

# Space and Virtuality Studio: A Participatory Design Lab

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**Abstract:** The Space&Virtuality studio engage in research on the spatial organization of design and use of information technology. The research approach of the Studio is characterized by a commitment to user involvement in design, an experimental approach to the exploration of technological possibilities and a reflective research practice developed in dialogue with practitioners.

**Keywords:** Participatory design, ubiquitous computing, augmentation, space design, ethnographic field work

## 1 Introduction

The Space & Virtuality Studio is a research studio affiliated with the Interactive Institute in Sweden, a multidisciplinary, innovation-oriented research institute working in digital media. The institute is organized as an incorporated, non-profit company owned by the Foundation for Strategic Research in Sweden and governed by a Board of Directors. It is divided into three geographical nodes, each consisting of 2-6 studios. Each studio has a unique profile with the basic idea that mixing different disciplines around a common theme creates a dynamic and innovative environment. With the theme "space and virtuality", the studio described is a meeting place for researchers, artists and designers sharing an interest in how social space gets constructed and transformed by new media. The studio receives basic funding from the Interactive Institute in addition to project related funding from industry partners, and employs in average 20 people, including senior researchers, PhD-students, visiting master students and lab technicians. Projects are organized in a number of sub-themes, two of which are presented here ("Augmenting places" and "Space design lab"). The strategy is to set up short term projects (less than one year) to increase dynamics and stimulate interaction between themes. The research approach is characterized by a commitment to user involvement in design, an experimental approach to the exploration of technological possibilities and a reflective research practice developed in dialogue with practitioners.

## 2 Beyond 'systems' and 'tools'

The overall scope of the Studio is to redirect IT design from its focus on organised task systems and specialised tools towards the both more humble and more demanding challenge of providing people with »set-pieces« and »props« for their continuous construction of ever changing lived-in worlds. The IT designer has for decades been developing »information systems« taking the fixation of the user in front of a PC type screen and keyboard as a given. Where this in the past was the result of technological constraints, it is today a reminiscence standing in the way for seamless integration of technology in the practices within which people act and live. (Binder, 2002).

## 3 Augmenting places

When we started we struggled to get distance to the widespread duality of the physical and the digital. We defined our notion of space as social rather than geographical in order to remind ourselves that the environments we live in are set by the interactions we engage in and envision in whatever community we are participating. In the last years we have been working with the theme: Augmenting places, which signal a new insight that space and place are continuously constructed to the extent that acting and setting up places for action becomes increasingly inseparable. We start to see that the way process operators at process plants monitor and interact with a large distributed plant (Nilsson et al.,

2000) resembles the way intensive care nurses engage with ever new instances of patient care (Björgvinsson & Hillgren, 2002). The dismantling of a spatial regime in which space is pre-configured for a well coded set of action, appears to be already well in motion. This stronger hold on the volatility of space and place has lightened our own research inquiry (Buur et al., 2000), (Brandt & Grunnet, 2000). We re-read the literature on augmented reality and found that augmentation as a dynamic concept both for designer and the future user provided a perspective on design of interaction technologies that can take us beyond both physically disentangled information systems design and practice-embedded tool construction (Binder & Messeter, 2000).

## 4 Space Design Lab

With a base in architectural practice we have worked with new digital design artifacts for architectural design. After experimenting with VR caves in design projects, showing that photo realism being much less important than participatory design games, we came out with the ForeSite Designer tool (Fröst & Warren, 2000), a simple PC-based add-on to the widespread computer game Half Life. It enables untrained users to build fairly complex 3D environments (Fröst, 2002). With this tool we initiated open design sessions together with a large real estate company, and demonstrated how the building industry might engage in customer-engaged workplace design. In the “Experimental office“ project (Johansson et al., 2002) a number of our industrial partners took up the challenge to collaboratively envision an experimental office environment integrating the design of spatial layout, furniture, interaction technology and telecommunication services. The project was not only an experiment in terms of new uses of digital media to visualize possible designs, but also became a setup for a new kind of Design Lab where participants from different organizations develop concepts in the borderland between their respective core fields of expertise and business activities. Collaborative design at the fringes of ones own field is challenging both on personal and organizational level, but it is precisely at the intersections of established practices that opportunities of renewal can be found. Finally, we have also found studying the very ordinary to be fruitful. In the project “Moving stories” people moving their belongings from one apartment to another were studied (Brandt et. al. 2002). It may seem far fetched for a group researching the future of digital media, but in our

view it is precisely the blindness towards the trivialities of everyday life that makes so much research and development work within the IT field so strangely detached to the needs and experiences of ordinary people.

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