

COMPLEMENTARY REPRESENTATIONAL PRACTICES FOR ARTICULATING MATTERS OF CONCERN

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ABSTRACT

Matters of concern can be defined as complicated, engaging, diverse, fragile, and situated issue for which we care. Researchers can contribute to articulating them. In this paper, we discuss one methodological aspect that influences the articulation of matters of concern by applying a participatory design approach. By referring to workshops organized for studying the introduction of welfare technology for older people, we argue that combining different representational practices both enables and constrains the participants' agency. Enabling and constraining depends on the performativity of the sociomateriality of the practice of method and the analysis of such aspects lead to the articulation of matters of concern.

INTRODUCTION

Bruno Latour (2004) proposed the concept of matter of concern in order to describe the important role that researchers interested in problematizing truths and practices taken for granted have. Specifically, problematizing should not end up in promoting relativist positions and narratives that can be easily mobilized for demagogical purposes in the era of post-truths and fake news. Matters can be considered socio-political configurations materially performed. While a matter of fact is presented as an unproblematic truth, a matter of

concern can be defined as complicated, engaging, diverse, fragile, and situated issue for which we care. A matter of concern thus presents a multifaceted character – this is central to the reality of a matter of concern, not a challenge to it (ibid).

In this paper, we want to contribute to this line of inquiry by discussing one methodological aspect that influences the articulation of matters of concern in a participatory design effort.

We address this issue by referring to our ongoing research activities in an area full of potential tensions and issues: the development and introduction of new technologies for providing care and welfare services to older people.

The relation between technology and older people is a complex one, including, among others, ethical, emotional, and political aspects (Eriksson 2016; Mclean 2011). The introduction and use of technologies for providing care and welfare services is a complex issue as it implies the mobilization of heterogeneous actors – e.g. municipality officers, occupational therapists, relatives, older people, home care personnel – as well as the planning and coordination of their actions (Breskovic, Pinatti De Carvalho, Schinkinger & Tellioglu 2013). Consequently, in order for technologies to become useful, the process of designing and introducing technologies for older people would benefit from foregrounding and integrating tensions that may arise as different interests and experiences meet and have to deal with a variety of aspects.

Methodologically it is thus interesting to develop processes enabling to surface such tensions that are already there, independently of the researchers' intervention. In this paper we focus on the initial phase of a project inspired by a participatory design approach (Simonsen & Robertson 2013) and in particular on the articulation of the relation between older people needs and technology.

We also limit our attention to one setting in which people affected by/affecting the introduction and use of new technologies are invited to collaborating with the researchers in order for potential matters of concern to be articulated. This setting is the workshop.

When designing such workshops, we mobilized one technique commonly used to gather narratives in innovation processes: photo elicitation (c.f. Collier & Collier 1986; Warren 2002; Schaeffer 2015). Photo elicitation is based on research participants choosing images and producing a narrative about them, which can be thought of as two connected representational practices. We then added other representational practices, as writing, to engage participants with and, in this paper, we discuss whether this was beneficial in terms of the articulation of matters of concern.

The paper is organized as follows: first we present a larger discussion about the central concept for this paper, matter of concern; this is followed by presenting photo elicitation and representational practices as techniques in order to collaborate with participants in elaborating on possible matters of concern; we then present the current study and how we performed it; after discussing the trustworthiness of our method, we present our results and discuss their meaning and implications.

LITERATURE AND THEORY

MATTER OF FACT AND MATTER OF CONCERN

In an article from 2004, Latour addresses the issue of emancipating the public from accepting uncritically “objectified facts”, an enterprise that he had long pursued, without de-legitimizing science as production of knowledge. As he puts it, his work had been devoted to showing “*the lack of scientific certainty*” (ibid: 227, emphasis in original), but his aim had not been that of serving the agenda of extremist or climate change deniers, among others. He then proposed the distinction between matter of fact and matter of concern.

