Chapter 11: Bridging the gap between designers and ethnographers by using a facilitator

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Abstract

One of the main problems with using ethnography as a method to understand work settings in the CSCW area is a gap between the system developer and the ethnographer. Basic differences between the two perspectives include sometimes incompatible ways of formulating and prioritising the objectives of system development, as well as divergent strategies, concept representation techniques, and even values. Such differences almost inevitably result in conflicts that seriously undermine the potential benefits of using ethnography in CSCW. This danger has long been recognised by the community, but despite attempts to outline approaches to resolving conflicts between designers and ethnographers the problem remains. The purpose of this paper is to explore the possibility of using a third party to bridge the gap between these two perspectives. The paper introduces the concept of the "facilitator", who can be considered an expert in helping designers and ethnographers to resolve their conflicts. These conflicts are caused by both lack of understanding and opposing interests. Theoretical approaches to conflict are discussed to clarify proper solutions, using a third party. These theoretical discussions are combined with empirical examples from the area of CSCW where such persons may be spotted.

   The main conclusion of the paper is that a third party may have a beneficial impact on bridging the gap between designers and ethnographers, as well as having a more broad overall view of related conflicts within the design context. This facilitator may be seen as either a role or a person. That is, this person may already be present in the context and therefore he or she can be a facilitator by role, or he or she may be brought into the situation from outside mainly to resolve conflicts within the design project. No matter how we decide to solve the problems of using ethnography within design, reconciliation of differences between designers and ethnographers perspectives has to be taken seriously. If not, ethnography will only be a "shooting star" within the field of CSCW.

Introduction

In the CSCW area, there is a continuous discussion of problems related to systems that support collaboration, co-ordination and communication. One of the main problems is the difficulty of getting full acceptance for such

systems when they are implemented [1]. Important factors include group dynamics, critical mass, and support for the articulation of work   among others.[2] [3] [4] These problems have led researchers to search for solutions in different research fields such as Sociology, Anthropology and HCI (Human Computer Interaction), to mention just a few.[5] By using approaches specific to those fields, practitioners and researchers try to understand how to design such systems. The problem though, is that these varied fields are often so different in their approaches that they may be impossible to combine.[6]

In recent years evaluation has been singled out as important because of the social embeddedness of the target systems.[7] [8]In traditional systems' design methods, for instance the waterfall model, evaluation has only been summative. That is, evaluation has been made after implementation, mostly for the purpose of documentation. In the analysis phase, some kind of evaluation may be done, but only just of issues such as information flow, work flow and so on.[9] These types of evaluation never take the social aspect of work in account, which makes these methods relatively useless in CSCW. Evaluation must be seen as an ongoing activity before, during and after the design phase. The importance of evaluation must be increased; design, evaluation, and usage of the system should be seen as three parallel processes. [10] [11]

If evaluation should be considered as an important aspect of design, the problem is to evaluate the situation in a proper way, that is, to achieve the goal of getting a properly working system. Many alternatives may be used, such as formal interviews, participatory design, etc. Another approach is to use ethnographic studies, that is, to let an external person, an ethnographer, study and/or participate within the working context, in order to get a "big-picture" of the situation.[12] [13] In combination with formal and informal interviews and usage of, for instance, video recording, this approach results in a large amount of data, which is used by the ethnographer to make a report, often in the form of an essay. The role of ethnography in CSCW has increased in importance lately; these techniques have been tested within design, at least on a research level, and they have been used for evaluating systems and their context from an ethnographic perspective[14].

