The performativity OF DESIGN - participatory design of new practices

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ABSTRACT

This paper will discuss consequences of different theoretical approaches to practical design work. A special concern is to understand group- and teamwork from the perspective of language and speech-act analysis – in contrast to the perspective of behavior and performance. Does focus on language give us the understandings we need for building up a good co-operation in design teams? The paper questions if focus on language can give us understanding of hidden and underlying phenomena that have relevance to design work. How can we capture nonverbal resistance and power games in design groups? The notion of *performativity* used in anthropology, sociology and cultural history is discussed as a tool to capture the situational adjustment, resistance, display and evaluation that normally have influence on collective co-operation.

Keywords

Philosophical foundation of design, language-games, performativity

INTRODUCTION

This paper addresses the problems of establishing a collective spirit and common goals in groups established to do participatory design. These groups are constrained to cooperate and produce a common product – even if their interests are conflicting at some levels [4]. In Norwegian research and development based design projects user participation is highly recommended. Still the problems of transforming multiple interests into one design solution are poorly discussed. Participatory design is challenged by a variety of expectations, and the members of the design group have to sort out both a collective goal for their co-operation, and a collective way of gaining this. All this occurring within frames of time and money that do not consider the complex problems of collective processes.

Most participatory projects of today involve multiple

In PDC 02 Proceedings of the Participatory Design Conference, T.Binder, J.Gregory, I.Wagner (Eds.) Malmö, Sweden, 23-25 June 2002. CPSR, P.O. Box 717, Palo Alto, CA 94302 cpsr@cpsr.org ISBN 0-9667818-2-1. disciplines and professional groups among the designers. Negotiations and conflicts are no longer related only to the gap between designer and user [14]; gaps related to multidisciplinary and cultural conflicts are also part of the processes in current participatory design projects.

One consequence to this multidisciplinarity is that diverging concepts, methods and techniques may exist side by side in one project [12, 13]. But multidisciplinary relationships can also bring gaps and collisions among designers, as there are gaps between designers and users. The work to establish a collective spirit and a common goal should therefore be oriented towards a group of design actors – whether they are designers or users is of less concern.

How can designers learn to involve and understand different translations in multidisciplinary groups? How can designers build up their ability to attend to what Klaus Krippendorf (1995) calls second-order understanding: "By taking the meanings of others as a fundamental starting point for design, designers must proceed from their understanding of users' understanding. Which is understanding of understanding – or 'second-order understanding'" ([16], p. 160).

People act and speak according to their present knowledge and experiences – and in compound groups people are dependent on co-operative, interpretative and manipulative skills to communicate and align diverging views on the design. How can designers develop sensitivity towards these invisible, not-articulated and subtle influences on collective co-operation in PD projects – such as uncertainty, mistrust, individual intentions and silent resistance? To be aware of these, and to pay attention to the realities lying behind people's reactions might be among the most difficult things a designer can do. This paper discusses whether the focus on language-games is sufficient for understanding conditions that are relevant for the design – but that are not outspoken.

SOME CHALLENGES OF COLLECTIVE DESIGN WORK

The background for this discussion of the philosophical foundation of design methods builds on a study carried out

2000-2001, related to research and development of net based learning facilities for work-related further education. The examples here will be taken from that study.

The study followed two pilots of seven in a participatorybased research and development project. The design team consisted of practical pedagogues from a union-related competence centre for further education of graphical workers, pedagogical researchers from a university and a research institution, as well as system developers from two different IT research and development institutions. The practical pedagogues were responsible for deliverance of the content, as the systems developers were responsible for proposals on tools and technical systems. The remaining division of roles in the pilot work was based on negotiations in progress.¹

The end user participants in this pilot project were from a middle-sized graphical firm² with current production fully based on paperprint. The changes of the publishing market motivated the management group to accept participation in the project. Still, among the graphical workers the motivation varied. Scepticism, especially among the older employees, was related to transformations that were planned to fit the market and towards participatory development projects as such. The graphical workers had some years earlier been involved in a participatory project for adaptation to new ISO standards in print - a project that failed because of lack of response from the management group. Reminded of these problems of co-operation with the management group, some of the employees were sceptical of the project. Because elaboration of this point would be a sidetrack to the main theme of this paper. suffice with noting that scepticism towards user participation had its historical reasons.

