

SUPER DOTS;

Making social media tangible for senior citizens

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ABSTRACT

Social media offers many possibilities for new ways of networking. Senior citizens are not the most common users of social media today, but they are nevertheless citizens that have a need for entering new social connections, networks and communities. In a recent project we looked closer at how to make use of co-design and prototyping in relation to service design for social networking among senior citizens. The municipality we work with has recognized the potentials of involving and engaging citizens in service design and co-creation but they lack experience on how to establish productive dialogues. A major issue is how to make the dialogue concrete and tangible for all participants involved.

In this article we will discuss an example of how to make new possibilities of networking through social media tangible through the design concept of Super Dots. Super Dots is not a classical prototype, but a delicately crafted set of props aimed at facilitating dialogue on community building among senior citizens at a co-design workshop.

We will open the paper by discussing the relevance of new service concepts and infrastructures facilitating self-organized community building among seniors. Then we will introduce the particular way we have worked with co-design methodologies particularly the design concept Super Dots in service design, in the project Senior:Interaction. We present examples of the dialogues performed around Super Dots and based on these examples we end the paper by unfolding some of the benefits of working with tangible scaffolding materials as props in service design involving social media.

Categories and Subject Descriptors

A.0 [GENERAL]: Conference Proceedings
H.5.2: User interfaces, User-centered design.

General Terms

Design, Human Factors

Keywords

codesign, prototyping, service design, elderly citizens, community building and tangibility

INTRODUCTION

In Denmark as in many other western countries there is a concern in the public sector that existing services of elderly care may be difficult to sustain in the light of the growing number of senior citizens. For this reason the public sector increasingly engage in so-called welfare innovation. Some of this work attempts to replace the need for conventional services with technological aids to accomplish what is often called ambient assisted living. It is however also widely accepted that the need for assistance may be diminished if seniors are socially active. Municipalities are therefore also pursuing strategies of innovation that actively build on and enhance social networks among seniors. The project, Senior:Interaction which is conducted by the Copenhagen Municipality in collaboration with a number of universities and private sector partners (in which the authors is also participating) is an example of this. The project objective is to replace conventional hierarchical service models, where individual citizens are provided standardized services based on visitation, with horizontal service models where a group of citizens is serviced as a community with its own self-organized resources. Emphasis is on supporting interaction and community building around everyday activities like eating, physical activity and cultural events.

In line with Riche & Macay [1] studies in the project show that senior citizens are concerned with keeping personal independence but also with 'being someone for someone else' [2]. Staying part of communities is however not easy becoming a senior citizen;

networks perish and become vulnerable when peers pass away. Physical infirmities suddenly restrain the senior from partaking in activities and practices that he or she has been part of all his or her life.

Social media may play an important role in the future in connecting seniors and in providing an infrastructure for community building involving both public and private sector services. Penetration of social media use is generally thought to be relatively low among seniors and it is also questionable whatever the exposure of identity and relationships favored in such social media as for example Facebook matches the interactions typically associated with the everyday networks of senior citizens [3]. Sokoler et. al [4] have proposed that an interesting new branch of social media may be envisioned by extending the ‘tickets-to-talk’ associated with such mundane activities as walking the dog, going to the laundry or doing the garden fence into the digital realm. Making such everyday activities visible to peers through social media and facilitating network building that is activity centered, may extend the visibility and reach of senior networks without overtly exposing a particular need for interaction.



Figure 1: Towards horizontal service models

In the Senior:Interaction project the potentials of horizontal community based service models and activity-centered social media has been explored through a co-design approach where senior citizens have been invited to take part in a series of design laboratories [5]. Starting with a conceptual design laboratory where new service concepts are sketched and evaluated the project will eventually stage a number of practical living labs in which the seniors explore what new service concepts and infrastructures may entail. Working with design-based approaches similar to for example Mattelmäki and Lehtonen [6], Brandt & Grunnet [7] and Iaccuci and Kutti [8] probing into the everyday of senior life has been combined with prototyping and scenario-building involving both seniors and public and private service providers. Unlike what is most often the case in user-centered design, prototyping and scenario-building have had an emphasis not on devices or appliances but on the social media infrastructure and how people establish, relate to and engage different media spaces of this infrastructure.