One problem that arises in using ethnography within design is the difficulty that designers and the ethnographer may have in understanding each other. Designers usually start with a problem and would like studies to be focused on this specific issue, while the ethnographer claims to make a "inquiry without presuppositions", that is, to make as few assumptions as possible about the work setting studied.[15] Furthermore, as noted earlier, the ethnographer usually presents results in form the of an essay; the designer often prefers to present problems in formal diagrams to give an overview. This problem, and related ones, create a gap between the designers and the ethnographer, which may be difficult to bridge.[16] The problem is difficult to solve, and researchers have no straightforward answers yet .

| Figure 1 | Positioning of the gap between the designer and the ethnographer |

CSCW

Design

Evaluation

Ethnography

Gap
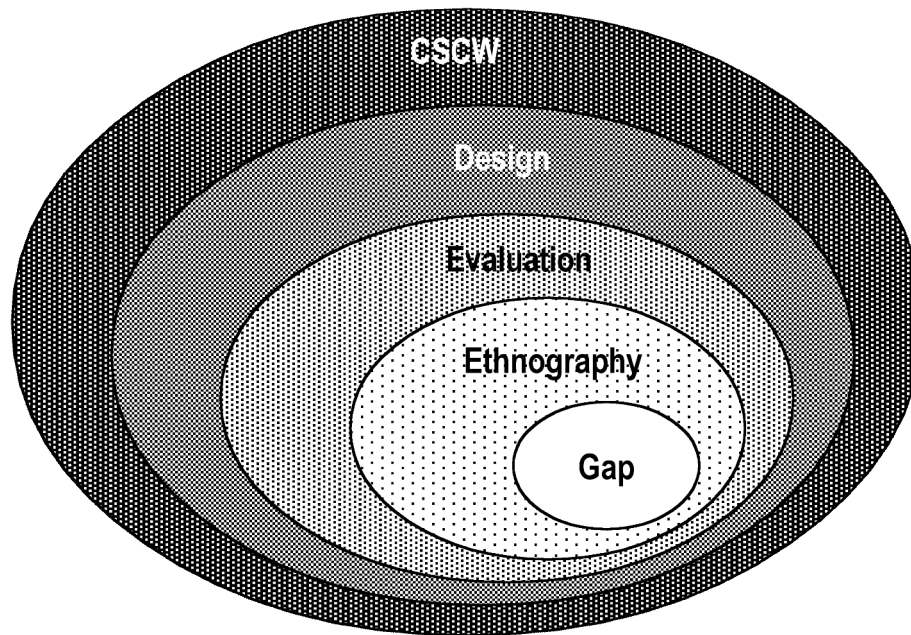
A related issue is that the ethnographer sees himself as a bridge, or interpreter, between designers and users.[17] [18] This may actually be the case, but this scenario does not take the gap between the designers and the ethnographer into account. This issue must be resolved before discussing whether the ethnographer bridges the gap between designers and users.

The purpose of this essay is to show the pros and cons of adding a third party, a "facilitator" to design processes, to use this person to bridge the gap between the designers and the ethnographer. Special emphasis will be put on discussing the facilitator as a role or a person.

This purpose will be accomplished by looking at the existing literature on ethnography within CSCW, with a focus on the above-mentioned gap. This gap is regarded as a conflict, and a brief overview is given of some theories of conflict and resolution, both generally and from a political perspective. In resolving conflicts, emphasis is put on the use of third parties. A later discussion defines this third party, the facilitator. This discussion mainly uses scenarios from studies of the design and implementations of Lotus Notes, where this type of person seems to exist. Other examples, more related to design projects with ethnography, are then discussed, and possible facilitators are identified. These examples may not always include ethnography, but the facilitator is always found, often as more of a general facilitator, depending of where the problem spots appear. The term facilitator is not used explicitly in any of the above-mentioned cases, but I would like to show that they all have a certain resemblance to each other. This paper concludes by discussing the pros and cons of using a facilitator, who may be an external or internal resource for people striving to design a usable system.

Ethnographers and not only Ethnography within CSCW

The arguments for using ethnography[19] in a design context are many and varied within the CSCW field. A summary of them all may be as follows:

A reason for many systems failures is the design's lack of attention to the social context of work practice. This occurs because of the existing methods' lack of knowledge of, or interest in, requirements' elicitation and study of the work setting.[20] Work is an activity which is socially organised, where the actual behaviour differs from how it is described by the person doing it.[21] [22] A key idea in ethnography is "Real world, real time" [23] and it is easier to catch "the big picture".