Matters of fact can be understood as unquestioned objects and truths. While deconstruction practices may result in showing the above-mentioned lack of certainty and make facts relative, Latour proposes a different move, that would keep matters “real”. Matters of fact could in fact be described as partial, political, renderings of complex matters of concern. Moving to matters of concern, it can be argued, does add reality, not subtract reality, from matters of fact. A matter of concern can be defined as complicated, engaging, diverse, fragile, situated issue for which we care – a matter of concern is a gathering of elements, interests and aspects, as well as it gathers actors.

Latour thus encourages researchers to explore and construct matters of concern as a way of contributing to constructing society. But what are the methodological implications? In the following section we address the question of surfacing and constructing matters of concern. However, we want to tone down the latourian

epistemology of construction – as a process led by researchers – in favour of a more participatory one (Frauenberger, Good, Fitzpatrick & Iversen 2015).

MATTERS OF CONCERN IN PARTICIPATORY DESIGN

Participatory design practices aim at, among others, involving people in processes of co-construction (Frauenberger, Good, Fitzpatrick & Iversen 2015; Simonsen & Robertson 2013). In this paper, we limit our scope to exploring the possibility of combining several representational practices in order to provide the possibility for matters of concern to be articulated as part of such processes of engagement and co-creation. Building on an ontology of performativity (cf. Diedrich et al. 2013; Latour 1986a), we look, in particular, at how different representational practices are performative as they enable and constrain what participants share with each others and with the researchers.

We define a representational practice as a practice in which representations are mobilized, produced, and at times inscribed (cf Whyte et al. 2016). Representational practices are performative as they do not only present a version of reality, but rather they do produce such reality. Hence, we treat participants narratives as describing reality meaning description as a material part of the methodological apparatus that produces what is described (Barad 2007).

Visualizations have been extensively discussed as central to processes of organizing and designing (Whyte et al. 2016). Visual allows, among others, to materialize objects that people may not have ever touched and mobilize by participatory material-discursive practices. Images are used in innovation processes as they facilitate group exploration and sharing of thoughts (Schaeffer 2015), given their polysemic quality of integrating multiple meanings that opens up for dialogue (Harper 2003). Harper proposes to talk of a visual model of collaboration (1998: 35) that does not fall into neither considering the image as bearer of meaning to be extracted, not conceiving of images as prompts eliciting meaning completely contained in the person – rather, meaning production can be seen as joint effort between the person presenting the image, the image, and the other people participating to the discussion (Warren 2002). At the same time, it should also be recognised that the visual offers no mere “windows on reality” to start a conversation about, but rather performs organizing and reality (Justesen & Mouritsen 2009).

While the process we designed for the workshops starts with selecting images, it then adds other representational practices. These are related to producing oral accounts, to storytelling, to relating to others’ accounts and to inscribing on paper. Such practices do enact meaning production in different ways according to the multiple dynamics between people (both researchers and participants) involved. Storytelling and inscripting can be considered as practices more prone to produce a convergence of

meaning. Inscriptions can in fact be considered attempts at fixing meaning, in the same way as images do, as their materiality is stable (Latour 1986b). Storytelling produces convergence in the sense that it organizes meaning along particular lines (Czarniawska 1998). Producing and relating to other's oral accounts are more fluid practices in which meaning is negotiated and people positioned (cf. Davies & Harré 1990). To be noticed is that fluid does not mean democratic or inclusive in itself. This also means that for instance gender may play a role, as men and women may take/be given more conversational space depending on the context (cf. Swann 1988). In their performativity, all these representational practices thus enable and constrain meaning production and the articulation of matters of concern in different ways according to the heterogeneity of actors – human and nonhumans – involved and the relational dynamics.

In the data and methods section below we describe the process we designed for the workshops in order to combine different representational practices given such differences in their performativity.