In the following we will take up the challenge of how to make tangible the potentials of activity based social media in co-design dialogues on community building and service co-creation.

PROBING SENIOR NETWORKS

In some of our first meetings with senior citizens we met Ketty aged 82 years. She lives with her husband in her own house. He doesn't go out much, but Ketty is an active member of an activity centre where she takes part in excursions, bingo, parties and knitting. She is part of the knitting community and knits every Thursday afternoon with other women. They send their warm

knitted clothing to Belarus and Ketty explains *“Lene told that they drive it to the countryside to the poor people who really need it.”* Right now Ketty is knitting a blouse with the Danish and Belarusian flag inspired by traditional Danish national clothing. The blouse is knitted from several pieces that the other women have been part of knitting. The knitting group wants to exhibit Ketty's work, which they describe as extraordinary and creative, to showcase their ‘knitting for Belarus community’. Ketty likes to know that her knitting can help others and would like to see a picture of people in Belarus wearing her knitting's. When we talk about how to get in contact with other people, she states, *“It's only face-to-face that works!”* She is not using social media and she doesn't want a cell phone even if her children and grandchildren have tried to convince her and she explains *“All this modern technology stuff is not for people like me!”* Ketty is nevertheless a very good example of someone we would like to involve in dialogues about enhancing networking and community building, and even though she has her strong reservations towards technology we would like to make her think about connecting in new ways.



Figure 2: Meeting Ketty.

During the first workshop a number of concerns had been raised that all related to how everyday networks are formed. Some seniors told us for example *“I will not spend my time with people I don't like; I need to be in control of whom to talk to”* *“I want to know who is part of the network”* *“It is always difficult to enter a community; how are newcomers invited into our community?”* We also wanted to address concerns from the public sector told by employees at activity centers and civil servants *“How are relations negotiated?”* *“How do they manage being part of several communities?”* *“How to build a new community?”* And also issues of how to find people alike *“We only have two members interested in painting bone china, so it is not possible any longer in our activity centre ...but what about the seniors from Valby? How do they find each other? And how do we help match them up?”*

We wanted to explore these concerns further and we were interested in introducing the idea of digitally enhanced ‘tickets-to-talk’ through exposing activity-based networks.

In order to accomplish this we developed the Super Dots. A concept for networking that made concerns visible and tangible in the dialogue about being connected in communities. The props designed as part of the concept are not intended as suggestions of a product in a traditional product sense. They are props for *prototyping* practices regarding possible services, and interactions with products or interfaces of the future. What is made tangible and visible are props to start a dialogue and prototyping of how everyday practices could benefit from the technological properties of the concept of Super Dots. They are designed to explore infrastructures of possible services but mainly as support for communicating and mediating existing everyday practices of the senior citizens participating in the project.

The props are catalysts for establishing a shared language of the possibilities of social media for at diverse group of senior citizens. Despite the seniors' differences in perception of themselves and their social or technological skills, our intentions is that everybody should be given the opportunity to be part of the dialogue of shaping possibilities of social media and their everyday communities of practice, when the municipality are developing new service models.

DESIGNING THE SUPER DOTS

The basic metaphor of the Super Dot concept is that 'communities have color'. You can have many friends: blue, purple and yellow friends but your green friends don't have to know that you also have orange friends as well. You are already part of many different communities and you are the one in control of choosing when to be in one community or the other, and when to involve friends from these communities. Our challenge was that these quite abstract ideas had to be communicated, visualized and made tangible as a 'material' for all participants to be able to shape and form as they found it appropriate for their constellations and means.

The initial idea for embodiment was a pearl necklace with many different colored pearls. Each pearl could activate a 'party line', like an open walkie-talkie and telephone channels, where several members of the specific 'pearl' community could partake. Later we explored concepts of objects that were shaped to connect to specific activities like a special lunchbox that when opened could act as a discrete invitation to make a lunch pack and meet others for picnic.