The fact is that more and more systems support collaboration; that fact leads us to seek methods to study group behaviour, communication and collaboration[24]. Anthropology, from which ethnography originates [25], has been used for the purpose of studying group behaviour within another culture; ethnography, on the other hand, studies group behaviour within its own culture.

There are many advantages of using a method such as ethnography, as mentioned above, but there are also challenges and even great difficulties. The first problem is *time*[26]. By nature, ethnography is a very time-consuming method. A study period of several years is not uncommon. Convincing managers (read payers) that an ethnographer is required within a design team may be difficult; this may be one of the reasons that ethnography has not achieved much popularity yet[27]. The next problem is *scale*[28]. If collaboration is done over large distances, how can the lonely ethnographer capture the "big picture"? So far, within research projects, ethnography has only been used in small work settings, such as control rooms, sales departments, etc. [29] [30]. An ethnographer uses data capture techniques such as observation, as "a fly on the wall", that is, being there but being as discrete as possible. Another technique is to "go native", and participate in the setting, in order to get a fuller understanding. Other techniques are audio- and video recording. All these techniques are combined with formal and informal interviews, to assume the "native's point of view" and to get "the big picture" [31]. This is done without presuppositions, that is, the designer has no possibility of influencing the ethnographer (in advance) about what to look for[32]. The observations are captured in field notes, often impossible to understand for anyone but the ethnographer. From these a report is written, often in essay form. In ethnography there is a holistic view, that is, a particular action can not be understood unless it is seen within its social context. This record is purely *descriptive*, rather than *normative*. Ethnographers attempt to describe how users *actually* behave, and not how they *ought* to.

Some researchers in CSCW claim that an awareness of ethnography is all that is needed, and that the designers could conduct these studies. The field does not need ethnographers but ethnographic approaches and techniques [33]. This is a good idea, theoretically, but difficult to achieve. It is important to be aware of that ethnography is a complicated subject. The purpose is to capture as much as possible; that is, everything may be of importance. This requires skill in observational techniques, as well as overall experience. It is not possible for a novice to just, having briefly read about the techniques and the specific approach, to just start doing ethnographic studies. This reality must be considered as an argument for why ethnographers, and not only ethnography is needed in CSCW,[34].

The gap between the designer and the ethnographer

This discussion leads us to conclude that in the design context we require ethnographers, and that the ethnographer's focus is on "natives' point of view", holism and natural settings. The ethnographer's main interest is in *understanding* human behaviour, activities and relations. The designer, on the other hand is interested in

designing artefacts to support those activities[35]. The designer's usual method of representing a scenario is to break it down into hierarchical schemes to grasp the situation, an approach quite contrary to the ethnographer's holism. The designer finds the ethnographer unstructured, with his or her presentation resemble novels; these novels often, for instance, contain the "native's" personal history, since, from an ethnographic point of view, anything may be important, to catch "the big picture" [36].

We have now reached the point where we can discern a gap between the designer and the ethnographer. They have difficulty in understanding each other, not on a personal plane but a methodological one. Research has been conducted on this issue, and some approaches have appeared. "Mutual awareness of each others' approaches" is an often used phrase [37]. Within the COMIC project researchers have tried to create *concepts of viewpoints* to bridge the gap; this attempt is realised in software called DNP (Designers' Note Pad) (Rodden, 1996). Another approach is the use of *Case Based Prototypes* developed at XEROX PARC [38].

