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On designing open-ended interpretations for collaborative design exploration

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User-centred design is a widely acknowledged practice. Much attention has been paid to the methods, tools and processes on how to conduct design research and field studies with and about ‘users’ and existing or possible ‘contexts of use’. The underlying driver is that the design team will be better at designing if they have an empathic understanding of the people to design with and for. Currently, more effort is invested in engaging various stakeholders in collaborative design activities that nurture an attitude of human-centredness as a strategy. Empathic design approaches are essential in such strategies as they value subjective and experiential perspectives in design. The objective of this paper is to illustrate and discuss different kinds of formats that can be used to work with representations of field research findings and insights in ways that can be open-ended. Being open-ended means that they can allow and inspire new individual interpretations for various participants in the collaborative design processes, which include users, designers and other stakeholders. What is argued for here is the value of incompleteness of field study outcomes as it invites sense-making through making new interpretations which lead to empathic understanding and engagement. Rather than communicating the final results, design in supporting collaboration is applied in a process of exploring what it is that will create value for specific people.

Keywords: user-centred design; co-design; communication; design empathy; user representations

1. Introduction

The user-centred design community has developed various tools for staging encounters with users to inform design. Currently, most effort is invested in collaborative design and nurturing human-centredness as a strategy. Such efforts seek ways to support user-centred design-oriented collaboration and to foster design empathy. Empathic design approaches can initiate thinking processes within individuals in which they try to relate their own experiences in order to understand other people (Koskinen \textit{et al.} 2003). The participants of such activities – users, designers and representatives from relevant organisations – are thus invited to get personally, emotionally engaged, reflecting on who they are and who the people are.
that they are designing for and with. This process includes phases that deal with motivation to explore, to immerse without judging, to make connections through reflecting on users’ experiences in relation to one’s own, and to detach in order to use the increased understanding for design (Kouprie and Sleeswijk Visser 2009). Reading (thick) user study reports, as often stated (e.g. Black 2003), is not the best way to support empathy or creativity in those activities. But what are the alternatives?

Several authors have considered techniques for communicating the empathic field study findings to design teams. This paper focuses on the collaborative exploration process in which the open-endedness, rather than communicating the findings to the designers, aims to evoke empathic resonance and co-creation in processes, where the design collaboration includes changing combinations of contributors and decision makers including people such as waste handling specialists, nurses and people responsible for human resources development.

One of the concerns in design collaboration is that it brings various domains of knowledge together. Distinct disciplinary domains often have their own ways of communicating and documenting based on conventions that are understandable within a domain but usually foreign to others. Another concern is that there are differences between presenting preliminary results as part of an ongoing process and communicating end results. The objective of this paper is to discuss different kinds of formats that can be used to work with representations of field research findings in a way that can be open-ended for new interpretations that allow and inspire individual and collective insights for various participants in the design processes.

The following sections will first set the ground by discussing field studies and the incompleteness of their outcomes. Then, several examples are discussed in which the open-ended interpretation concerns have been consciously addressed. Finally, the paper reflects upon and discusses the role of design competence in these cases.

2. Incompleteness and open-endedness

Field study ‘documents’ are always incomplete since they never cover everything from the world they try to describe. The results of design-oriented field studies aim to provide inspiration and knowledge for proposing new ideas that can enter and/or change the current state of practice to a more desirable one. It has become more widespread to supplement ethnography-inspired methods such as observations and interviews by applying, for instance, experimental (e.g. Gaver et al. 1999) and/or generative (Sanders and William 2001) approaches in user studies. The outcomes of these approaches can be ‘a rich and varied set of materials’ (Gaver et al. 1999, p. 29) that unfolds an impressionistic, fragmented and even surprising view into the lives of the users.

One way to deal with the fragmented characteristics is to create a more coherent picture about people and their experiences by applying storytelling for sharing and creating insights. Storytelling can be said to include two separate stories: one is the story being told by someone; the other story is the listeners’ story that is based on their experiences and interpretations of the story being told (Aaltonen and Heikkilä 2003). In the open-ended interpretation context this means acknowledging the variety of interpretations, and at best benefiting from them.

An insightful quote found on the wall in the Vermeer Center exhibition in Delft, the Netherlands, points towards considering the possibilities of open interpretations:
Seventeenth century art tells stories: about good and evil, about diligence and thoroughness, but also about love and hidden eroticism. Painters are storytellers with images. And so it is also with Vermeer: a man of his time who paints contemporary themes. But it is not easy to determine exactly what he wants to tell us. He directs and edits his scenes in such a way that we certainly get some clues, but much still remains to keep us guessing [Vermeer Center, Delft].

