

Blended Interaction Design

Toward Mixed-media Design Studios - Interactive Spaces for Collaborative Design Practices

The project Blended Interaction Design investigates novel design tools based on a hybrid spatial workspace that integrates with the physical structure of a computation-augmented design studio setting.



Within our lab Media Room we are exploring various interaction concepts that build upon the principles of reality-based interaction (e.g. tangible design artifacts) to find a close fit to traditional design practices.

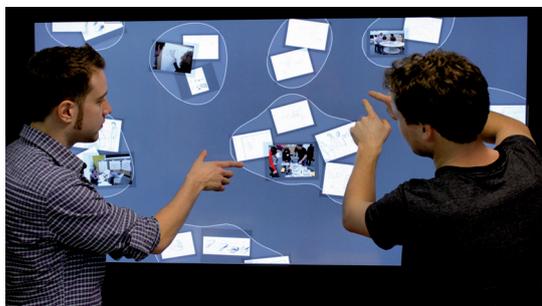
Externalization with Hybrid Artifacts

The material nature of design artifacts is one of the most obvious benefits of physical design practice. The rich affordances of paper sketches, post its and printouts support designers in rapid externalization and invite group interactions. When interacting with artifacts in design sessions, the properties of material representations allow us to view, to gesture on, to navigate between and to annotate them in a fluent way. Achieving similar qualities with digital tools requires a simulation or imitation of these characteristics.



Collaborative Thinking & Sense-Making

Display space and spatial arrangements of artifacts serve as an important tool for thinking and communication within a design team. By leveraging the ability to physically align, juxtapose and compare different artifacts in space designers harness their spatial thinking abilities. Consequently, it may also be valuable to explore the role of digital display space for use in collaborative design activities. As multi-display environments, large interactive displays such as interactive whiteboards, multi-touch tables, or wall-sized screens become increasingly available, this ecology of screens can be used to augment the spatial nature of design practice.



Reflection and Visualization

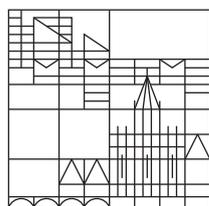
Due to the dynamic nature of creative group work, organizing and archiving individual contributions in a formal structure is an awkward task. Technology gives us the ability to capture, store and retrieve a virtually unlimited amount of design content in digital repositories or databases. Nevertheless, it also allows us to capture and replay the history of design activities or comparing and reflecting over multiple steps and decisions of a complete design process. In our research we explore the role of spatial visualizations in the context of such reflection activities.

Key Aspects

- » Collaborative Design
- » Creativity Support Techniques
- » Design Process Visualization
- » Digital and Physical Design Artifacts
- » Interactive Sketching and Prototyping
- » Mixed-media Design Studio

Interaction Concepts

- » Shared Spatial Workspace
- » Zoomable User Interface
- » Digital Pen and Paper
- » Interactive Surfaces and Whiteboards



Human-Computer Interaction Group
University of Konstanz
<http://hci.uni-konstanz.de/BlendedIxD>

Contact:
Florian Geyer
Tel. +49 7531 88-3547
Fax +49 7531 88-4772
florian.geyer@uni-konstanz.de

blended
interaction
design