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Sketchnotes for Visual Thinking in HCI

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Abstract

Paper-pencil sketches are a valuable tool during different stages of experience design in human computer interaction. *Sketchnotes* – hand drawn visual notes of meetings, presentations, or other events – are one strategy for integrating sketching into interaction designers' everyday practice. With various examples we illustrate how sketchnotes facilitate visual thinking, sense making, reflection, application of ideas, sketching practice, and sharing.

Author Keywords

Sketching User Experiences, Visual Thinking, Sketchnotes

Introduction

When designing user experiences, hand drawn paper-pencil sketches are a valuable tool for finding the right design; long before beginning to getting the design right [3]. Sketches are lightweight and easy to create, and by varying the fidelity of created sketches they can be a part of all stages of interaction design. Recent articles [1] and books [4] introduce strategies of how to use sketches when designing user experiences. As one example of an everyday sketching strategy, we illustrate how to use *sketchnotes* as a tool to foster visual thinking in human-computer interaction design.

Sketchnotes

Sketchnotes are hand drawn visual notes of talks, presentations, meetings, or any other kind of event [2]. For example, Figure 1 shows sketchnotes of

presentations at UIST '11. Sketchnotes share a few common characteristics: First, they are real-time drawn visual summaries of what is presented or talked about at a particular event. Second, the content on the page mixes sketched visual elements (e.g., devices and people's hands interacting with these devices in Fig. 1) with text (e.g., project names, annotations, descriptions). Third, the sketched elements vary in fidelity and level of detail: some illustrate an overview of a particular concept; others show specific details of an implementation.

For several reasons sketchnotes can be a valuable tool for supporting visual thinking:

1. **Sense making:** synthesizing the core concepts of an idea into a visual composition is a challenging task, but can support the sense making process about what is being presented or talked about.
2. **Reflection:** browsing over the personal collection of hand-drawn sketches for reflecting on ideas is often easier than just reading written text notes. The drawn visual parts help to quickly recall essential ideas of projects, to critically reflect on ideas and to ideate new ones.
3. **Application:** sketchnotes are not only summaries of what is talked about but include additional notes and sketches of related ideas (e.g., own designs, possible future work, open questions) that come to mind while drawing the sketchnotes.
4. **Practice:** drawing sketchnotes helps improving one's rapid sketching skills over time. As often when acquiring new skills, applying them repeatedly helps becoming more proficient and efficient.

5. **Sharing:** visual notes are ideal for sharing.

Showing and explaining sketchnotes to others can be an inspiring trigger for discussions. Blogs are a common platform for sharing sketchnotes (e.g., Mike Rohde's sketchnote blog [5]).

