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Engaging Personas and Narrative Scenarios

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- An introduction to the dissertation "*Engaging Personas and Narrative Scenarios – a study on how a user-centered approach influenced the perception of the design process in the e-business group at AstraZeneca*"

by

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Abstract

Personas and scenarios help designers to imagine the users and aid development of design ideas. The concept of engaging personas and narrative scenario explores personas in the light of what it is to identify with and have empathy with a character. The concept of narrative scenarios views the narrative as aid for exploration of design ideas. Both concepts incorporate a distinction between creating, writing and reading.

Keywords: *personas, scenarios, user-centered design, HCI*

Below you see a description of a persona - Bente - the very first persona I wrote years before I knew there was anything called a persona. Bente was used for a cd-rom that should help unemployed understand their abilities and wishes for future jobs.

Bente er 30 år

Stod i lære i en butik, men da hun blev gravid, sprang hun fra lærepladsen. Siden da har hun arbejdet i skiftende industrivirksomheder. Det har været tilfældigt arbejde og sæsonarbejde. Hun føler sig tryk ved at arbejde med rutineprægede arbejdsopgaver, så behøver hun ikke at tænke så meget over tingene, men kan koncentrere sig om arbejdet og lade tankerne flyve. Det sidste sted hun arbejdede lukkede pludseligt og siden har der ikke været ret meget, hun har kunne søge. Hun vil gerne igang med en uddannelse, men er bange for at det ikke kan passe med mand og børn og ved heller ikke rigtigt, hvad det skulle være. Hun kunne måske godt tænke sig noget indenfor handel eller noget med mennesker.

(Visionik, Jan. 1998)

In the following I will introduce the terms persona and scenario and the development of the terms I propose.

Personas

Why is it important to work with personas? Consider the movie *Pretty Woman* and the main character Vivian, played by Julia Roberts. If you visualise how she was dressed in the beginning of the movie and where she kept her condoms; she wore next to nothing and had the condoms in her boots. Imagine you had to design a digital device for her? How would she use it? What for? And where would she put it?

I'm sure you have a quick vision of how that would be. It is this kind of notion of a user I suggest for the design process.

Research questions

The dissertation [6] this working paper refers to had the following research questions:

1. Can the methods of engaging personas and narrative scenarios provide designers with an understanding of users and use situations?
2. Can the concrete work with engaging personas and narrative scenarios inform the methods in use?
 - Was the practice appropriate?
 - What lessons can be learned from theory and practice?
3. How will engaging personas and narrative scenarios influence the perception of the design process in the design group at AstraZeneca?

The last research question evolves around the company AstraZeneca. The case that was focused upon was The LinkMedica project.

LinkMedica

AstraZeneca has an Internet site aimed at patients with asthma and allergy. In the Asthma Control Centre asthmatics can monitor their illness in an asthma diary and get feedback on medication. Even though research shows that asthmatics improve their health by using the system hardly anyone uses it and the e-business group at AstraZeneca wanted to know why.

The screenshot shows the LinkMedica website interface. At the top, there is a navigation menu with links for 'FORSIDE', 'Asthma Kontrolcenter', 'Videnscenter', 'Forum', and 'Hjælp'. The main header features the LinkMedica logo and the text 'Velkommen til LinkMedica - alt om astma og allergi'. Below this, there are several content blocks: a 'Spørgsmål og svar' section with a profile for David Sherson, a 'Lægefaglige Rådgivere' section, a 'HON' section with a 'HON @ CODE' logo, and a 'Log ind' section. The central content area includes a 'Velkommen til LinkMedica' message, a 'Videnscenter' link, and a 'Spørgsmål om astma og allergi' link. There are also several 'Læs mere' links and a 'Nyheder' section with a list of news items.

The research started with a survey of how the design process came into being and the different stakeholders' perceptions of the users.

When asked whom the stakeholders thought would use the Asthma Control Centre the answers differed. The variations are as follows:

- Young males
- A technical interested woman
- A well-educated person
- A non-academic person
- A woman with interest in health questions
- A male health care professional

The mismatch between the perception of the users and AstraZeneca's interest in knowing their users was the cue to introduce the methods personas and scenarios to the e-business group.

