

# Personas in Action: Ethnography in an Interaction Design Team

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## ABSTRACT

Alan Cooper's view on interaction design is both appealing and provoking since it avoids problems of involving users by simply excluding them. The users are instead represented by an archetype of a user, called persona. This paper reports a twelve-week participant observation in an interaction design team with the purpose of learning what really goes on in a design team when they implement personas in their process. On the surface it seemed like they used personas, but our analysis show how they had difficulties in using them and encountered problems when trying to imagine the user. We furthermore describe and discuss how the design team tried to involve users in order to compensate for their problems. It is concluded that it is not enough for the design team, and particularly not for the interaction designers, to have the know-how of using the method. They also have to integrate it with existing knowledge and practices in order to feel at home with it and use it efficiently.

## Keywords

Persona, scenario, ethnography, interaction design

## INTRODUCTION

New design methods for usability are constantly developed in order to efficiently design appealing, productive and effective products. Cooper (1999) describes a controversial method that is different from other methods for interaction design since users are excluded from the major part of the design process and personas are instead introduced as a design tool. A persona is an archetype of a user that is given a name and a face, and it is carefully described in terms of needs, goals and tasks. During the design process the design team tries to satisfy the persona's needs and goals. In theory, working with personas sound like the solution to common problems in usability work while offering an efficient design process resulting in the right product for the right person, but is it so in reality?

The purpose of this article is to describe how personas worked in practice at the anonymous company called Q. It was an IT-company with offices in six countries and had around 250 employees, before it went into bankruptcy. The main business of Q was to develop and sell The Portal, which is an individualised company portal, or an advanced intranet. The purpose of The Portal was, according to the description from the company, to help co-workers in large

information intense and knowledge intense organisations to work more efficiently. The work behind this article was made in cooperation with the User Experience Team at Q. They were responsible for the interaction design and the graphical design at the company. Working with personas and scenarios was seen as fundamental to their design process.

## Designing for Personas

Usability methods have from the beginning of times, that is to say the early 80's, always included users to varying degrees. In usability engineering, usability goals are set together with users and the design is iterated and tested with users until the goals are met. Faulkner (2000) has written a good introduction to modern usability engineering. Contextual design (Beyer & Holtsblatt 1998) and its cousin participatory design (Ehn 1988) rely more heavily on mutual learning and co-operation between designers and users. Cooper's view on interaction design is a variant of scenario-based design (Carroll 1995), but he takes an altogether different approach and includes the users only during the pre-design phase.

The primary design tool in Cooper's view on interaction design is the persona, which is a precise description of a hypothetical user and his or her goals, and it represents the user throughout the whole design process. Cooper opposes the term 'user' with the argument that it is not specific enough. By using personas the design team can refer to a specific individual, but when talking about the user in general, the team may have, and probably has, differing views on whom the user is and what his or her goals are. The specificity of the persona is what supposedly makes it a powerful design and communication tool. The persona must come to life for the design team in order to reach its full potential, so that the team members are engaged in the persona and his or her goals. The personas are concrete embodiments of the needs and goals that the team designs for and they are easier to talk about, remember and get a shared view of than a list of features and an abstract description of "the user".

In the pre-design phase the design team makes interviews and observations that are the basis for creating personas. Every persona is carefully described and is given a name and a face. When two personas have the same goals they can be merged into one. The result is eventually a cast of

characters. Some of these are less critical than others are. Every cast has at least one primary persona. The primary persona is someone that has to be satisfied and that cannot be satisfied with a user interface designed for any of the other personas. It is, however, no problem to keep the other personas in the cast as long as their needs does not interfere with the needs of the primary persona. A reasonable number of personas in a cast is three to seven. When the personas and their goals are created the design team can begin exploring the tasks by using scenarios. They are also constructed based on the empirical material that was gathered during the earlier interviews and observations.

#### RESEARCH METHOD

The first author made a twelve-week participant observation. She attended meetings, held workshops and conducted interviews throughout the design process, and spent time with the people in the User Experience Team at Q. Documentation from the meetings was analysed, and the meetings, workshops and interviews were documented with field notes and tape recorder. A major part of the recorded material was transcribed for further analysis and a daily diary with observations and reflections was kept.

The empirical material was analysed by developing units of thought that after further analysis became categories and sub-categories, which are presented in this paper in the form of themes. Every theme represents meaningful empirical material by expressing aspects that return over and over again in the material, or aspects that only are present in a small portion of the material but still carries emotional or factual significance.

#### THE PROJECT

Q produced company portals that are supposed to provide a higher degree of interactivity, personalisation, integration, and flexibility than earlier intranets. The systems development model used at Q was called Q:ing. It can be said to combine the traditional waterfall model with the spiral model for systems development, and it consisted of four phases, which each ended in a delivery. The phases were vision, design, development, and stabilisation.

The organisation of the work was project oriented. Every project group had competences from the different teams. The project group that we studied were building The AdminTool, an administrative tool for The Portal. It was a sub-project of the Arwen Project, which was version 3.2 of The Portal. System administrators use The AdminTool to, for example, add users to The Portal and set privileges for users or user groups. The present administrative tool was, according to user opinions too difficult to use and understand.