In the cases described in the following text, storytelling has been applied, and in several ways. As the ‘open-ended interpretation’ suggests, like Vermeer some clues are given, but much remains for the interpreters to guess based on their own experiences, imagination and collective sharing, and depending on the design exploration. Naturally, this creates the risk in the user-centred design context that the user as the ‘other’, in whom we are truly interested, becomes ‘someone else’. This is a challenge that needs to be consciously addressed. However, storytelling is used in art, movies and literature to convey messages, inspire imagination and reconstruct meanings. The authors have started to ask the following questions. Where is the boundary between artistic expression as a tradition to resonate and create insights and the user-centred and empathic design? Should we care about these boundaries? Or can we instead move towards the application of more designerly and artistically expressive ways to enable new interpretations? In creative design, in collaborative innovation processes, field studies are done not only for their own sake but for the thinking process they initiate.

An example of a designerly expressive approach to work with field data was presented by Nugent et al. (2007). Students at the Art Center College of Design conducted a study on Los Angeles families’ relationships with nature. The interpretation was mainly conducted through making designerly artefacts, thus transforming the original data into design material. The students used a variety of media from visual collages, personas, video, personal notes and three-dimensional representations, which were exhibited in what they called an ‘open-ended knowledge environment’. The exhibition was a visual interpretation of the study as such. It aimed at ‘allowing ambiguous interpreting, learning, empathizing, and creating new input with insights and storytelling’ (Nugent et al. 2007, p. 278).

Another art-inspired and storytelling-related example is the Probes approach (Gaver et al. 1999, Mattelmäki 2006). Probes are based on self-documentation: the users are given probe tasks such as diaries and open questions, for communicating and reflecting on their experiences. The designers initiate the process through the probe kits provided. This is followed up by the ‘users’ filling out the probing kits with their personal experiences and interpretations of ‘what the designers are after’. Often, the designers then invite the ‘users’ for an interview to obtain more insight about their thoughts, and interpret the stories connected to the potential design ideas.

The Probes approach is a method for collecting user data, but also a tool and a process for collaborative exploration (Mattelmäki 2008). One of the reasons for using probes is to involve organisations and stakeholders in discussion to co-explore, share interpretations and create new understandings early in the design process (Mattelmäki 2006). Such stakeholders can include people from design and research teams; experts from various disciplines; people to whom we typically refer as users, in other words those whose lives and interests the probes are concerned with; and people who are partners and decision makers in the collaborative projects. The objective of probing then is about orienting towards users by gaining an
understanding of personal elements such as lifestyle, motivations and values. Typically, the team organises collaborative sessions for co-creating and sharing interpretations and exploring design ideas in relation to these interpretations; the Probes material is the starting point but it becomes combined, enriched and intertwined with new interpretations. The outcomes are various kinds of user representations that can be utilised as inspiration for design and knowledge that raise the awareness of user perspectives. Less tangible outcomes are about design empathy and collaborative learning among the participants.

A valuable example of the challenge of communicating exploratory field data has been addressed by Sleeswijk Visser (2009). She explored how results of fuzzy-front-end user studies can be communicated to industrial product design practice in useful ways. In her work, she selected extracts from the original material, such as quotes, and made open-ended suggestions for the interpretations by pointing out some key issues and their relations. The deliverables do not then produce a shortcut to a final result, but rather a map showing possible paths, risks and opportunities to support the designer’s orientation. Designing thus becomes a crucial part of the interpretation process, first when making decisions about what seems to be meaningful for design but also as the field data need to be delivered in a way that supports empathy and inspiration. Sleeswijk Visser’s studies addressed the product design context. However, increasingly, user studies and co-design-related projects are not related to specific categories of product design. Therefore, the task of communicating becomes even more challenging.

Binder and Brandt (2008) argue for using the Design:lab approach as a platform for collaborative inquiries and knowledge production between many stakeholders sharing a mutual interest in design research and user-driven innovation. In the Design:lab, how and what to design are open to interpretation and negotiation. In such an approach an essential starting point and driver is to get to know the people and contexts for design by becoming familiar with the environment, and people’s behaviours, beliefs and aspirations. Through field studies and interpretation of field data, everyone engaged in these events (designers, users, and for instance companies and/or public institutions) learn about (potential) users and contexts of use. However, what seems even more powerful as both a learning and innovation potential is deconstructing the familiar in order to estrange the familiar. It is through estrangement that existing knowledge is seen in a new light (Halse et al. 2010).

