The Practice of Interaction Design

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Abstract. The aim with this paper is to look into the role of interaction design and we investigate how interaction designers experience their work role, and, activities they perform. Semi-structured interviews were conducted with interaction designers. They do not have an overall view of the design process and are hired as internal consultants. The role of the interaction designer is included in the formal reports on how to conduct a development project. Often the interaction designer is used to work with a limited piece of the design process and the methods at hand. It is important to separate the role of the interaction designer from an old development tradition and move it to a more design-oriented way of thinking about interaction design and the work of interaction designers.

Keywords: Design process, role of interaction design, communication.

1 Introduction

What do we know about the practice of interaction designers and their understanding of the design processes they are a part of? Several publications focus on, for example, architects' practice [5] and theorists describe interaction designers' work roles and design processes [3;4] the view they present of the interaction designer is often idealized. But not much has been written on the practice of interaction design.

  "We need more research that examines, uncovers, analyses, and interprets what interaction designers are already doing" [5, p.62]. Today researchers are describing and suggesting how the practice should be performed, in theory but sometimes without grounding it in practice. The gap between this and the actual performed practice, the existing practice, is called "rationality resonance".

   Descriptions of interaction design often do not include the context. That is, they provide a generalized picture that is not connected to a specific case or situation and do not describe the kind of business of which the interaction design work is a part. According to [1;3] it is important to be aware that the context for the design work influences the work to be performed. The design process will differ depending on whether it is carried out by a group in a large product development organization, an in-house development group, or a design consultancy on contract to a client. Interaction design is a design area that is not necessarily based on design theory and

methods for interaction design. HCI researchers can help construct these theories and methods that support the practice of interaction design:

"In design you have to design the "whole"… In design methods and approaches you have to take the whole composition into account which creates distinct methodological requirements when it comes to testing and evaluating" [6, p.7].

Design can be viewed as communication and common ground where collaborating with users are central. The perspective an interaction designer chose to take will have consequences for her role and for ways of handling users, responsibility, and a reduced or holistic view on design [7]. Design can be viewed as a process of unfolding the setting/problem solving pair. The role of the designer is also described as creating compositions on the basis of parts and smaller entities but also composing knowledge and information about details in a way that supports a holistic way of thinking [3].

In [2] interaction design practitioners describe what interaction design means to them; some represent a traditional HCI perspective where a designer works step by step, often with a single work input at one point in the system development process at a time. Others describe working as project leaders, having an overview of the design process and being able to influence it. For those in the latter category the focus is more on creating design than on evaluating a design made by others.

The aim with this paper is to look into the role of interaction designers in order to strengthen the role as well as developing the education of interaction designers. The following research questions are posed:

- Do interaction designers play an overall role in development projects?
- Do interaction designers have an overall view of the design process?
- What are the specific activities in which interaction designers take part?

3 Method

Semi-structured interviews were conducted with six interaction designers employed by the development organization of a Swedish government agency. The respondents were all educated in cognitive science except for one whom had a background in systems science. They had all worked at the agency for five to ten years except for one who had been recruited recently.

Each interview took about two hours, were tape-recorded, followed an interview guide whose main question areas were IT projects process, collaboration and procurement, communication and visualization, and interaction design. The interviews were transcribed verbatim, the data was sorted following the question areas of the interview guide and summarized for each question area in the interview guide. The respondents' names used below are all pseudonyms.

4 Results

In the Swedish HCI community, this particular government agency is generally known for its maturity in user-centred design (UCD). It has worked with HCI

researchers over many years to develop its internal way of working with systems development. The agency uses the development method called Rational Unified Process; it has modified it for internal use. Here the role of usability designer is mentioned and described as one of the roles that must be included in all projects.

The group of usability designers at the agency works on projects that are run internally in the organization. The usability designers group functions as a pool of resources in the usability area and are assigned to projects on an hourly basis, like internal consultants. Often they perform small missions and it is rare for two of them to work on the same project.

The interaction designers are uncertain about where a procurement is coming from at first; they say that it comes from a high level in the organization, from procurers who work at headquarters. Some said that an IT project is constructed based on either a change in the Swedish law, or a development or change in the business because an old system needs to be improved. But projects can also be initiated within other groups in the organization. One respondent said:

"It should be that it is the procurer who has a need. Sometimes, it starts at the IT department and that is not the way it should be" (Anna).

A method is used to plan and perform projects and the effect goals and product goals that are supposed to be evaluate after the project ends is here brought forward. It should be possible to trace requirements in the project and to conduct a follow up, but several of the respondents said this is not done. The responsibility for making a system usable is said to be that of the procurers; it has to be procured by the business representatives but produced by the designers who have the knowledge about methods.

One of the respondents gave an example of the activities the designers perform:

"We work with conceptual design and evaluations, going through prototypes with user representatives early in the project, using personas; this is where you can get the requirement into the design. It is very flexible and later it is very much function" (Erik).

The interaction designers are performing one or more of the activities described below; rarely are they able to follow a project over time. The interaction designers visit users at their work site and conduct interviews, and observe their work and make user analyses. They also construct personas, and use cases, scenarios, and interfaces, and at the worksites they test prototypes with users. They make descriptions of GUIs for use cases and are responsible for ensuring that a prototype is constructed but they normally do not construct it themselves. They do work on help functions and manuals, and evaluate usability and the system's interactivity: what it will look like and how it will work.

The respondents say they work with interaction, with the surface, that is the GUI, and also with the context. On some longer projects an interaction designer may be assigned to spend as much as 80% of her work time on the project; then she will follow its process and engage in activities to ensure its usability. But this is fairly rare; more often, these assignments are quite brief. When designers were asked how the results from a project are followed up, they said it is not clear to them or that they think it is not always done. It is also clear that most often the target group for usability aspects is the employees working in the organization and not the citizens who will be the end-users of the e-service.

5 Discussion

The interaction designers do not have an overall view of the design process, or at least they cannot describe the process or the source of the procurement. It is encouraging that the role is included but that is far from enough. The interaction designers have the competence and knowledge but the system also has to be procured. There is a risk that this competence will not be used well if the procurers and project leaders are not aware of what to expect from an interaction designer. Lack of awareness can lead to designers getting caught in an engineering way of thinking of design. The designers themselves could benefit from seeing more of the overall picture since they are expected to perform interaction design and work with usability. It is important to separate the role of the designer from this old development tradition and move it to a more design-oriented way of thinking about interaction design.

In [5] the concept of *"rationality resonance"* [p.62] is promoted: researchers tend to describe how design should be performed rather than how it actually is performed. In this case study we can see that some descriptions about how design should be performed do not regard design as design but instead as engineering. As researchers, if we study how interaction design is performed and understood, we can instead support and influence the development of interaction design and the role of the designer and one way of doing this is to work actively with the education of interaction designers.

We suggest ways to facilitate a more holistic view on interaction design: a, allow the interaction designer to work more closely with the procurers during the requirements and problem defining phase, b, continue to make evaluations after the initiation and maintenance stages.

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