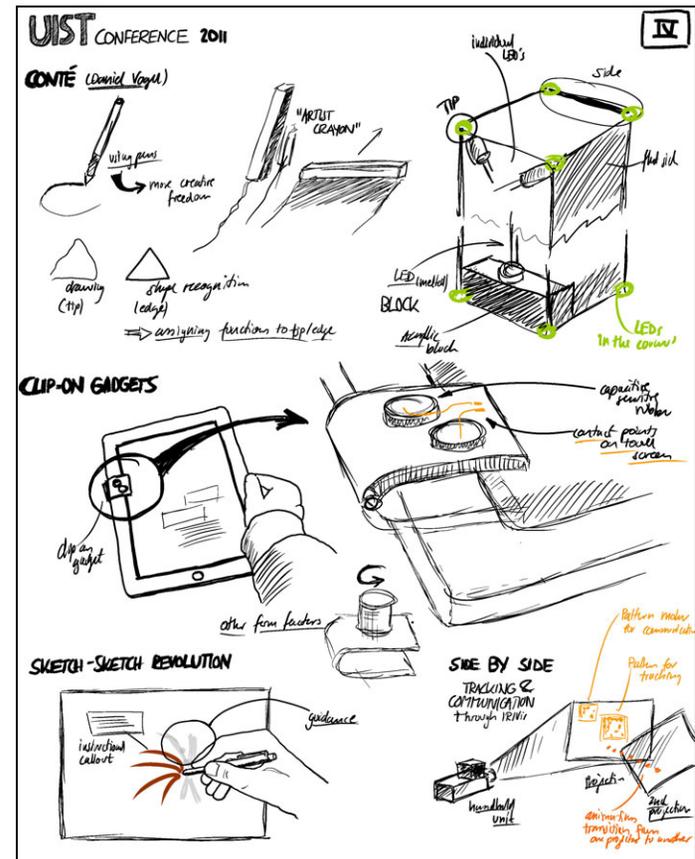


Figure 1. Sketchnotes from UIST 2011, summarizing four presentations at the conference.

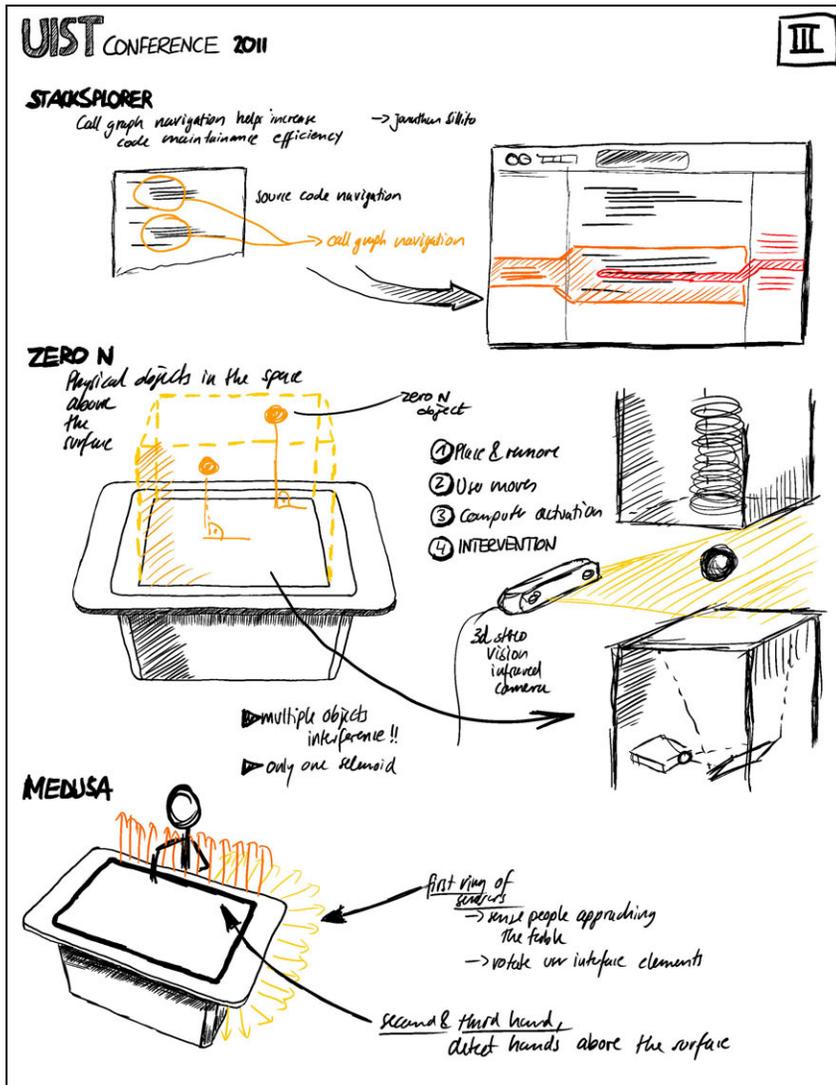


Figure 2. A second sketchnote from UIST 2011. The top part illustrates a GUI design; the bottom part explains device prototypes (e.g., interactive tabletops)