#### The User Experience Team

The team responsible for enhancing the users' performance and productivity was User Experience (UE). Their goal was to design effective and efficient products. The team described their work as following a Goal-Directed design<sup>1</sup>

process with personas and scenarios as described by Cooper.

In the design phase several different tools and methods were employed in iterations, and the result was a design specification. The needs and goals of the personas were summarised and prioritised in a needs-goal matrix. By using storyboards the information and interaction structures were visualised. Design and usability goals were set, as an interpretation of how needs expressed in personas and scenarios should be satisfied. Sketching was important during the design phase, and the sketches were later on transformed into static screen dumps and sometimes prototypes. No formalised part of the design phase was named usability evaluation but informal evaluations were made in some of the projects.

UE consisted of a manager, three interaction designers, an art director, a graphical designer, a user interface programmer, two technical writers and a localisation specialist. Each project usually had two persons from UE participating.

#### Communication within the Project

The people in the AdminTool Project were scattered in the office landscape on the floor of product development division. The participants in the project met at least once a week for a briefing and at least once a week for a design meeting, where scenarios and design alternatives were discussed. Occasionally an administrator at Q or someone with overarching responsibility within the Arwen Project participated as well.

During the design phase, UE held design critique meetings, where they discussed current work and design rationale. The purpose was to push the design process forward while learning as interaction designers. Five design critique meetings were held during the AdminTool Project. UE also held meta-process meetings every week. The team members wrote down reflections on the design process, and they were discussed at the meeting, which often had a certain theme. The purpose of that was to document the design process and share experiences.

#### The Design Process in the Project

The AdminTool Project had two personas called *Richard* and *Eric*. Richard is a system administrator and Eric is a project manager who sometimes relieves pressure on Richard during high workload. On the walls of the conference room where most of the project meetings were held, were pictures and short descriptions of the personas. A behavioural scientist that previously worked at Q had developed the personas, and they were based on interviews and observations with potential end-users of The Portal. The two personas were originally created as part of the overarching Arwen Project, and since they were only secondary in that project more information was needed. The two interaction designers in the AdminTool Project did four interviews, in parallel with the initial design work, in order to further develop the personas.

During the project several kinds of scenarios were written. In the beginning it was mostly descriptions of Richard's and Eric's general work tasks and usage situation. Later on

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<sup>1</sup> Goal-Directed design is a trademark of Cooper Interaction Design.

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the scenarios were more detailed and focused on certain tasks. At design meetings and project meetings the scenarios were discussed and quite often they were shared through links in email. As design specifications were completed, screen dumps were put up on the wall together with scenarios that described their use.

Functional goals and design goals were structured in a list for every part of the tool. A functional goal is a short description of what a user should be able to do and a design goal is a description of how the functional goal should be fulfilled. An example of a functional goal would be to add a new user to The Portal and a design goal would be that it should be made efficiently and easily. The list was often used at project meetings as a common ground for discussions, especially in the initial phases when there were no sketches. The list was later transformed into specific usability and user experience goals.

Scenarios, early sketches and design suggestions were combined in storyboards. By doing that the interaction designers visualised their ideas and could get a view over structure and flow in the tool. Questions or design problems that arose were documented on sticky notes that were placed on the storyboard. Different colours of the note represented actions, assumptions, and questions. The storyboard was a tool for the interaction designers but was also used during design critique meetings with the UE team, and occasionally during project meetings.

The interaction designers did sketches and paper prototypes for visualising look & feel, and interaction. Their solutions were finalised as static images on the computer. These sketches, both the rough analogue ones and digital versions, were shared with the other members of the project over email and at project meetings. The developers could test if the solutions were feasible and the interaction designers got feedback on their ideas. The goal was to have a tight dialogue so that everybody knew what was going on in the project and that no time would be spent on designing or implementing sub-optimal solutions. The suggestions that were kept in the process were delivered to the developers as design specifications in the form of screen dumps with accompanying text.

A small usability evaluation with three users testing a paper prototype was also performed in the project. The purpose was to test the solutions that had been designed in relation to the specific usability goals.

## RESULTS

The AdminTool Project was the first time most of the project members encountered personas. As it turned out the personas, Richard and Eric, had a limited role in the design work. They were in the background, hanging on the walls of the office landscape and in the conference room. Richard and Eric of course had the leading role in the scenarios but nobody talked about them. During design meetings words like “the administrator,” “the user,” or “you” were used. Neither the project manager nor the developers knew who Richard and Eric were, even though they recognised their faces.

The interaction designers, the technical writer and the localisation specialist did however have a complete knowledge of the personas. They experienced that they sometimes designed for Richard and that he played an important part of their design work. Richard helped them understand at what level the interface should be.

