

The Pragmatics of Design Studio Culture: Our Story

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INTRODUCTION

Umeå Design Research Group at Umeå Institute of Design, Umeå University, Sweden, is a research group carrying out externally funded design research projects primarily in the area of interaction design. The group also hosts Ph.D. students in industrial design that carry out project work as part of their doctoral programs. The group consists of 12 regular members with expertise in interaction design, industrial design, Human-Computer Interaction, informatics, electronics engineering, and computing science.

One aspect that sets Umeå Design Research Group aside compared to many other interaction design labs is that we specifically address the issue of interaction design from an industrial design perspective. Many of the group's design researchers have their background and basic training in industrial design, with interaction design as their specific area of expertise.

For these designers, studio culture is the way in which they have been educated as well as the way in which they prefer to work, so running the design research group as a studio has been a very natural choice for us.

In this paper, we will first briefly address the idea of a studio culture in the context of interaction design and Human-Computer Interaction. Second, we will address some aspects of design studio culture we see as crucial. Third, based on this, we will describe the way in which we came to design for design studio culture when the group's premises came to be redesigned.

INTERACTION DESIGN AND HCI

While the current trend is to use the two terms as synonyms [cf. 2], we believe that *studio culture* is a crucial as well as a pragmatic distinguishing factor between *Interaction Design* and *Human-Computer Interaction (HCI)*. In our view, successful interaction design often tends to come out of a good studio culture, while convincing and reliable HCI typically seeks accountability elsewhere. This is one important part of what we see as a difference in tradition between HCI and interaction design.

HCI grew out of computer science, or perhaps more specifically the branch in computing science that dealt with computer graphics. During the 1970s and 1980s, HCI became largely driven by and theoretically and methodologically inspired by the cognitive sciences of the

time, focusing on modeling the human user and perceiving HCI from a scientific perspective. Within HCI, however, there has always been a strong design component. Researchers produce prototypes to test with users, to provide proof-of-concept, and to show alternative solutions. In this respect, HCI has always been a design discipline too, even though it is not until recently that at least some parts of the field of HCI has begun to understand itself as a design discipline rather than simply as an empirical science [1].

If HCI is can be seen as a research field with a design component, it makes sense to think of interaction design as a design discipline with a research component. While there is no commonly agreed definition of interaction design, it is characterized by taking a holistic view on the relationship between designed artifacts, those that are exposed to these artifacts, and the social, cultural, and business context in which the meeting takes place. It is an orientation towards shaping digital artifacts—products, services, and spaces—with particular attention paid to the qualities of the user experience [2], including physical, sensual, cognitive, emotional, and aesthetical issues; the relationship between form, function, and content; as well as more fuzzy concepts like fun and playability.

This difference in tradition is rarely discussed, possibly as a result of the term interaction design being 'hijacked' by anyone that used to do HCI. Löwgren [2] notes that the role of 'design crits'—i.e. sessions of design critique—connects interaction design with more mature design fields such as architecture and industrial design. From a HCI perspective, design crits are however highly problematic as they stress and employ design knowledge, such as intuition, competence, judgment and experience, over measurable objective characteristics.

DESIGN STUDIO CULTURE

The concept of studio-based work has been central to practice as well as education within traditional design disciplines such as architecture and industrial design for over a century. In these fields, setting up and upholding a good 'studio culture' has been seen as essential for carrying out work and for enhancing learning.

Studio activities typically take on a synthesizing character, often bringing together a variety of forms of knowledge, from the arts, history, social sciences, engineering, philosophy, and mathematics—thus being a contrast to the

fragmentation and increased specialization that often characterize other professional settings.

If successful, studio culture promotes creative and collaborate activities, and becomes a setting in which it is natural for people to interact with each other—thus supporting shared spaces—but also supports them in various ways in individual work or work in small groups—i.e. also supporting personal spaces. Furthermore, the successful studio is often quite ‘material’ to its character. Its walls are typically covered with photographs, images, diagrams, sketches, and PostIt-notes. Magazine and newspaper scraps, models and other seemingly unrelated physical objects are also typically brought into this place, making the studio appear slightly chaotic to an outsider.

While each and every piece among the multitude of material objects that appear in a progressive design studio seldom by itself has a strong or even explicit link to some aspect of the project at hand, they as a collection seem to conspire to create the rich environment needed to stimulate creativity and create novel ideas.

When it comes to learning and increasing skills, competence, and experience among a group of studio members, the design studio culture seems to promote a kind of ‘Socratic’ style of learning that is based on continuous dialogue, conversation, and asking questions and giving and taking critique. This means that in a design studio, work is exposed to others both early on in the process and often consistently so throughout the process. Here, the physical setting of the design studio is typically meant to emphasize and stimulate communication, collaboration, and sharing.