DATA AND METHODS

The workshops on which we focus are part of a project on the introduction of technology for older people in which the two authors collaborate with two municipalities. Being inspired by participatory design (Simonsen & Robertson 2013), we saw workshops as a good means of involving and engaging different actors with interest in technology for older people. We thus invited representatives for professional groups and municipal personnel involved in the introduction and use of technology for older people, as well as older people identified with the help of seniors associations and the municipalities, to participate to a series of workshops in order to produce knowledge relevant for improving how municipalities work with innovation in this context. The workshops on which we focus in this paper dealt with the area of technology and older people needs. Two workshops were organized with older people (over 65 years old) who use digital technology to different degrees, one in municipality A (M. A) and one in municipality B (M. B), and one workshop with “the technical group” (care professionals and municipal staff). The number of participants was variable, usually, around ten people participated to our workshops. We kept group separated as we were concerned with giving older people space for ventilating ideas, doubts, concerns, etc without having to motivate them in the face of those who work daily with care and welfare services (who may thus have had a privileged position in discussion). We had anyway two representatives for the older people in the workshop with the technical group to provide a counterpoint and not lose the older people's perspective completely.

Having invited a mix of different actors is a premise for matters of concern to become articulated, as the different actors embody different experiences and

interests. But we want to argue that also the process in the workshop has an effect on the articulation.

We now describe what this process consisted of and then propose how the phases described enabled and constrained discussion and articulation based on theory.



Figure 1: Workshop activities

In the first phase, we provided participants with printed material (more than 50 pieces) that we collected at the MVTe exhibition and conference about welfare and assistive technologies in Stockholm, one of the largest and most visited in Scandinavia. Such material was produced by companies, municipalities, professional associations, etc. and thus provided a good sample of the current discourse on welfare and technology in Sweden. Each participant was asked to find and cut an image that in their own opinion represented the relation between older people's needs and technology. After that, each participant put the image on a poster and was asked to describe what the image meant and represented. Already during this phase some spontaneous interaction started. This became more pronounced in the second phase when participants were asked if they wanted to add to or comment on what had been said. We, the researchers, decided to let the participants discuss by limiting our interference as much as possible, even though we are aware that our physical presence was materially affecting the dynamics anyway. In the third phase, we asked them to use post-it notes to write something related to older people needs as a general theme and to the images already on the poster (not only the image they had chosen, but also the others) based on their perspective after having discussed all these issues. See figure 1 for pictures of some moments.

If we look at which representational practice that are thus mobilized we can see that phase one includes two representational practices: choosing an image by separating it from its text and producing a narration about that image. Phase two includes one representational practice: group discussion. Phase three

contains three representational practices: writing words on small pieces of paper, connecting them to given images and occasionally still discussing with others. As mentioned at the end of the section on theory, the performative character of the different representational practices results in material-discursive practices that both enable and constrain the emergence of issues and the production of meaning. The representational practices that were mobilized in our workshop were enabling meaning production and negotiation in different ways; for instance, images make objects travel (Latour 1986b), which means that participants may have never seen not touched the technology portrayed; but they also elicit a discursive process of sharing thoughts (Harper 1998). But the images we brought to the workshop were also constraining as they reproduced the discourse enacted at the MVTE exhibition and conference, excluding other potential realities. In other words, these images materially influenced the process overall. Table 1 summarizes in which way the three phases are enabling and constraining meaning production and sharing.

To be noticed is that the workshop were not designed with the intention of creating matters of concern *ex-nihilo*, but rather with the intention to create the conditions for the participant to sharing experiences and contributing to the material-discursive articulation of possible matters of concern. As we thematically analysed the different representations – visual, written and oral – produced during the workshops, two things got our attention. First, we could articulate five matters of concern that had been identified. Second, the different phases seemed to surface different themes or to further develop previous themes. Having mobilized an ontology of performativity in our previous research, it was no surprise that the process had a performativity, but we decided to more closely analyse whether the complementarity of representational practices was beneficial for the emergence of matters of concern.

Table 2: How the workshop was performative in different phases.

	The workshop performativity	
	<i>Enabling</i>	<i>Constraining</i>
<i>Phase 1 - individual</i>	Enabling the expression of own opinions and experiences about technology that they may have not used.	Constraining which issues to bring up by providing certain printed material with images.
<i>Phase 2 - shared</i>	Enabling broader discussion through material-discursive practices and the mobilization of stories not connected to the images.	Power asymmetries and possible barriers to accessing the conversational space may constrain the individual's possibility to be heard.
<i>Phase 3 – individual in interaction</i>	Enabling putting own words on all pictures and giving a contribution that lasts.	Constraining the possibility to express complex issues given the space limits of a post-it. Constraining also as participants need to refer to the same pictures as before.

