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## Rationales for role playing in design

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### Introduction

Take a digital camera. Jan's new camera. He is happily taking pictures with it. His friend Jen sees him taking a picture. She starts explaining to him that he could take a better picture by manually switching on the flash function. What happens now? Jan expresses

a) gratitude that he learnt something new about taking better photographs, but is convinced he won't be able to do it next time anyway. He doesn't even think to memorize how Jen told him that it can be done.

Or

b) irritation that Jen is telling him to do something that he deliberately chose not to do. He feels challenged in his expertise of controlling the piece of equipment and of achieving a desired effect with it.

A whole host of aspects pertaining to design are present in this little story. It addresses assumptions about product use, about gender roles (try switching the roles of Jen and Jan in the example, and see if it changes how you read it), about product functionality and purpose, and about the (shared) experience of product use. What if Jen and Jan are not real people, but personas being role played by designers? How would ending a) and ending b) each lead to further design steps?

This paper reviews the literature on role playing in design and examines the rationales being given for it. The paper also attempts to set a challenge for the further development of role playing techniques. Role playing, it is argued, can be part of a design approach that is attentive to social change.

I then report on some role playing exercises colleagues and I have carried out in design education and research. We tried to set up the exercises in such a way that the experience of product use could inform a design process usefully and inspire design ideas. Having monitored these projects from an action research perspective (as laid out by e.g. Robson, 1993:438), I then hold our own efforts up to the light of the rationales I have identified for role playing in design. Some points for future work are raised.



## **Role playing in design**

### **Since when role playing techniques in design?**

Reports on role playing have appeared in the literature on design for interaction for approximately ten years. Perhaps the earliest paper on role playing, at least one that is cited frequently as the earliest, is by Burns et al, published in 1994. Burns et al said they adopted the technique of role play to make the conceptual leap from what “is” to what “might be”, and to overcome “simplified, stereotypical portrayals of environments and users” that can occur with the storyboarding technique, also commonly used for developing and communicating new design concepts. Their paper contains no references to earlier examples of role playing in design, but refers to scenario-writing as a basis, as well as one of the authors’ experience as a performer. Burns went on to join IDEO, where the technique fitted in well with that company’s strong user-centred orientation, and where it has since been developed further successfully. Approaches include “bodystorming” during concept generation, whereby designers and company clients use simple props to simulate a future situation of use, and explore ideas by enacting them; the “debugging” of scenarios by working through them in detail, and “informance”, or “informative performance”, “to communicate developed ideas, issues, and scenarios to an audience.” (Simsarian, 2003). Brandt and Grunnet (2000) relate their role playing experiments to Scandinavian Participatory Design developments since 1991.

### **Why we adopted role playing techniques**

We first adopted role playing techniques three years ago, as part of the curriculum development for the new MSc course Design for Interaction at the TU Delft. A small role playing workshop was introduced as part of the design project “Exploring Interactions”. The aim of the project, in which I am involved as a tutor, is to offer students tools to focus and anticipate on interactions and experiences, rather than primarily on the objects they’re designing. The project challenges students to design “everyday products (as) personal pathways that allow individuals to find and create their own experiences, (...) instead of operating a device to obtain a ‘commodity’ or function...”. It aims to “train design students to take advantage of and expand their personal competencies, capitalise on their drive and passion and explore a number of tools and techniques especially through the first phases of the design process, in order to gain a rich variety of products which fit the diversity of users.” (Hummels, 2004)

Our inclusion of a role playing workshop was informed by the literature on role playing, and was led by the rationales being given. Its development was also informed by my attendance of a workshop by Meeusen (2003). Before reporting on our own experiences with the role playing exercises in the latter part of this paper, I discuss some of the rationales being given in the literature for the adoption of role playing techniques. I want to argue that three main rationales are being given: the communication within design processes, the increase in technological complexity, and the experience and empathy of designers. I then point towards a fourth rationale and attempt to show why, and how, that rationale could also inform role playing techniques. It is about the potential that role playing techniques may have of engaging designers with social change. Having discussed that rationale against a backdrop of improvisation theatre literature, I go on to report some of our own efforts of



integrating role playing in design, and review whether we were able to make our efforts successful in the light of the four rationales.