OUR DESIGN STUDIO SETUP

Two years ago, in 2004, plans were made to extend the premises of Umeå Institute of Design at Umeå University, Sweden, to accommodate more students. At the same time, we, the Umeå Design Research Group—a multidisciplinary team of about 12 persons with different backgrounds working with external projects in a design studio form—would also move to a new part of the building being redesigned to fit our purposes. As with most design projects, our hands were partly tied by costs, existing building structures, etc., but we still had sufficient space for actually planning and setting up the physical environment in the way we wanted it. We have now been using the new facilities for more than a year. The rest of this paper will describe our studio setup and our experiences of using it to keep up a design studio culture. When reading this description, it is worth considering that the facilities described are integrated in an industrial design school, and that we thus have unlimited access to very good workshop facilities.

Our design for studio culture came to result in an environment with what can be seen as three ‘levels’:

First, a main working environment forms a semi-open, semi-personal space. Here, each member of the group has

his or her own, individual desk. Each individual’s desk faces another person’s desk, thus forming pairs of people facing each other. The desks are large and can be adjusted vertically so that one can both sit and stand in front of them. Each member has a laptop computer and/or a desktop computer, and a flat-panel LCD screen to save desktop space. Between desks that face each other, low physical screen shield off the area so that individuals facing each other can talk easily, but which also allows them some protection if needed. These shields also work as notice-boards for PostIT-notes and various kinds of inspirational material. Each member also has a small personal bookshelf, and typically use the walls close by for personal posters and pictures.

[PICTURE]

This room is possibly mostly individual to its character, but important physical elements also allow for interaction, communication, and inspiration.

Second, an adjacent, smaller room is used as the ‘war room’ for the current most pressing project. Here, inspirational materials fill the room from floor to ceiling. Models of various stages of completion are abundant, as well as print-outs, pencils, pens, scissors, sticky-tape, etc. As the group is inherently multidisciplinary, we try not to separate design work from for instance electronics work whenever possible, so various sensors, strange-looking electronics, batteries, and what have you are also typically part of what appears to be a complete mess for any outsider.

[PICTURE]

This room is primarily designed to support group work, i.e. typically two or three members of the group working jointly on a solution, sketching together, or discussing an issue informally. However, when needed, this room also caters for a kind of ‘absolute’ privacy that the main room cannot provide due to its semi-open design. Hence, this room is also where people go to make private or sensitive phone calls or simply to find a quiet space for thinking.

Third, also adjacent to the main room, but also accessible from a main passage in the design school, is a more public room—informally known as ‘the kitchen’, as the space used to host a student kitchen before the being rebuilt. This is a fairly large room, about 20 x 20 feet, which is completely white and somewhat sterile by design, but which has lots of large windows and an airy feel to it. The high ceiling is covered by a metallic net that allows us complete freedom in hanging things from it. A fairly clever system of tables and chairs allows us to quite effortlessly reconfigure the space different purposes. We have used to kitchen to host seminars, perform design crits, interview and test prototypes with users, meet with financiers, hosting exhibitions, and for presentation purposes. As an example of the room’s configurability, for an exhibition in 2006, we covered a substantial area of the kitchen floor by real grass to simulate an outdoor environment.

[PICTURE]

This room has a more public character than any of the other two rooms. While it is reconfigurable to suit most purposes, entering into it feels different from entering into the ‘war room’ for instance. Somehow it is as if the room itself gives the activities that take place there a more public character. We often carry out design crits in this room, where we just simply bring a prototype for instance from the war room over to the kitchen. The change of physical environment also changes our attitude and our perspective towards the prototype.

CONCLUSION

In this paper, we have presented our view on the issue of creating a design culture within HCI and interaction design, and we have provided a description of how we have designed our facilities to cater for such a culture.

In our view, traditional office-type environments with individual offices, screening cubicles, or interchangeable desks that are featured in most traditional university buildings support the design studio style of working poorly. In addition, we also fear that the strong focus on web-surfing, email management, and the use of various kinds of other distance-spanning technologies—however satisfying they are in what they do—nevertheless may come to do a disservice to studio culture. Setting up each desk for nurturing face-to-face communication, for sharing inspirational material, and for sketching is far more important, in our view, than for instance to find the perfect ergonomic computer-use posture for each individual.

If computer use was to be designed to be non-ergonomical, it might even put a natural limit to the amount of time that

goes into email handling and web surfing each day. Knowingly somewhat uncomfy chairs would likewise limit the periods of time people would tend to sit, encouraging people to move around in the physical environment. Notwithstanding, fairly convincing Swedish tradition (as well as regulation) in the area would put a sudden end to any such aspirations.

We acknowledge that it is sometimes important to employ distance-spanning technologies such as shared virtual spaces, video conferencing, possibilities of using various technologies to carry out asynchronous work and even design crits, and so on. However, we keep returning to the need for people to be co-present to be able to keep up a good design studio culture. We continue to stress the importance of physical settings that allow for the whole spectrum between individual work and whole-studio work. We have yet to see a computer application or service that can replace or even become a serious complement to designers working side by side. We very much believe in the importance of physical presence, the material aspects of design work, finding inspiration in each other, and in performing design crits with people in the same room.

In this sense, we may indeed be seen as traditionalists—or perhaps rather as romanticists—when it comes to creating design studio culture.

REFERENCES

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2. Löwgren, J. (2002) Just How Far Beyond HCI is Interaction Design, *Box and Arrows*, April, 22, 2002.