Persona and scenarios

The next part offers a short introduction to the existing literature on the methods personas and scenarios.

The literature does not describe personas and scenarios as an integrated process, but as two different methods in systems design.

A persona is a description of a fictitious user. The fictitious user can function as:

- A vehicle to create empathy and identification
- A storage for information
- A method to create a focus on particular market shares.

The idea behind personas is that the method

- Aids the perception of users instead of having individual images - as was seen in the LinkMedica project.
- The personas can create a shared perception of the users that is built on field data.

Alan Cooper introduced the term persona in 1999. He defines the persona by goals: personal goals and practical goals.

As communication, the persona gives the project group a tool to end discussions, because discussions become founded on specific users rather than on general cases [5]. The designers can no longer say "I want this" but must argue from the persona's point of view.

A scenario is a story about: a person who, in a context and in a specific situation, uses a system, with a particular goal.

“Harry is interested in bridge failures; as a child, he saw a small bridge collapse when its footings were undermined after a heavy rainfall. He opens the case study of the Tacoma Narrows Bridge and requests to see the film of its collapse. He is stunned to see the bridge first sway, then ripple, and ultimately lurch apart. He quickly replays the film, and then opens the associated course module on harmonic motion. He browses the material (without doing the exercises), saves the film clip in his workbook with a speech annotation, and then enters a natural language query to find pointers to other physical manifestations of harmonic motion. He moves on to a case study involving flutes and piccolos.” [3]

There is no unambiguous definition of what a scenario is, but there is a shared understanding of the scenario method.

A scenario is:

- A mean to provoke discussions
- It generates ideas in a language easily shared by users and designers
- It anchors the field data in a specific form

There are little concrete descriptions of the scenario creating process. Most agree on a leap from field data to a break down of these, but the process of breaking down differs and how the scenario should be produced from the field data seems not to be incorporated in the descriptions.

The leap from analysis of the field data to the actual scenario is invisible and the process of writing seems to be perceived as a natural human activity.

John Carroll who is reckoned to be one of the founders of the scenario design method wrote this scenario.

In the scenario the information we get about Harry is that he saw a bridge collapse when he was a child. This motivates him to open a case study and to see a film about a bridge that collapses.

Harry opens an associated course module, saves a film clip, and so on. Here it becomes difficult to understand why he does this. It is difficult to understand his motivations.

If designers want to design for users who have seen a bridge collapse, there might not be many.

And to me it looks as if the designers wanted to make a case study of motions and then later decided why Harry would use it.

Engaging personas and narrative scenarios

The examples of personas and scenarios from the existing literature made me wonder whether it was possible to create personas that the designers could engage in and create scenarios that evolved around the persona.

The point of departure was that if it is possible in film, then it must also be possible in systems design.

The next part will show the development of the concepts into the engaging persona and the narrative scenario.

Step 1: Engaging personas

The engaging persona enables the designer to:

- Understands the system from the user's point of view.
- Enters the life of the user
- Understands the user's needs and their demands on the system.

To engage in a persona is the ability to:

- Recognise the persona as an individual
- See oneself in relation to the persona's actions, knowledge, and emotions
- Evaluate the persona morally, to understand the persona's state of mind, and the context where the action takes place

The engaging persona has:

- A bodily expression
- A psyche
- A background
- Present emotions
- Oppositional character traits and peculiarities.

The engaging persona is similar to the rounded character in literary theory [4]. A rounded character has two oppositional character traits and this allows for the character to develop in the story. A round character is someone who develops through the story, like Il Postione where the postman develops through the meeting with a poet.

A typical flat character in film is James Bond, he has never changed, has never developed. In the many movies, which have come over the many years, he stays the same.

For the designer to engage in the persona description the text must offer:

- Information that enables persona construction
- Information about the emotional status of the persona
- Information about context that enables an understanding of the character

The process of engagement must consider:

- The creative process as engagement demands certain information in the text.
- The reading process, as it is the reader who has to engage.
- The data material, as the data provides the input for the creative process.

