


User Interface Software Project

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INF 134 Winter 2011



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Interactive Paper Interfaces

Content derived from Buxton, [Sketching User Experiences/](#)

Interactive Paper Interfaces

- It is a part of a participatory design process
- General Goal:
 - Use rapid prototyping to explore the design space
 - Works well with brainstorming
- Important that it be sketched
- Sketched is not just about drawing, it's also an attitude



Interactive Paper Interfaces

- Why sketching?

- Quick
- Timely
- Inexpensive
- Disposable
- Plentiful
- Clear Vocabulary
- Distinct Gesture
- Minimal Detail
- Appropriate degree of refinement
- Suggest and explore, not confirm
- Ambiguity

Quick to make (at least after some practice)



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Can be provided when needed



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A sketch is cheap. High cost inhibits design (early in the process)



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Interactive Paper Interfaces

- Protocol
 - One person sketches and operates the sketch
 - One person is the user
 - Both are important
 - Both talk the whole time the interface is tested.
 - Sketcher explains the task
 - User verbalizes what they are thinking, looking for, expecting

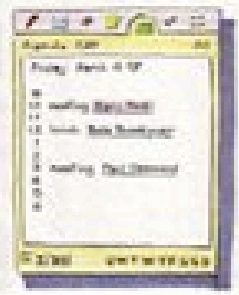
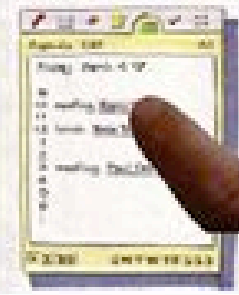
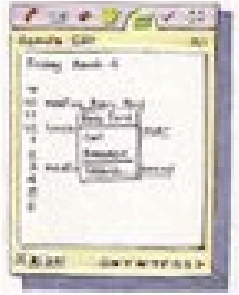
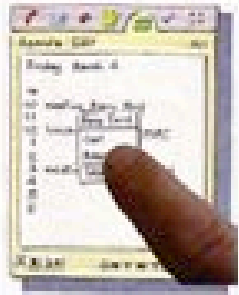
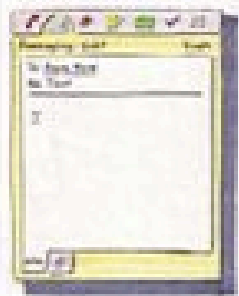


Interactive Paper Interfaces

- Protocol
 - Operating the sketch means:
 - Presenting views of the interface to the user
 - Replacing views as the user interacts.
 - Being a user means
 - Using your hands to point and click
 - Verbalizing what's going on in your head



Interactive Paper Interfaces

	Facilitator	User
	(Start: Sketch 1.a in front of user.) The sketch in front of you shows the screen of your PDA. I want you to send a message to your 10:00 am appointment. For this exercise, to do anything, just touch what you think is appropriate on the screen, and tell me what you are doing or thinking as you go along.	
		Okay. I assume that you want me to send a message to Mary Ford, since she is my 10:00 am appointment. So I will touch her name.
	(Facilitator replaces sketch 1.a with 2.b)	Now I see a menu that lets me either call her or message her.
		So, what I will now do is touch "message" on the menu.
	(Facilitator replaces sketch 2.b with 4.a)	Okay. I now see a screen that lets me send a message to Mary Ford. What now?