### **Rationales in the literature for the adoption of role playing techniques**

#### **The communication within design processes**

Burns et al (1994) seems to be the earliest source mentioning role playing techniques in design. It seems that Burns et al's initial main interest was to find an engaging way to present their concepts to their co-developers. They say it "could allow designers to "*communicate* better with *peers, clients* and perhaps *users...*". (1994, emphases are original).

The modes of communication that are needed in order to make user needs count in a design process, are an enduring concern in usability and design research literature (e.g. Jarvinen and Wilcox, 2003 and Black, 2003). Many approaches have been proposed. There is a sense that the classical methods of reports and presentations cannot address this sufficiently. More recently, for example, prototypes as experience and communication tools have received a lot of attention (e.g. Schrage, 2000; Sanders and Dandavate, 1999). Yet, as Buchenau and Fulton Suri (2000) put it:

"Increasingly, as designers of interactive systems (spaces, processes and products for people), we find ourselves stretching the limits of prototyping tools to explore and communicate what it will be like to interact with the things we design."

And Brandt and Grunnet (2000): "Our research has especially focused on the meeting between various stakeholders in the design process and how to stage this meeting in order to assist "collaborative inquiry"" "not least as a way of engaging (users) in the development of the artifact, (...) creating shared experiences".

Boal's forum theatre approach (see below) has also been adopted in the design field, as a tool for user representation in design, with the involvement of professional actors (Tiitta et al, 2005 and Carmichael et al, 2005).

That is one underlying rationale being given for the adoption of role playing techniques: that the communication about user needs in a design process should be able to show interactions between people and products.

#### **The increase in technological complexity**

A second rationale being given by authors is that such techniques could help designers in dealing with the complexities brought on by computerization and miniaturization, and in overcoming the disruption of the consumers' ability to use products. Buchenau (2000): "More and more we find ourselves designing complex and dynamic interactions with converging hardware and software, spaces and services". And Simsarian (2003): "Projects often include new-to-the-world systemic and strategic brand issues as well as interactive systems that are highly nuanced and difficult to articulate verbally. (...) Role playing can work to bring it all together." Jensen et al (2005), for example, take up this point by examining past interactions with products through role playing, with the aim of re-introducing the richer possibilities for tangible interaction that products used to



offer. They also point out the situatedness of human-product interactions which has to an important degree been brought to our attention by Suchman (1987). They argue that the three-dimensional, physical space in which people act, needs to be re-discovered in thinking about interaction.

Increasing technological complexity and the accompanying transitions in types of interactions are the second rationale often being given for the adoption of role playing techniques in design.

### **The experience and empathy of designers**

Burns et al (1994) also hinted that the technique could *do something with the designer*: engage him or her as a person. It “could allow designers to *imagine* better, (...) to *empathise* better” with potential users (emphases are original). It seems that this needs to be achieved through an *activity* rather than through abstract, deposited knowledge: role playing exercises are ideally “not passive, but focus on the methods and techniques which support active participation to provide a relevant subjective experience. (...) The key idea (...) is to have the designers make discoveries themselves.” “The vividness of this owned experience creates subjective, lasting memories which influence and guide the designers’ choices and decisions. (...) In discovery, there is a continuum that extends from being told about something, seeing for yourself, to doing it yourself. Quoting the Chinese philosopher Lao Tse: “What I hear I forget. What I see, I remember. What I do, I understand!” (Buchenau and Fulton Suri, 2000). Brandt and Grunnet (2000): “Drama was used to get a bodily understanding of the refrigeration technician’s work. “Klooster (2004) is taking her own background in dancing and applies it to design, without connecting it to any previous design-related theory. Klooster transfers it from her own experience: “By putting the interaction in motion the designer becomes bodily aware of the different interactive issues as a whole, all at once. (...) In this way the moving body of the designer serves as an embodying tool for sensitive, empathic understanding of interaction and how products are part of this. (...)”

So as a third rationale for the adoption of role playing, it is being associated with the generation of empathy in designers with the users’ product (use) experience. This third rationale connects to what I hope to be able to argue in the following. I want to argue that role playing is not only a vehicle for addressing user needs better. Role playing could be useful as a technique for designers to considering how they see themselves and their actions positioned in a context of social change.