Step 2: Needs and Situations

Before an engaging persona can enter a scenario the designers must consider the engaging persona's needs and situations.

Before the scenario can start it is essential to find out what kind of needs the persona have when using the system and what kind of situations the persona is in. These are the starting point for the scenarios.

If we think back at the pretty woman example, Vivian could have a need for sending car registration numbers to her girlfriend when she is on the street. This is the beginning of her scenario.

Step 3: The narrative scenario

The narrative scenario is:

- A creative tools to explore design ideas
- Has a structure like stories that develops around a main persona
- A tool to support communication

The narrative scenario is structured like a story with a main character that is motivated to use a system in a specific situation, with a specific intention and goal.

I have looked at how the scenario as a story, can incorporate the user as a character, and how this can be a tool to explore design ideas.

The narrative scenario has two momentums:

- The writing process
- The reading process

The writing process:

- Explores the design area through writing and discussions
- Has story elements in causality
- Has a dramatic development focussed on the engaging persona

The reading process pays attention to:

- Closure. When a story resolves a conflict it achieves closure [1] p. 52. Closure can be both for a single event and for the whole story. Resolution is one way of obtaining closure.
- Coherence. Coherence is what persuades us that the story is true. It is the logic that get the story to hang together according to some norm [1] p. 42. Coherence is extremely important for scenarios as it is how we judge whether a scenario is true or not.

The focus on the reading process helps to adjust the final scenario so the reader can understand it as a story. The focus on the reading process also tries to understand the reader's interpretation - if the design area, the engaging persona, or the setting is unfamiliar to the reader, the reader's interpretation might be too influenced by his own experiences and reject user data.

The workshops and the interviews with AstraZeneca



Before the workshops started there had been studies of the users of LinkMedica - patients, relatives, and medical practitioners. The findings in these studies served as a starting point for the workshops.

The e-business group had been involved in the development of LinkMedica and several other IT projects. It was the whole of the e-business group that participated in the workshops.

Studies

The studies fall into two categories:

- Interviews
- Workshops

I did two studies at AstraZeneca

- Interviews with members of the e-business group and different participants in the LinkMedica project (before and after the workshops)
- Two workshops with the designers from the e-business group.

The workshops followed the phases suggested by Susman and Evered (in [2]):

1. Diagnosing – the diagnosing started with the first e-mail sent to me where AZ formulates the wish to know the user. It was later underpinned when I had analysed the initial interviews and found a lack of shared understanding of the users.
2. Action planning – it was soon decided that the action had to be in the form of a workshop. From the beginning we thought we could deal with both personas and scenarios in one day, but during the first workshop we realised that one single day was not enough and decided on an extra day. This decision was taken during lunch and everybody agreed. The actual programme for the workshops I planned alone.
3. Action taken – the actions were the two workshops
4. Evaluating – the designers evaluated individually in the interviews. There has been no shared evaluation of the methods and the workshops.
5. Specifying learning – the learning has also been an individual process. In the final interviews I can see a learning that goes in two directions: a learning that evolves around the specific methods and a learning that evolves around the user understanding.

Workshop aim

For the designers the aim was to create design solutions that could get more medical practitioners and asthmatic patients to use the Asthma Control Centre.

My aims were:

- As a designer: To create solutions
- As a researcher: To evaluate the methods.

I had a dual purpose both to get solutions and as a researcher to evaluate the methods and look at their impact on the perception of the design process

Step 1: Personas



Carsten



Helle



Gitte

In the first workshop it was decided to create two patients and one medical practitioner. Carsten and Helle are patients and Gitte is a medical practitioner.

