When stakeholders represent 'others' in design conversations

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Abstract For some time now, there has been a growing interest in user centred design (UCD) and the corresponding inclusion of users and other stakeholders as participants in the design process. Of course, even in benchmark examples of UCD processes, only a selection of users are able to be involved; those absent, if they are to have any 'voice' within the process, must be represented by others. I present a brief analysis of an interaction sequence in a design meeting held among a designer, a sales representative and a marketing consultant during the development process of a new range of electronic controllers. Attention is drawn to the ways that stakeholders represent the concerns of others in absentia, and the role that such representations of 'others' play in the ongoing interaction. I conclude with a short discussion of the use of such representations, and ultimately hope such analyses may prove valuable resources from which to speculate on how design processes might be more fruitfully organised to elicit and utilise the qualities of these voices in the design of new technologies.

Introduction

Designers, in shaping new technologies, wield a kind of 'power' over those who will, as users, have need to interact with designed products. Such an observation has been alluded to in many ways in design literature: originally (circa 1970) as a warrant for participatory approaches to the design of workplace technologies (Greenbaum & Kyng 1991), but also in implicating designers' responsibility for the 'perversity' of everyday things (Norman 1988), or to highlight the misfounded assumptions about users' work practice upon which systems are based (Suchman 1983), or as motivation to deepen our understanding of designers' own work practices (Bucciarelli 1994). I share the concerns of these authors, perhaps adding to theirs my own experienced dissatisfaction with 'thought-experiment' methods of realising users' needs (e.g. brainstorming, synectics, morphological analysis, functional decomposition, task analysis etc.). For cognate reasons, the Mads Clausen Institute has fostered a commitment to the creation and implementation of novel and innovative means of engaging users in the design process, and similarly, techniques for involving designers in the users' worlds of work and play (e.g. Binder 1999, Buur & Bagger 1999, Buur & Søndergaard 2000, Pedersen & Buur 2000).

Needless to say however, the design of any product or system is only ever able to take into consideration the voices of a finite sample of stakeholders. While introducing new techniques of user-designer engagement may do much to improve the quality of those voices, there is also much to be learned by taking a close look at how interactions between designers and other stakeholders proceed and what they achieve in-situ. In this piece, I would like to narrow my focus more still, to an analysis of how stakeholders (in this case sales representatives, marketing consultants and designers) represent the concerns of others in absentia (such as manufacturers, installers, paying customers and end-users) in the course of their interactions, and the work that this talk does in the discussion. It is my hope that the analysis will provide an opportunity to reflect on the nature and authority such representations have in the design process, and to speculate on how design processes might be more fruitfully organised to hear and utilise the qualities of these voices in the design of new products and systems.

In what follows, I present a concise analysis of an interaction episode during the development process of a range of electronic controllers. This design project was organised as a collaboration between the Automatic Controls division of Danfoss A/S and the Danfoss User Centred Design group. The participants at the meeting included a UCD designer of the new controller, a (guest) Danfoss international sales representative, and a Danfoss marketing consultant who was closely involved with the development team. This meeting was the last of four we (I was a member of the UCD design team) facilitated between various stakeholders during the controller design project. Each of the meetings was videotaped, which has provided the data for this analysis.

Background

This meeting, like its three preceding ones, was used as an arena to provoke stakeholder feedback on the underlying concept of the new product range in development. The controllers being developed were for the industrial and commercial refrigeration market. The platform concept for this new range of devices was modularity—by packaging commonly used functions together and allowing supplementary features to be supplied in additional plug-in modules, it was felt that the new controllers might be more adaptable to the particularities of individual client situations.