A constant striving to engage people – with various competencies, roles and interests in the specific project – in processes of familiarisation and estrangement combined with co-creation approaches addresses incompleteness as positive and productive norms in user-driven innovation (Halse et al. 2010, p. 36). In such processes, open-ended design representations have been experienced as valuable. The following section will describe four case studies conducted by the authors in research projects in collaboration with other university researchers, companies and/or public institutions. In all of these cases the design researchers experimented with new ways of working with user study insights in formats that were purposefully left open-ended and that aimed to inspire new interpretations and discussions.

The examples represent cases in which user-centred design approaches can be useful beyond product design. The first one opens up a hospital environment from a nurse’s point of view. The second case is about the social challenges of ageing workers. The third case opens up a service context in which several companies need to network to collaborate, and the fourth case touches upon innovation efforts in the
complex world of waste handling. Table 1 gives an overview of the cases, their contexts and tools, which are discussed in more detail in the following section.

3. Open-ended representations

3.1. Posters to challenge viewers’ perceptions of nurses and their practice

The first example is a study of nurses and patient transportation (Jääskö and Mattelmäki 2003). This study was conducted in collaboration with a design consultancy and a global corporation that operates with patient monitoring, among other things. It aimed to assist people within the companies to face the personal perspective of nurses and their situations at work and reflect upon their insights. With the probes and interviews that followed, a holistic but fragmented understanding of the work community, instruments and situations from the individual nurses’ points of view was created.

Since the project aimed to experiment with alternative ways of working with field studies and the empathic data called for engaging approaches for reporting the outcomes, the material from probes, such as photographs and quotes, was selected and designed into three posters that were placed in the product development area in each of the two companies involved (Figure 1). These posters were representations of three ‘real’ nurses, with their own words, photographs taken by them, as well as with the materials from the probe, such as cards and diary pages completed by the nurses.

The idea behind these posters was to break stereotypical views of nurses and their practice by bringing them into the working context as reminders of the users for whom the developers are designing. The posters showed a broad and personal image of the hospital world rather than focusing on the use of products. They were anticipated for learning about the context and relating with these particular nurses. However, they worked as triggers: people started asking questions about them, such as where they came from, and even questioning the truthfulness of specific details.

![Figure 1. Poster of the nurse anaesthetists. Left: One of the three posters representing the nurses, sized 1 m × 1 m. The circle as a graphical element aims to raise people’s interest. Right: Detail from the poster: a collage created by the nurse explaining patient transportation situations. (Nurses and patient transportation, Finland, 2002.)](image-url)
Table 1. Overview of the cases with open-ended interpretations.

<table>
<thead>
<tr>
<th>Case</th>
<th>Research collaboration and context</th>
<th>Objectives</th>
<th>Design research approaches</th>
<th>Designed formats</th>
<th>Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses and transportation (part of</td>
<td>Design consultancy and a company that develops patient monitoring devices</td>
<td>To learn empathic methods, to understand patient transportation situations and hospital context from nurses’ perspectives</td>
<td>The probes approach, interviews and collages with six nurses (for collages see e.g. Mattelmäki 2006)</td>
<td>Three visual posters representing individual nurses</td>
<td>Industrial designers, in-house usability and clinical specialists, and product development people</td>
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<tr>
<td>the Luotain project)</td>
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<tr>
<td>Active@work project</td>
<td>An organisation that operates in the field of cleaning and technical maintenance</td>
<td>To raise awareness, map problems and potentials, and find individual arrangements for improving ageing workers’ conditions</td>
<td>Focus groups, the probes approach and interviews with 14 ageing workers</td>
<td>Visual booklets representing eight ageing workers as personas (for personas see e.g. Grudin and Pruitt 2002)</td>
<td>The ageing workers, their superiors, the management, occupational healthcare, research partners</td>
</tr>
<tr>
<td>Senior Life (part of the Extreme</td>
<td>A company that operates in the field of elevators and related services</td>
<td>To study life in senior houses and create ideas for potential partnerships and services</td>
<td>28 interviews in senior houses</td>
<td>(a) Character Game for role-playing workshop; (b) Senior Life Exhibition</td>
<td>(a) Representatives of three companies connected with house manufacturing; (b) R&amp;D department</td>
</tr>
<tr>
<td>Design project)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste handling (part of the DAIM</td>
<td>Non-profit organisation, owned by 19 municipalities, that operates in waste handling</td>
<td>To produce a workable innovation model and a toolbox with resource materials for waste professionals, which could be used e.g. for courses in user-driven innovation</td>
<td>Several design-anthropological approaches – typically combining reflecting on everyday practices and suggesting new possible futures</td>
<td>Inspiration in a box: a toolbox with resource materials for reflecting and learning within the field of recycling and waste handling</td>
<td>Waste professionals including project managers within various organisations such as incinerator plants and municipalities</td>
</tr>
<tr>
<td>project)</td>
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The posters thus created discussions in which people started to share their experiences and compare them with the ones represented on the posters. Based on the feedback from the manufacturing company representatives, these individual perspectives, detached from the company’s products, as well as the visual and explorative nature of the probing approach, were regarded as refreshing in a company where user-centred activities are part of daily practice.