Figure 3: Initial sketches becoming Super Dots.

We ended up with a design that used colored dots to indicate activity in a particular network and a number of simplistic objects, which embodied simple modes of interacting. The round dot

represents 'affinity' to a community and each member of a group have their personal dot. The group of people sharing one activity is now a community such as 'the orange community'. If their shared activity regarded shopping they would probably call it their shopping community. With this orange dot they can be connected to the others in their orange community, which is only about one activity such as shopping. One can also be part of other communities by using other colored dots. Kits with sets of Super Dots can be received in public spaces such as libraries and activity centers. We envision that the senior citizens will have many Super Dot communities and can have a "bonbonier" central in their home containing their different colored Super Dots. Being part of an activity community means that everybody being part of this community agrees on the shared activity. If some of them want to start a new activity community for instance a 'sharing newspaper community' they just have to join a new community in another color. New members can also join; they just need to receive the Super Dot like a token, pin or emblem of being part of this community.



Figure 4: Sketches from the design of the Super Dots.

While the main emphasis is given to the network, communicating around the activities of each particular network is made tangible by three main objects; *the seeker*, *the messenger* and *the screen*. A tread in the same colors as the Super Dot is used as a *channel* visualizing the open connection to the community. The props are only active when the Super Dot is worn by a person. The *seeker* is a sphere-shape with the top quarter cut off. We came with examples that it could seek places or people connected to the specific community, but only when activated by the Super Dot representing this community. The *messenger* is a hollow cylinder with one removable lid. It can send messages and here we also didn't define how, but mentioned it could be voice, text, sound, light, vibrations or other ways of communicating. The *screen* is a rectangular frame presented as it could have many sizes as smaller portable screens, picture frame screen, television screens or larger displays.

The props were presented as maxi-props to make the objects seem too large to be perceived as products and also make them visible for all participants when presented in plenum. They were also made in a miniature size usable when creating doll-scenarios showcasing possible practices around activities supported by Super Dots.



Illustration 4: The final format of communicating ‘the story about the Super Dots’ in a narrated scenario for a common initial presentation supported with the tangible maxi-props.

The Super Dots were introduced to the seniors as a simple doll-scenario by alternately offering an illustrative scene followed by a more explanatory description of the new element introduced. The text was simple but pedagogical almost like a child’s book. When presented the text was read out loud and when a new props was introduced the maxi-prop was also showcased, sometimes exemplified with examples of specific seniors activities and communities that the participants had just been mapping and sharing in groups.

THE SUPER DOTS IN ACTION

A red dot is attached at Kettys nametag at her chest. She is looking at the backdrops that she has been part of co-creating at the last workshop. The group have discussed if they should change the story and how they could use the Super Dots and props to support the scenario. Ketty has been given some mini-props but suddenly she grabs the maxi-messenger, ads a red Super Dot and a red thread, puts the messenger to her mouth and shouts. “*Should we go shopping to the shopping mall, Lilly?*” Lilly who normally do not hear that well reacts immediately from the opposite side at the table and grabs the other messenger, looks at Ketty through the cylinder and then replies, “*Yes lets do that!*” Meanwhile the rest of the group stare like a fascinated audience at the playful performance while the dialogue continues between the two ladies “*then we meet at the bus stop*”, “*yes at two o’clock*”, “*ok...*” “*that’s fine*”, “*see you*”, “*yes, bye bye*” ...



Figure 5: Ketty calls and evokes embodied engagement.

