Interaction Design

Prototyping UX - From Sketch to Prototype

Overview:

- Intro & Designprocess Phase
- Values and Levels of Prototyping
- UX Prototyping Techniques
- Prototyping Case Study



source: [11]

User Experience Design



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Overview

DISCOVER

DEFINE

Research

Innovate

Prototype

DE

Overview

Tell a story Make it tangible

DEFINE

Prototype

D

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For the Designer:	Exploration Visualisation Feasibly Inspiration Collaboration
For the End User:	Effectiveness / Usefulness A change of viewpoint Usability Desirability
For the Producer:	Conviction Specification Benchmarking

It's really hard to design products by focus groups. A lot of times, people don't know what they want until you show it to them.

Steve Jobs

Fidelity v. Resolution



low resolution low fidelity



high resolution low fidelity



high resolution high fidelity

Low Fidelity

High Fidelity

Open Discussion

Prompting Required

Quick and Dirty

Early Validation

Sharp Opinions

Self Explanatory

Deliberate and Refined

Concrete Ideas

source: [5]

Low Resolution

High Resolution

Less Details

Focus on core interactions

Quick and Dirty

Early Validation

More Details

Focus on the whole

Deliberate and Refined

Concrete Ideas







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A principle for setting priorities: users will use 20% of the features of your product 80% of the time. Focus the majority of your design and development effort (80%) on the most important 20% of the product.

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Paper-prototyping

What is it?

Paper prototyping is a widely used method in the usercentered design process, a process that helps developers to create products/screen based applications that meets the user's expectations and needs.

It is **throwaway prototyping** and involves creating rough, even hand sketched, drawings of an interface to use as prototypes, or models, of a design.

History

Paper prototyping started in the mid 1980s and then became popular in the mid 1990s when companies such as IBM, Honeywell, Microsoft, and others started using the technique in developing their products.



Paper prototype of a typical form-filling screen



User test of a low-fidelity paper prototype of a website



Paper prototype of a tabs-based design



Typical set-up of the usability laboratory for a test session with a paper prototype



User test of a device-based interaction



User test of a high-fidelity paper prototype of a homepage.



Testing hardware user interfaces: mockup of a kiosk.



http://www.balsamiq.com/products/mockups



Video-prototyping

http://2.bp.blogspot.com/-CBtuuif7rZ4/U0MBJkCUfgI/AAAAAAAEi4/fYp1bJOcdVY/s1600/Canon+XF205+left+side+view.jpg

Acting out the Scenario

Work place

Call centre

Home

Dealership

On-line support



Quick Kiosk Mock-up



Sketching with Hardware





Atmel AT Mega 328

Raspberry PI

http://upload.wikimedia.org/wikipedia/commons/3/3d/RaspberryPi.jpg http://www.onlymine.de/wp-content/uploads/arduino-nano-board-z.jpg







Thermistor

Bend Sensor

PIR Sensor







Potentiometer



Magnet Switch



Distance IR Sensor



Touch QT Sensor



Ultrasound Sensor

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References (books)

Bill moggridge: designing interactions

Publisher: The MIT Press; 1 edition (October 1, 2007)

ISBN-10: 0262134748

Bill buxton: sketching the user experience

Publisher: Morgan Kaufmann (March 30, 2007) ISBN-10: 0123740371

Don norman: the design of everyday things

Publisher: Basic Books (September 17, 2002) ISBN-10: 0465067107

Kevin mullet: designing visual interfaces

Publisher: Prentice Hall PTR (December 15, 1994) ISBN-10: 0133033899

links: www.ciid.dk

www.arduino.cc

http://www.useit.com/papers/guerrilla_hci.html

www.medien.ifi.lmu.de/id