3.2. **Persona booklets to tell stories about ageing workers’ individual characteristics**

The second case is from the Active@work project, which dealt with the challenge of the ageing population (Mattelmäki et al. 2007). The main objective was to identify possibilities that would support individual workers’ sustainable well-being and avoid early retirement. The ageing individuals who were engaged in the study worked in school environments in cleaning and technical maintenance. In the project, there were several stakeholders to consider as the audience included the management of the collaborative organisation and international partners in other European Union countries.

The project had an open focus to start with. It was approached with a combination of different methods such as focus groups, observations, probes and participatory workshops. The probes approach was applied in the early phase of the project in order to broadly map the everyday working life, motivations and problems of the individual workers, and to sensitise them to reflect and report their experiences and concerns during the following phases of the project.

The overall project aimed for several outcomes: to identify problems and potentials concerning the challenges of ageing at work, and to develop alternative concepts as solutions to tackle the challenges. A particular aim was to understand and value individual people, and to use that understanding in the design process as well as to share the findings with the project’s stakeholders.

The interpretation of the probes material was conducted collaboratively in the design research team. The research looked at motivations, work patterns, needs, problems, aspirations and design ideas. Eight particular types of ageing workers were identified and the researchers decided to use them as a way of communicating the individual perspective with the use of personas (Grudin and Pruitt 2002). These personas did not represent an individual as such, but were combinations of several workers. The personas described work tasks but also pointed out particular motivations that the ageing workers had towards work. These key motivations were among the preliminary findings of the study and to stress them the personas were also named accordingly, e.g. Harry Helper, Eric Expert, Irene Inspirer. All the descriptions were collected into A4-sized booklets (Figure 2). The objectives of these persona booklets were to draw attention to the ageing people, to support the creation of a common understanding of their needs and motivations and to engage us as design researchers, who were also expected to create concept ideas; the management of the company; and other partners, such as the education developers, in implementing this understanding in their decisions.

The booklets served as a knowledge base for the project in many ways. They were the key tools in workshops and seminars to initiate development activities from the individual workers’ perspectives. They supported continued collaboration among the ageing workers, their superiors and other stakeholders in the process, such as healthcare and education providers. Despite the strong interest expressed by the
management of the partner organisation during the project, the authors have no record of how the booklets were actually used in the organisations in the long run. Nevertheless, in this case, the outcomes have been used much more than was first planned for, e.g. they were utilised when developing educational programmes by our partners, and they have been shared with a number of research partners during the years. This suggests that they were useful for new interpretations beyond the original scope.

### 3.3. Two approaches for communicating interviews from senior housing

The third case introduces two examples, Character Game and Senior Expo, both from a Senior Life case that was conducted in collaboration with KONE, a global corporation specialising in elevators and escalators. Throughout the case, there were three main objectives: first, to utilise field data on seniors and senior housing as resources for new business networks; second, to raise awareness of seniors as a special user group; and third, to promote the company’s shift in design towards more holistic understanding of ‘people flow’, a concept that is part of KONE’s identity and can be widely understood as how people move in and around buildings. The first objective included working with three companies connected with house manufacturing, whereas the second and third objectives mainly concerned KONE’s particular research and development (R&D) department.