The problem gets more complicated by the fact that there is another variable in the "equation", that is, the gap between the designers and the users. Therefore, there actually exist three gaps. First, as explained above, between designer and ethnographer. Secondly, there is a gap between users and ethnographers, as the users do not always trust an "outsider" taking part in their "life". They do not know the exact purpose of the ethnographer's presence[39]. Finally, there is a gap between users and designers; a gap arises as discussed in numerous papers over the last years[40]. The last gap is of interest to our discussion, because some people, particularly ethnographers themselves, see the *ethnographer* as a bridge between designers and users; these people argue that the ethnographer should be seen as a substitute user [41] [42]. This claim may be true sometimes, especially when the ethnographer has experience in the field of information systems, as in the cases above, when the ethnographers were researchers within CSCW. The situation becomes more complicated, though, when the ethnographer is purely an ethnographer and not used to the sorts of situations he or she is supposed to evaluate. Ethnographers will not be as "understanding" of designers as in the situation where he or she is a researcher in the area of CSCW. This situation is a reality we must take in account; that is why we must ask ourselves what to do. How should we handle the gap? If ethnography is going to be widely used, that scenario will arise, and the gap between the designer and the ethnographer will then become even larger than up till now.

This issue, why the ethnographer cannot always be a bridge between users and designers, is discussed further in the paper. Let us first note that there is a gap between the designer and the ethnographer, and I choose to see the gap as a conflict. When discussing organisational issues in general, some researchers claim that *any* process within organisational contexts starts with a conflict [43]. Whether or not this statement is true is not discussed further in this paper, but can be seen as a supposition for, at least, looking at the gap as one.

Conflict - a completely a bad situation?

What is a conflict? A definition from Deutsch (1973)[44] is the following:

> "A *conflict* exists whenever *incompatible* activities occur. The incompatible actions may originate in one person, group, or nation; such conflicts are called *intra*personal, *intra*group, or *intra*national. Or they may reflect incompatible actions of two or more persons, groups, or nations; such conflicts are called *inter*personal, *inter*group, or *inter*national. An action that is incompatible with another action prevents, obstructs, interferes, injures, or in some way makes the latter less likely or less effective[45].

From this definition, we may discuss whether our discussion concerns *intra*personal, *intra*group, *inter*personal or *inter*group conflict. On the one hand, it is an *intra*group conflict, as we can see the whole design project as one group. As the ethnographer often is the only one of his or her kind in a design project, we could look at it as a *intra*personal conflict. On the other hand, the problem is that the designers and the ethnographer have different assumptions; this difference is the source of the conflict, which is why we perhaps must look at the conflict as *inter*personal or *inter*group.

In a scenario with the designers on one side and the ethnographer on the other, we must keep in mind that conflicts may appear for reasons other than these, that is, *not* of a personal nature. The people involved do not dislike each other *personally*. The conflict is more a reaction to the different views of the situation involved, and that indicates that we still must look upon them as separate groups. They are not a homogenous group. Therefore *inter*group may be the right way to define the conflict situation to be addressed.

In the literature one can find many typologies of conflict [46] [47]. It is not my intention, in this paper, to further investigate this issue; for a further study, though, it may come in handy to do so. For now we may only note that there are in general two types of conflicts: *constructive* and *destructive*. At the extremes, these types are easy to define by their outcomes. If its participants feel they have lost as a result of a conflict, it is destructive. The other case, constructive, occurs when all participants are satisfied and feel that they have gained something, as a result of the conflict [48]. It is quite obvious which of the two to strive for, that is, constructive conflicts. The question is only *how*. How can we attain as constructive a conflict as possible? Even if the issues of the designers and the ethnographers differ, can we reach a point where all are satisfied with the outcome?

So far we have established that not all conflicts are entirely bad. Perhaps to remain creative and continuously reflect upon what we believe and why, we actually need conflicts. As Deutsch (1973) states about conflict:

> "it prevents stagnation, it stimulates interest and curiosity, it is the medium through which problems can be aired and solutions arrived at; it is the root of personal and social change"[49]

In some cultures it may seem obvious but in some it is not so obvious that one could look upon conflicts as not entirely negative. Even if they may be difficult when they occur, they may be useful in the long run to "clear the air". Constructive suggestions may appear, which otherwise would not appear [50]. To look at conflicts as not only bad demystifies the resolution and makes the situation more pleasant to cope with. In literature, on conflicts, many types of conflict resolutions are mentioned. Let us take a look at some of the ideas and discuss how they may fit into our problem area.