Roberts landscape of community start the dialogue

In another group in the opposite corner of the room the dialogue is about Robert and his sailing club. A yellow string is crossing the table thus showing a connection; a ‘channel’ from a yellow Super Dot at the screen, to one messenger with another yellow dot and continuing to another messenger. In front of Robert is his landscape of communities picturing his relations to peers related to activities. When participants presented the prior ‘mission’ of mapping the landscape of relations, Robert showed his sailing club visualized and made tangible by his choice of a picture card of a band playing at the water’s edge. Surrounding the picture card are cards representing peers, marked with a yellow color representing his sailing community. Signs are placed in the landscape presenting quotes chosen by Robert, such as “something persistent to meet around”. He told how he recently had to sell his sailboat due to physical restrains but continued his 70 year long membership as an active member, meeting his friends in the club like Bendt and Kirsten on a daily basis. Signe is holding the screen and Amy sits behind it when Signe suggest “*We are Bendt and ...*” Pernille looks at Roberts ‘landscape’ “*Kirsten!*” she says and Signe continues “*yes Bendt and Kirsten from Roberts club, but what if one of us suddenly had problems coming to the club to see the bulletin board. Could we see it at our screen at home, maybe at the television like teletext?*” All participants are looking at the screen and Jytte nods her head: “*Good idea! That is what I just told Marcus about. Too many elderly sits at home alone. They need to be reminded that there is something happening. And if they have problems walking they can choose to partake in the arrangements they can overcome. But at least they get noticed the members. My partner John don’t come in his old sail club anymore... but off cause only the members and the board can receive messages...*” Jytte continues and the group is having a dialog about the possibilities of the Super Dots.

The props made the dialogue tangible by letting all participants be able to be a part of and reflect upon concrete examples from Roberts everyday practice and mirror their own experiences. The Super Dots and its props are physically present at the table and in the dialogue, as a shared material for everybody to take hold of and use. Some of the partners had a brief introduction to the concept before the workshop and they are eager to make use of

the props and use them to visualize new examples. Pernille from the municipality uses the prop by lifting it up and stressing her suggestion about the board of the sail club messaging notices to the members. She shakes and gestures with the messenger as she is pointing it toward Robert, Signe and Amy all acting as members of the sail club community.



Figure 6: Roberts 'landscape of communities' and the example of his relations in the sail club community becoming tangible.

May 'the blue' partake? We don't know them!

Later the group is enacting a scenario where they have agreed on meeting in a park and having lunch or coffee in a café. Marcus and Pernille hold each their blue dot on their chests and connect them with a blue string. *"What if we would like to join your trip? We come from 'Madam Blå', like the two who participated at the last workshop...we just heard about your trip and would like to join you. May we join?"* The participants wearing each their orange Super Dot stare at Pernille and Marcus. There is silence for some time... then Jytte exclaims *"I really don't want to spend my time eating lunch with people I don't like. I don't know who they are!"* all laugh but Jytte states again *"I don't want to waste my precious time!"* Amy tries with a friendly probing tone *"But Jytte... that is not like you!"* *"Yes! I only want to be with people I like, like you!"* Then she laughs with the rest *"Okay, then let's just say that I know you"* and they continue the dialogue. Later Amy exclaims with an interrogative hesitant voice *"But we can't say no... can we? That would not be polite!"* there are many dialogues going on so Amy's concern is not heard or taken up in the situation. It later surfaces again when she says, *"How did we agree on meeting? When was that agreement reached? Was it this dot thing..?"* Jytte looks at Pernille and points at the blue dots at the table *"how did you get the notice about our trip and how are we told that you are coming? And how do we all find each other?"* Pernille replies, *"Yes there are many questions... These are the things we would like to find out."*



Illustration 7: Pernille and Marcus enacting 'the blue community' and asks, "May we join your excursion?"

The group is discussing the different props and their possibilities, As if the messenger could be a way and who is messaging whom. The seeker is suggested and Amy says, *"They need to be turned on...to be active. Do we have one each?"* *"Yes that would be preferred."* They can only find two mini-seekers in the kit and Jytte declare, *"It is important that I have one. I'm in the bus alone and I need to find you"* They make extra seekers and in the end they agree that somebody knows one of 'the blue' and they contact each other. Amy suggests that it could be the screen that could show these messages and asks, *"Can you also write at the screen? Or could I just talk into it? I think I would prefer to talk."* Amy is holding the mini-messenger to her mouth *"Hello Jytte ... and how would you like to do it? I prefer to talk. What about you Jytte? Would you like to receive it as text or my recorded message?"* Jytte answers *"I prefer text if I am out in the park."* Then Amy encounters a problem. *"But I can't bike if I need both the seeker and the messenger...then I can't hold on to the steer..."*

