Object persona: Should designers let go of the user?

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ABSTRACT
With the emerging of the Internet of Things, researchers propose a shift towards things-centered design. Making an object persona could be of value in a things-centered design approach. The designer steps in the shoes of the object rather than the user and this allows to reveal new insights about a context that would not be obtained by only studying the user. Based on earlier object persona research, designers were asked to create object personas in a workshop and design something based on the insights from the persona. In a seminar, participants made an object persona and discussed about its application in the design practice. These discussions showed that designers have strong need for the notion of context and find it hard to think of an object independent of its context. To develop things-centered design, we should understand better the roles and importance of the context, user and object in designing.

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DESIGNING FOR PEOPLE
The Internet of Things (IoT) is an emerging paradigm developing and changing the world around us. Objects and things around us will get more and more connected, predicted to be over 50 billion connected products in the 2020’s (Sahraoui & Bilami, 2015). IoT opens doors for new developments, and one of the questions rising with it is how designers should deal with it. If all products around us get connected and work in systems to improve our lives, than how does this influence our approach to designing products for people?

Research from this paradigm tries to understand in what way the information flow is understood by the mind and how the accuracy and efficiency of information transfer can be optimized. The third and most recent emerging paradigm sees the interaction between human and machine to be dependent of context, as a support of situated action in the world. Research from this recent paradigm tries to gain a holistic understanding of human, machine and context and acknowledges these are all influencing each other.

As a response to the HCI research society, where especially in the first two paradigms the focus was on the interaction between man and machine, participatory design emerged in Scandinavia. This approach emphasizes including the users in the design process with the aim of understanding their way of using products and giving them a voice in the design process [18]. Bødker [3] states “it is of vital importance to understand use to build artifacts to support and develop use”. The emergence of participatory design and developments in the HCI research is combined in the human-centered design (HCD) approach, helping designers to understand the use of their potential users with various methods. The application of HCD incorporates the user’s perspective into the design process. [17] [13]

While in the first and second HCI paradigms the focus is on increasing productivity, efficiency and effectiveness of products, the third paradigm develops to focus more on an experience-centered design approach [4]. Experience design seems to decentralize the human again in design but actually it is acknowledging the fact that the human is part of a bigger system: the practice in which the product, the human and other products exists all influence the interaction and experience [5] [7].

STORYTELLING IN DESIGN
“Telling stories is as basic to humans as eating” [11], therefore storytelling methods are often used in human-centered design processes to help designers relate to the users or to create empathy for them. The use of narrative design approaches, design fiction, finds it origin from design critics and is a very specific approach of designing that gives designers access to inner felt aspects and user experience. Now the term has also been used Blythe & Wright [2] to describe narrative human-centered design approaches such as scenarios. Scenarios are used to capture the user and their activities as a story and can be used to

Harrison et al [10] have defined the three paradigms of HCI, based on the three waves of HCI that are acknowledged by many HCI researchers [4] [5]. The first paradigm purely focuses on man-machine interaction, aiming to optimize the man to machine fit by developing pragmatic solutions to coupling problems. The second paradigm finds its basis in cognitive science and recognizes the mind of the human.
present and situate solutions; to illustrate alternative solutions and to identify potential problems [3].

In the third paradigm of HCI, many researchers [6] [8] suggest the importance of acknowledging the ecology of objects instead of just looking at the human-product interaction. So far, design theory and approaches have mainly focused on people, but with IoT coming up HCI researchers are pleading for a more object-oriented focus.

In addition, Harrison et al [10] describe the third paradigm of HCI to prefer for multiple interpretations to give a rich understanding of the interactions, instead of just having one interpretation. Combining this preference for multiple interpretations and the acknowledgement of object ecologies shows that it might be interesting to not only study the human in the design process, but to also look at what we can interpret from the objects in the system. Moreover, technology makes it possible to give objects a voice to talk by using a lifelog [12] [14] [15]. Being the authors and readers of sensor data, objects are now viewed as something that have their own stories to tell.

Based on these developments, the narrative nature of the human and existing narrative design methods, Cila et al. [6] have proposed the use of object personas as one way to analyze practices from an object’s perspective and to stimulate creativity in the design process. This research was one of the first attempts to listen to what objects have to say, but it raised the question how this very experimental approach should be applied in design practice. This research aimed to answer this question by exploring how object personas could inspire designers and in that way become valuable in the design process.

**METHODOLOGY**

To obtain the understanding of the potential value of the object persona method, three steps were carried out. First, the object persona research by Cila et al was reviewed by reading the published papers and having discussions with the involved researchers. Second, a workshop with four professional designers was setup to let them experience and evaluate making an object persona and using it for design. Thirdly, a seminar was organized at the faculty of Industrial Design Engineering (TU Delft), where each person in the audience was asked to make an object persona and evaluate this process.

**Object Persona Research**

By providing objects with software and sensors, Cila et al enabled objects to give access to a perspectives and insights that would not have been attainable when only focusing on users [9]. The gathered data can be interpreted in order to imagine the product to be alive: how does it feel when being used? What is its relation to other objects? Is it sometimes lonely?

They took the home practices as a context and put life-logging devices (Autographers) on a kettle, cup and fridge. The Autographers collected a lot of pictures from the perspectives of these three objects and where the basis for creating an object persona for each of these objects. The researches provided the participants (a design researcher and a psychologist) a template to make the object. This template consisted of four main categories: Day in the life of the object, Inner life of the object, Social relationships and Life course.

The participants were not asked to sketch ideas based on their object personas but talked about them in a plenary discussion where also the whole session was evaluated. These insights were used to improve the object persona template for this research. The categories were adjusted to place more focus on the social relationships between the objects as this was found to be the most inspiring and useful aspect of creating object personas in the previous research.