Resolution of conflicts in general and a by third party in particular

When discussing alternatives for resolution, one must be aware that there is no exact recipe. Every situation is, of course, unique. Resolutions are often therefore expressed as broad recommendations, which may make them seem useless. Another comment is that only a brief overview is given, with a focus on the third party as a way towards resolution. Factors for successful resolution may include the following[51]:

- A strong leader is needed.
- Participants should not argue from entrenched positions.

- Articulating conflict helps in resolution.
- Train people to handle conflict in a constructive way.
- Different people prefer different approaches for tackling conflicts.

These solutions may, separately or together, solve some problems in our design team. One problem remains: as long as none of the parties feels responsible for solving problems, the problems will persist. That may be the main reason for adding a third party, who has *as his or her responsibility* to see that these kind of situations are solved, or even better, don't arise at all.

Some people claim that it may be impossible to resolve a conflict without a third party [52] [53]. Others state that third parties are needed in particularly difficult situations where deadlock is otherwise reached [54].

To be able to resolve conflicts, the third mediating person must rely on his or her abilities. Qualities mentioned in the research literature include: *known, readily accessible, unbiased* and *discreet* [55]. Another quality mentioned, and perhaps the most central one is *skilled*. This quality may be difficult to describe, as it mostly concerns "tacit knowledge".[56] There is no clear description in the literature, and it is a quality surrounded with mystique. This skill may sometimes be the *only* reason a third party succeeds resolving difficult conflicts.

Figure 3	Qualities of a third party
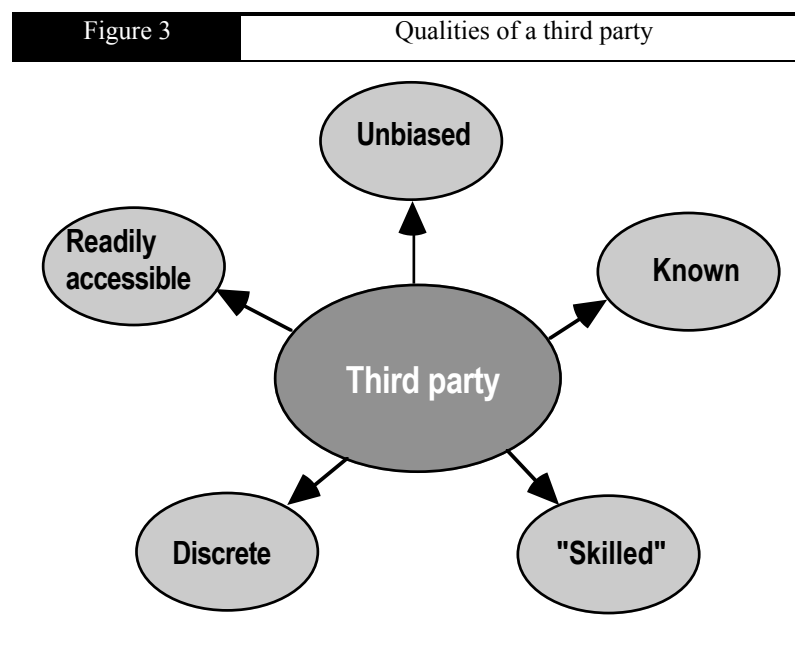
Before concluding our discussion so far, we should give an overview of previous discussions about third parties within the CSCW field.

A third party - what's already been said about the issue in CSCW

 Within the field of CSCW, where groups and their dynamics are a central issue, researchers have written about third parties before. The focus has varied, though it was seldom on the design process, but more often on group work enabled through groupware.

Viller[57] writes about the "group facilitator" as an   intergroup person, who focuses on maintaining group cohesion. The problem, as he sees it, is that groupware designers neglect support for the facilitator; this should be solved in the design.

