Abstract: This paper introduces a profiling method, which empowers users to convey their personal experiences by utilizing dramaturgical techniques. Designers and stakeholders rely upon insights about the user’s mindset, for which user-profiles have proven to be a helpful tool. However, existing profiling methods show two major deficits. First, they neglect the information about subjective experiences and latent thoughts resulting from personalized relationships to a product or service, and secondly, they lack to propose effective ways to represent that hidden information. The reason for those shortcomings lies in the nature of user-profiles to generalize characteristics in favor of a quantifiable standard. Yet, contemporary challenges to user research demand for approaches beyond superficialities and simplifications. Users are dynamic and indicate depths that can no longer be represented by static and hollow archetypes. Accordingly, the two guiding questions of this study are: What are user-generated experiences? How can they be represented in the context of user-profiles? In consequence to these research aims, the method suggested in this paper encourages the user to explore own features of distinctions and own taxonomies by utilizing methods from staging practice and experimental acting. Instead of being pressed in prefabricated categories, the user actively defines oneself while performing different roles and conducting improvised dialogues that both deal with the user’s relationship to a product or service.

Key words: Co-design/Co-creation/participatory design, Design Methodology, Design Issues, Design tools, user-profile.

1. Introduction

Beginning in the 20th century and ongoing to present days, we encounter the phenomena that the users’ individual situations are receiving more and more attention in the design field. Already in the 1950s when the paradigm of industrialization dominated the development and innovation of the society, companies and designers for the first time considered the “users” as part of their professional activity [16, 33]. As the HCI discipline came to birth in the 1980s, the significance of users in design grew considerably. Initially, users were only involved in design processes on behalf of usability with the main focus on cognitive aspects [1, 30, 39, 54]. Yet, going beyond the simple practice of just considering the suitability of machines to humans, users have been asked to
participate more actively in design processes since the 1990s [18], in order to assess and utilize their emotional responses to products [28]. All in all, the way of considering users in design changed from measuring their reactive performance to having them actively participate. This rough overview already shows that the role of users and their situation was and still is rising to higher significance.

User-profiling is a method to express focused user-information within and for the design process. Starting from the 1950s, as the importance of users in design first emerged, this method has been developed in various ways to provide many benefits to design. Firstly, user-profiling has helped to consider users at the fundamental level through the whole design process as the profiles reflected the users’ information for designers to keep focusing on users [12]. Secondly, user-profiling has conveyed suitable user information for the purpose of design to make the design-goal more consistent and robust throughout the whole design process [38]. Finally, user-profiling broadened the designer’s understanding of diverse users by taking many existing profiling methods that helped to individually frame users and assess in-depth differences among them [14, 20, 21]. Thus, user-profiling methods have proven to be fundamentally beneficial to the designer’s understanding of users by communicating user information in a simple and abstract way. Consequently, user-profiling is defined as framing users to convey purposeful information to the design process.

2. Evolution of user-profiling

2.1 The development of user-profiling according to paradigm shifts in design

Harrison, et al. proposed 3 paradigms in HCI to describe the trend of changing focuses and purposes in the HCI domain [22]. He characterizes the first paradigm with the expression “human factors/engineering”, the second with “cognitive revolution”, and the third with “situated perspectives”. Although specifically applied to HCI, these paradigms are equally reflected in the design domain proving to be a reliable way to describe the paradigm shifts in design [55]. In this chapter, we propose the evolution of user-profiling in accordance with the aforementioned three paradigm-shifts in design.

