

A Tiny Ethnography of a Professional Design Studio

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Abstract. This is a preliminary report of an ongoing ethnographic study of a successful design firm that specializes in information- and user-centric design. Based on observation and designer interviews, I describe the company's overall environment, social dynamics, individual work practices, and provide a list of design artifacts that practitioners use.

Introduction. This research is motivated by larger research interests in providing computational support tools for design. In particular this research focuses on the early phase of design characterized by the generation and exploration of ideas. I arranged to "be a fly on the wall" at a well-respected design firm in the Pittsburgh area for the purpose of conducting an ethnographic study. This report describes my experience so far. As of the time of this writing I have spent about twenty hours at the company observing and interviewing the designers who work there.

It is important to note that this report describes a *professional* design studio, which is notably different than an *educational* design studio. Differences include the many issues that companies (and employees) face that are generally not present in an academic institution such as billable hours, interacting with paying customers, significant differences in age and experience level of collaborators, and so on. The purpose of a professional design studio is to practice design for a living whereas an academic studio is to practice design for learning. A subsequent report on this ethnography should examine this distinction in closer detail.

This study uses an approach similar to that described in [Bucciarelli 1994]--I am visiting the work site, observing people, conducting interviews, and at times I have become somewhat involved in the particular design activity on hand. Further, this report does not discuss specific implications for design based on the ethnographic study for reasons discussed in [Dourish 2006].

About the company. The firm in question employs about 35 designers. There is a roughly even proportion of software engineers, graphic artists, and HCI practitioners. The company has an information- and user-centric design approach for creating a variety of products such as web site designs, consumer electronic interfaces, corporate identities, and household appliances.

The office space. Projectors and LCD displays throughout the workspace highlight the company's past work. This appears to be partly for the benefit of visitors, but also as reminders to the designers working there. Placards on the walls (and occasionally on the ceiling or heating ducts) display quotations from authors or industry luminaries. Printed sheets of paper and hand-drawn sketches are pasted to large poster boards scattered about the workspace.

The entire office is partitioned into little zones delimited by well-placed bookshelves, false walls, and conference rooms. Each zone has a unique personality and affords a comfortable working area for about 2-5 people. There is no apparent structure that dictates where people must sit. An HCI practitioner is likely to be positioned next to a software engineer on the left with a graphic designer on the right.

There are also public or communal areas. A small electronics and fabrication room houses machines such as a drill press and bandsaw and a few soldering stations with drawers of supplies on hand for physical prototyping. Meeting rooms feature whiteboards on nearly every possible vertical surface. There are even whiteboards in the kitchen. When people run out of room on the available whiteboard they simply write on the kitchen's windows.

Personal Work Spaces. Individual designer's desks are kept relatively clean in comparison to the disaster areas typically found in undergraduate design studios. The small amount of clutter around people's work spaces appears to be functional (e.g. work in progress) or inspirational (e.g. the five-year old Post-It note cartoon carried over from the old office).

Due to a company policy forbidding people from tacking things into the walls, most of the designers use poster boards for the purpose of building storyboards and the like. This has the positive side effect of making the storyboards portable for those common instances when one person needs to work with a colleague on the other side of the office. The poster boards are used in a number of ways: they sometimes display informal personal records such as scribbled sheets of paper forming to-do lists and doodles, other times formal collaborative efforts such as a series of well-crafted personas.

Designers tack up messages for themselves or the benefit of passersby. For example, two messages read, “Walk a mile in User’s shoes” and “Where does the experience break down?”, reminding designers to keep important things in mind. One poster board in particular consisted of twenty or so printed letter-size pages that included screenshots of the client’s existing interface, pictures of other UIs with desirable elements, several new design variations, and pictures of people in the context where the product would be used.

Individuals use personal strategies for keeping their workspaces organized. Interestingly there is a correlation between the approach a person may take when organizing physical and electronic artifacts. One designer’s physical workspace has a shelf of manilla folders that contain sheets of paper related to one particular project such as sketches, memos, stickies, photographs, and so on. Each folder is labeled in pencil at a consistent spot near the bottom using a predictable naming strategy. While this designer’s current work is highly organized, older work is tossed into a cardboard box under the shelf where it has remained for a long time. Some of this designer’s work is highly organized and structured, while the rest is in disarray. This pattern also appears on the designer’s computer: files are stored in a manicured hierarchy of folders using a consistent naming strategy; emails are read and stored into project folders in the email program. This designer even makes use of nested hierarchies in Photoshop’s layering features. But there is also the equivalent of the box of unsorted papers on the computer. Uncategorized email is dragged into a folder labeled ‘unsorted’ until the designer can find time to make sense of it. For a more in depth discussion on the topic of personal information management, see [Boardman 2004].