When Pernille and Marcus suggest that they are enacting some 'strange' seniors not suggesting any names but say it could be someone like the other seniors participating in the workshop, it seems from Jytte's reaction that this is not just a playful make-believe of a story that is made up and where everything is possible. This is a serious game. She reacts directly as if she was in the park and had to consider the suggestion of a query from some strangers to join, that neither she nor the others knew or had met before. The groups reaction with laughter could have to do with Jytte's harsh statement and Pernille's facial expression looking a bit disappointed. The mood is changing when Jytte says *"ok, then.. let's just pretend we know you"*. But she had made her point! Continuing to explore the props and appropriating them to the situation of pretending and believing themselves to partake in the excursion to the park, they gently get to sense how it would 'feel' to them. They try it out and reflect on what and how it would be if it was like that, but in a comfortable safe space. A space for rehearsals and opportunities to 'try out', reject, change and modify. In 'a traditional design process' this would be the sketching phase where initial models and structures are gaining their shape and structure. These earliest abstract simple forms that are to be deconstructed and reshaped many times until the desired form matches the intentions of the designer. In the space enclosed by the group of unlike participants, they are all forming and rehearsing until the story falls right for every single participant. They negotiate that there is a relation between one of the persons from 'the blue community' and one in 'their network', which supports the common idea. This indicates that the communities need to be build from existing shared activities and that communities may expand by making these activities visible providing possible newcomers with a 'ticket to talk' or existing members with a 'ticket to act'.

LESSONS LEARNED

Back in the group with Kitty and Lilly, Maria is expressing her enthusiasm: *"That's wonderful now we just need to make sure that our cameraman is ready...lets do the same but this time with the dolls and backdrops. Remember that Peter is only filming one backdrop at the time so we start at Lillys living room, and then continue to the bus scene and then to the scene with your activities at Fisketorvet. Should we bring in the experience of the delay of the service bus that Lilly told us about earlier? This time the bus driver can just send an message, with the messenger, that he is*

arriving in 10 minutes, so that Lilly don't have to wait out in the cold weather." Birgit who is enacting the driver attach one mini-messenger to the doll and begin pulling the red string through it. She is getting ready for the performance. But there are still some warm up exercises before they can begin the act. The group is talking about if Ketty and Lilly could use the seeker when shopping at the shopping mall. Ketty has explained that she normally shops in a small convenience store, so when Maria suggest that she could use the seeker for seeking groceries she can not find, she laughs and replies "There's signs in the larger supermarkets! But if I can't find the toilet paper I can just as well use the towel paper!" When the group then enact the doll-scenario, Ketty is improvising while being in the scene of the supermarket "Lilly.. you wanted to look at the trousers? You can go there..." She moves Lilly's doll in another direction and place a messenger on top of her own doll. The red thread is hanging from the red dots from one doll to the other "We have the messenger..." She changes her voices like mimicking a more formal phone call "Lets just meet in half an hour, we can use the messenger, and then also notice our bus driver to help us out with the groceries."



Illustration 8: Ketty, Lilly and the service-bus driver are connected when shopping. They communicate through the messenger when enacting their two-minute video doll-scenario 'a cultural day at the shopping mall'.

In this group the props had initially been rejected as not very useful in the situations suggested but when they enact the doll-scenario they use the messenger and a tread again, improvising that they need to split up and get in contact again. The 'channel' is being established both between Lilly and Ketty and the bus driver. Ketty is placing the mini-messenger at the head of the doll representing her. The props are small and it can be difficult to place it in the hand of the doll even with sticky gum. But we actually had these intentions. This is indicating that she is making use of the affordance of the functions of the Super Dot concept rather than the more 'product specific' details of how she interacts with the technology. This was exactly our intention by the mini-sizes. They represent the properties of technology and social media, but how the more specific appropriations as touch points and interfaces will be integrated into existing technology or media, are not interesting at this early phase of the process. What we also find interesting is the initial embodied interactions that Ketty and Lilly had. Because they have appropriated the maxi-props in a playful manner they have made themselves familiar with something that without the introduction of the Super Dots could be considered rather strange! If we had asked Ketty questions about how she would like to communicate with peers in her communities? Or make use of technology and media in her everyday activities? Or just gave her a cell phone...? We don't know how she would have reacted! But we would imagine it a