### **Design and social change**

Krippendorff and Butter (1993) present an analysis showing that in recent decades in design, there has been a shift from a concern for form and function, towards a concern for meaning. But meaning is elusive, never stable. This has contributed to the discovery by product designers of interaction. Interaction is a dynamic concept that product designers have taken over from interaction design (Moggridge, 2003). Thinking about products in terms of interaction offers a point of departure in moving away from pure form and function. Krippendorff (2006:7) looks back on an earlier “era of scarce material resources and hierarchical social structures, coupled with an unwavering belief in technological progress. (...) To prevent unintended and incompetent uses, people could take courses, especially in the use of artifacts considered complex at the time, like typewriting or using washing machines (...). Producers were in charge of “correct” usage.” The design of



product form and function set the standard, product usage had to adapt. Krippendorff doesn't put a time line on his story, but implies that this culture was dominant until way into the 20th century. But in 1993, Krippendorff diagnosed a "redistribution, if not democratization, of design responsibilities." Design now had to contend with more confident consumers and product use as a wealth of situated practices of living.

Buckley (1989) looked at the phenomenon of social change in product design and use, with a focus on the topic of emancipation. Buckley also argued that the concern for form was a strategy for not letting questions about product usage arise, and for maintaining existing power balances. Buckley cited from a survey that stated that as recently as 1989, fewer than one percent of industrial designers working in Britain were women. Buckley maintained that it was the white male, "universal man" designer and the dominant culture he was part of, that created the female, passive consumer and her needs. There seems to be no current data to compare with the situation of 1989. But generally, since then, it has become widely accepted in the West that women's participation at all levels of the workforce is the way forward towards maintaining economic prosperity. Green (2004) argues that in order to catch up with actual currents in society such as emancipation and sustainability, we need to distinguish carefully between technological and social innovation, and be attentive to the latter.

As the designers' understanding of form and interaction changes, they need to re-situate themselves as well: from neutral analysts and synthesists of form, to people being implicated and involved in all of those new conditions of product production and consumption. Who are designers? What are their experiences? What is their scope for experience? Is the profession of design adapting to the changes?

I want to venture the argument that social change is another, fourth rationale that could usefully inform role playing techniques. The techniques could be used to investigate, represent and explore the changing interactions that people have with products, and with each other. And they could be used by designers to explore how their own, partly personal, and partly professional ways of interacting play a role in their design decisions.

In what way can role playing be useful to designers in investigating these ways of interacting? To answer this, it may be of help to briefly turn to original ideas about role playing techniques.

### **Literature on role playing and social change**

Nearly all of the design-related publications on role playing, cited above, refer to either or both the important figures that have developed improvisation techniques in the past century: Augusto Boal and Keith Johnstone. But the design-related publications do not make explicit all of the potential that improvisation holds. Improvisation techniques can be a vehicle that allows for the exploration of actions that depart from norms. That is why these techniques hold a potential for innovating on interactions: through surprises, through inadvertent actions, and through reflective learning. There are many organizational and civic arenas where improvisation techniques are already used for the very purpose of discovering this innovation potential. Both Johnstone and Boal developed widely popular and successful teaching methods for role playing. Their theatre concepts are described at length elsewhere. Wikipedia provides useful links.

Here, I'll focus on the ways their work offers opportunities to question ways of acting that correspond to norms, and to experience alternative ways of acting.

Johnstone's (1979) main concern was to get actors to let go of social conventions that put a check on their actions and stopped them from being able to act spontaneously, and instead to let the experiencing person



that's inside everyone, take over. Johnstone emphasised that it didn't matter who one was or was supposed to be - that actors could let go of being their usual personalities. Johnstone's motivation, besides creating entertaining theatre, was to explore and show what people are capable of when shedding the constraints laid upon them by education and societal position. Johnstone's theatre did not have a deeper political motivation than a general liberational impetus. Boal, on the other hand, was influenced by Freire and like him had a clear emancipatory agenda in his work. "He discovered that through active participation, the audience-actors, who Boal calls "spect-actors," become empowered not only to imagine change, but to actually practice that change, reflect collectively on the suggestion, and thereby become empowered to generate social action" (Wikipedia). Specifically, this was a matter of stepping out of the routine, of un-learning automated reactions. "The actor must relearn to perceive emotions and sensations he has lost the habit of recognising" (Boal, 1992:30). Boal, just like Johnstone, based some of his techniques on Stanislavski's Method or System. These techniques centered on achieving truthful acting, acting that seemed as if the actor was genuinely experiencing what the character would experience. Both Johnstone and Boal introduced exercises that aim to shut out or trip up the conscious control of the actor of his or her actions. Boal also introduced transference exercises. He was quick to say he didn't link them to the psychoanalytic phenomenon of transference, but also said that he sought to achieve something similar: getting an actor to experience ways of acting that would not have been his or her own.

