

Lecture 5 Physical Design

Prototypes Low-fidelity prototypes

Heim, Chapter 5.3



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Physical Design

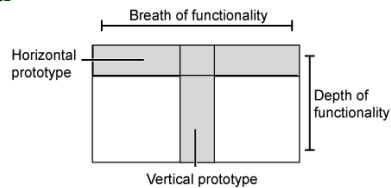
- The physical design involves:
 - What it will look like
 - What components it will require
 - How the screens will be laid out
- We use the following tools during this phase:
 - Low-fidelity prototypes
 - Evaluations
 - Wireframes
 - Functional prototypes

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Physical Design - *Low-fidelity prototypes*

- Nielsen distinguishes between two types of prototypes
 - Horizontal
 - Vertical

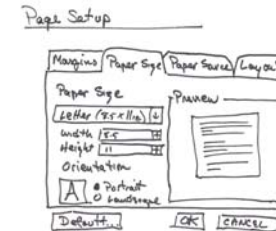


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Physical Design - *Low-fidelity prototypes*

- The three main criteria for low-fidelity prototypes:
 - Easy and inexpensive to make.
 - Flexible enough to be constantly changed and rearranged.
 - Complete enough to yield useful feedback about specific design questions.



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Physical Design - *Low-fidelity prototypes*

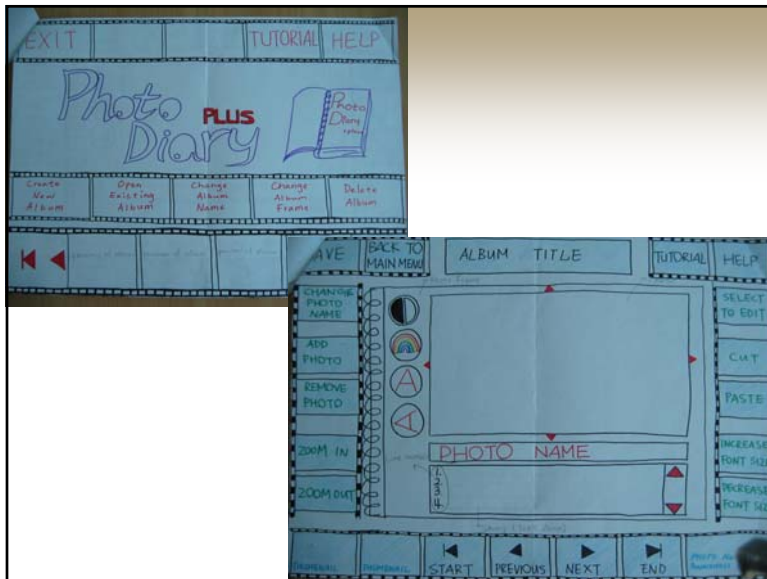
MAXIM

People are more comfortable criticizing paper prototypes

- You will have to make some decisions before you begin:
 - What feedback do you need at this point in the design process?
 - How much of the design should you prototype?
 - Should you cover all of the areas but without great detail (breadth vs. depth)?
 - Should you cover one area in great detail?
- These questions will help you to define the scope of the prototype and focus on what you want to accomplish

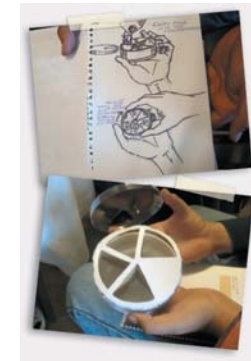
How to make a low-fi prototype

- Pen, paper, coloured pencils, scissors, cellotape
- Just like primary school ☺
- Phone interface for airline booking



Make a device

- Use the cornflakes box, a hunk of polystyrene
- Paint/ draw on the controls
- Stick on junk
- Use buttons to represent dials



Nancy Frishberg, Prototyping with junk,
Interactions, 2006, V13:1 Pp 21 – 23, ACM

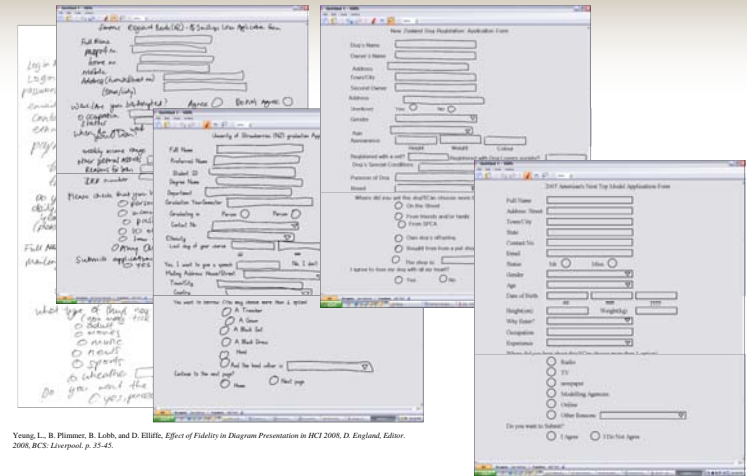
Physical Design - *Low-fidelity prototypes*

- Advantages of paper prototypes:
 - They can be used early and often.
 - They are inexpensive and easy to create.
 - They make design ideas visual.
 - No special knowledge is required; all team members can create them.
- Disadvantage of paper prototypes:
 - They are not interactive.
 - They cannot be used to calculate response timings.
 - They do not deal with interface issues such as color or font size.

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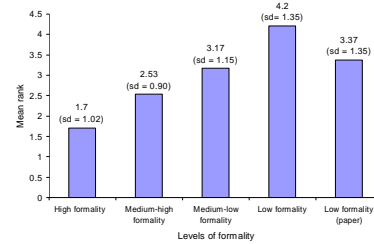
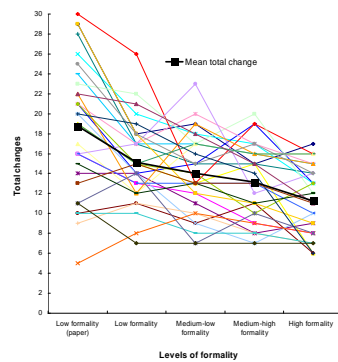
So what happens as you tidy them?



Young, L., B. Plimmer, B. Lobb, and D. Elliffe. *Effect of Fidelity in Diagram Presentation in HCI 2008*. D. England, Editor. 2008. BCS: Liverpool. p. 33-45.

What happened?

- Number of changes
- Enjoyment



Summary

- Low-fidelity prototypes are a powerful tool for physical design
- Users are inclined to criticise more than formal prototypes

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