In the beginning the participants were active and engaged in the work, although negotiations and conflicts that might be characteristic to R&D-based projects appeared. The execution of systems development methods such as scenarios and storytelling is of special interest here, since one of the main research goals was to experiment with design methods that would stimulate user participation. Storytelling and scenario writing were expected to activate the end users to reflect on their own learning, and on how changes of production processes would follow the implementation of the system during the project.

In the project storytelling was meant to communicate existing working and learning processes, while scenario writing was meant to help users to reflect on future learning by help of net based learning facilities. Both storytelling and scenarios were presented as specific methods of systems development, and were demonstrated by examples.

It was a problem that the designers concerned with development did not find scenarios and storytelling interesting. These methods were therefore defined as a special interest of the system developers. This scepticism and the frames of time that were set for the project, were reasons why the system developers were to present a lot of information during the session where scenarios and storytelling should be done. For the participants this turned out to be an overload of information, and they stopped the session by saying that they were confused:

"I do not understand anything...and I feel....that there are choices of language....and preconditions and frames of reference in communication... and again I have to tell that we graphical workers are simple people, and we think practical, and we think about execution and we think concrete" (head of participatory design department in transcribed video clip from design session 3).

After this breakdown in the design work, the project leader stopped the scenario experiments arguing that these methods confused the participants, and by pointing to the difficulties of communicating why storytelling was useful in the design work. Instead the project leader based the participation on group interviews in the design seminars, asking for wishes and needs in the learning process. By this, the research on methods of participatory design was neglected, and the sessions took a direction towards development.

So why did system development methods cause such trouble for the other designers and participants in the project? Many interesting aspects of multidisciplinary and cultural diversity, conflicts in use of methods and not least of power relations, are embedded in this incident. The question that will be explored here is if the perspectives of language and language-games give a sufficient understanding of this breakdown.

CREATING THE COLLECTIVE DESIGNER

In the work to build a philosophical foundation for participatory design of ICT, several approaches have been

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¹ The pilot project started with a change of project leader with responsibility for both the project as a whole and for the specific pilot work. The new project leader had minor knowledge of participatory design traditions of system development, on which the project was principally based. Her background was in unionbased educational politics and less from research and development. Some of the conflicts described below might have been avoided if the project management had been more trained in participatory research and development projects. Still, the empirical case probably gives a good picture of the realities of Norwegian research and development projects of today.

² In the Norwegian context middle-sized firms have about thirty employees. The co-operation in the NEMLIG project (Net - and Multimedia based Learning arena) concerned ten employees from the design department and the repro department.

proposed. A concern with learning and communication arose at the same time as the general focus of system development moved from being attached to the product, to being related to the process [11]. Several theories of design were proposed, founded in hermeneutics, phenomenology and linguistics [6, 7, 8, 9, 23]. Relevant here will be the understandings of design work as based in cognition of language and language-games.

Language and cognition

The perspectives on language in the work of Winograd and Flores [23], was inspired by speech-act theory proposed by J. L. Austin ([1], p. 180). Language is here understood as the elements by which a culture and a society creates itself, and the main focus was put on classes of utterances or performatives, and their relation to context. The fundamental belief of this approach is that "Nothing exists except through language" ([23], p. 68). Austin's speech-act analysis was therefore used as one way to capture categories of utterances and breakdowns in the interactions between humans and computers.

In anthropology the focus on language is based on the assumption that there is a deep connection between patterns and structure of language and perception, thoughts and culture [19]. However some anthropologists emphasise language more as an embroidery on top of the deeper patterns of consciousness, which can exist independently of symbols and language [19].

Another track of the focus on language is Wittgenstein's philosophical work on the social aspects of language - as language-games and rules of play. This interactional aspect of language has been used as a theoretical frame for participatory design [7]. By using language-games as a model, Ehn proposed to understand descriptions in design as objects for reflection, rather than as correct reproductions of realities. Language, and the meaning of language, is in this view dependent on its use – in the same way as systems descriptions are determined by their use. Descriptions of practices have then to be understood as social products, as the knowledge embedded in the practice has to be shared between performer and observer.

This insight inspired a bend away from the formalistic methods of systems development, towards more ethnographic and experiment based design work. The focus on the social and interactive language-games is proposed as a way to realise that descriptions never give exact pictures of users' practice. This ethnographic standpoint represents a parallel to the understanding of language as action, as it emphasises descriptions not as exact facts – but as social facts.

Ehn's suggestion of using the perspective of languagegames embedded a shift in the understanding of methods and techniques in system development, as they became methods for learning and reflection, rather than for determination of systems requirements. Mock-ups, scenarios and work organisation games were proposed as alternatives to traditional systems descriptions – and the information attained by these methods was not expected to be "correct", but to be typical or recognisable as phenomena [7].

