

LFE Medieninformatik • Eduard Held

From Paper Prototyping to Sketching with Hardware

Medieninformatik Hauptseminar

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„Prototyping“





From Paper Prototyping to Sketching with Hardware

Agenda

1. Paper Prototyping
2. Experience Prototyping
3. Paper Prototyping vs. Experience Prototyping
4. Conclusions: Future of Prototyping

1. Paper Prototyping: History

- started in the mid 1980s
- became popular in the mid 1990s

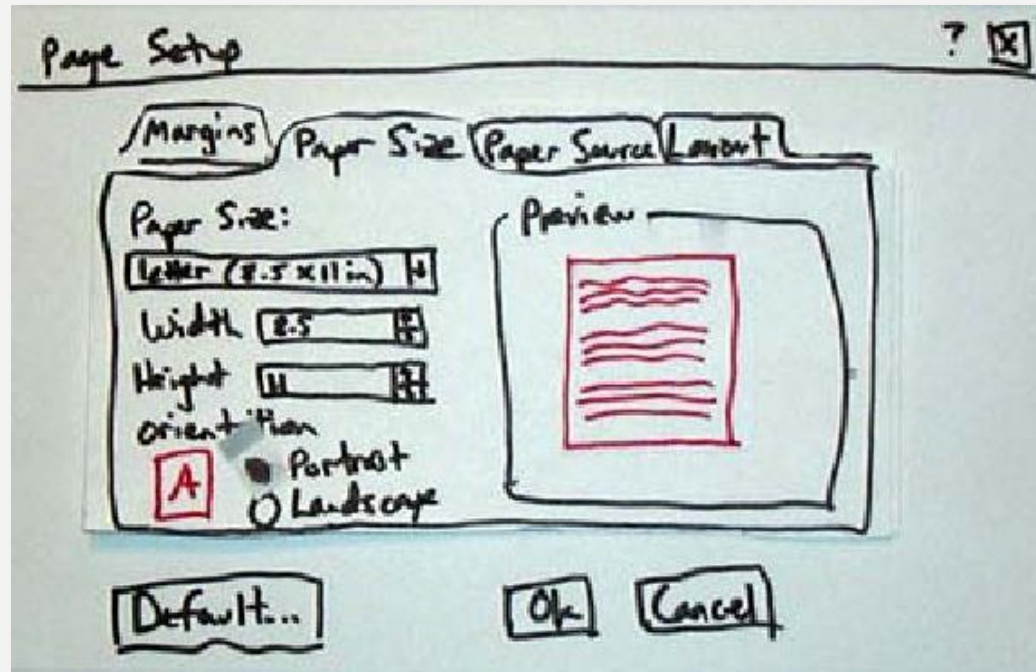


Image Source: Snyder, C. (2001). Paper Prototyping



1. Paper Prototyping: Use

1. determine appropriate tasks
2. create the paper prototype
3. conduct a testing session



1. Paper Prototyping: Use determining tasks

- realistic
- deal with critical components
- appropriate scope
- clear end point

1. Paper Prototyping: Use creating the paper prototype



- each component on separate piece of paper
- whole team can be involved

Image Source: <http://blogs.webtrends.com/files/2009/04/supplies.jpg>

1. Paper Prototyping: Use

conducting a usability testing session



Image Source: M. Rettig. Prototyping for tiny fingers. Commun. ACM, 37(4):21–27, 1994.



1. Paper Prototyping: Advantages

- very efficient
- usability testing before programming
- early user involvement and validation
- users criticize functionality
- the whole team gets involved



1. Paper Prototyping: Disadvantages

- less problems are found
- lack of details
- authenticity of interaction
 - people watching
 - answering times
 - scrolling

2. Experience Prototyping: History

- term introduced by Buchenau et al. in 2000
- gain subjective experience by active interaction
- sketching with hardware



Image Source: M. Buchenau and J. F. Suri. Experience prototyping. New York, NY, USA, 2000. ACM.



2. Experience Prototyping: Use

- understand existing user experiences
- explore and evaluate design ideas
- communicate ideas to an audience



2. Experience Prototyping: Use

understanding existing user experiences

underwater remotely operated vehicle

2. Experience Prototyping: Use exploring and evaluating design ideas



- control device for a videogame

Image Source: M. Buchenau and J. F. Suri. Experience prototyping. New York, NY, USA, 2000. ACM.

2. Experience Prototyping: Use communicating ideas to an audience



- early device for digital photography

Image Source: M. Buchenau and J. F. Suri. Experience prototyping. New York, NY, USA, 2000. ACM.



2. Experience Prototyping: Advantages

- Lao Tse: "What I hear I forget. What I see, I remember. What I do, I understand!"
- simulate important parts of relationships between people, places and objects
- inspiration, confirmation, rejection
- shared experience



2. Experience Prototyping: Disadvantages

- we cannot be other people
- experiences can not be predicted



3. Paper Prototyping vs. Experience Prototyping

Things in Common

- early focus on user
- involvement of the whole team
- tool to communicate ideas
- explore solutions



3. Paper Prototyping vs. Experience Prototyping

Differences

- single technique vs. multiple techniques
⇒ level of versatility
- functionality test vs. creating experiences
- area of application



4. Conclusions

Future of prototyping

- use of many techniques complementarily
- early focus on users
- creating a shared understanding of problems



References:

- M. Buchenau and J. F. Suri. Experience prototyping. In DIS '00: Proceedings of the 3rd conference on Designing interactive systems, pages 424–433, New York, NY, USA, 2000. ACM.
- M. Rettig. Prototyping for tiny fingers. *Commun. ACM*, 37(4):21–27, 1994.
- C. Snyder. *Paper prototyping: the fast and easy way to design and refine user interfaces*. Morgan Kaufmann, 2003.



Thank you!