To explore opportunities for business-to-business partnerships, a Character Game was developed that was played in a half-day co-design session. The Senior Expo focused on the last two objectives and was exhibited in the company’s R&D department for four weeks. They were both based on the user data comprising 28 interviews on senior houses and people flow gathered by the company’s usability experts.

#### 3.3.1. Stepping into seniors’ shoes through role-playing

The basic principle of the Character Game was to let the participants step outside their professional roles, to put on senior’s shoes and to envision the world from that perspective. Table-top role-playing game were used as a means of combining quotations and images from the seniors and senior houses with players’ own experiences through role-taking and storytelling. The steps of the game are explained...
briefly below to illustrate the process of co-creating new interpretations of the
gathered data (for a detailed explanation of the approach, see Kaario et al. 2009)
(Figure 3).

First, everyone told a personal story related to seniors. Second, printed images
and quotes from the user study were placed on a piece of paper to build a game
world that illustrated the senior house. This aimed to visualise the context and open
the discussion related to senior housing. Third, the facilitator gave a brief description
of the imagined senior house in which the (play) characters to be created in the
following step would live. Fourth, the participants were provided with six different
character templates from which everyone chose one as a base for his role character
for the game. The role scripts (Ehn and Sjögren 1991) included quotes from the
interviews to illustrate personalities and disabilities. Gender, careers, family ties and
other personal information were left to the participants to decide. To make the
character creation more playful, one random factor card was distributed to each
player. It contained some secret background on the character that could be used in
the game: ‘You have won the lottery’ or ‘You have a bypass surgery scheduled in two
months’. In other words, the character templates created the link between the
original user data and participants’ interpretations. Cards with images of elderly
people were given to the game players to choose an image to represent each
character.

As in table-top role-playing games, the unfolding of the Character Game was
based on scenarios or scenes situated in the game world. The fifth step was the actual
role-playing game: creating and performing scenarios. For example: ‘Ella and Aleksi
are going to the pharmacy to get their medication. When they arrive at the elevator
they notice it is broken. They try to figure out whom to notify. The scene ends when
they decide to call for a janitor’. Although physical material was used to trigger the
role-play, the metaphor of radio-play indicates the style of the performance in which
the players sit around a table, and the story progresses mostly through talking.

As expected, the game was found to be helpful in illustrating the whole service
ecology, and consequently pointed out touch points where networked companies
could collaborate. As for building empathy, the narrative nature and structured role-
playing transformed the players away from day-to-day roles. Even though the stories
were placed in the game reality, the motifs and content were drawn from the user
data while also reflecting players’ own experiences, assumptions and attitudes. Many
participants mentioned afterwards that the Character Game opened up seniors’
values, needs and problems in a new way. The way the players described the overall feeling of the game session varied from being ‘relaxed’ to ‘inspiring’ and ‘eye-opening’. The game was seen as being relevant in evoking discussions on seniors and the concept of ‘people flow’ in general.

3.3.2. Senior Life Expo to evoke emotional responses towards seniors

As part of experimenting with representing user data in novel ways, the authors decided to design an exhibition. This idea was inspired by Miya Zame Osaki’s Retellings exhibition, which presented a collection of stories (Zame Osaki 2010). The Senior Life exhibition was built on the same data as Character Game and presented the four key themes identified during the game; me and others, aesthetic usability, moving, and feeling safety. These themes were introduced through four characters that represent people living in senior houses. To concretise different attitudes and the daily challenges they faced, the Expo included several touch points, from an image of an elevator to a real garbage can, connected to descriptive quotations such as: ‘The elevator causes blood pressure. When going shopping you never know whether you can get home. Or, when you have a laundry day. Since everybody else here is also aged, you can’t ask him or her for help. Once when the elevator was broken, I had to call my son to come from Järvenpää [30 km away] because I couldn’t go home with all the bags I had’.

The purpose was to share some of the insights and questions that arose during the case study instead of presenting concept ideas. Therefore, the exhibition format aimed to invite the visitors to explore, feel and reflect so that everyone could create his or her own personal view on the topics (Figure 4).

The Expo was designed to evoke emotional responses by raising questions such as: How do the things you see in the exhibition relate to you, your parents or grandparents? Derived from the artistic approach and the wish to represent some of the seniors’ fears and dreams, the exhibition stated provocative and stereotypical notions, such as a wall with ‘old photos’ of the characters and quotations from the interviews indicating seniors’ distinct values, lifestyles and histories to promote their individuality. This was to underline that when people get older their needs and wishes become even more diverse than before.

