

How to Design for Ethical Experiences: Introduction of a Guided Method based on Psychological Needs for the Value of Privacy

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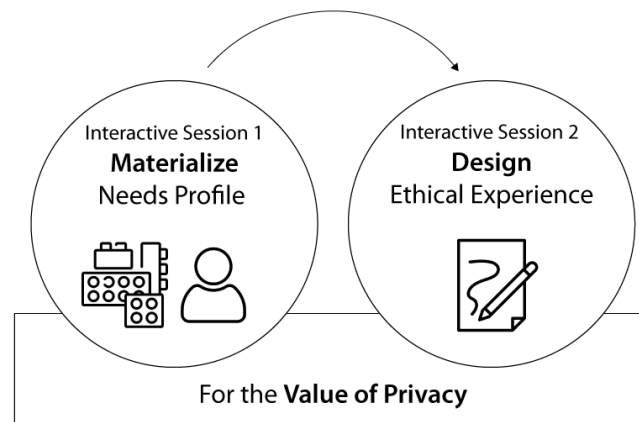


Figure 1: Tutorial content - Within the first interactive session the participants learn how to materialize psychological needs and values using the "Needs Profiles" [16]. Based on that, the second interactive session embraces a exemplary design process for creating an ethical user experience for the value of privacy.

ABSTRACT

Ethical design can mitigate potential risks of digital systems through deliberate analysis, open communication, and concretisation of potential negative effects of digital products and services for users, the environment, and society. Considering psychological needs and values helps to address ethical aspects of interactive products and services by focusing on the users' psychological well-being.

The tutorial provides knowledge about psychological needs and values as well as the ethical implications for (user) experience design. After a theoretical introduction, the participants learn first how to make the rather abstract values and psychological needs tangible. Subsequently, the participants will apply the acquired insights to conduct ethical reflection in the context of a practical experience design process. The tutorial concludes with a summary of the newly gained knowledge and a discussion about the applied methods. The results are documented and subsequently made available.

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KEYWORDS

Ethics, Psychological Needs, Values, Privacy, Experience Design, Needs Profiles, Needs Empathy Map, Lego® SeriousPlay®

1 INTRODUCTION

The human-centered design process (ISO 9241-210:2019) is an essential approach to designing products and services in a systematic and iterative way [9]. Although the shaping of human experiences is mentioned as a goal, the factors relevant to this - such as values, psychological needs and ethical considerations - are barely integrated into the various phases of the design process [17]. Often, these essential qualities are considered too abstract or theoretical (cf. [3, 20]), or time-consuming to be implemented in everyday business life [14].

The tutorial addresses these aspects, by providing designers and human factors experts with a structured approach, methods and tools to situate the psychological and philosophical topics in their everyday professional life and to make them effectively and efficiently usable for experience-oriented design.

The tutorial will teach how to make concepts of values and psychological needs tangible and how to operationalise them to explore the ethical implications for the design of experiences. The

playful interventions [13] used in this process and playful group tasks with Lego®-bricks, help the participants to build up creative confidence and thereby also to express unusual ideas [10, 15], which can lead to more innovative experience-oriented concepts.

Participants will engage in the development of a new solution for the value of privacy [4] on the web by co-designing a new cookie banner following a value-oriented approach. The group of participants will exchange their knowledge, experiences and expectations leading to syntheses of perspectives and mutually develop a new interaction design concept for privacy dialog boxes [18]. Thereby they learn a new practice-oriented ethical evaluation exercise that can be efficiently integrated into the human-centered design process and into their regular design iterations to considering ethical implications of design decisions.

This tutorial aims to raise awareness and teach methods and processes to implement responsible design with regard to privacy in the development of interactive products and digital services.

2 INTENDED AUDIENCES

Usability and User Experience (UUX) professionals and UUX beginners can attend the tutorial.

The two groups will learn the following:

- Experienced UUX-professionals will learn a new, systematic and playful way to look at psychological needs and values as a basis for the ethical design of interactive products and services.
- UUX-beginners will learn a systematic approach to the ethical design of interactive products and services based on human needs and values.