In what way can role playing be useful to designers in investigating these ways of interacting? Role playing exercises, set up with Johnstone's and Boal's ideas in mind, might be of use to designers in deconstructing their own ways of interacting, in exploring ways of interacting that are someone else's, and in experimenting with interpretations of interactions. With that, role playing exercises may enable designers to reflect social changes in their work.

#### **Four rationales. But how to use them?**

In summary, four rationales can inform role playing exercises in design. The rationales express the intended benefits of facilitating interaction-oriented communication, dealing with the increase of technological complexity, evoking the experience and empathy of designers, and exploring how design relates to social change. I now turn to applications of the technique. How can I try to ensure that a role-playing technique has the benefits it is intended to have? I reflect on three examples of role playing techniques, used as part of a design process, and assess in how far these examples were successful in addressing the concerns.

#### **Three examples of role playing techniques**

The case studies that will be described in the following, are two exercises with students and one example from design research undertaken by colleagues and me. In all three examples, the role playing exercises took place at the project stage where user research had been carried out in the form of interviews or observations. The step to be taken next, aided by a role playing exercise, was design idea generation.

The first two role playing examples are drawn from the MSc project "Exploring Interactions" that was



mentioned above. The third example is drawn from design research undertaken with colleagues.

### **Research approach**

Having identified four rationales for the use of role playing techniques in design, the question arises: in how far were our own role playing efforts successful in addressing these concerns?

I monitored these projects from an action research perspective (as laid out by e.g. Robson, 1993:438-9). In action research, the observer is implicated and active in a context, and also seeks to change it. Here, the motivation was to develop design methods that can address the rationales identified. I observed and recorded the activities, while also being substantially involved in planning them. I asked collaborators for peer review on the success of the activities, and I interviewed a small selection of students some weeks later, after their final presentation. In reflecting on the activities now, I hold our own efforts up to the light of the rationales I have identified for role playing in design. Points for future work are raised.

### **Role play example 1: the Story Walk**

This role playing example is drawn from the MSc project “Exploring Interactions”. The role playing exercise was a combination of improvisation theatre techniques adapted by me for the course, and the Storyboardwalk developed by Saakes and van de Lelie, see also Hummels (2004) and Saakes and Keller’s ‘photoboarding’ technique (2005). The combined workshop was called the Story Walk.

Four groups of four to five students took part in the workshop of one afternoon, in a studio. The students were first asked to take a situation from their prior ethnographic research, and break it down into elements. The elements were: who is involved, what is the relationship between those involved, what are their goals, where is it, which things are involved, and what is the mood of the situation. The use of these elements has been suggested by Wirth (1994), probably leaning on Aristotlean principles. The students were to invent one or more protagonists, on the basis of their research data. The students were then encouraged to play how these protagonists would interact with the situations they were in, creating dynamic by introducing a plot in which tension is built and resolved. The story could recount the past, or it could be hypothetical (I wish X would happen ...). Each group of students chose one students’ design goal to work on. After some time for experimentation with the story set-up, the students were asked to decide on one story and play it through, taking photographs of their actions, printing them out right away and starting to build a storyboard collage that way. Figure 1 shows the example of a collage by one student group. The story is about waiting at the station. The collage shows two alternative stories, with the top one depicting the involvement of a design intervention that brings the story to a happy end.

