A Skirt for Well Aged Ladies with Cognitive Loss

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Abstract. In this paper, we consider design of skirts for well-aged ladies with cognitive loss. In line with recent trends, a graduate student project, which we supervised, focused on monitoring solutions for those suffering from dementia. The result of the project was a skirt. We found ourselves intrigued by the proposed solution and started unpacking, using a phenomenological approach, the meaning of the skirt, when losing cognition. Our conclusion is that skirts for dement ladies should never be viewed as unimportant, or as the new interfaces for assistive technology. Rather, they may be viewed as an opportunity for design to support body, mind and emotions of the person whose cognition is weakening. Aesthetically appealing garments, which improve self-image, designed for ease of dressing, engaging hands, may provide comfort. From the ethical standpoint, embedding skirts or other garments with technology, should be consented to prior to loosing the ability to reason well.

Keywords: interfaces, elderly, dementia, ethics, body.

1 Introduction

A persistent increase in the ageing population may be seen as both a challenge and an opportunity for human-computer interaction researchers and designers wishing to find technological solutions enabling elderly to retain independent living for as long as possible. Elderly suffering from dementia have received special attention. Dementia is a chronic, progressive illness, affecting persons memory, judgment and ability for abstract thinking [19]. It inevitably leads to a loss of autonomy. Currently, there is little that can be done to prevent it. Research, such as [1], shows that the ability to perform activities of daily living is the main factor affecting quality of life for people suffering from dementia. On the other hand, [13] shows that persons with dementia are likely to have decreased ability to manage everyday technology, including technology that should assist everyday living. The ability to manage technology is thus important to consider when assessing ability to perform everyday activities [5,6]. Further, [2] have examined a host of technologies aiming at improving the quality of life and the quality of care for patients with dementia. These authors were able to identify very few (3) clinical studies involving people with dementia, concerned with evaluation and use of assistive technologies. Although this number might have increased since this paper was published, evaluation of technologies offered to dement people is still an opportunity for researchers in HCI. The use of participatory
approaches in designing for and with elderly is considered to be the correct approach by many researchers [18]. In [16], the authors have, with full participation from people with dementia, provided a “wish list” of technologies that elderly would like use; some of these items were a simple music player, window on the world, and conversation prompter. In [20], the authors have identified activities in daily life that could be supported by technology: dressing, taking medication, personal hygiene, preparing food, and socializing.

In this paper, we discuss design of clothing, in particular skirts, for ladies with cognitive loss. A departure point for the work is a graduate student project entitled “Skirts with Meaning” [12], which we supervised in the context of an interaction design class [7]. The project involved design of skirts with sensors for elderly ladies. In the aftermath of the project, we had one skirt that intrigued us, and we wanted to further explore its design and considerations around embedded GPS sensor. Can skirts be used as the next interface for ladies with cognitive loss? We had good help from four people who are either medical professionals, or have a mother who is suffering from dementia. In our discussions with the participants, we have used the skirt from the project, and some other simple prototypes, in order to really get into the subject of skirts and dementia. Through this process we have started to gain better understanding of what it means to design clothes (with or without technology) for ease of dressing, support sense of aesthetics, well-being and increase self-esteem. This paper, thus, is about sharing lessons learned on this journey, which we believe is just the beginning of thinking about clothing as a support for those suffering from dementia.

In our paper [6], on the use of a smart gym by elderly, we have observed that there was a need to support both cognitive and bodily mastery through design for the smart gym. One would think that talking about a skirt would be easier, but that did not turn out to be the case. We will argue now, there are three equally important dimensions that need to be accounted for in design efforts when designing for elderly ladies: body, mind and emotions.

In research like this, ethical challenges permeate many aspects of the work. Design for and with users who may be considered vulnerable [8,18] is distinguished by increased need for sensibility, empathy and care for ethical concerns.

The paper is structured as follows: in the next section, we discuss the making of the skirt. In Section 3, we present our own experiences with the use of the skirt, and excerpts from interviews with the four above-mentioned participants in this research. In Section 4, we discuss our findings. We conclude in Section 5.

2 Skirts with Meaning

Wellbeing and self-esteem are linked to personal appearance. Clothes and what one wears matters a whole lot, we found out, also when one can no longer remember one’s own clothes, even the favorite ones. Aging alone brings problems in terms of dressing oneself, regardless of whether one has dementia or not. Putting stockings on becomes harder, if not impossible. However, when cognition is affected, people may start to suffer from dressing apraxia, and forget how and in which order to put the pieces of clothes on. Dressing processes can thus become stressful and frustrating. At