EVALUATION OF DATA

The workshops were recorded and partly verbatim transcribed and the poster produced stored by the researchers. Some situations in the workshops were also documented with pictures.

A first step in the analysis has been to re-listen to the workshop and identify emerging themes in each phase. A close reading of such themes resulted in the articulation of five matters of concern. And this prompted, as described, an analysis of which themes discussed in each phase and how they were related to each other. The tables provide summaries and examples in order to make our analysis and conclusion as transparent as possible.

The three workshops analysed are, of course, situated in a specific time and space. However, in this paper, we are elaborating on a general principle according to which we maintain that different representational practices enable and constrain meaning production in different ways: this principle applies to different contexts while entailing the respect of differences (Barad 2007). Such an insight needs to be taken into consideration when working with participatory design one of which tenets is working with differences (Clement & Van den Besselaar 1993). An in-depth analysis of the three workshops is for this end appropriate.

We are also aware that the setting itself, with two senior researchers meeting people more or less used to work in workshops, and showing high respect to academia, is performative in itself, positioning the participants in specific ways. But we choose not to develop this aspect and just acknowledge it as we, as researchers, did refrain from engaging in representational practices as much as possible during the workshop, and rather let the interaction flow according to how the group managed it.

RESULTS

PHASE 1

The first part of the workshops was focused on an individual activity on the relation between technology and older people's needs by means of the identification of an image that represented such a relation and by the subsequent oral description of what such picture meant and represented for the one that had chosen it. As we anticipated, most people did find a picture that could in some way express how each person thought of the relation between technology and older people's needs – the images thus enabled them to express own opinions or experiences about objects they may have not had any direct contact with. Only one participant was not able to find such a picture and instead opted for presenting a picture that he liked. Most participants also used one of the images provided to say something about the relation between technology and needs and only in a couple of cases the picture was not really related to such a relation but to other issues that were of importance for the participant. Hence the images provided were constraining the subsequent conversation because they corresponded to both the wider discourse and diffused practices around welfare technology which thus worked as a basis to start a conversation. All but one person chose images that were in harmony with what they wanted to say, thus making the performative aspect of the images even more evident.

One person chose instead an image that was in contrast with the point he wanted to make, thus somewhat resisting the common discourse on welfare technology.

Interestingly, in the workshops with the older people each participant brought up a different theme when commenting on his/her image. In the workshop with the technical group, certain themes were repeated by several people. The most frequent theme was “freedom”, followed by “feeling safe”. Table 2 summarized what happened in phase 1 with all the participant groups.

PHASE 2

In the second part of the workshop, participants were invited to continue the discussion that, compared to the previous phase, became more participated. In this phase, the set up of the workshop allowed for sharing individual views but also differently constrained the participants from articulating issues as not all of them may succeed in actively participating to a group discussion. In particular, in this setting, what we noticed directly was that suffering from hearing impairment affected the possibility to actively participating to the discussion. Another observation we made was that gender, and gendered practices of occupying conversational space, did also play a role on how the discussion developed.

We also observed that themes discussed in the first phase were re-formulated and further elaborated, as well as new themes were introduced. Sometimes they were more like a synthesis of already mentioned aspects. The latter was the case when, for instance, a group provided a definition of quality as being happy, being safe, and trusting the services provided. Table 3 summarizes phase 2.