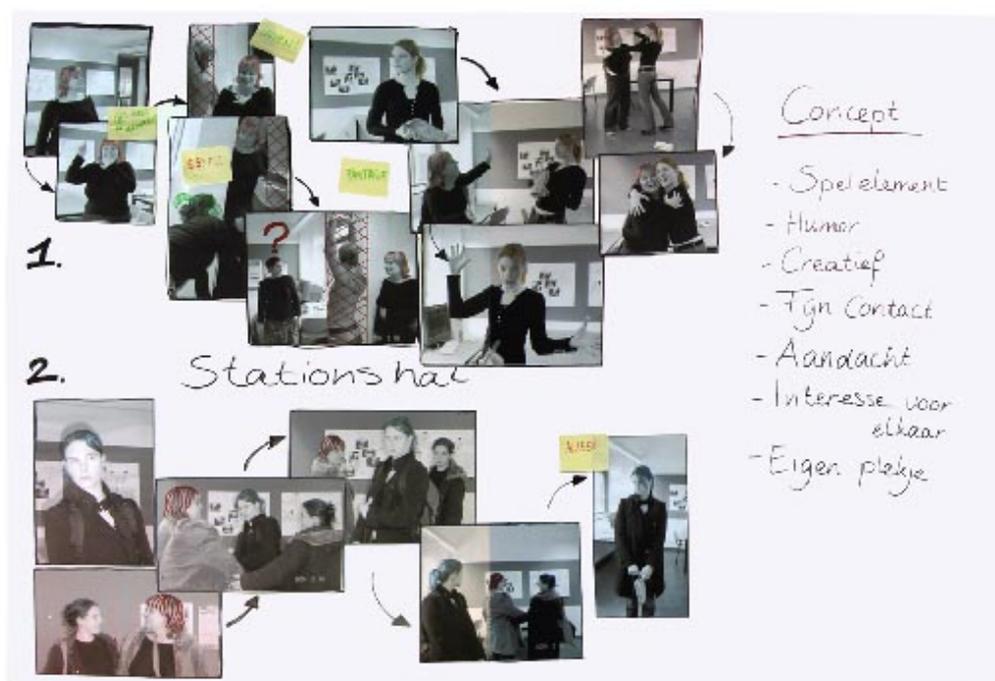


Figure 1: Story Walk collage

### Held up against the four rationales

*Communication* within the design process was not an issue in this workshop. Neither did the *increase of technological complexity* play a role in the workshop. As it was an early stage of the students' project, and they had an open brief, the interactions remained on a fairly abstract level.

Did this Story Walk afternoon provide the students with an *experience of user interaction* that they could transfer to their further work, and that had any *transformative effect on their view of interaction*? The particular student whose design goal was shown being acted out in Figure 1, did go on to pursue the theme of a meeting place with a surprise element in her final concept, albeit in a different form. But when evaluating the workshop with the students afterwards, it emerged that none of the four groups had actually experimented with an emerging story. All groups had taken a story they had previously sketched following their research, and played it through. During the afternoon of the workshop, the students were mainly focused on dramatizing and presenting their story, rather than on the experience of being in that story, or on experimenting with unexpected interactions arising from the situation. They went away from the afternoon with a visual record of an interaction. This they said they valued. But none of the students adopted the technique to play with interactions further in the following, which had been a goal of the workshop.

### Role play example 2: Quality of Interaction Workshop

In the following year, and as part of the design project Exploring Interactions being run again, the Story Walk workshop was run in a different format. Several tutors were involved in its planning and running, and it was set up as a combination of methods. It was held for a larger group of about 60 students in two installments, in



groups of three to five, and in two studios in parallel. Because only half a morning was available this time, the workshop consisted only of a short idea finding phase, followed by some time to act out those ideas. In the idea finding phase, the students were asked to use their prior user research to give a desired interaction a two-part name. The name should describe the nature of an interaction, and a quality of that interaction. The technique is similar to one being described by Jensen et al (2005) and is based on the ViP approach developed by Hekkert and van Dijk (2001). In the role playing phase, each student asked their group mates to play out an interaction that was part of the first student's design goal. That way, this student's design idea would be 'played back' to him or her as problem owner, with opportunity for adaption and discussion. In a sense, it was a mini forum theatre exercise.



Figure 2: Quality of Interaction workshop. "control-yielding curiosity" (left), and "controlled surrender" (right).

The two interactions being acted out in Figure 2 are the following:

- "control-yielding curiosity" was about the fear of being approached with a sharp object. The design goal of the student was to alleviate the fear of injections at the doctor's.
- "controlled surrender" was about dealing with one's fears as a patient when being guided around in a hospital by staff. Either walking, or being transported in a hospital bed.