The first generation of user-profiling was mapped to the ‘human factors/engineering’ paradigm. In a period of industrialization, the main concern of design was physical comfort and usefulness. Those were considered to satisfy in a more fundamental fashion and ‘one-size-fits-all’ products were most important. To suit this purpose, user profiling in its first generation was designed as an anatomical drawing of the average man and woman, the fictional couple ‘Joe & Josephine’ [16]. This example shows the idea that users were fully generalized and considered as one fictional character to show user’s physical features. Nevertheless, the first generation of user profiling was ideal to inform designers on the user’s physiognomy. (Figure. 1)
The second generation of user-profiling emerged due to the awareness of diverse users. In the second design paradigm, which occurred in the 1980s, companies and designers started to consider users’ cognitive processes and lifestyle aspects with different user groups and classified them within certain user characteristics. In the marketing discipline, researchers focused on differentiated customers’ decision-making processes, especially in the area of purchase decisions. From this perspective, various user-profiling methods in marketing were proposed in the form of what is now known as ‘market segmentation’ [35, 37, 40, 50, 52]. In contrast, HCI researchers’ and practitioners’ main concerns were the users’ comfort in a cognitive way. User-profiling in HCI was developed to show differences in cognitive level among users [9, 10, 21, 36]. In other words, users were grouped according to certain levels of cognitive abilities. Even though user-profiling methods in marketing and HCI have different point of views, they commonly imply that users are predictable and that they can be evaluated differently through user’s personal traits or characteristics. Overall, the second generation of user-profiling was proposed to frame users down to a few archetypes based on fixed attributes to emphasize their cognitive or lifestyle aspects.

In comparison, the second generation of user-profiling in design was proposed in a more descriptive way. The Persona method is the most representative example for this. Cooper suggested the persona as hypothetical archetypes of actual users defined with significant rigor and precision [11]. Persona had been used beneficially by designers, and it showed effectiveness in being focused on user goals through the entire design process, so that the design result became more persuasive [3]. However, even though a persona conveys precise descriptions of users, it is based on the same user information that other user-profiling methods in marketing and HCI apply. In other words, a persona is framing users with fixed user-attributes in a way that reformulates and adds narratives and visual material. Some case studies also showed the limitations of persona [38, 48]. Currently, there have been several tryouts for improvement [29, 38, 41, 55], the basic idea of persona which is representing some characteristics of certain group of users still exists.

2.2 Beyond second generation of user-profiling

The third paradigm is going beyond its predecessors by emphasizing the trend of user’s meaning making. Within the first and second paradigm of design the design process was defined as problem solving, so that user-profiling methods in the first and second generation helped to articulate design goals by representing several generalized user characters. In contrast, the third paradigm of design emphasizes users’ free interpretations of designed products [31, 49, 53]; resulting in the designer not being the only decision-maker in a design process anymore.
Consequently, the situation of users in design is changing from the subject being examined to partners engaging in co-work. For example, some studies show that designer’s expert status does not exist anymore in the design processes [17, 45], whereas user’s creative responses to products are being significantly observed [49]. Although there are some obstacles of user’s co-creation in design, the third paradigm of design becomes more and more apparent.

In the beginning of this paper, user-profiling was defined as framing users to convey purposeful information to the design process. In general, framing people should be done purposefully and carefully. If framing people is executed in a good way, it can represent identities of people with cultural goods [4], or it can be utilized as a tool for a self-description to the public [34]. Contrary, a bad execution of framing people can cause social discrimination without any rational reason [19], or defining people with just one facet of their personal traits; for instance, the early-adopter [37]. All in all, these examples of framing people warn against making shallow preconceptions of users through user-profiling. Not purposeful user-profiling can be rather an obstacle for reflection on users in design.

In conclusion, general, anonymous, and fictional characteristics of the first and second generation of user-profiling are not suitable for the third paradigm of design. It lets designers tend to understand users in a superficial way. Design research dealing with collecting user’s creative responses to products is not reflected as well.