similar response like the one we got the first time "All this modern technology stuff is not for people like me!" but by placing a white cylinder tube in front of her and giving her a 10 minutes presentation of a story of Super Dots she was now able to show and express, how she see herself engage in community building using social media.

The scenario they made was maybe not the most innovative or thought-provoking critics might say. But this sparked another finding from this episode. We have to remind ourselves that not only does the participants need tangible tools to be able to express themselves, also we as design-researchers need tangible tools close at hands. When Ketty replies that she can use towel paper instead of seeking for toilet paper, it is said in a very humoristic manner. But we have to take her recurring rejections serious and reflect upon the fact that we might not come up with the right examples of possible situations or practices. If Ketty's 'landscape of communities' had been more present at the table, or in the researchers minds they would maybe had come up with some more useful 'what if' questions. This could have been questions that evoked more realistic appropriations of Super Dots into Ketty's everyday practices. Ketty had already told her stories many times, so if we had visualized her concerns by reifying her knitting community, excursion community, bingo friends, or simply asking her the question 'What if you could seek the people wearing your knitted cloth in Belarus and make them send you a picture? Our guess is that she would have found the task of imagining using the seeker, more worth the hassle than simply seeking toilet paper.

Amy's reflections and projections to her practices

A scenario of a story about 'the good day in Valbyparken' ended where the participants were sharing Robert's photographs from their experiences in the park at each their screens at home. Jytte had to take a nap first and would wait watching the pictures. The group have finished their common mission and there is a lot of chitchatting and laughing going on when Amy approach Signe with a question "Maybe I could use the screen at home to record a message each morning when I get up, that my daughter can receive when she likes? Then she doesn't have to call to check on me every morning." They talk about how to record from the screen, if it is turned on and recording for at longer period of time. Pernille raise her voice to the group "Hey this is important what Amy is saying there, I would like to hear more of this." Now the chitchatting subsides, Amy continues and gets the full attention "Then you can never be only by yourself?" Signe follows up "So the questions is how much can other people see? And how much will you allow them to see?" "And who in the community can follow? The dialog continues about who could be allowed to watch, if the channel at the screen was open, or when to turn it on and off, if it could be just one picture or one sound message. Amy and Jytte find it useful to support their relations as neighbors by using the screen to catch a glimpse of if the other is home or ready for contact. They also talk about sharing the information with others like their children, Jyttes partner and the other 'girls'. Jytte seems more serious now and states "This is something else now" She is making gestures towards the doll scenario backdrops still at the table and Pernille nods "Yes this is something else but a good idea, that we will have to remember!"

The question from Amy reveals that she has been reflecting on their talk about the screen and its possibilities. Earlier she had a conversation with Signe about her daily routines and relations in her network, so Signe knows about these habits she and her daughter has every morning. Amy is appropriating the technology to stay more independent and not feel it a burden that she and her daughter have to be at home and call each other at a certain time, yet still maintain their social connections exactly when the time is right for both of them. The link starting from one grounded activity that Amy and her daughter have had in many years, to possible new communities seems natural to both Amy and Jytte. They also already today check on each other almost every day when exchanging newspapers, groceries and sometimes leftovers. It seems like they are willing to share their newly developed screen as a 'electronic window' for recording, sending and viewing messages with others.