Helle is 35 years. Married to Peter and has a little child one and a half years of age. The couple hope to have more children.
Helle has had asthma since she was a teenager. (...) After she had her own family she experienced respiratory problems she couldn't control, this made her feel a bigger need for control.
Helle lives in a terrace house with Peter. The living room has wall-to-wall carpeting and a laminated kitchen.
Helle is in regular employment at Tax and Customs. Her husband has a job with working hours that varies. (...)
Helle's work reflects her attitudes, as her attitudes are rather hard-nosed, this is reflected in her private life as well.
She is rather annoying and is secluded and has few friends.
She would like her husband to interfere more in family matters. She uses her husband's stories in her daily life as she finds his work better than her own.
Helle has dark hair, slightly overweight, and does not follow the latest trends.
Helle is romantic and has a temper, especially when it concerns the family.

This was the initial written description of Helle. Helle is quite a difficult person to handle and she becomes worse and worse in the text.

When we discussed Helle it turned out that the writers did not perceive Helle as negatively as she is described. During the discussions she developed into a motherly

type that cared for her family. The term “in control of her asthma” might have had a negative influence on the description.

Findings

The writing process creates a barrier where information gets lost. The discussions were much more detailed than what went down on the paper. And it seems that the writing process creates a barrier where information gets lost. Creative writing is not an ability everybody possesses. You can provide guidelines but this is not enough. What especially seem to be lost are the details that differentiate the persona from the engaging persona - the traits of the rounded character.

Lack of data makes the designers use inferences. If the information from the initial user inquiries are compared with the five areas for the engaging persona, almost all areas lack. There was a focus on the user’s emotional relationship to the illness, but there was nothing that could help the designers to infer character traits, background, and emotions. This might explain why they used their own experiences and background knowledge as much as they did. Discussions also compensate for the loss of information and create engagement in the personas. Discussions creates a common language and a common understanding

In the discussions the personas were perceived in a collective process and the designers got a common ownership of the personas. They engaged in the personas and understood their motivations for actions. In these discussions the designers used their own experiences to support the creative process, but as these were discussed there were a constant adjustment to the other designers’ experiences and to the different user inquiries.

Step 2: Situations

The designers decided to concentrate on the following needs and situations.

Helle:

- Helle as relative (pregnant and mother to a child who gets diagnosed with asthma)
- Introduction of the system
- Use-situations at home

Carsten:

- Introduction
- Use situation after attack

Gitte:

- Gitte is introduced to the system
- Gitte introducing the system to a patient
- A patient calls and she uses the system

Findings

- Discussions of situations broaden the perceptions of the personas
- Discussions creates a focus on motivation for action

For the design group, the discussions about needs and situations functioned not only as definitions of the situations where the persona would use the system, but also as a basis for a broader understanding of the personas.

In the instance of Helle the discussion created the missing character trait that broadened the understanding of her.

In the discussion of situations a row of little stories were created and these furthered both an understanding of the persona and of which situations to focus on.

Step 3: Scenarios

The design group decided on the following scenarios:

- Helle at home doing her first entry
- Gitte introduces the system to Helle

Helle's scenario:

It is Monday afternoon and Helle is on her way home from work. She picks up her daughter from the nursery on the way. She is rather annoyed as her daughter did not get her nap at noon.

At home she puts her daughter to sleep and starts the washing machine, do the dishes from the night before when her parents were over for coffee.

It is 8 o'clock before she and Peter is in front of the TV. She was supposed to put the laundry aside, but she needs a breather. Her mobile beeps with a text message. It is from her medical practitioner Gitte: "remember to type in your asthma values. Greetings Gitte" (...)

Findings

- In the writing process the designers explore design solutions
- Scenarios create awareness of context
- Scenarios help focus on the user
- Discussions create a shared understanding
- Personas and scenarios are part of a process and not drafts of final solutions

In the writing process the designers were able to explore the design area and come up with design solutions through an engagement in the persona. And it was easy for the designers to use the method.

The individual scenarios created an awareness of the importance of context.

The scenarios helped the design group to focus on the user, her needs and her context.

The discussions made the designers' aware of the complexity of the system.

Whenever functionality was decided from the perspective of one persona, it had implications for the other persona.

When the discussions moved away from a personas perspective and into a perspective of a general user, it was the system rather than the user that was focused on.

Personas and scenarios should not be seen the final material, but as the beginning of a larger process that keeps focus on the users.