Orlikowski et al.[58] note the importance of "technology-use-mediators" whose purpose is to facilitate use after implementation. Qualities they should have include the following: That they be users as well as mediators, posses sensitivity to user feedback and have technical skill. The purpose of this concept is to shape technology in its context by a sort of re-design, a concept which is also discussed in Huges et al[59].

The use of a technically skilled user as a bridge between designers and users is also discussed by Nardi[60]. She is explicit though, about the importance of this person being an intragroup member: someone within the group. This is for two reasons: first, the importance of existing relationships to others in the user group, and second because of domain knowledge of political patterns and task knowledge to be achieved of the system. They are in a better situation to handle things more informally, as external mediators. She also refers to those persons as "tinkerers", who are purely interested in computers; they "play around" with systems and often find shortcuts, and they are placed high on the "drifting" scale[61].

Let us take a look at what has been said about third parties in relation to ethnography. Blomberg & Trigg[62] found themselves in the role of mediators between users and designers, while working as ethnographers on a design project[63]. In their article they reflect upon this issue and state that this possibility should be considered; they also consider problems such as "filtering" the users' requirements too much, rather than reporting them directly.

  Looking at what has been said, so far, about third parties, both in general and within   CSCW, we make several observations.

There is a danger, as I see it, because two parties may end up arguing *with complete confidence* that the third party will *fix everything*; sometimes this could be a difficult problem. Adding a third party to the project is no guarantee that everything will run smoothly. The arguing parties must take part in the conflict resolution as well; otherwise, the solution is just too remote. Keil and Carmel[64] define "over-reliance" as that situation.

We have looked upon resolution of conflicts by a third person in general, and reviewed what has been said in the CSCW field, about mediation, etc. Let us now conclude by looking at different empirical examples of what we can call "facilitators" in CSCW (by our definition that will be introduced later). Note that not all of them relate explicitly to the gap between designers and ethnographer, but may well teach us something.

Empirical experiences from CSCW design projects

Ethnography has not yet had the general breakthrough, where it is seen as a generally accepted ingredient, with employment of pure ethnographers. In those cases where ethnography is used, CSCW researchers conduct "ethnographic"-types of studies. Because of this, there is no need for a "facilitator", as the designer and the ethnographer are the same person. Neither are we able to study the concept of a "facilitator" empirically. Instead, examples taken from other types of implementations of CSCW systems are mentioned below.

The first example is taken from a production company in the film industry of Northern Europe. The organisation was planning to buy a new CSCW-system. The design team tried a version of participatory design, with embedded ethnographic studies. The first phase of the design was based upon participatory design[65] with debriefing meetings with user representatives, and a first prototype was constructed. The second phase involved testing this prototype within the work setting under ethnographic observation. After the first phase, users were confused about the prototype. Requirements no one had considered arose, and some users refused to use the system. Within the organisation, one problem was different needs for integrity and access restriction for some documents. This problem was particularly serious for one user group, the editors. This related to their employment contract, which was limited in time. After their employment was over, for the sake of future employment within the film industry, they trusted that their formal budget decisions remained confidential. This reliance was seen when ethnographers and researchers conducted observations and informal interviews. The problem was delicate and difficult to discuss formally in public. In this case the ethnographers decided to become "facilitators" for this group (note that they did not call themselves "facilitators"); they proposed a redesigned system to support the editors' integrity. Having a third party in this situation was a good solution, as the problem was very sensitive. It was so delicate that the production manager, who was negotiating with the design team, at one point suggested to management that the design project should be ended [66].