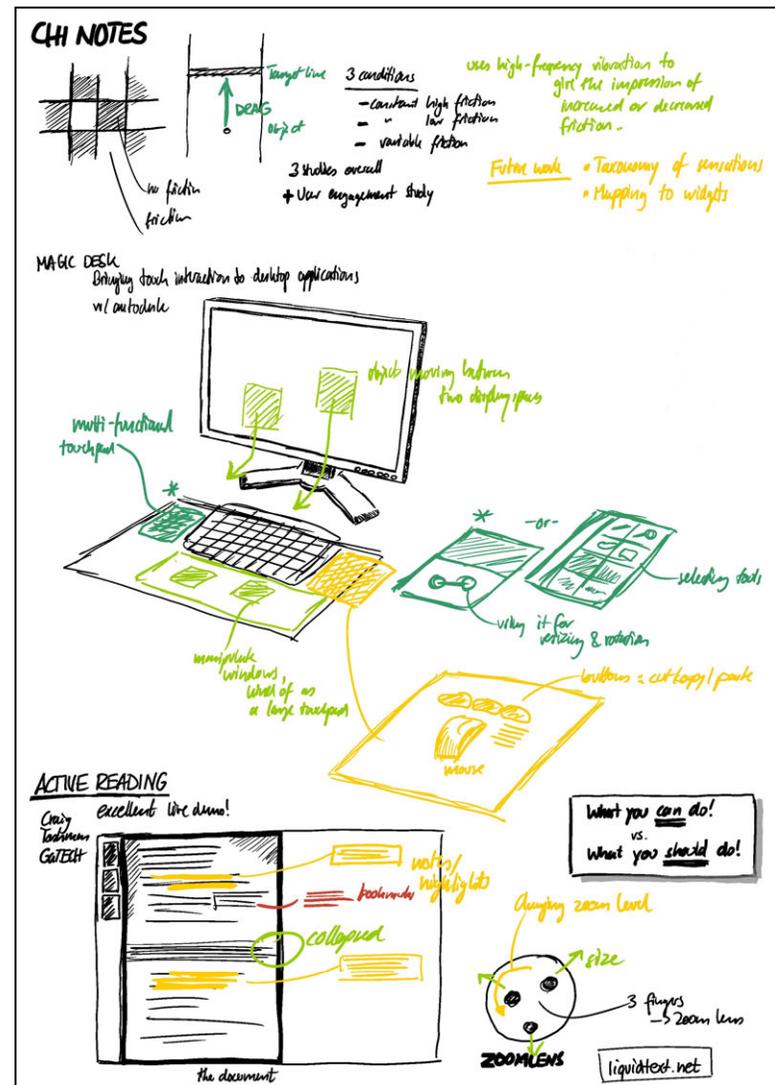


Figure 3. Sketchnotes from CHI 2011. Different colors highlight parts of interfaces or annotations.