Thus, a significant concern of ours as co-designers of these controllers was to elicit early feedback from various stakeholders on the potential advantages and drawbacks of the decision to divide up the functions between modules. As I

have intimated, this series of meetings provided one such opportunity. We (the UCD team) attempted to capitalise on these meetings with clients, salespersons and engineers (all 'users' by some definition) by introducing a simple exercise in which they were asked to apply the modular controller concept to a typical commercial use situation: a supermarket installation. The 'brick game' technique that we developed in and through these meetings has been reported on elsewhere (Matthews et al 2001), as a means to support collaboration between designers and other stakeholders. My present concern is to use one of these episodes as an opportunity to look at the ways in which stakeholders represent 'others'—in this case other stakeholders.[1]

I am not merely stating the fairly obvious fact that, in design meetings, 'others' are talked for and referred to in absentia. Indeed, in the meeting under analysis here, the sales representative was explicitly asked to serve the design team as a kind of proxy for his customers (refrigerator manufacturers, supermarket commissioners, installers etc.). *That* this happens is not news. It is actually by virtue of the ubiquity of this phenomena that it is of more general interest. Instead, what is of note in this analysis, and what I do want to highlight, is *how* such representations work in the course of the meeting, and to attempt to discern what role they play in design.

Method

The analytic method employed here has been informed by other close analyses of sequences of conversation in design meetings. Examples of similar analyses include Bowers & Pycock (1994), who looked at the way requirements are a negotiated product of interaction between designers and users, Brereton et al (1996), who demonstrated various strategies of persuasion used by designers in conversation, and Button & Sharrock (2000), who described the way designers interactively diagnose the causes of faults in the way they read out the documents reporting those errors.

The analysis here has also taken selective inspiration from conversation analysis (CA) in several respects. CA is a specific approach to the formal analysis of interaction (typically talk and gesture) that seeks to recover the structure of interaction to which the participants were orienting their turns-at-talk. The results of such close readings of conversational material are sometimes surprising, and in some cases can provide a contrasting perspective to alternative analytical readings of utterances that focus principally on their content or meaning.[2]

Above all, my analysis shares with CA (e.g. Schegloff 1987), and other qualitative approaches (e.g. Stake 1994, Brannen 1991), a conviction that there is much to be gained from a detailed consideration of the single case, and that issues that may be of broader conceptual or theoretical concern must also be accountable to and witnessable in the 'micropolitics' of local interaction, and this *on a case by case basis*.

However, I should say at the outset that there are several vital respects in which this analysis departs from CA's program. First and foremost, what I have looked to analyse in this meeting was selected as a topic by virtue of its interest to me (as a researcher), and in that sense it differs in nature as an object of conceptual interest to me, in comparison to what it was for the participants of the meeting themselves. Thus, it is not my sole intention to mine the structure of this naturally-occurring conversational interaction for clues as to how it was understood by the participants themselves in the way that it transpired as it did, as is the case with CA (see for instance Schegloff 1997). What is presented here is as much an analysis of content as structure[3]. Correspondingly, I do not intend to use this analysis as a means of contributing to the corpus of CA findings that seek to reveal the 'context-free yet context-specific' (Sacks et al. 1974) structures of talk-in-interaction. Finally, it is not my intention to bring to bear that corpus of work to this episode, (except perhaps as may illuminate the work done by representative utterances in the sequence, which, as has been said, were identified and selected on the basis of their relevance to the topic of this investigation).

Analysis

This segment of conversation has been transcribed (unedited) from a short stretch (three minutes) of video from this meeting. Within this fragment, three distinct types of 'others' are referred to: the "installer", the "customer" (supermarkets who purchase refrigerators and controllers), and the refrigerator manufacturer—"OEM" (original equipment manufacturer) in the transcript. The conversants are referred to as Mark, a marketing consultant, Sal, a sales representative (see figure 1) and Des, a designer who is off-camera.

Figure 1. Sal (S) is on the left, Mark (M) on the right.

To highlight some of what transpires in this segment of talk, the sales representative (Sal) is prompted by the other meeting attendees to do most of the talking. The direction of the conversation is guided mostly by Mark, the marketing consultant (he twice calls for a focus on how the product

[1] I am cognizant of the fact that this paper, written by one type of stakeholder (a designer of these controllers) about other stakeholders' activities, itself qualifies within the topic of interest of this paper—it, too, is a case of "stakeholders representing 'others'". The analysis of *this* representation, however, is perhaps best left alone for my present purposes.