Figure 4. Senior Life Expo. The exhibition stated provocative and stereotypical notions, such as text ‘Who am I?’ painted on the mirror, which people are asked to look at while wearing a mask of an older man. (From Senior Life project, Finland, 2008–2010.)
As expected, the Senior Life Expo evoked positive and negative opinions among the R&D staff. Some wanted to see more of this kind of representation from user studies, whereas some questioned whether it was worth the resources spent. The company representatives who were engaged in the case study considered the Expo a marketing tool for their business partners and clients; besides in-house learning it was visual evidence of the company’s innovativeness and willingness to better understand the end-users. However, the researchers have no record of the practical consequences that the game and Expo had in the long term.

3.4. **Inspiration in a box: user-driven innovation within the waste sector**

The fourth case is about working with the notion of ‘all-in-a-box’ as a rethinking of deliverables for user-driven innovation (Figure 5). As part of a larger research project funded to develop a Design Anthropological Innovation Model (the DAIM project), a pilot project was conducted with a Danish incineration facility, Vestforbrænding, which is a non-profit organisation for waste handling owned by 19 municipalities in the greater Copenhagen area. The assignment was to challenge existing methods and approaches to waste handling through design-oriented dialogues where citizens, together with professional stakeholders (such as people from the incinerator plant, various municipalities and waste collection contractors), explore and unfold innovation potentials. The objective was to create a user-driven innovation model and produce a toolbox for waste professionals that could be used in practice (Halse et al. 2010).

During a period of nine months, many activities took place which generated both many insights into citizens’ and waste professionals’ actions, feelings and attitudes about waste and recycling today, and several design concepts including ideas about how the system could be improved in various ways. The activities will be described only briefly here to give a sense of what took place, and the materials for which the research team had to find a suitable deliverable format (Halse et al. 2010). Several ethnographically inspired field studies were carried out. Some looked into how various professionals within the waste system handled their work, while other field visits focused on various kinds of households, public spaces and shopping centres. For instance, a stand was set up in a shopping mall to make people passing by reflect on preliminary research findings and extend the fieldwork with their own stories about waste handling (more in Yndigegn 2010, Halse et al. 2010). Later, three mini-projects were carried out in more detail, exploring various what-if scenarios: (1)
What if waste collectors are the heroes of recycling? (Halse et al. 2010, p. 42); (2) What if the municipalities and the waste sector could find ways to actively engage and support resident initiatives to ensure sustainable waste handling? (p. 123); (3) What if shopping centres were hubs for recycling? (p. 202). Various rehearsals of the future illustrating different design concepts were played out by creating and video recording dolls’ house scenarios within a workshop setting, using dolls and creating backdrops by using photographs from the field studies, and most importantly creating and enacting scenarios including prototyping in situ (Halse et al. 2010).

The deliverable that Vestforbrænding asked for was resource material that could be used, for instance, in developing a dedicated course on user-driven innovation for project managers in the waste sector, who had not taken part in the project. When searching for a useful format for the deliverable, the guiding principle was that a format was wanted that could both include insights and results from the pilot project and resource materials that could be used in new projects. What was attractive about the notion of ‘all-in-a-box’ was that it signals that all that is needed is included in the box, and at the same time the box is an open and inclusive format without specific conventions for operating within it. In other words, it gave some leeway, but also posed challenges regarding what to include and for finding formats for the things to be included.

The three mini-projects were documented through representations, with one magazine for each. With inspiration from the news world, this format accommodated many voices and stories from different project activities but also short descriptions of methods, ideas and design suggestions. Other insights were communicated in brief and direct formats such as postcards, flyers or posters, and for instance through seven sharp statements about waste handling, which included recommendations to the waste sector (Halse et al. 2010). The most important insights from the field studies were communicated as a combination of images and text named ‘insight cards’. Postcards from all over the world describing recycling and waste handling in other countries were included to spark reflection and thinking in new directions. The box also included various generative materials that could be used in new projects. For instance, various ‘design game’ materials such as small wooden dolls, generic game boards, string, textile materials and miniature versions of the insight cards, the seven sharp statements about waste and the postcards were included to assist facilitation of game playing in new projects on recycling and waste handling.