PHASE 1				
	Enabling	Constraining	Relation image/narration	Themes articulated
M. A – older people	Yes	Mostly	Mostly harmony	Different themes
M. B – older people	Yes	Mostly	Harmony	Different themes
The technical group from M. A and B	Yes	Mostly	Harmony	Freedom Feeling safe

Table 2: Summary of the results of phase 1

PHASE 2				
	Enabling	Constraining	Examples of confirmed themes	Examples of new emerging themes
M. A – older people	Yes	Hearing impairment and gender played a role	Importance of human contact Keeping the brain and the body alive	Need for continuity Definition of quality Discrimination and politics
M. B – older people	Yes	One participant did not succeed in being active	Life quality Integrity	The vulnerability of technology Age discrimination
The technical group from M. A and B	Yes	Hearing impairment played a role	Good looking design The resistance from staff	Using tools that one is already comfortable with To involve older people

Table 3: Summary of the results of phase 2.

PHASE 3

In this phase, the participants were asked to again work individually and shortly annotate some notes on post-it to be placed around the images on the table. Participants spontaneously worked both individually and in interaction with others as they wrote on their post-it notes. In this phase they were offered the possibility to put the most important things in words and they all (except one person) took such opportunity that basically enabled them to further elaborate on the content of the images.

It is noteworthy the heterogeneity of themes present in this last, concluding, phase. Here we can see a clear difference between the technical group that is mostly focused on possibilities with the new technology and, for instance, does not mention integrity at all, and the older people that also foreground requirements they have on the new technology and put integrity as a prioritized need. On the other hand, older people do not mention freedom (M. A) nor feeling safe, having choices and feeling independent (M. B), all needs brought up by the technical group.

PHASE 3						
	Enabling	Constraining	Themes presented for each image confirmed?	Convergence of themes around each image?	Themes from the discussion in the middle confirmed? <i>Examples</i>	New themes? <i>Examples</i>
M. A – older people	Yes	Partly, but new themes are associated to the pictures. The ability to stand and move did constrain.	Yes	Sometimes yes, sometimes no.	To some extent <i>Quality</i> <i>Continuity in personnel</i>	Yes. <i>Personnel with right education</i> <i>Feeling safe for the relatives</i>
M. B – older people	Mostly	Yes. No new themes. The ability to stand and move did constrain.	Not completely	Mostly	Yes. Themes become more strongly affirmed. <i>“Absolute integrity”</i>	No
The technical group from M. A and B	Yes	Partly. New themes appear and new meanings to pictures	Mostly	Sometimes	Partly	Limited. <i>Care at the proper level</i>

Table 4: Summary of the results of phase 3.

On the other hand, such a setting constrained the participants because the pictures on the table and our request of relating to them acted as material-discursive limits to their activity. However, such limits neither fully impeded the discussion of new themes nor the inscription of new meanings linked to specific images. This is, for instance, the case of an image showing a camera for night monitoring to which someone associated a post-it with the words “physical proximity” as the image also shows two hands holding each other. The participant thus appropriated the image and associated another meaning to it than those previously attributed. What we did not think of was that also the ability to stand and move around in a relatively limited space as the room in which we were did affect how the people could participate, as for some people this required consistent effort due to mobility impairments.

Themes formulated in the first and second phase are found to a large extent in the notes, although some themes disappear. There is a difference in the three workshops when it comes to the homogeneity of themes in the notes surrounding each image. Interestingly, also in this phase new themes emerged. Table 4 summarizes this phase.

MATTERS OF CONCERN

When analysing what kind of needs participants to the workshop described and how they were put in relation to welfare technologies, we could identify the following matters of concern:

- balancing human warmth and technological efficiency with reference to a tension between the need for human contact and care, and the need for finding efficient solutions that allow for providing welfare services in the future;
- balancing the usability of a product with the perceived pleasure a product induces with reference to a tension between using products that are secure and easy to use and products that also have an aesthetical appeal;
- balancing providing sustainable services with including all older people (services accessible to everyone) with reference to a tension between providing services that are possible to deliver with the available resources and providing good quality services to every citizen;
- balancing appropriate care and integrity with reference to a tension between providing care at the right level (which means partly letting others than

- the older person to decide when an intervention is needed) and respecting personal integrity;
- balancing technology for assistance and technology for flourishing with reference to a tension between using technology for providing assistance (replacing or aiding humans) to those in need and using technology to support people's development (for instance listening to music or engaging in creative activities).