[2] I am not insinuating that CA provides an account that might be alien to the participants themselves—in fact the case is quite the contrary. What I am saying is that CA is particularly attentive to the fact that the way an utterance is understood in context often has as much (if not more) to do with the way and the circumstances in which language is used, rather than the words themselves that are used.

[3] Of course, this is not to suggest that CA 'ignores' content—such a notion is patently not the case. CA analyses content *through* a detailed analysis of structure, in ways I have chosen not to.

might work for the installer at lines 26-27 and again at 60-61). The features of the talk that I would like to particularly draw attention to are Sal's initial critique of the new controllers (the prelude to which we have not included) which occurs at lines 11-12, 15-17, 19-20 & 22-25, Mark's resultant attempt to redirect the topic to a "field installation" case at lines 26-27, Sal's subsequent down-playing (or retraction) of the criticism at lines 30-33, and his strongly developed justification of this retraction in the ensuing scenario he paints, which reveals the significant limitations of the existing range (distributed throughout the remainder of his utterances in the segment: lines 35-38, 41-44, 46-51, 53-56, 58-59).

Several peculiarities of the following transcript deserve mention. The "15", "16" and "EKC" are each Danfoss controllers in the existing range; here they are referred to in relation to how they are currently mounted and wired in supermarkets. Words in parentheses (word) indicate places where the accuracy of the transcription is uncertain, descriptions in angle brackets <points to drawing> denote actions or other non-verbalisations concurrent with the talk, and the notation (.) indicates an untimed interval of silence.)

TRANSCRIPT EXCERPT

M but you see it as more expensive (.) ah because you said this with the I/O cards
S yeah you see but the question is that you said that actually this was a kind of eh I/O card as well so
M yeah yeah when nothing is in it
S if depending on <S laughs>
M it is an I/O card, isn't it
S yep so you need the basic for this one and (.) its only a matter of this here and actually to have to build this one here is actually a combination of these two together you're not doing really anything else
D yeah
M mm
S you're not doing anything extra exactly I mean (.) they're more or less the same type of solutions no? we come
M yeah
S we come out actually this one what we need here is a combination of this one and this one
D yeah yep
S what you have here (.) the only thing in one unit instead of two separate units the thing is maybe it gives you much much more flexibility to have it in two units (.) its okay
M mmm yeah but how how would it be at eh at field installation um now we talked about OEM
S as long as you have a very simple one (.) a very simple installation we're improving very much to the concept we have today you know in order to save the (quality) for for for the installation point of view and also for the from the the OEM from the
M for the OEM yeah
S (and) its because of the eh you know in these cases you are we are using very much the 16 and the 15 and then its costing the OEM also lack of flexibility that's what they are claiming that's
M because you have a 16 and you don't know where where to place it no
S where to place it exactly it's a matter of assigning (.) that's the that's the reason they like much more the EKCs because they can place one by one
M hmm they pre fabricated it, one section's finished
S exactly they can say they now have they are claiming we say you know this is (differed) as a question it still has been eh seen from a different point of view we have always thought that to have a 15 and a 16 was a good thing and it was a good thing for the installer
S but a very bad thing for the eh
M yeah
S no flexibility for them because we are alway- all the time we are specifying and we are specifying from a customer (insist) the 15 and the 16 because we want to reduce the price down
D yeah
S but for them we ask the the OEM to mount it and then they are they are not very happy with it so (another point)
M because the next thing is that if you were going to do it as an installer, how would you then mount these things

Sal critiques the concept. Sal criticises the concept between lines 11 and 25 for being not very different from the existing possibilities offered by the current range of controllers. While there isn't occasion here to go into exactly why he sees this to be the case, suffice to say that it is a significant criticism of the underlying concept—that it is, in effect, "the same type of solution" (lines 16-17), it's "not doing really anything else" (line 12), or "not doing anything extra" (line 15). This is met with an unenthusiastic (but not defensive) "yeah, yep" from the designer.