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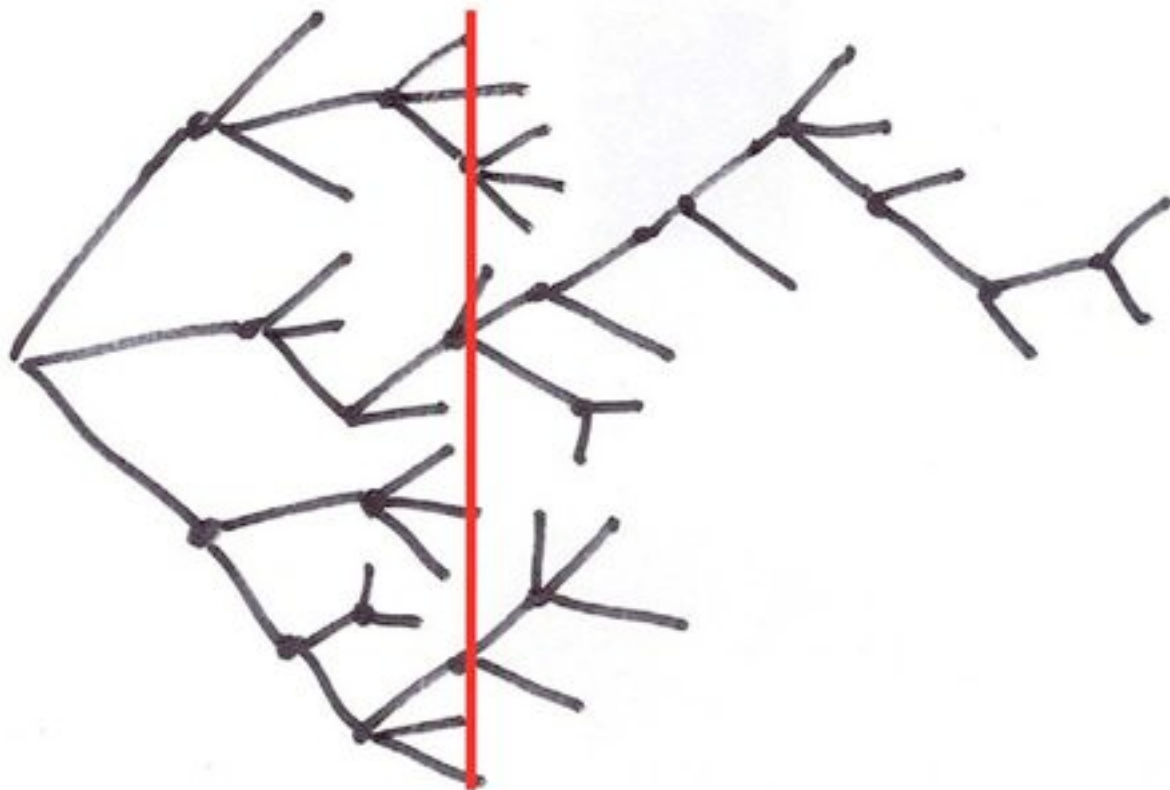
Interactive Paper Interfaces

- What are possible outcomes?
 - Insight into the task
 - New ideas of how to implement it differently
 - Expose design errors (obvious in hindsight)
 - Insight into the user's expectations
 - A video capture to be sent to remote collaborators
 - An analysis of the sketched interface