3. Developing the third generation of user-profiling

3.1 Conceptualizing the content of new user-profiling

From the third-paradigm point of view in design, user’s meaning making is most significant. The meaning of products given by users is processed by using experience over time. Davis called this meaning as a ‘product-person relationship’[13], and stated that it involves a decision-process on whether to break up or prolong a relationship with a product depending on the internal pleasure that users feel. Also, Hassenzahl called the meaning of the products a ‘product character’[23], produced depending on user’s internal expectation and individual interpretation. Consequently, these examples show that user’s meaning making is highly affected by user’s internal knowledge, which in existing user-profiling has not been expressed yet. In comparison, user’s internal knowledge has been discussed in different forms [26, 33]; for example, as dream, wish, or tacit/latent user knowledge. Ways to share this kind of latent user knowledge in design processes are currently explored; for instance, enhancing empathy and providing inspiration to support engagement in the design process [51]. To sum up, the third-generation of user-profiling, which is mapped with the third design paradigm, has to convey the meaning of products given by users as well as their latent knowledge.

3.2 Conceptualizing the framing activities of a new user-profiling

As discussed earlier, the third generation of user-profiling needs to convey user’s latent knowledge to affect meaning making of products and generate meaning. For this reason, the way of framing users with user’s fixed attributes used in the first and second generation of user-profiling has difficulties to meet the requirements of what the third-generation profiling methods deliver. In other words, existing user-profiling methods have a
common way of experts defining users so that these users are neglected in the process of framing and representing themselves. In general, people have different point of views whether reasoning about other people or about themselves. In the first case other people usually are judged objectively with fixed attributes and in the latter people mainly describe themselves subjectively based on their own situational aspects [2]. Framing users in the expert’s perspective bears the risk that designers easily overlook situational aspects. In clinical studies of psychology, Sacks [43] emphasized that patients should not be neglected when making their own disease history. To equal extent, users in the third-paradigm of design are now considered not as subjects, but partners [45]. It implies that designers are more and more depending on user’s creativity and thinking. In addition, users appear to generate valuable contents to express themselves [5, 34, 53]. All in all, we recommend that the fundamental way of the third-generation user-profiling should be done by users themselves.

In this case, the question is how users can frame themselves and express their latent knowledge and their meaning making? One clue is illustrated in a study by Schwartz [47]. He conceptualized that intuition is the bridge to connect the conscious with the unconscious level of human’s knowledge. In this point of view, we utilize improvisation as a tool for making use of intuition to trigger user’s implicit thinking about products and their explicit given meaning.

In a next step, we explored proper situations or activities which actualize user-generated experiences by improvisation. Some researches in design used a format of applying games to get user’s improvised reaction [6, 7]. However, user-profiling needs to involve users to a higher degree. For that reason, we utilized staging as a trigger for the user’s improvised expression about themselves. Benefits of adopting theatrical techniques in design have been discussed lately. Dramaturgy and staging has been used helpfully to get user’s creative design ideas in co-creation [8, 15, 46] and to explain users using computer interface [32]. Especially Buxton stated that dramaturgy can verbally sketch user experiences very fast and in an easy way [8]. Similarly in participatory design, levels of participatory activities are discussed; staging, evoking, and enacting, by which a design idea is explored in relation to its context [27]. In purpose of framing user’s meaning making of products, we propose that the users enact a role of an anthropomorphized product. Characterizing and enacting the role of products can make users reflect their idea of the meaning making of a product.

In conclusion, using Stanislavsky’s method-acting system [37], users are first asked to write simple role-descriptions about themselves and their products, then they are asked to improvise the role of their product within the third-generation user-profiling.