### Held up against the four rationales

As in the year before, the *increase of technological complexity* did not directly play a role in the workshop.

*Communication, empathy and experience.* The workshop was set up to enable students to see their own idea being played back to them, and to discuss it with their fellow group members. The pictures in Figure 2 reflect one characteristic of how this workshop went: the students' self-consciousness about enacting sometimes quite intimate kinds of emotions associated with the chosen interactions, in a workshop setting. Many of the students had to suppress laughter when acting out the interactions. This presumably did not give them much opportunity to actually experience and direct the qualities of the interactions they were role playing. One student commented: "We're designers, not actors, you know." It seems to be important to create a more calm and somewhat secluded setting for such a workshop. And there may be a need to prepare students for the acting itself, to let them practice it and get a feel for it.

What about *social change*? In evaluating the workshop with four of the students a short while later, they said that



they found the workshop inspiring in terms of loosening up and thinking about their concepts more in terms of physical actions rather than drawings on paper. However, the technique of adopting words to describe the interaction also got them into trouble after the workshop. It led some of them to only look for more words to describe interactions. Some perceived this as a barrier to re-integrating those word-based outcomes with their design progress. The students of this workshop did not have a visual record to take away, unlike at the workshop described earlier. That probably contributed to the fact that little of the workshop contents, except the two-part interaction descriptions, was reflected in the students' subsequent design work.

### Role play example 3: Project “Organizing Things”

The third example of role play is not based on student work, but on an ongoing design research project in which we look at the integration of user research in the design process: the project “Organizing Things”. Preliminary findings from that project are described in Boess et al (2006). We seek insight into our combined design and research activity as ‘investigative designers’, reflecting on the design ideas we come up with through and during research. We are working on a design task that allows us as designers and researchers to include self-observation as a method, and to reflect on the ways our research into people’s lives is attuned to our design activities and decisions. The design task is: visual reminders in people’s homes, and the ways those reminders are being given form by people, as calls for action. We conducted six interviews with people in their homes. Each of the three researchers did two interviews. The interviews were analysed by clustering the data. We did this both individually and in team meetings. At the team meetings, we recalled to our attention actions that had been described and shown by participants, and we role played some of those actions (Figure 3).



Figure 3: the check-out dance. One of the research participants described how, when leaving the house, he'd check on his clothing: "Let's say in my pocket I'd check on my keys, the other pocket my purse, and in my breast pocket my mobile phone and my I-pod." (top row of pictures). We re-enacted these actions later in an idea generating session (bottom row of pictures).

### Held up against the four rationales

*Communication.* A main goal of our project was to look for natural and intuitive ways of integrating research



results into design idea generation. While we had found that team meetings were the best form of communication about research results because it could be informal, the role playing did not fit into the meetings quite naturally. Only the three researchers were involved, in the secluded setting of an office with a meeting space. Yet when we filmed the actions, we also had to contend with self-consciousness which hindered the experiencing of the actions. Even in that intimate situation, we would have needed more structure or a more immediate way of visualising the role playing results.

*Technological complexity.* We had already approached the research and analysis with an interaction focus, e.g. looking at the activities of people foremost, and only then at the things involved in those activities. With the help of role playing, some user actions became central points of consideration for us in generating ideas. Technological ideas were considered as and how they would enhance these interactions of people in their environments, with ideas ranging from high-tech to low-tech. The role playing helped in putting people's actions at the centre of our design process.

*Experience and empathy.* Figure 3 illustrates how in our own study, we found ourselves working more directly with actions we had observed in our user research, than we had guided the students to do. Rather than taking data and re-constructing stories or words out of them, we focused directly on actions. By making the link so direct, we realised that we didn't need to first define desired interactions abstractly. Instead, we recalled interactions of people with products that seemed to us, and them, to be a satisfactory or interesting way to act. Then we could work with the body movements that occurred in them. Some of the design ideas that we came up with, were based on these observed actions carried out by participants (Figure 4). The availability of video stills and photographs of actual user product interaction, together with the deliberate re-enacting of those actions, greatly helped. A similar finding is described by Jensen et al, who have developed a 'video wall' interface to enhance the quick and full access to video data during designing.



