



Design Tools: Hybridization, Exploring Intuitive Interaction [Loosely Fitted Design Synthesizer]

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[RE]SEARCH

SYNOPSIS

Design and Design Engineering is about making abstract representations often based on fuzzy notions, ideas or prerequisite requirements with the use of various design tools. This paper introduces an interactive hybrid design tool to assist and support singular design activity or multiple collaborative creative processing and product creation. It enables the designer or design team to work smoothly with tangible artifacts and traditional design tools. It enables them to freely and intuitively manipulate these objects while simultaneously integrating the iterations into the virtual realm. By loosely-fitting the serendipitous objects, sketches, drawings, images and other data-sets of interest into the design creation process this hybrid tool supports the intuitive interaction and stimulates the immersive experience of augmented reality.

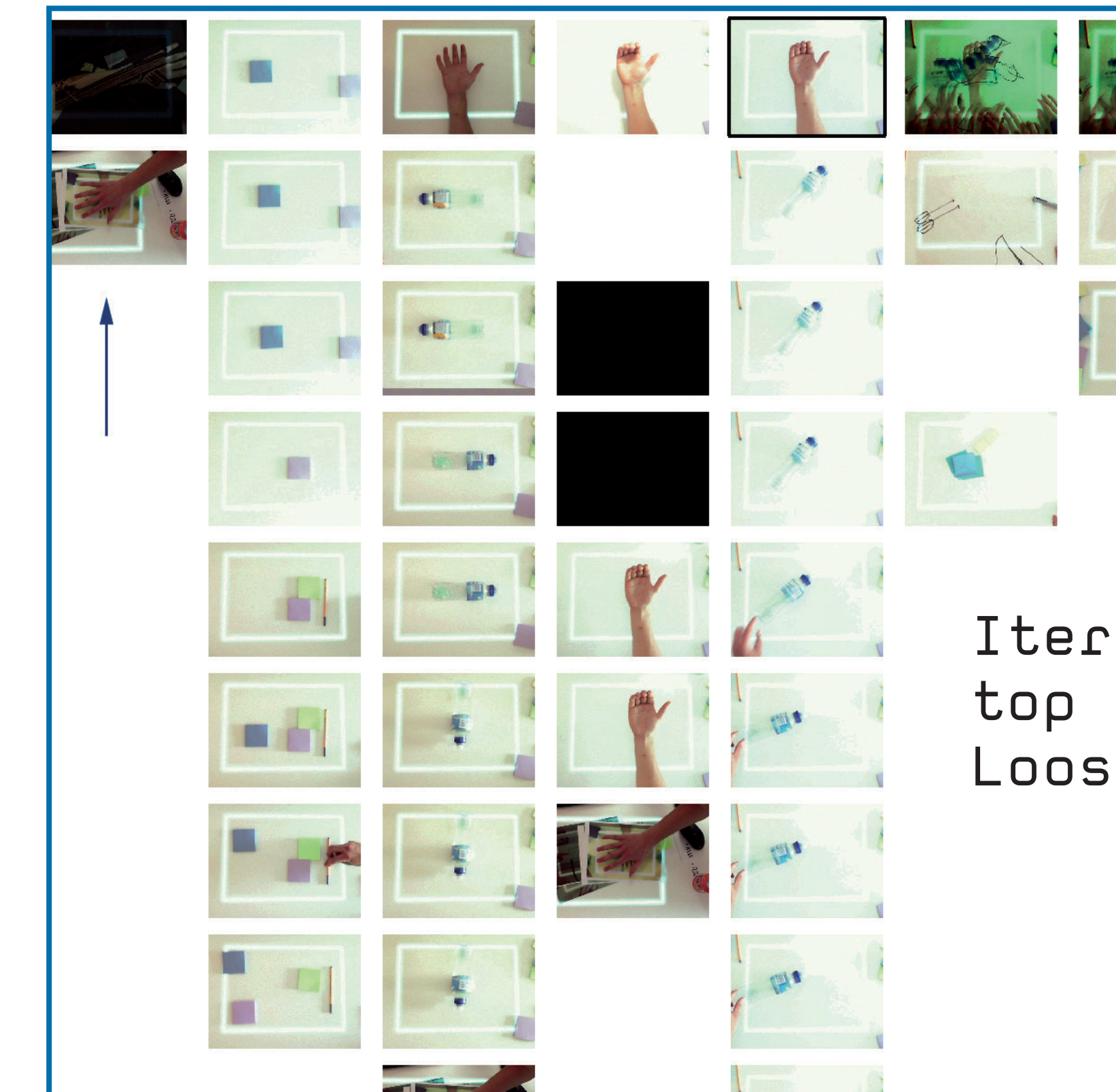
The benefits of the system are haptic and intuitive physical interaction evoking the experience of augmented immersion during design activity. Furthermore the computational listing and repository of iterative history allows the users to access fallback choice-architecture and make full use of the hybrid environment and design synthesis capabilities.

F2F & HCI

ANALOGUE	DIGITAL
FACE-TO-FACE AND BEST PRACTICE LEARNING	BASIC ELECTRONIC ENTERTAINMENT AND COMMUNICATIONS
frontal lobes executive function	visual and motor
working memory, logic, insight, emotion and body language	sequential-short term memory
variable tempo	faster and faster
often - delayed rewards	immediate rewards
self - disclosure and openness	limited true self disclosure and anonymity
working memory	captivating graphics and sounds effects - stimulus bound - stimulus driven attention
working memory	simple memory
prioritizing	multitasking and continuous partial attention

Comparison chart Analogue vs. Digital Interaction Environments (M.R. Hicks 2010)

HYBRID TOOL



Iterative Instances Stacked top left (refer arrow) and Loosely Fitted Iterations

[LFDS]

The Loosely Fitted Design Synthesizer has a strong metaphorical link with a design office inspirational pegboard, picture wall or serendipitous image-wall. This kind of raw data repository with clippings, image collections and paraphernalia trivial objects clutter the office wall and desktops as a token of memories and tell time in historic layers. These artifacts or objects combined embody a certain serendipitous value and provoke creative ignition in support of design thinking and/or design articulation. On-line searching for inspirational content has similar cognitive triggers. The LFDS has connections to both this analogue wall and the digital wall of sites like i.e. Flickr and Google Images.

TWO-WORLD CHALLENGE: Linking the Physical and the Virtual