Ramifications and translations of the Super Dots

At the next workshop the participants are presented with new scenarios that we as design-researchers have prepared. We are now enacting these scenarios in full scale like prototyping. The real everyday experts; the senior citizens, are the audience and moderating and commenting at our performance. Some of the activities and concerns are now brought into new stories. One example is the 'Smart Yoga Mats' that are now staging and combining the concepts of activity-based communities where the interface and social medium is the object itself connected to the specific activity. In this case the yoga mat. Another group explore how a shopping community could work at their specific senior housing complex Wimmersvej. The last group explores details of signing up for an excursion to the park by 'smart phones' and 'bulletin screens' in the activity centers. They talk about live sharing of pictures in the 'excursion community' as a way to inform the members who are not able to participate in the event.



Illustration 9: The super dots are no longer physical tangible at the third workshop. The concept is now diffused into 'smart objects' like a shopping bag, yoga mat, phone and screen, as well as into the participants shared language and understanding of its possibilities.

Towards the end of the workshop, Daniella is telling Mogens how she often receives picture messages from her daughters when they

are out shopping new cloth. Mogens picks up on the idea and says that next time he is shopping he will send a picture of himself in the changing room to get his daughters approval before buying new cloth, Ketty has been listening to the conversation and this has obviously caught her interest "*But there is nothing new to it? It already exists!*" she says, and this obviously makes what has been discussed come within reach of what she can imagine also for herself.

BENEFITS OF MAKING IT TANGIBLE

Designing tangible design tools, such as props, have shown to be an interesting way of opening up a space of possibilities for the dialogue, where all participants can be part of the process. As we have illustrated with the examples, the tangible tools offer many possibilities when prototyping new service models for social innovation and community building. The reciprocal process where the designer asks questions through design suggestions that is answered by the diverse group of stakeholders seems to be fruitful in developing a shared space and grounding relations to prolong the further collaboration.

What we have experienced working with making abstract ideas into tangible malleable material as props, is that all participants have had a possibility to co-explore a phase that mainly have belonged to the professional designers. The phase of forming 'fleshed out' insights and concerns into one story or one object that is ready or stable enough to be handed over to others, have long been described as the designers secrete 'black box'. Non-designers are usually not a part of this process, so it can seem magic or mysterious to some. In 'traditional design' stakeholders often asks curious questions like "how do you know this is the best solution?" "How do we make sure this is the right answer?" "Have you asked enough respondents and representative selections of users?" By opening up the process by letting both the so-called 'users' meet the so-called 'stakeholders' together with the so-called 'designers' on an equal stage they have all been part of building up. This we believe will leave the performance with lasting impressions and stronger relations.

The relations are important and the reciprocal balance of exchange when 'asking questions through design' and 'experiencing the act of reply' is very subtle and need strong skills of fine-tuning to the situation. But like the experience of being immersed in a rich dialogue, it sometimes feels like 'a magic moment' when 'a thing' suddenly occurs. We have the belief that when a change in mind happens, like Ketty experiencing that the 'technology of the Super Dots' being something real and already existing, it has to do with the many smaller iterative movements she has been taking in her landscape of relations. She has been encouraged and engaged to step a little side from her ordinary view of how things are, to seeing it from another perspective and imagining how it could be, and lastly step back and enacting how this would be situated in her own everyday practice. These many smaller steps starting out from her belief that technology will never be something for her, to realizing that the Super Dots and their possibilities is already out there, and it is also for people like her! This we find to be an interesting journey.

We will not conceal that it takes a lot of effort and a huge amount of energy spend on mobilizing participants and aligning paths and spaces, but we still believe that the effort will be worthwhile, in

the long run. Our advice as designers to other designers is when you open up the design space and invites others to contribute to this captivating phase of giving form and reaching completion, by the invitation of tangible props, it will be a richer experience. With this said, we need to develop new formats to discover the full potential of co-exploring tangible malleable material in the co-design process. And we hope to see many new tools, materials and examples that invite participants into the collective process of visualizing concerns by enacting tangible props until they have confined their shared story to tell, show and hopefully make tangible one day.

ACKNOWLEDGMENTS

We would like to thank all participants in the projects Senior:Interaction. Especially Ketty, Amy, Jytte, Robert, Lilly and Birgit. Andrea; the skilled design student co-designing the Super Dots, and colleges Signe, Lone, Eva, also project partners Pernille, Dorthe, Bo and Marcus.

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