The all-in-the-box deliverable served several purposes. So far, it has been the main resource material in three training courses on user-driven innovation. During each course, the box has provided materials for participants to gain hands-on experience with what this user-driven innovation approach entails. After each course, the authors have heard about participants using the box as a means for communicating with colleagues and persuading managers or politicians to employ new approaches to innovation. Lastly, the box offers inspiration, tools, approaches and materials for actual planning of new innovation projects.

4. On designing for open interpretations

This paper has discussed several cases in which the communication of field data has been designed to allow and trigger collaborative exploration and new interpretations. The examples of open-ended interpretations in these cases have been context
specific, designed by the design researchers in each of the cases with their interests and competences, and have been well received in the projects described. However, the authors have concerns about the application of such tools as routine solutions for communicating field studies. Motivation is a key component in the empathic process to discovery and immersion (Kouprie and Sleeswijk Visser 2009). One concern is that placing posters on the wall one after another would not motivate and create discussions after a while. Once you have experienced a Senior Life Expo, you need to look for new formats to create resonance. Such requirements for maintaining motivation and sensitivity provide opportunities to apply art-inspired approaches and design skills in user-centred design processes, but can cause challenges for resource-driven processes in companies.

When effort is put into working with the field data in an open-ended and attractive way, it creates the need to have original material that can be transferred into these open-ended interpretations. First, designing open interpretations influences the selection of approaches and methods that are applied in both the gathering and interpreting situations. Second, whether the resulting tools are posters, booklets or inspiration boxes, they need to be designed. On the one hand, this highlights the need for design competence in the team, and on the other hand, it highlights how the design activity acts as a channel that opens up for further interpretation: those with design skills are the ones that in the end make decisions concerning the content, usability and application. The following text summarises the design aspects, or facets of the open-ended material.

Designing the layout of the posters in the nurses and transportation case required reflection on the content and the message that we wanted to convey through the selected pieces of the data, and on the aesthetic image, to achieve balance between different graphical elements. This was a graphic design task combined with storytelling. For instance, the reflective activity was concerned with questions on which quotes will carry an informational meaning, or have an emotional resonance, how many quotes can you fit in a specific format size and how many pictures make an interesting combination.

In the Active@work case, the booklets needed to be handy, in a format that allowed for easy printing of many copies and sending by mail, and still motivating and attractive to work with. The booklet’s layout was designed and illustrated with drawings and photos from the context. The booklet designer also had to know the context and the content for being able to select materials that characterised the ageing workers’ motivations and pleasures, their physiological and social challenges, as well as the work. The representations had to show respect to the ageing workers since the booklets were to be used both with them and also with their superiors. The people from whom the personas originated had to be anonymised, which influenced the selection of quotes and stories and the design of the visualisations. Thus, the booklet design became a task where the combination of design skills and research competence became inseparable.

The Character Game and Senior Life Expo cases should be considered as designed objects in themselves. When designing the game, inspiration was gained, among other things, by playing table-top role-playing games, while visiting the Contemporary Art Museum provided inspiration in considering means to convey the message through artistic approaches. Certain design skills from graphic design to building mock-ups were needed to create game material and the exhibition. Design decisions were also concerned with how to place the pictures, which quotations to
choose and what kind of issues could cause resonance, not to mention aesthetic quality. There was also a desire to create impressionistic views of the users that aimed to trigger individual insights instead of using a more informative format.

Designing the content and packaging of the inspiration box was again a design task combined with research. Choosing functional materials and finalising the aesthetics of each item required traditional design skills. However, the designers also needed to have insight into design games and other approaches used in the innovation project; in addition, insightful understanding of the content of the material was needed to be able to write and illustrate reportage, edit texts and select the pictures for the cards and other materials.

Through these experimental research examples, this study has shown various approaches for designing open-ended interpretations and how they have engaged the people involved in the projects and made them discover, immerse, make connections, detach and learn. In different ways, they are tools for creating empathy, and thereby gaining insights into the aspirations and sensitivities of the everyday lives of the users involved. It is argued that the potential for learning and using the new insights in designing are greatly enhanced by active involvement in co-analysis and co-designing jointly. Empathy cannot be achieved without engagement, and inspiration goes hand in hand with cross-disciplinary collaborations involving tangible materials from which to be inspired from and with which to work. Thus, an important overall question about the broader relevance of the approaches discussed in this paper is: What are field studies for and what is their value in design? What we are concerned with here is the learning potentials inherent in the ways in which we choose to communicate and use results from field studies in design.

References


