sketching interfaces:
toward more human interface design

Presented by Fanglin Chen
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James Landay got his Ph.D. from CMU working with Brad Myers, and now is a Professor of Computer Science in at Stanford University. His PhD dissertation was the first to demonstrate the use of sketching in user interface design tools. During his time at University of Washington, he co-founded the Intel Lab Seattle and the DUB group in the university which helped form a community of researchers to explore the new usage models, applications, and technology for ubiquitous computing.
Problem in any design process:

- Paper sketches are hard to modify and reuse.
- Because they are static, it’s not very easy to demonstrate the design flow for real user testing.
“We interact with documents in two separate worlds: the electronic world of the workstation, and the physical world of the desk. Interaction styles in these two worlds do not resemble each other, functions available are different, and interaction between the two is limited.”

Pierre Wellner, Xerox Researcher, 1993
SILK (Sketching Interfaces Like Krazy)

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SILK
SILK (Sketching Interfaces Like Krazy)

- Rubine’s algorithm: statistical PR
- Angles and point-to-point distances are distinguishing features
- 15 to 20 examples for each primitive component.

Operations:
- Delete
- Group
- Ungroup
- New guess
- Text editing

Widgets:
- Check box
- Button
- Radio button
- Text field
subsequent work
sketching interfaces on the wall

has become electronic, retaining haptic direct manipulation.
sketching animated drawings

k-Sketch: A "Kinetic" Sketch Pad for Novice Animators
sketching in 3D

Teddy: A Sketching Interface for 3D Freeform Design
DRACO: sketching animated drawings with kinetic textures
Animation is anything but easy. That is, unless you’re using our 2016 iPad App of the Year. SketchBook Motion’s first trick is ditching insider terms like “keyframe” and “timeline” — instead opting for wonderfully natural words like “wind” and “rain”...

— App Store Editor
sketching methods for higher fidelity prototyping

“but that's exactly the point, and embracing such aspects is not only fun, it leads to better design. Scott's HCII seminar talk last semester was great -- one of his key points was the power of low fidelity prototyping for successful design.”

Yasmine

“It might make it more efficient if the conversion between the sketch and the digital interface gets really good, but I think there’s still value in undergoing a non-sketch-based process for high-fidelity prototyping, because it might give a different perspective for iterating on your design.”

Fannie

“It might be ideal if SILK, in that case, could capture some of the style of the high-fidelity prototype, instead of a rough-sketch style. For example, figure out what the high-fidelity 'button' looks like.”

Mary Beth
why SILK seems to fail to evolve as a popular prototyping tool

“I did a quick Google Search and no one seems to have continued this work. WHY? As design faculty often mention, it is so hard to find prototyping tools that work well, and this is perfect!”

Franceska

“However, POP is not a popular tool today. Many end-user facing tools may not be necessarily needed. For example, Designers today are familiar with and used to the modular prototyping interfaces. The learning curve and benefits of modular prototyping system can beat SILK like systems.”

Haojian

Or are people just so familiar with more "high-fidelity" tools these days that there's no need for the approachability of the sketch-based apps?

Alexandria