Even though the theatrical technique has been used in design, letting users act about their own knowledge and thinking is not easy, especially in front of designers. Similarly, users usually show passive attitudes as they are afraid to express themselves in a co-creation session [25, 42]. Therefore, we also propose three conceptual ideas to activate users in a situation of profiling themselves. Firstly, two users who are close friends participate in a user-profiling session at the same time. Similarly, Isomursu, et al. observed that users act more actively and expressively in video-ethnography sessions [24]. Both users in user-profiling function as facilitators who ease enactment and expression by creating a comfortable and familiar atmosphere. Also, as one user enacts the role of
a humanized product, the other one is playing his friends role, so that it helps the former to focus on the
dramaturgical situation and on giving the product a personal meaning. The second concept of activating users is setting stage and offering some contextual effects. In executing a play, the stage has a significant role of detaching the theatre from reality and also separating actors and audiences explicitly. We adopt the concept of stage mainly using the spotlighting effect to user-profiling. Without professional equipments of a theatre, the spotlight to the user’s direction makes a quick and immersive stage for the acting users, so that it is utilized to separate users and designers in user-profiling. The perceived roles of actors to users and of designers to audiences are revealed explicitly without complicated explanation. Also for situational contexts, sound-effects and background images on the wall are added to the stage to make users feel to be in a real context. Three everyday situations, watching TV at home, shopping downtown, and dancing in a club, are suggested to generate user’s enactment. The final concept of activating users is the designer’s role in the user-profiling. Within two conceptual ideas to facilitate users, they are given the role of facilitating and activating each other. In opposition to other co-creation methods, the designer in the user-profiling method takes on the role of the audience that reacts to the users’ enactments with applauding, laughing, or cheering. In the third paradigm of user-profiling, user-generated enactment of experiences is performed with the designers taking one step back and playing the role of the audience.

3.3 Embodiment of a third-generation user-profiling
To employ a third-generation of user-profiling methods, we propose a set of working procedures in a way of conventional user-profiling. The embodiment of a third-generation user-profiling is actualized as a conveyer of user-generated experiences based on the conceptualization of user-profiling in the third generation to frame and represent user’s meaning making. Description of working procedures is explained below in Figure 3.
4. Results

Two case studies of executing this user-profiling were held in Germany and Korea with 44 participants in total. In case of the German participants, a mobile-phone was given to be enacted as an anthropomorphized product. In comparison, Korean participants got the role of various electronic products; for example, digital camera, MP3 player, car-navigator, etc. Only the Korean participants were asked to edit and annotate their own drama after co-profiling a workshop to finalize a video-format profile. Other settings and procedures were the same in both cases.

Some insights and reflections were found after two case-studies have been conducted. First, according to the debriefing of the interviews, most participants stated that they felt free to enact the role of products and that it was fun. Furthermore, participants described that enacting the role of products rather than the role of themselves felt much easier. Moreover, the atmosphere of their drama video-recorded in the co-profiling workshops showed participants as they were acting freely, through immersive and improvised reactions with the other user’s enactment. Secondly, participants were sufficiently creative to improvise their own narratives. Both participants of a session reenacted the other’s performance with the addition of new things, thereby eliciting the other participant’s expression on various thoughts. Finally, many reflections about user’s meaning making were revealed as a form of dialogue in a drama. Some participants enacted their own past episodes about use-experiences of a product and improvised associations with the given situations on stage. Moreover, several participants expressed their meanings of products as they performed. For example, a product represented to them a character of a friend, a cute pet, a soul-mate, or a butler. They intuitively showed the relationship between the product and themselves.
To summarize, most of the participants in the two case studies generated their own experiences with enacting anthropomorphized products to express their meaning making as a form of user-profiling.

5. Conclusions

Users are asked to participate more actively in the design process, especially in co-creation. Currently, user’s meaning making is getting more emphasized in the process of design as a new way of decision-making. According to this paradigm-shift, this paper proposes an evolution of user-profiling. We explore benefits and limitations of existing user-profiling methods and conceptualize a third-generation of a user-profiling model. In opposition to existing user-profiling methods, which press users into frames of prefabricated categories, the method suggested in this paper significantly emphasizes the power of user-generated experiences to be utilized as a communicative tool for user’s meaning making. Two case studies proved that users were capable of exploring their own experiences, as they were enabled by staging and improvisation practices while acting with friends. Instead of being framed by experts or designers, the user actively defines him-/herself while performing different roles and conducting improvised dialogues that pick up users’ meanings to a product or service.

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7. References