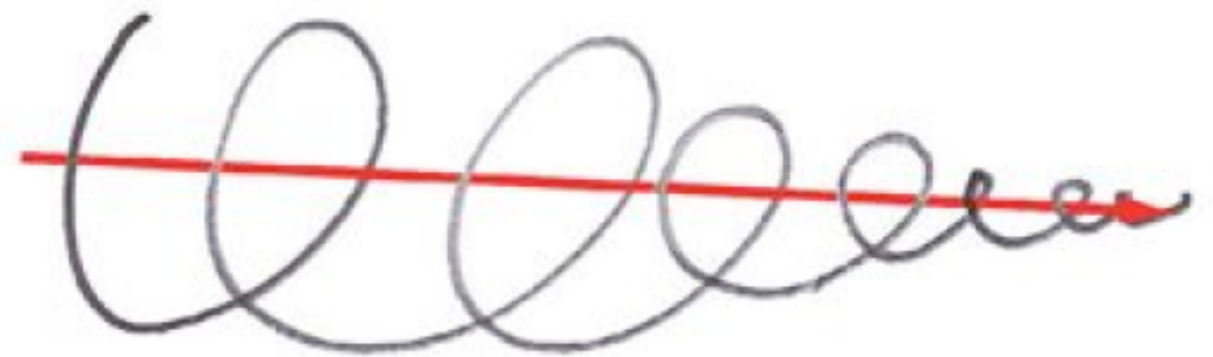


Interactive Paper Interfaces

- Two ways of thinking of this task



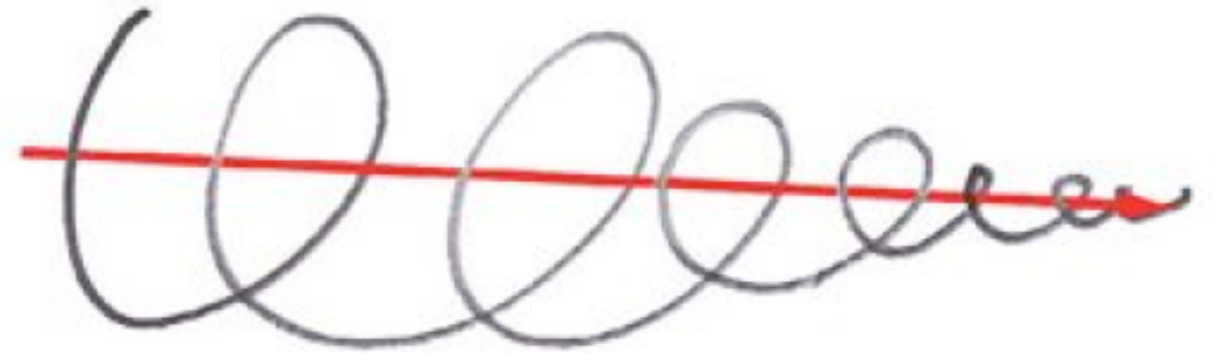
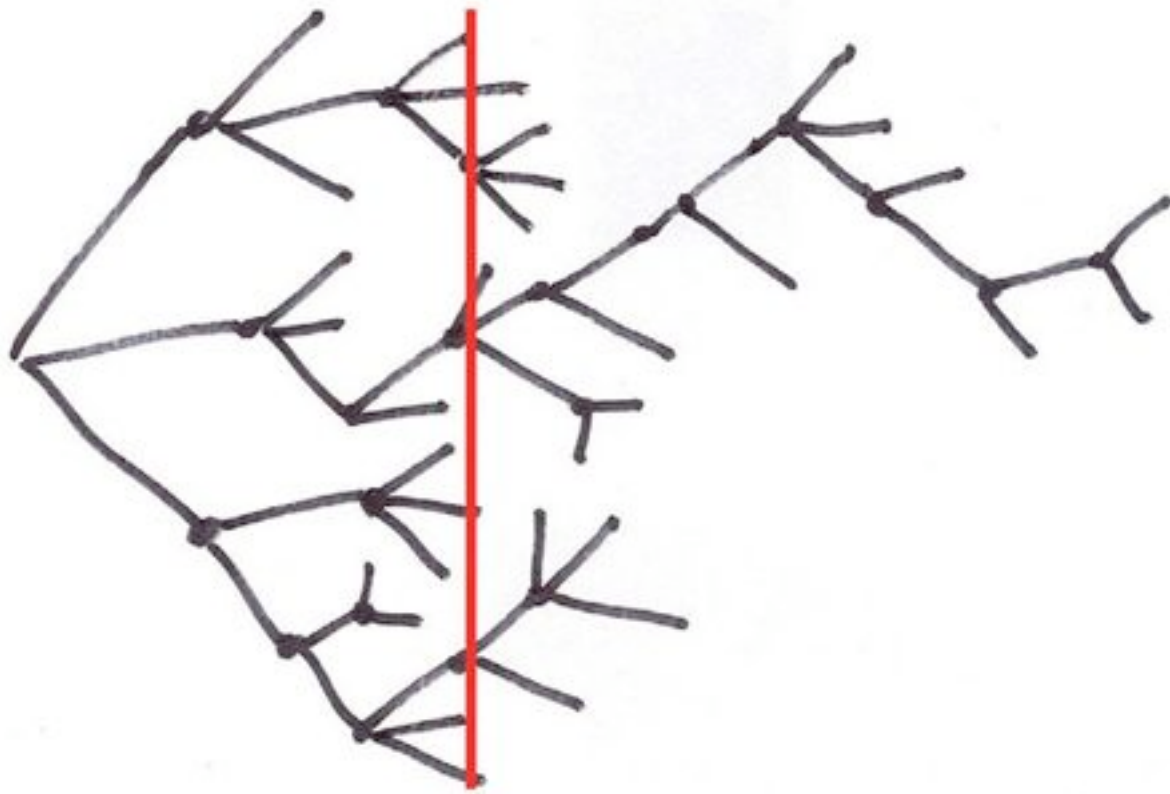
- Design
 - “Sketching”



- Usability Engineering
 - “Paper Prototyping”



Interactive Paper Interfaces



- The role of design is to find the best design
- The role of usability engineering is to help make that design the best



Interactive Paper Interfaces

- Paper Interfaces in the wild
 - Designing an oscilloscope
 - Textronix only iterated in paper
- This example shows that poor keyboard design was discovered.
- Notice the way the user's unconsciously put their fingers in the right position to manipulate the dials as if they were physical