**Workshop with Designers**

To better understand the potential value of making an object persona for the design process, a workshop with professional designers was organized. The aim of the workshop was to explore how the designers could be inspired by making an object persona and how they would use the insights they got form the object persona in designing. By making the object persona, designers are triggered to step into the shoes of the objects so that they can experience the world from the objects perspective, something they might also do when creating a persona for a user. Understanding the world from the view of objects could help the designers to get novel insights on the context or design problem, that they could not get from only studying the user. In this way, making an object persona could be an inspiring activity in the design process that helps to look at a context from a new and interesting perspective.

To ensure that the designers were familiar with the objects, a common practice from home, the cleaning practice, was chosen as the focus for making the object personas. In order to get in-depth insight in this practice, we selected three objects (the sink, cleaning detergent and vacuum cleaner) and installed life-logging devices onto them in ten different households. The objects were selected with attention paid to their agency, temporality and movement to ensure a variety in the data for making the object personas.

Four professional designers varying in age, background and design experience were invited for the workshop. In the three-hour workshop, the designers were asked to watch the movies that were created from the pictures of the life-logging devices and create an object persona for all three objects using the adjusted template. The template existed of multiple sheets with various assignments to trigger the
designers to engage with the object. Each assignment had a short explanation and triggering questions to help the designer filling it in. The assignments were composed in such a way that designers could fill it in to their preferences, with writing or drawing and in the order that they liked.

For each object, the designers were asked to fill in a timeline that describes a day in the life of the object. With green and red stickers, they could indicate which moments the object liked and disliked and the designers could indicate important moments from the object’s past. On another sheet, the designers could develop the inner life of the object, by writing down the psychological profile of the object. For example, they could elaborate on the ideal life of the object, the characteristics, fears, mood, complexes and so on.

For all three objects, a sheet with a grid was given so that the designers could map the social relationships between the three objects and also other objects in the house. They could add how the objects would communicate and how they move around the house. Another sheet was available for the designers to specifically focus on the relationships between the three objects. They were asked to think about friends and enemies of the objects and to consider what they could learn from and teach to each other.

When the designers had finished their personas, they presented them to each other and discussed about the process of making them. As a final part of the workshop, the designers were asked to design something for the cleaning bathroom. The participants considered the object important to distinguish its function. For example, the designers could map the social relationships between the three objects and also other objects in the house. They could add how the objects would communicate and how they move around the house. Another sheet was available for the designers to specifically focus on the relationships between the three objects. They were asked to think about friends and enemies of the objects and to consider what they could learn from and teach to each other.

Seminar

A seminar about this project was organized for interested design students and staff to get more input on the potential value of making an object persona. Approximately 25 people attended the seminar. The seminar lasted for 45 minutes and started with a short presentation where the object persona research was explained. Then the audience was asked to fill in an adjusted version of the persona template for the sink, so that they could experience the process of making an object persona. One movie that was gathered in the data collection was shown to the audience to base their persona on.

When the object personas were finished, the participants were asked to note down one thing they liked and disliked about the method. These comments would be used for analysis. To close the seminar, the participants and author discussed about how the object persona method could complement with other already existing design methods and approaches, to better understand its value for design.

RESULTS

The workshop and seminar recordings were transcribed and interesting quotes were highlighted and interpreted. For the workshop, first a separate analysis was done for each designer. These insights were then combined to come to the workshop results. To analyze the seminar, the interpretation of the quotes were combined with the comments participants wrote down on what they (dis)liked of making an object persona. This led to the final conclusions of this research.

Notion of Context

During both the workshop and the seminar, it became clear that making the object persona was difficult for the design students and professionals, as the context around the object was missing. With context they meant not only the environment around the object, but also a design brief, problem statement and wants and needs of the user. Participants felt very much that they were creating the object persona based on their own experiences and opinions rather than substantiating it on the wants and needs of the user.

The designers indicated that the environment around the object is important to distinguish its function. For example, a sink in a kitchen is very different from a sink in a bathroom. The participants considered the object persona to be influenced by the space around the object, and thus could not see the object having certain characteristics, wants and needs merely on itself.

The designers also experienced some difficulty when starting to design based on their persona. They mentioned they missed a purpose for designing, as there was not a clear design brief. The object persona provided them with insights on the object, for example problems that the object encountered in its daily life. However, these problems were indicated not to be useful by the designers, as the problems of an object are not necessarily the problems of the user.

Developing the things-approach: Letting Go of the User

The designers experienced the absence of the user in this research to be quite uncomfortable. The designers presume the human projection on the object to come from the user, not the designer. They felt the relationship between the user and object is very personal and they need to have background information on the user, so that they can create a fitting object persona for them. As a solution, they proposed to use object personas as a co-creation technique, so that users can give feedback on the object persona created by the designer, or users could even create the persona themselves.
This insight could make us question whether the things-approach is the right track for designers. Until now, we have been so much focused on human-centered design and focusing on people, that it seems to be hard to let go of the user. The application of object personas in the design practice indicates that it is still a big step for designers to solely focus on the object and truly making the object the center for design.

If we look at design history, we can identify successful designs that were not created from a user-centered focus. For example Apple has created multiple products, such as the iPhone, that were not based on user needs. These products were created by combining functions from various objects and from the vision from the designer. These examples indicate that the things-approach is definitely not meaningless and can actually create successful products.

For the this approach to develop further, the HCI community might need to think more about the importance of the user and the object in the design process. Further research can be done to understand better why the notion of context is so important, and why design goals and purpose should be based on user needs rather than object needs. This understanding will help to balance the role of objects and people in designing and making the things-approach more applicable in design.

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