Sal softens his criticism. The next several turns at talk are interesting here. Sal appears to soften his criticism at lines 24-25, saying that "maybe it gives you much much more flexibility", and ends with an endorsement of sorts: "its okay". Here Mark attempts to redirect the conversation to look at how it might work for a "field installation", which gets an immediate reaction from Sal, who answers "as long as you have a very simple one, a very simple installation" (lines 28-29). This, however, is not elaborated. Instead, straight away in the next line (30), Sal returns to his (now) endorsement of the design, saying that "we're improving very much to the concept we have today". One could note the change of pronoun: whereas criticism is addressed to 'you' (line 15), here endorsement is made with 'we'; but there is perhaps more to this than that. At the end of his criticism, Sal has conceded (line 24) that perhaps splitting the product into modules ("in two units") gives you more flexibility. Seeing the remainder of his utterances in this transcript, we see that he has fashioned a scenario in which the OEM's complaint is exactly that—a *lack of flexibility* (lines 38 & 53). Thus the new product concept, though it may not be "doing anything extra" is more flexible, which, according to the account he develops between lines 30 and 59, is of vital importance to the OEM. In fact, it quite tidily justifies the central (modular) feature of the new product range with respect to the situation of an 'other' in absentia.

It has been suggested that users involved in design processes are often hesitant to explicitly request changes in systems under development—they are sensitive to the (potentially costly) consequences of criticism, and so their criticism can frequently take very indirect forms (Bowers & Pycock 1994, p. 302). This observation may lend additional sense to Sal's hasty retraction of his criticism, and its subsequent reformulation as a solution to the OEM's complaint about the

lack of flexibility in the current controllers. In any case, I want to draw attention to the way in which 'others' are, in this sequence at least, invoked for very practical, social, here-at-hand purposes. Sal uses a scenario about the OEM as a way to escape (or at least cushion) a social situation—one in which he has sharply criticised a product range in development. In the course of his 'cushioning' or 'retraction', we (as designers) learn much about what products in the current range the OEM likes and why (the EKC in lines 43-44), which ones are good for the installers ("a 15 and a 16" in lines 49-50), and which ones the sales representatives always specify for the supermarket customers and why ("the 15 and the 16" in lines 53-56). We discover that the products that the supermarket customers prefer in order to keep costs down are the same ones that the OEMs do not like to pre-mount in their refrigerator cases.

Discussion

Although this investigation is still in its very early stages, there are notable features of these interactions, particularly with respect to the ways in which 'others' are brought into design discussions, and the work that such talk does. I have made a brief case in the analysis that the work that Sal employs his talk of OEMs to do in this instance is to cushion his earlier criticism of the platform concept for the new range of controllers. In providing the design team with this scenario, he is not answering a question of theirs or engaging in a task that they have set, but is repairing a social circumstance into which he finds himself. It is principally *social* work that is done through his account, and here design work almost appears as a residual by-product of the achievement of social ends. To say that Sal's account serves social purposes is not to lessen the veracity of that account—it is to appreciate the nature of its production. To ignore or gloss this fact is to risk missing the circumstances through which design issues emerge, design decisions are made, and design work is accomplished. Conversational interaction, of which a design conversation is a special but non-exempt case, performs work in the social world of which it forms a part. It is not just idle 'talk about' something, but is actually interactively produced for specific (and often inspectable, discoverable) purposes at hand. A comprehensive understanding of what design interactions accomplish (to which this analysis is intended as a contribution) may do much to inform the organisation of occasions, meetings, exercises and other social arenas in ways that might provide fruitful grounds for eliciting the kinds of accounts that are sought by the design team in formulating user requirements and understanding contexts of use.

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