

The Bodily Aspect in Computer-Supported Creativity

André Knörig

Department of Interaction Design
University of Applied Sciences Potsdam
14469 Potsdam, Germany
andre.knoerig@fh-potsdam.de

ABSTRACT

In opposition to being the fundamental condition for our existence, the human body has long been marginalized in the field of Human-Computer Interaction. It is now gaining consideration through the idea of embodiment. I want to support the embodied argument by pointing out the role of the body in creativity. A general framework and a criticism of interaction with today's Personal Computers delivers guidelines and starting points for a more conscious design of systems that seek to support creativity.

Keywords

Body, embodied interaction, creativity, Computer-Supported Creativity

ACM Classification

H.1.2 [Models and Principles]: User/Machine Systems.

H.5.2 [Information Interfaces]: User Interfaces — theory and methods; user-centered design.

INTRODUCTION

We experience the world and act on it through our whole body. This seemingly profane statement has implications that only recently gain acceptance in the field of Human-Computer Interaction. The predominant cognitivist model of how the human being relates to the world is being challenged by works such as [1], [2], and [3]. These views are building on the philosophy of phenomenology and the idea of embodiment, which assumes that cognition arises from bodily interaction with the world.

In my research, I am concerned with the question of what we lose by neglecting our bodies in the interaction with computer technology, and what we could gain by designing systems with greater respect to this human condition. Specifically, I am interested in the effects on creativity, as opposed to mere productivity. My work so far has resulted in [4], on which I wish to build my current design efforts.

THE BODILY ASPECT IN CREATIVITY

How exactly does this relation between body and creativity look like? To get a more systematic

understanding, I proposed a body-creativity framework that summarizes indications found in an extensive literature research [1, ch.2]. The framework serves as a first guideline for the design of interactive systems that respect this relationship. Applying this framework to a criticism of Personal Computers has resulted in a number of alerting findings, detailed in [1, pp.35-37).

DESIGN PROPOSAL

Following this theoretical analysis I am now beginning to design systems that try to overcome some of the established criticism and regard the bodily impact on creativity. A first experiment was the Touchboard [1, p.50], a multi-touch interactive easel. It allows for a larger freedom of movement, an improved utilization of manual skills, the use of tools such as a paint-brush, and real-world collaboration.

Currently, I am experimenting with the idea of an immersive interface for a musical composer that targets the sustainment of the status of flow.

ABOUT THE AUTHOR

André Knörig has recently received his Diploma in Media Computer Science from the University of Applied Sciences Wedel, Germany, with stays at Imperial College, London, and the University of Applied Sciences and Art Zurich. He is currently studying for a Master's degree in Interaction Design at the University of Applied Sciences Potsdam.

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