The designers' perception of the process

The interviews point to two problem areas:

- The negative statements concentrate on the difficulties in reflecting the discussion in the written text.
- The satisfaction concentrates on the idea of getting a concrete view on the users.

After the workshops I interviewed the designers to have their perceptions of the process.

They expressed that the downside of the scenarios is that they might be difficult for outsiders to understand.

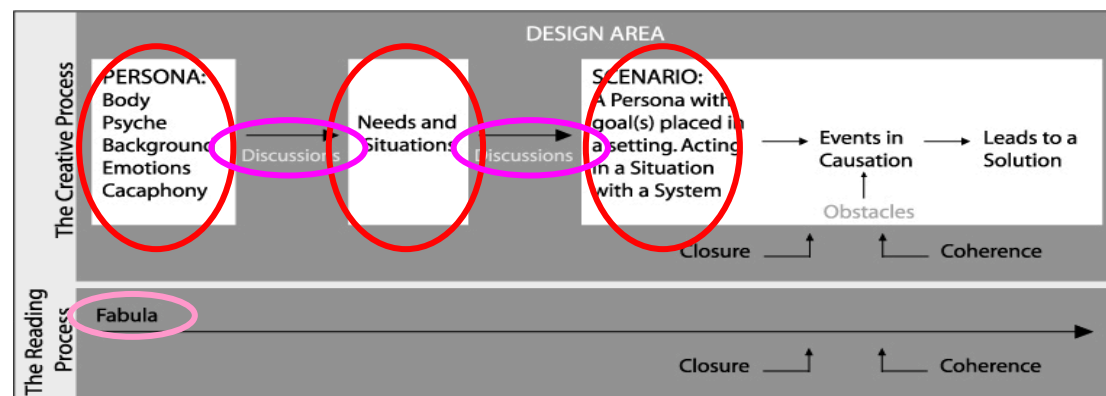
The shift from one persona to another should not take place during the same day.

But personas and scenarios are considered easy to develop and easy to handle.

The workshops gave the designers an experience of how different the development process could have been.

But it also provided them with an understanding that they are a unique group and that other parts of the company are either prepared to share the mindset of the e-business group and considered easy to cooperate with or not prepared to share the mindset of the group and them considered very difficult to cooperate with.

The model revisited



A return to the model from the beginning shows my contributions. The model has 3 steps – persona, needs & situations and scenario - and with discussions in between it becomes 5 phases.

The theoretical dimensions are reflected in the description of personas, situations and scenarios.

The experiences from the workshops are reflected in the focus on how important discussions are. The experiences are also reflected in how the designers, when they read the personas and scenarios, use their own experiences to construe personas and scenarios.

The model offers both a theoretical and a practical approach to the process of creating personas and scenarios and it also highlights the perception of the personas and the scenarios.

Future studies

- Methods to support the engaging person and the narrative scenario
- Grouping or segmentations of users
- Working with large number of personas
- Dissemination

My work with personas and scenarios still leaves questions that needs to be answered:

- What methods can support the engaging person and the narrative scenario - both before and after?
- The grouping or segmentations of users is an area that is not covered in this study, and needs to be further investigated.
- Working with personas demands identification with and engagement in the persona but what happens when you work with a large number of personas?
- How can you disseminating the understanding to larger groups?

Literature

1. Abbott, H.P., *The Cambridge Introduction to Narrative*. 2002, Cambridge: The Cambridge University Press.
2. Baskerville, R., *Investigating Information Systems With Action research*. Communication of the Association for Information System, 1999. **2**: p. 19.
3. Carroll, J.M., *Making Use - scenario-based design of human-computer interactions*. 2000, Cambridge, Mass: The MIT Press.
4. Chatman, S., *Story and Discourse*. 1978, London: Cornell University Press.
5. Cooper, A., *The Inmates Are Running the Asylum*. 1st ed. 1999, Indianapolis: SAMS.
6. Nielsen, L., *Engaging Personas and Narrative Scenarios*. PhD Series, Vol. 17. 2004, Copenhagen: Samfundslitteratur.