Another example comes from an implementation of Lotus Notes in a small company, Ambouw BV, which had 27 employees. The system was tailored to fit the new needs of the organisation, such as tracking business contracts, managing documentation and cutting down overhead. The implementation was done in two stages. First, a group of seven people worked in a pilot group, doing their job both in the usual manner and within the new system. The workload of this pilot group was tremendous, mainly because of the size of the organisation. One fourth of the staff had double its normal workload. The staff was furious. The situation remained under control though, mainly because of one person within the organisation, the head of the sales office. He was very enthusiastic that Lotus Notes would be a great asset to the whole staff in the future, and he worked hard as an ambassador. As the sales manager was "one of them", the staff trusted him and his passion for the new system. He was not formally in charge of any decisions about systems matters, only personally interested. He used his informal network to keep the project going. After some months he left the organisation for another company. In the end that the managers decided to use the old system. When the researchers asked management about the reasons for their decision, one of the strongest reasons was the lack of an ambassador. They were unable to persuade users formally to use the new system [67].

At ABB they used a different strategy, implementing Lotus Notes in the organisation. Management made it optional (as ABB is a very decentralised company) for all local offices to choose Notes. Management started a project with "ambassadors", workers in the organisation whose only qualification was that they were interested in the use of Notes. These people were sent for training in Notes. They were seldom in a formal position to decide system matters. When they came back from those sessions, they functioned more or less as facilitators for managers to convince people of Notes' benefits[68].

GM Europe had almost the same strategy, but used local managers as "facilitators" for upper management instead[69]. GME invited those managers to visit headquarters in Zurich after having implemented Notes only there. GME happened to invite the managers during this precise period, and coincidentally the managers got to see the new system and its advantages. Many of them were thrilled by Notes and returned as facilitators.

The last example is a local one, an organisation located in northern Sweden. The company implemented Lotus Notes as well, and during this period, interviews were done with the head of administrative systems by researchers. He noticed no problems with introduction and explained how the strategy was made. After the interviews it was quite obvious that this person was a good example of a "fiery spirit"[70]. He was the spider in the web of administrative systems. He was well known in the company and seen as reliable (according to interviews with others within the organisation). He was not only well informed and had connections within his organisation at all levels, from management to end uses; he also had good and friendly relations with the company delivering the system. He was involved in the design and programming of Notes, and he functioned as a support source after implementation[71]. In short, he was a true facilitator.

These cases all give examples of people who have acted as facilitators in one way or another. Sometimes they were aware of the role, as in the ethnographers' case. Sometimes they were more or less unconscious of being "used" as facilitators, as in the ABB- and GME cases

Finally, I would like to draw some conclusions about the role of the third party in the designer and ethnographer issue. I would like to call this person a facilitator, but note that this is a more specific role, than the expression usually refers to, for instance in Viller's "group facilitator" [72].

Facilitator – what is needed?

To define this person (or role) it may be easier to begin by focusing on those features that I do not include in the definition. The reason why I chose to define a specific "facilitator", and not use the mainstream definition of such a word, was that the terms "mediator", "group facilitator", etc., are a little bit pointless and dull. They suggest a person who is more of an "translator", passing from A to B without changing the states at all. In delicate situations like conflicts rhetorical skill is required. A true facilitator must be aware of the types of persons involved, and must change rhetoric accordingly. That is, talking to the designers requires knowledge in their specific terms and approach. The same is true regarding to an ethnographer; merely reproducing the designer's words like an audio recorder, without interpreting it at all, would not be of significant help. The same skill must be used on a personal level – different people communicate differently. The facilitator must constantly be aware of who is present in a discussion and adjust accordingly. Merely being an translator, a sort of communication channel, is not adequate.

The issue of bias is a problem. Should the third party be unbiased or like biased? After some reflection the problem may fade. Could anyone ever be totally unbiased? No matter what person or kind of situation, there will always be some kind of bias. A person could intend to stay unbiased, but this is a completely different situation from being unbiased.

With regard to the general qualification of a third party, they would be required for our facilitator as well. The expression *skilled* may imply some of the skills discussed in this paper's central chapters, described from the political facilitators' awareness of the power of social networks. In our case, of cause, it is essential to be aware of all ideological issues relating to the gap, not only theoretically, but perhaps also through experience in both fields.