As we will see in the empirical example below, understanding and accepting the language-games of the other is a big challenge in multidisciplinary collectives. Even in using scenarios or storytelling – where "correct" answers are not possible, neither they are the goal expectations and experiences of the participants can produce unmanageable boundaries and contradictions. Still, the argument in this paper will be that by focusing not only on the language-games, but also on the performance of the actors involved in the design process, valuable information will come up. "Incorrect" answers also are interesting, because they represent social facts of the culture that is studied [19].

LANGUAGE OR PERFORMANCE

The focus on practice in systems development and anthropology arises out of the wish to understand human behaviour based on its rules and regularities. Another perspective is to concentrate on the actions that are not prescribed by rules or habits, as in situations where no existing practices can possibly guide actions. In these cases the focus on practice can be related to an interest in the emergence of collective practices based on experiments, improvisations ([3], p. 199), or on negotiations [17].

Mainly the focus on practice "focuses on that aspect of human life and activity which is structured largely through unquestioned, unthought habit, through which human beings normally carry out the business of living both in everyday life and in important strategic situations" ([20], p. 199). The focus on language-games then represents one way to capture the habitual, customary ways people deal with situations in their daily life – the question is if this focus is suitable for studies of improvisations and strategic ways of dealing with new and unknown situations.

As an offspring of the philosophically based interests in language from Heidegger, Gadamer and Wittgenstein, and the speech-act theories developed by Austin ([1], p. 180), an interdisciplinary interest has grown concerning the performative aspects of human communication and actions. Performance studies constitute a research field where discussants from social sciences, particularly anthropology and sociology meet with humanistic based studies including ethnology and theatre studies. The main stanza for this

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approach is that "human culture is in large measure performative, that is, activity consciously carried out and presented to others in order to have some effect on them" ([5], p. 141).

Performativity studies are understood as an alternative approach which "deals with actions more than text. The habits of the body more than structures or symbols, with illocutionary rather than prepositional force, with the social construction of reality rather than its representation" ([20]. p. 194). This approach is a way to talk about the competencies, abilities and skills that are needed in communication between people [2], and a way to talk about transformative practice, either as reinforcing cultural givens. Or as potentially subversive [21], as these transformative practises are seen as deeply contextdependent [15]. Common to all the approaches on performativity is the illumination of the behavioural part of using language, as language is used for relational reasons, in a collective where reality is socially constructed [20]. The focus is based on theories related to negotiation and participation [22], creation of collectively constituted meaning [15] and "the creative, improvisatory edge of practice in the moment it is carried out" ([20], p. 199).

Applied to the discussions of design, performance theories can be understood to approach the negotiations and the collective processes of design. It proposes an alternative approach to the focus on communicational tools and techniques, as in speech-act perspective or language-games. Approaching design by its performativity gives us therefore an occasion to analyse the transformations that are at work in the design collective, as transformations to enter into the framed behaviour for example in a design seminar. Or transformations in the ensemble of a design project, as abilities to get other people's attention and to transform their views.

All these abilities are basic in co-operative communication, and are in consequence also points for analysing design executions. These aspects very much touch upon the abilities to create a collective, and should also be themes of reflection by the individual designer, the participant and the design group during and after a design process.

ANALYZING PERFORMANCE

While observing the video recording from the design session in question, and reading the transcriptions of the recordings it is hard to identify when and where the breakdown actually took place. The video shows that during the last 20 minutes before the graphical workers asked for a pause in the workshop, they became silent and were listening to the discussions between researchers and developers. Still, it is difficult to define what actually caused their confusion. The visible breakdown – the point where the participants are proclaiming that they are confused – is the first incident after a break in the workshop. The real breakdown had happened long before that. This analysis therefore follows the different threads of the breakdown, departing from the problem of introducing storytelling to the design group.

One striking experience with the introduction of storytelling in the project was related to the way storytelling and scenarios were presented. They were presented in the form of writing rehearsals, demonstrated by stories of the existing production processes that the system developers had written, that were handed out on paper. The graphical workers refused the story that the systems developers had composed, saying that it gave a too simple picture of their production processes:

"The troubles that are appearing in the ongoing production process are camouflaged in this presentation... we all know that this is a big part of our every day life... to solve problems" (head of participatory design department in transcribed video clip from design session 3).