Figure 4: Right picture: some initial design ideas developed in project "Organizing Things". Bottom right: the 'check-out dance'. It lead us to think about ephemeral products, like instructions for a song, rhyme or "Schuhplattler"-type dance, to memorize several objects one doesn't want to forget when leaving the house. Left picture and top left: writing on one's hand,



repeating to-do lists aloud to oneself, and other techniques to prevent forgetting things to do, could be re-thought as a watch with recording and writing functionality.

*Social change.* Our research and the sharing of data made us aware of role issues that were implicit in the lives of the people we had interviewed. During the design meetings, we discussed the strategies of our respondents, e.g. an older retired woman who'd be strongly focused on resource saving, re-using many items in her house, but also being swamped by items she could not discard. Or a young single professional, who used various kinds of technology for visual reminding, from pda's to post-it notes. He maintained a kind of layered system of visual reminders, which sometimes broke down when the layering became too complex. The older retired woman expressed shame about the mal-functioning aspects of her system, and tried to alleviate them immediately after the researcher's visit. Not so the single young professional, who said that his mother wouldn't like the look of his flat, but that he didn't care one bit.

Each of us was able to develop design ideas based on our own view of how to change such situations. But we found it difficult to gauge how and in how far these people would be helped by our ideas and appreciate them, or even be able to adopt new ways through them. This, it seems, may be a process requiring much more interaction with those people, in their own environments. Brandt and Grunnet's (2000) experiences of role playing exercises with people in their own environments might be a fruitful approach.

## Conclusions

A review of rationales given for role playing in design has found three rationales. They are communication, dealing with technological complexity, and the experience and empathy of designers. I have sought to show that role playing could also be informed by a fourth rationale, which is about exploring the agency of designers in a context of social change. Role playing techniques set up with these rationales can support designers in becoming aware of, and experimenting with, the potential for innovation in interactions with products.

This paper has given three examples of how we have applied role playing techniques in design processes. Our efforts have shown us that if we want to access the innovation potential of role playing that was laid out by Boal and Johnstone, we need to be attentive to its set-up. None of our attempts so far have enabled us to really get to work on that.

All three examples seemed successful in that participants said they found them useful and enjoyable. But they also revealed points of attention.

- The first example, the Story Walk workshop, showed that while the students were able to transfer insights from their research into a story form via a role playing exercise, the format did not allow them sufficient freedom to experiment and really experience interactions.
- The second example, the Quality of Interaction workshop, showed that words to describe the interaction initially helped the students to find something to act out, but that they would then have needed support to genuinely explore the interactions involved. Subsequently, some stuck to a word-based way of thinking which wasn't always helpful to them. They took no visual record away from



the workshop. This probably also hampered them in thinking further in terms of interaction experience.

- In the third example, the Organizing Things project, we found we could work with the technique of role playing more directly and informally than had been done in the previous examples. Video data of people acting in their own environment, can inform design work quite directly. We found that it is useful to make such data visually available during designing, through video stills and also by re-enacting observations. But we also realised that to work on such interactions in an in-depth and possibly innovative way, we would need to seek closer contact with people and maybe even transfer the role playing into their own environment.

An initial next step in our project will be to set up a workshop with other designers, provide them with information from our research, and analyse in how far role playing elements are ‘naturally’ present in their design rationales. This, we hope, can yield further insights into intuitive ways of integrating role playing in design sessions. I have also since then worked with design students in a format which has given them more time for preparation of the acting role, with specific exercises to prepare for the acting.

How could we design for or with imagined Jen and Jan, given the insights from this paper? Designers could have video data available of Jen and Jan’s conversation moment. They would need to explore their own reactions to this data, and compare different and possibly conflicting interpretations of it. If they come up with scenario endings a) and b) that are sketched in the example, they might then re-enact Jan and Jen’s conversation, and use this to develop points of departure for design. With scenario ending a), they might look at the ways a product idea could support Jen in showing Jan the manual flash function, or Jan in holding on to this new information about photography. Or the designers might re-enact the conversation with scenario ending b), looking at product ideas that could support Jan in showing Jen how he anticipated various photographic results, for example by playing through a number of variations of the picture that he has just taken. Such an exercise may not resolve any underlying interaction issues that are present in the story. But it could help bring the issues to the consciousness of designers. By role playing this scenario in the right setting and circumstances, they could hopefully access, through own experience, the innovation potential that lies in interactions.

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