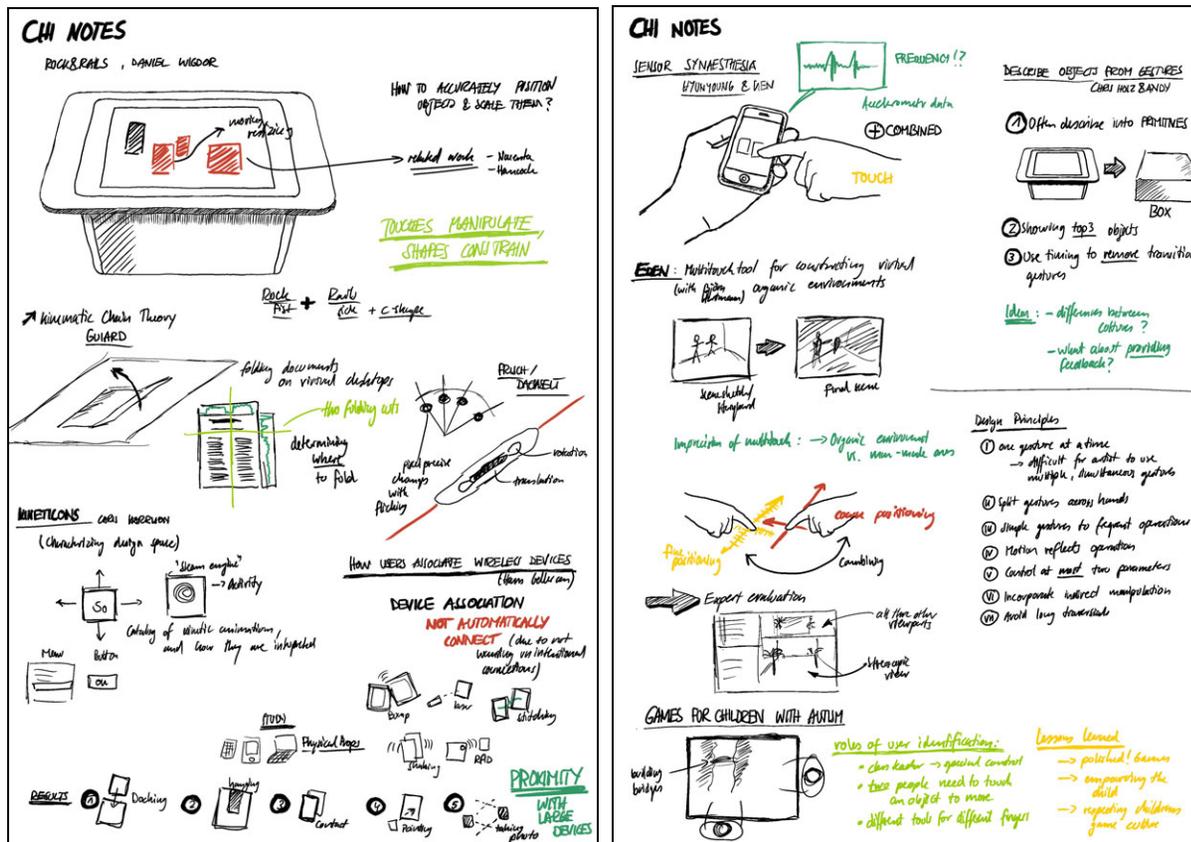


Figure 4. More sketchnotes of research projects presented at CHI 2011.

Best Practices for Creating Sketchnotes

The following best practices (inspired by [2,4]) can help getting started with sketchnoting:

- Try to reduce the amount of text in notes, focusing on the essential concepts, ideas in a meeting, or quotes of a talk.
- Add simple graphical elements to the page; e.g., boxes highlighting text, circles around an important quote, or arrows emphasizing a sequence (Fig. 5).

- Begin adding other visual elements to the page. For example, a series of simple stick figures can help to illustrate an interaction sequence.
- Instead of a linear flow from top to bottom of the page, sketch and write on any part of the page for a more dynamic assembly of notes.
- As an exercise, try to summarize each presentation in only one single image. For example, if a talk is about a new system, draw the important aspects of that device. Or, if a meeting is about a new gestural interaction technique, try to draw a person's hand performing that kind of gesture.
- Instead of erasing parts of a drawing when something goes wrong, leave the content on the page and continue on the white space around it.
- Few selected colors can help emphasizing parts of an interface drawing or annotations (e.g., Fig. 1-5).

- Identify a set of common elements that you repeatedly use in your sketchnotes, and learn how to quickly draw a simple outline of these elements. For examples, our sketchnotes often include devices such as interactive tabletops (see Fig. 2,4) or screens (Figure 3), or people's hands performing gestures (Figure 1), so we learned to quickly draw outlines of these elements.