The participatory design department was eager to tell the same story in a more realistic way. Their responding story arrived on e-mail some weeks later, integrating dependent clauses that described all the exceptional cases and potential problems along the production line.

The system developers, though, were not content with the resulting story, and decided not to use it in their design work. Later they explained that they found the story too general and not sufficiently concrete, and therefore not suitable:

"We were concrete – and we wished to be concrete – while they wished to describe all...all kinds of problems and exceptions in their story. So, there was something about the form – which we did not succeed to communicate to them. They should have written short – or the same length – stories that showed another aspect... instead, we got a story that was a mixture of concrete and abstract procedures" (system developer in transcribed interview).

Several reasons could be found for this different understanding of abstract and concrete; one of them is that the storytelling made visible cultural diversities in a way that was not acknowledged. The storytelling experiment was colliding with the existing storytelling culture among the participants, which is mainly oral. The graphical workers in the firm do tell stories, and they do also exchange knowledge and experiences by way of telling stories. But they are not in the habit of writing them down. They were forced into a communication form that was unfamiliar when they were expected to tell stories in writing. This point is also well supported by the work of Julian Orr [18].

Interpreting the problems with the stories as related to multidisciplinary gaps rather than as a matter of mutual understanding, the system developers did not realise that the story told by the graphical workers was based on interpretations of their own story. The mixture of "concrete and abstract procedures" was what the graphical workers thought the systems developers wanted. By their use of dependent clauses and exceptions, the graphical workers underlined that the production was complex and not easy to generalise in the way it was done by system developers.

In the background of this abstract-concrete mixture, a negotiation of the premises of the design work also could be hidden, as the methods of the collective was determined by the systems developers, and as the reasons for telling stories of existing practices was never made clear to the users. The graphical workers were very well aware that new media design had totally different production processes than paper production. Being accustomed to change connected to new technologies, graphical workers have a long history with changes connected to new technologies (see e.g., [7] or [10]). Telling stories of existing practices seemed to the graphical workers obscure and a waste of time. The head of the graphical department underlined that he understood that the stories were important to the system developers, and that they probably were "familiar with understanding this kind of stories" (head of participatory design department in transcribed video clip from design session 3).

This was even more a sign that the story they wrote was an attempt to answer the system development initiative -a relational answer. By not using the same style as the system developers - but still responding to their initiative, the graphical workers negotiated the collective understanding of their work and competencies. Resistance towards the system developers' premises was demonstrated within willingness to please, based on interpretations of the goals of the systems developers.

DISCUSSION: THE PERFORMATIVITY OF DESIGN

So how do we get a full understanding of the breakdown that storytelling triggered in this pilot work? We see how the perspectives of language-games can be used to discuss the different comprehensions of abstract and concrete, as the diversity was visible both in the written stories and in the research interviews. By focusing on language-games, we understand that the system developers and the users never came to understand the language-games of each other. But we also can sense a resistance to accept the language-game of the other in the project. As for example when the system developers did not accept the responding story told by the users, or as the graphical workers used storytelling to display the system developers' lack of understanding of their practice.

The storytelling demonstrate how collaboration in design collectives is not only challenged by the need to understand the language-games of each other. It is also important to keep in mind that a lot of information gets displayed in subtle ways, and that language-games can be displayed as an embroidery of these - for strategic reasons.

The storytelling is here connected to different performative aspects:

- 1. how the system developers introduced the method to their audience the users
- 2. how the users made use of the storytelling to suit their own intentions and strategies for the design work
- 3. what expectations both actors had toward the result of the method
- 4. how multidisciplinary groups of designers perceive working methods and goals of the other

By focusing on the performativity of the users here, we could have asked for the rationales behind their demonstration of the other realities in their story. We could have come to the conclusion that they did not respond with a story that resembled the story of the system developers, because they might not have understood the rationales for describing existing working practices. They knew that the new practices of web publishing differed so much from paper production, and had a hard time understanding why the system developers took departure from these irrelevant practices.

But we might as well have identified a resistance towards system developers' dominance, or towards the forced user participation in the project as such. These aspects though are not evident by using only the perspectives of languagegames, as they are hidden in the performances of the actors.

CONCLUSION

The storytelling case describes how construction of reality is fundamentally relational and negotiable. And how this negotiation also consists of not-outspoken, invisible, tacit and silent displays and evaluations that are as transformational as the outspoken. Analysing these performative aspects is proposed to be a way to capture the relational and responsive sides of design.