Interactive Paper Interfaces

- Paper Interfaces in the wild
 - tektronix



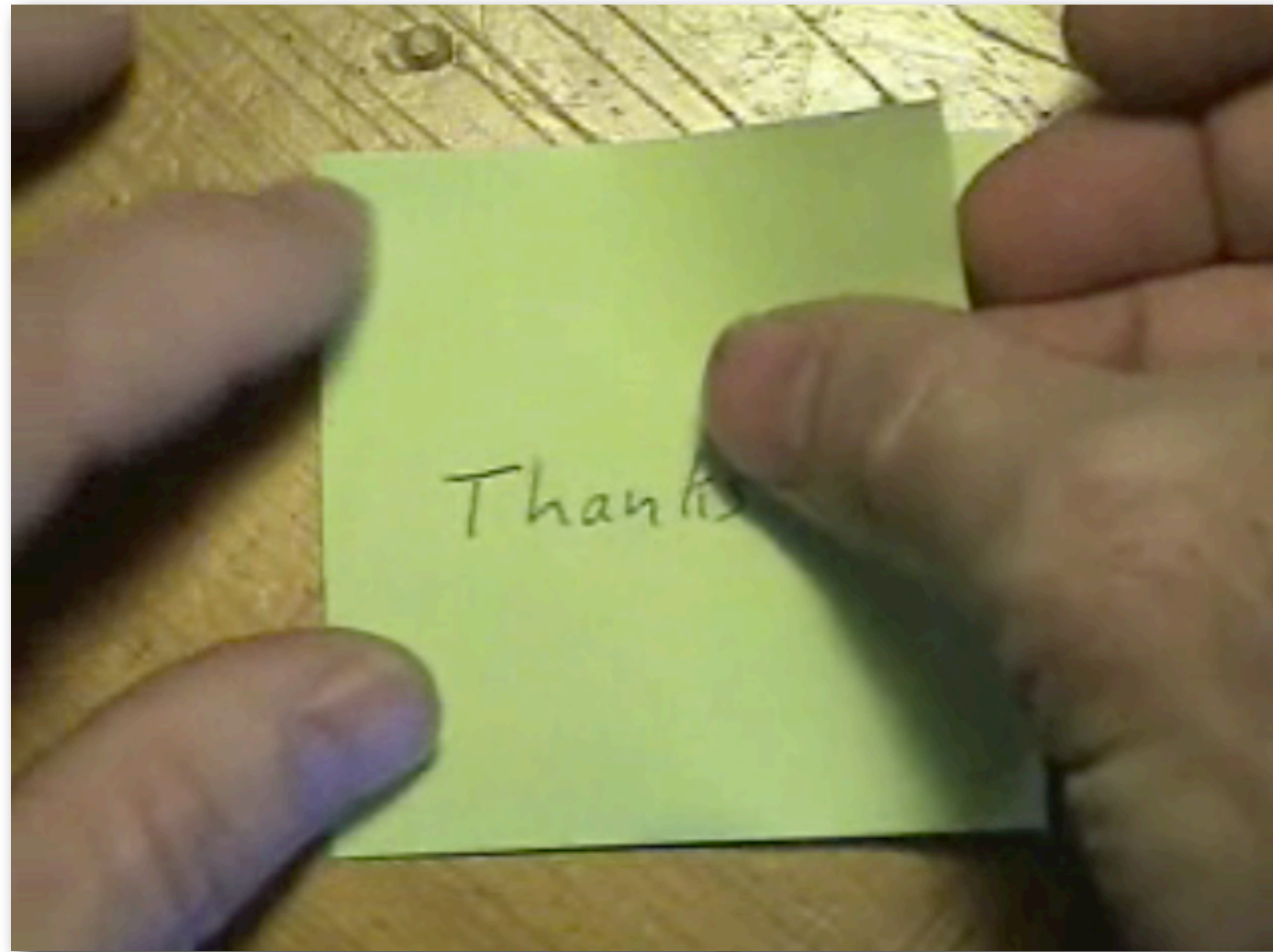
Interactive Paper Interfaces

- Try it
- Create an interface with two buttons
 - “Touch”
 - “Do not touch”
- Create a landing page for each
 - With a back button for “Do not touch”
- Test it with a partner



Interactive Paper Interfaces

- Turning it into a video example
 - Post it note example video



Interactive Paper Interfaces

- iPhone example
 - Notice how a cut-away can be used
 - <http://www.youtube.com/watch?v=6TbyXq3XHSc>
- Physical example
 - Notice how an entire kiosk can be “sketched”
 - <http://www.youtube.com/watch?v=jkvqLd-CMyY>