3 CONTENT

The tutorial is structured as follows, with the interactive sessions (cf. Figure 1) being the core of the knowledge transfer:

- Introduction (30 min): The tutorial starts with a presentation outlining its timeline, content, and learning goals as well as an introduction to the concept of values [4] and psychological needs [2, 5, 6] in the context of experience design based on literature. Thereby, the focus is put on the value of privacy and on how to integrate ethical considerations into the human-centred design process.
- Interactive sessions (180 min): After the introduction two interactive sessions start (see figure 1, cf. sections 3.1 and 3.2), which build on earlier successful workshops [14], tutorials [7] and courses [8] that were combined (cf. to sections 3.1 and 3.2). Each session includes briefings on the scientific background and approach, followed by interactive exercises and discussions, so that participants can directly apply and deepen their knowledge.
- Discussion (30 min): The tutorial ends with a summary and a discussion about the applied methods, insights and results of the interactive sessions.

3.1 Interactive Session 1: Materialisation – Needs Profiles (90 min)

In the first interactive session, the participants learn how to make the concepts psychological needs and the value of privacy tangible and concrete. The method of "Needs Profiles" [16] is used as it can support the systematic access to implicit knowledge about psychological needs and their relation to the value of privacy.

3.1.1 Constructing Psychological Needs. The first step of the "Needs Profiles" method is to metaphorically construct the previously defined psychological needs using Lego® building blocks in the spirit of the Lego® SeriousPlay® - method [11].

3.1.2 Designing Needs Personas. The insights gained in the first step are transferred to the the canvas "Needs Empathy Map" [12] in order to create "Needs Personas" [15, 16] for the value "privacy". In doing so, the participants creatively define together how personas with predefined psychological needs would act in reference to the value of privacy. The participants are asked to think about how the "Needs Personas" would behave and which motivations, thoughts and feelings trigger this behaviour. Finally, the results of the second interactive session are summarized in a plenary session.

3.2 Interactive session 2: Design - Ethical Experience (90 min)

In the second interactive session of the tutorial, participants will be guided through a creative design process by completing three interactive exercises to apply the knowledge gained in the previous session and to design an innovative ethical design solution for privacy interactions on the Internet.

3.2.1 Defining Problem Statements. The first exercise of the second interactive session builds on the "Needs Profile" for the value of privacy defined earlier. Participants specify the user requirements for interacting with privacy dialog boxes (i.e. cookie banners) by defining a specific problem statement [1, 19]. This helps them to narrow down that more general knowledge of psychological needs identified in the first session to a specific use case.

3.2.2 Conducting Ethical Evaluation. In the next exercise, participants analyse the ethical implications that the problem statement might have for users by conducting an ethical evaluation exercise. This exercise is adapted from Katherine Zhou's "Consideration Cards" [21], which have been supplemented with the values of Friedman et al. [4].

3.2.3 Designing Ethical Experiences. In the final exercise, participants sketch a new interaction design solution for privacy protection on the Internet considering user requirements and ethical implications. The entire creative process and design ideas are finally presented in a plenary session.

4 FURTHER WORK

This course aims on imparting knowledge on designing ethically with the help of the guided method within the framework of this tutorial. We would also like to systematically prepare this procedure for practitioners with the help of the experience gained in the tutorial, so that they can acquire it on their own.

The results of the co-design tutorial are used to design new, ethical privacy interactions that take into account users' values and psychological needs in relation to privacy on the internet.

5 INSTRUCTOR BACKGROUND

Anne Elisabeth Krüger is an (user) experience researcher at the Fraunhofer Institute for Industrial Engineering. She is writing her doctorate on creativity and empathy in the context of experience design. She is a trained Design Thinker (d.school) and Lego® SeriousPlay® facilitator as well as a value-based systemic coach and consultant (CAS/ISO/ICI). Furthermore, she focuses on enabling positive experiences in creative workshops in analogue, digital, and hybrid settings.

Veronica Hoth is a designer, researcher at the Chemnitz University of Technology and PhD student at the Berlin University of Technology. Her focus lies in the areas of user experience and human-centered design. She conducts research on design ethics to integrate value-oriented design into the human-centered design process. Her focus lies on the consideration of privacy and diversity in the design of HCI (Human-Computer Interaction).

Stefan Brandenburg is Professor of General Psychology and Human Factors at Chemnitz University of Technology. His work focuses on the methods and explanatory models of human experience and behavior in relation to their interaction with technologies, as well as the ethical aspects of the use and development of new technologies. In addition, he is engaged in the transfer of research knowledge on the topic of digitalisation to small and medium-sized enterprises.

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