*“I think that you think about that Richard is the primary persona. You don’t have to explain everything and be over-explicit.”* [Interaction designer]

Since only parts of the project team were aware of Richard and Eric, and did not know much about the method it was difficult to lead a discussion about the personas at the project meetings. The writer and the localisation specialist did experience the work as positive, even though it did not work as it should, since developers and project managers didn’t see the relevance. Instead, the scenarios played a greater role than the personas did. A positive thing happened when sketches, screen dumps and photos of Richard and Eric were put up on the wall for public display. Many passed this wall every day and this led to spontaneous design meetings both with people from within the project team and with others.

As previously described, the personas and the scenarios were not communicated within the project team. Later on in the project the interaction designers were more positive about using the personas as a tool, but they were unsatisfied with how they worked during project meetings. They did not feel confident with the method and therefore it was difficult communicating it to others. Still all members of the project thought that it was a good tool for thinking things through and focusing the team members’ effort. The interaction designers did, however, not trust their primary persona. The reason was that it had been built to a large degree on pre-suppositions about the work of system administrators rather than on empirical work.

*“I think it has its basis in that Richard isn’t developed enough. You would need to make him more alive so that you feel safe with him.”* [Interaction designer]

The probable cause for the distrust is that the interaction designers knew that Richard had been secondary in the Arwen Project and that he was not well developed.

During design critique meetings when the rest of the UE team participated another aspect of personas became evident. Within UE there was knowledge, experience, and a determination to work with the method. The discussions circled around Richard and Eric and their needs. The team always returned to them while assessing a design solution. There were for example, long discussions about details and extreme cases. Then the team would stop and reflect:

*“But what is really important for Richard, how would he do?”* [Interaction designer]

By stepping into the shoes of Richard or Eric the question could be answered. The design critique meetings were in general far more constructive than the project meetings.

## DISCUSSION

One of the most important observations was that Richard and Eric never became a natural part of the project. Before

the interviews less than half of the project members knew the names of the personas. Since the personas were not used in communication in the beginning of the project it soon became a conversational practice to talk about them in terms of 'users' rather than using the personas the way they are supposed to be used. The interaction designers were new in their position and were uncertain about what Goal-Directed design really meant. While not sure about the method they could not preach it to the rest of the project. When the personas were not introduced as important in the beginning it became increasingly difficult to highlight their importance as time went by. The fact that nobody in the project previously had worked with personas did not make it easier. Another reason for not using the personas as communication tools was that the interaction designers did not trust the primary persona, Richard. If they had participated in creating the personas they would have known what parts of the personas that were assumptions and what parts that had been built on empirical material.

By participating they would also have gotten a richer understanding of users, which could have been communicated to the rest of the project team by means of the personas and the scenarios. At Q, however, the behavioural scientist did all pre-design work and then created the personas and scenarios in some cooperation with the rest of the people in UE.

In order for a system development method to work every team member also has to be susceptible to the method and understand it merits in order to feel at home with it. This requires that the method is informally advocated at the bottom of organisation as well as formally propagated from the top.

Normally when using personas, actual users do not play a big role during the design phase. In this project there was a need to involve users since the interaction designers did not trust the personas and since the personas and their scenarios were not well grounded in empirical work. The user participation had a great impact in the design process.

At first sight it is difficult to see how Cooper's view on interaction design with its extreme stance in user non-participation could be used in conjunction to participative approaches like participatory design or contextual design. It would, however, actually benefit from doing just that. In early phases of the design process it would be interesting to see how future workshops or contextual inquiry would work and it would be very interesting to see if one could work with cooperative techniques to develop personas. In later phases of the design it may prove advantageous to do empirical or analytical usability tests. The scenarios developed from the personas can function very well in usability evaluations, where they can be used for writing test cases. The explicit needs, goals and experience that are expressed in the personas can also be useful tools when performing analytical usability inspection methods. For

future research it would be interesting to elaborate on combinations of user-centred methods and tools.

Given that the pre-design work and the communication of the personas and scenarios work, the method seems to provide an opportunity for all members of the project to focus on the same thing, as it did during design critique meetings.

There is though a potential pit-fall in separating the creation of personas from the rest of the design process. Design work is an unstructured process by necessity. From the beginning there is no well-defined problem, the solutions and the problems are rather developed hand-in-hand (Schön 1983). This means that there must be room for going out into the context of use at any time in the design process. If such a design process is made, contextual design and personas could go well together.

### Conclusions

In the design project, we could see that the personas never became an integrated part of the design process, due to the lack of know-how and the fact that the team members never felt at home with personas and Goal-Directed design. It could have been avoided if the junior interaction designers would have participated in making the personas and in the empirical pre-design work. There is always a risk of believing that one has insured a good design process when a certain design method has been implemented in the organisation. For a method to work properly it must, however, be tweaked to fit the designers that utilise it, and they must get the opportunity to integrate the new methods and new techniques into their professional toolbox that they know and regard as their own. Every designer must get the chance to make themselves at home with their toolbox and must be allowed to change the tools so that they fit the situation at hand and their skills and needs. We finally also conclude that there is a potential for integrating contextual design and personas in the design process.

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