Design is the point where worlds collide and disciplinary categories dissolve and melt into new ones. If the collision is caused by diverging perceptions of, for example, abstract and concrete or of the underlying values that are negotiated – then other perspectives have to be employed as well. The negotiation is not only going on between professional groups or between diverging translations of the participants in the design group – but between diverging sets of cultural, social and commercial values and politics.

The perspective of performativity is proposed here to give an understanding of "the particular improvisation of a practice in a particular situation, its particular turn of significance and efficacy for one self and others at the time – in the moment where habitude becomes action" ([20], p. 199).

REFERENCES

- 1. Austin, J.L. (1997/1955). *How to Do Things with Words*. Cambridge: Harvard University Press.
- 2. Beeman, W. O. (2001). Performance Theory in an Anthropology Program. Brown University.
- 3. Bourdieu, P. (1977). Outline of a theory of practice. New York: Cambridge University Press.
- 4. Bucciarelli, L. (2002). "Between thought and object in engineering design," *Design Studies 23*, 3, 219-231.
- 5. Carlson, M. (2001). "Theatre and Performance at a time of shifting disciplines," *Theatre research International*, 26, 137-144.
- 6. Dreyfus, H.L. and Dreyfus, S.D. (1986). Mind over Machine: The power of human intuition and expertise in the era of the computer. Glasgow: Basil Blackwell.
- 7. Ehn, P. (1988). Work-oriented Design of Computer Artifacts. Stockholm: Arbetslivscentrum
- Ehn, P. (1993). "Scandinavian Design: On participation and skill." In D. Schuler and A. Namioka (eds.), *Participatory Design: Principles and practices* (pp. 41-77), Hillsdale, NJ: Lawrence Erlbaum.
- Ehn, P. and Kyng, M. (1987). "The Collective Resource Approach to Systems Design." In G. Bjerknes, P. Ehn and M. Kyng (eds.), *Computers and Democracy: A Scandinavian Challenge* (pp. 17-59), Aldershot: Avebury.
- 10. Eisenstein, E.L. (1979). The printing press as an agent of change, Volumes I and II. Cambridge: Cambridge University Press.
- Floyd, C. (1987). "Outline of a paradigm change in software engineering." In G. Bjerknes, P. Ehn and M. Kyng (eds.), *Computers and Democracy: A* Scandinavian Challenge, Aldershot: Avebury.
- Greenbaum, J. and Stuedahl, D. (1999). "Constructing time - design and development of new media." In T. Käkölä (ed.), *Proceedings of IRIS 22*), Keuruu, FI: U. of Jyväskylä.

- 13. Greenbaum, J. and Stuedahl, D. (2000). "Time and Work Practices in New Media Development." In *PDC* 2000 - The Participatory Design Conference (New York). CPSR.
- 14. Grudin, J. (1991). "Interactive systems: Bridging the gap between developers and users," *IEEE Computer* 24, 59-69.
- Hirsch, E. (1998). "Bound and unbound entities; reflections on the ethnographic perspectives of anthropology vis-a-vis media.and cultural studies." In F. Hughes-Freeland (ed.), *Ritual, Performance, Media* (pp. 208-229), London: Routledge.
- Krippendorf, K. (1995). "Redesigning Design; An invitation to a Responsible Future." In P. Tahkokallio and S. Vilma (eds.), *Design - Pleasure or Responsibility* (pp. 138-162), Helsinki: University of Art and Design.
- Latour, B. (1991). "Technology is society made durable." In J. Law (ed.), A Sociology of Monsters. Essays on power, technology and domination (pp. 103-131), Routledge.
- 18. Orr, J. E. (1996). Talking about machines: an ethnography of a modern job. Ithaca, N.Y.: Cornell University Press.
- Ramløv, K. (1975). "Kognitiv antropologi." In K. Hastrup, J. Ovesen, K.-E. Jensen, J. Clemmesen and K. Ramløv (eds.), *Den ny antropologi* (pp. 184-268), København: Borgen/Basis.
- Schieffelin, E.L. (1998). "Problematizing performance." In F. Hughes-Freeland (ed.), *Ritual*, *Performance*, *Media* (pp. 194-208), London: Routledge.
- Tulloch, J. (1999). Performing culture. Stories of Expertise and the Everyday. London: Sage Publications.
- 22. Turner, V. (1986). *The anthropology of performance*. New York: PAJ Publications.
- 23. Winograd, T. and Flores, F. (1986). Understanding Computers and cognition. Norwood, NJ: Ablex.