Norms: The social norms within this studio suggest that the ability to collaborate and build interpersonal histories is highly important for the studio to function effectively.

This particular studio has a culture of its own including the language used internally to discuss things, such invented words and inside jokes. Over lunch one day a group of designers were overheard joking about “infotrons”. Initially it seemed that the term was a generalization, for example a computerized “widget” or “thing”. When pressed, the designers showed that the word has a specific meaning with a rich (if somewhat silly) history within the firm. Simply mentioning the word evokes memories of past shared experiences.

There is an especially high value assigned to the ability to draw pictures that communicate ideas. The walls of the conference rooms are all whiteboards, which are used with great frequency. This may lead to contentious situations where the whiteboard that one person would like to use already has work on it left from yesterday. Therefore there is a convention that all whiteboard drawings are considered temporary unless the designer writes “Don’t Erase” along with a name and expiration date.

Personal Time Management. Each person is on multiple projects and is also expected to manage some projects as well. It is up to each designer to be responsible for managing their own time and ensuring that each hour worked is billed to the appropriate account. There is an in-house tool for keeping track of actual and predicted time spent and for communicating with clients, but many designers feel that this tool is “a disaster” and avoid using it. Each person that has been interviewed has voluntarily brought up the subject of time management as something that is constantly on their minds.

Design Artifacts. People use a number of different kinds of artifacts when doing design. Some of the artifacts are by-products of some process while others are the deliberate product of a process.

In this paper I use a somewhat loose definition of the term “artifact” that deserves some elaboration. I consider any information that is a result of a designer’s work process to be a potential candidate for being a design artifact. Using this definition I can include transient information such as conversations, which account for a significant portion of the effort when doing design. Another transient artifact is *time* used thinking about a problem.

This company’s culture values collaborative whiteboard sessions. A quick tour through the studio shows that most whiteboard surfaces have some sort of scribbling on them. Most of these whiteboard sessions were made as two or more people stood nearby in conversation. The scribbles served to represent objects that are named or described verbally. In this way, collaborative whiteboard sessions are multi-modal design artifacts, because part of their value is static (in the form of the scribbles on the whiteboard), while another part is transient (in the form of the conversation that took place at the time of the scribbling). This observation is supported in [Ju 2004].

Four of the five designers interviewed showed me their sketches. These sketches could be categorized as diagrammatic (using some formal or semi-formal notation, such as UML) or a rendering of some physical object like a building or electronic gadget. Interestingly, those same designers were less inclined to show me computational models such as Illustrator files. I do not yet understand why this is the case.

While designers did not typically voluntarily show me computational artifacts, they *were* inclined to show me printed versions of their computational models. Nearly all of these printed pages had handwriting and sketches on them, sometimes by more than one person. People reported that they use a process of iterating between virtual and paper versions of their designs. The designers would edit a computational model with a high functionality application such as Photoshop, and then print a paper copy for personal or group use. They would then draw or write directly on that page as they explored variations or made refinements. If a paper-based editing session was useful, the designers would then manually transfer these changes back into their application. The process of printing, editing, and manually merging changes was seen a number of times.

Each designer is issued blue sketch books with numbered pages. In theory they are supposed to use these to record their design ideas along with the current date. In practice many of the designers find this annoying to the point that they do not use the blue books at all. The books have lined green paper that may provide distractions or impose unnecessary structure to freeform sketching. Instead some designers use big, blank white sheets of paper that are grouped together with manilla folders by project.

Future areas of study. So far this study has focused on the overall structure of the studio, the individual work practices of designers, and the artifacts they create. It is clear that collaboration is an indispensable skill in this studio.

Another interesting topic is that of critiques, which are prevalent in college design studios. It isn’t clear if this particular design firm makes use of critiques or not. I would like more specific information on how collaboration--informal or formal meetings and design sessions with other designers or customers--differs from solitary work.

References

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