As described at the beginning of this paper, once surfaced, these matters of concern do not need to be solved. On the contrary, their importance lies in gathering attention to important issues and not forgetting them when working with the development of welfare technology. Whatever compromise the actual implementation will be based on, it is important that these matters of concern are taken into considerations and re-discussed whenever needed.

DISCUSSION

In this paper we discuss the possibility to mobilize complementary representational practices in order to elaborate on older people's needs in relation to welfare technology. By letting participants work with different representational practices, both individually and in group, a variety of needs were discussed. For each new phase in the workshop, and in relation with different representational practices, new themes emerged and/or existent themes were further developed.

The representational practices differently enabled and constrained the participatory process. Each workshop relied on an alternation of individual and group activities in which also the differences between participants played a key role in the co-construction of a rich repertoire of themes.

On the basis of the participants' contribution, we identified five matters of concern. While the first phase, which is a case of photo elicitation, provided to some extent all the elements present in the five matters of concern, the second and the third phase were crucial in more deeply articulating the matters of concern.

First, the discussions and the writing of post-it notes confirmed that certain themes were felt as important by others, not only by the person that brought a theme up with an image at the beginning.

Second, the last two phases made it possible to better develop each theme and different aspects related to it. For instance the theme "integrity" was brought up in a rather hesitant manner by one participant to the older people workshop in municipality B in phase one. Such element was then amply discussed in the second phase, and aspects such as the necessity to trust the personnel and to make sure that the personnel received proper education and training were developed. In the final phase, "absolute integrity" was written on a post-it, inscribing such discussion in a much more forceful way than the original narrative in phase one.

Third, in the second and third phase some issues were also elaborated as related to each other, even though not always in an explicit way. This means that the matters of concern are empirically-grounded and not only the result of our analytical lenses. This is for instance the case when welfare technology is described as efficient but impersonal on a post-it note.

While the individual work at the beginning gave participants the possibility to choose one issue they felt important, the collective discussion and the activities with the post-its seemed to strengthen the participant's agency in stating that certain issues are important to them. Moreover, while the materials provided became performative in shaping the discussion in most cases, we also saw participants mobilizing images to say something not represented in the image (phase 1), as well as participants inscribing new meanings in the images (phase 3). In practice, participants "went beyond" the performativity of the workshop while performing their on agency.

What we can, after this analys, ask ourselves is if participants' agency would have benefitted from other forms of interaction and narration that would have been performative in different ways. For instance, we could have offered them the possibility to draw something, at some point, instead of proposing them only images coming mostly from the dominant discourse on welfare technology. We could also have asked them to write post-it notes without relating them to the images already on the poster in the last phase. Finally, we, as researchers, could have been active in the representational practices, for instance by moderating the shared discussion in phase two in order to "compensate" for hearing impairments and gendered conversational practices. Would this have resulted in a broader range of themes and relations emerging? How such an interference would have differently affected the process?

CONCLUSION

In this paper we discussed some of the results of a series of workshops aimed at involving both older people, professional groups and municipal personnel interested in the introduction and use of welfare technology. Such activities relied on a participatory design epistemology – which is inherently co-constructed, situated and embodied (Frauenberg, Good, Fitzpatrick & Iversen 2015) – and on a performative ontology (Diedrich et al. 2013; Latour 1986a) on which basis we maintained that different representational practices were performative as they enabled and constrained what participants shared with each others and with the researchers. Such a participatory epistemology and participatory ontology were intertwined in practice and characterised our methodological apparatus that did influence – by enabling and constraining – the workshops dynamics that, however were open to the contribution of participants as active agents. Based on workshop activities we identified five matters of concern that benefitted from the participation of people involved as

they contributed to their articulation. What we did as researchers after the workshops was theorising on the basis of the data collected during the process. Theorising is also a material practice of which researchers are responsible for (Barad 2007). What is interesting to further discuss in the future looks like a dilemma in participatory design: how much the control exercised by researchers over the research field is itself a matter of concern to deal with in order to guarantee a genuine participatory process.

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