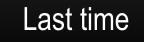# TYPICAL OUTLINE FOR SYSTEM PAPER

- Abstract

- Introduction

- Related work

- Design process

- Architecture / Approach / Algorithm

- Validation / Evaluation
  - Maybe a small user study

- Discussion / Design recommendations / General contributions

- Conclusion

MAKE SURE TO GENERALIZE!

- Top 3 pieces of information missing from a rejected CHI paper:

  - **Contributions**: spell them out in again!

  - **Generalizable knowledge**: how does what we learned in this paper branch out beyond the specific context of this paper, how have you informed the field

  - **Replicability**: include enough detail so someone else could run your study and replicate your results (not that anyone ever will, but that's a topic for another seminar!)

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- **Part 3?:**
  - **CHI Note vs CHI Paper**
  - **CHI Abstract Workshop**

Last time

TODAY

Next time?
Mar. 10, 2015