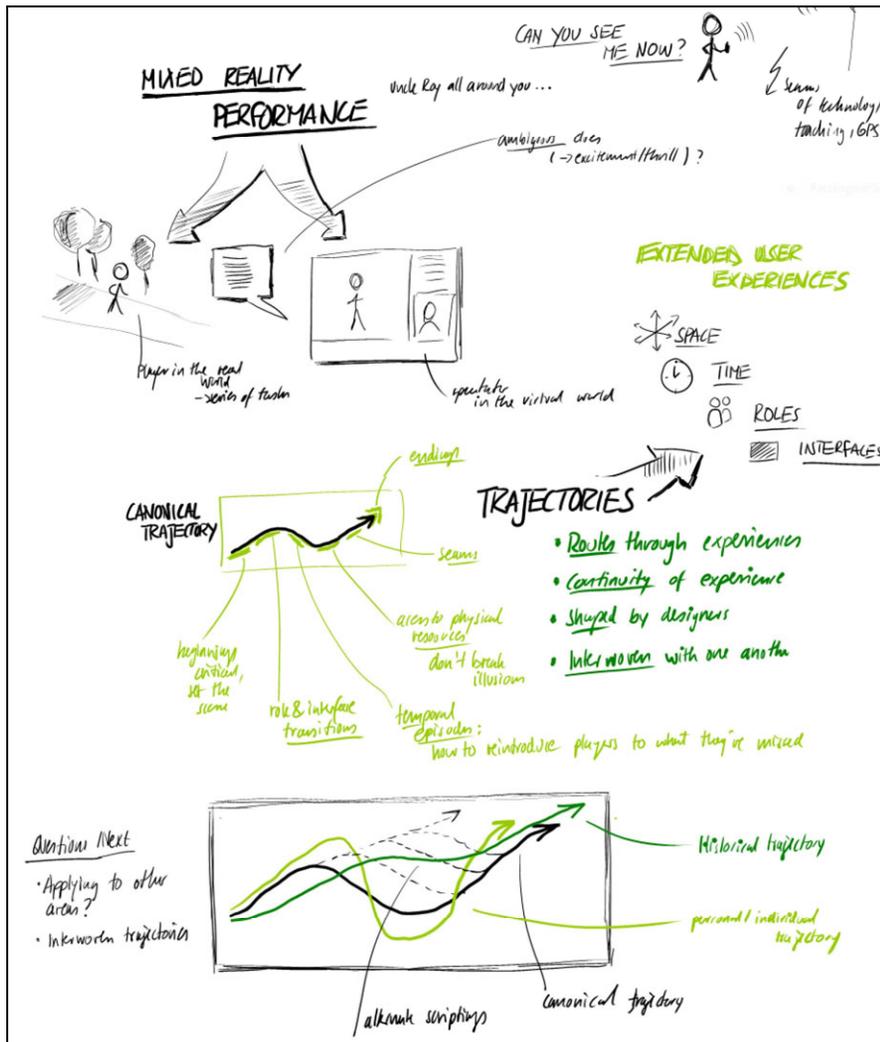


Figure 5. Sketches of a talk presented by Steve Benford in 2011.

- Pencil and paper are all the tools needed, but it is possible to use digital tools for sketchnoting. For example, the sketchnotes in this paper are all created on a pen-enabled tablet. Digital sketching software has the advantage of allowing using templates or copy & paste to reuse parts of a sketch.
- Archive your sketchnotes in some form, such as in a bound sketchbook or as digital scans. Putting a date and event name on every sketchnote becomes very useful when revisiting the pages later.

Conclusion

Taking sketchnotes of events can help integrating sketching into interaction designers' everyday practice. Sketchnotes can support sense making and reflection on the talked content, are an opportunity for practicing sketching, and facilitate relating the new heard information to own projects. We are interested in discussing this and other visual thinking strategies at the CHI *Visual Thinking & Digital Imagery* workshop.

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