This definition of the facilitator, the issue of motivation must be discussed. Here similarities to the above-mentioned "fiery spirit" may be noted. A study of such highly motivated people in organisations was done by

Åke Philips; he found that these persons had a "personal need to participate"[73]. Furthermore, he notes that this role is demanding, as any individual who tries to influence a democratic process runs into difficult problems. He must master a repertoire of approaches to people around him, and to achieve this master, he must have highly developed competence, both practical and reflective/theoretical. He should also have the ability to learn from his experiences, and he should develop and foster more fiery spirits. Finally, Philips argues for the importance of the fiery spirit being to adopt a boundary role: that is, he should neither be a complete participant nor a formal leader; he must be somewhere in between [74].

This leads us to continue with our discussion off the facilitator; we should not look at the facilitator as only a person, an external source, brought into a situation to solve a problem. The facilitator may as well be a role, where someone in the context – a user, leader, designer, ethnographer or researcher – takes on the role of facilitator, consciously or unconsciously. In many situations, there is in fact no need for the facilitator as a separate person.

Facilitator - a role and not (necessarily) a person

Viewing the facilitator as a role or a person, presents different cases though. What may be advantageous for the facilitator as a role may be disadvantageous to the facilitator as a person.

To consider the facilitator as an intragroup member, is to see it as a *role.* To hire a external person into the context with the specific focus on resolution of conflict, is to see it as a *person.* Note that the facilitator as a role is also a person, but with different roles; the facilitator as a person has only one role in the context; that is: just being a facilitator. The advantage of having the facilitator as a role is that this person is already known and has knowledge of the organisation. In other words, this person already has a social network with mutual trust. A new person in the environment could have problems achieving such trust. The intragroup person may also be less of a threat than an external person, depending on circumstances: less of a threat considering that he or she is a "blank sheet" with regard to historical events, as this person is new in the environment; a bigger threat according to the other parties' uncertainty of the actual purpose of the facilitator.

Another factor is economics. Design projects are very costly. This situation may be problematic enough to argue for an ethnographer within the work setting. If a third party, a facilitator, is to be introduced, with high expenses as a consequence, management would probably respond negatively.

The negative side of using someone from within the organisation may be this: this person would hardly have any experience in handling the designer - ethnographer problem. Finding a former system designer with ethnographic experience within the target organisation could be tough. It may be easier if the role is taken by a member of the design team, or an ethnographer. Taking someone from outside may increase the chances finding such skills, perhaps within the research field.

There is also a risk that the internal person may be more biased than an external resource – biased in the sense that he or she views the problem from his or her position in the context. The external person is unbiased in that sense, but perhaps biased from the economic benefit. If he or she is involved with the design team, a conflict of interest may occur if this person must take responsibility for hard argumentation with designers.

A risk for the intragroup person may be this: the person should be aware that after the project is over, he or she will probably work with the parties whom he or she had confronted, and this confrontation may affect future trust . That awareness could result in this person's reacting more mildly in difficult situations, where stronger methods could be required. This depends of course on what other role in context the intragroup member have; if he or she is a formal leader, the above-mentioned problem is minor. An external source would have a consultant's role, where he or she would probably not have to consider a future reputation within the company. This could imply greater power to make hard decisions, at least relative to an intragroup facilitator without formal power.

The chance of a high degree of focus on conflict resolution is probably better in the case of the facilitator as a person; this person is in context mainly to solve such problems. The facilitator as a role has other obligations in context, which may imply a lower degree of focus.

With reference to the above discussion, a figure is given below to summarise the relationship between the facilitator as a role and as a person. Note that this is a generalisation. In some circumstances, the situation may even be the opposite of that shown in the figure. Everything depends on the specific situation. This may be frustrating in one sense, but is also interesting and exciting in another. The figure below should more be seen as a resource for discussion, and a conclusion of some points noted around the issue of facilitators.

Figure 4	Relation between person and role
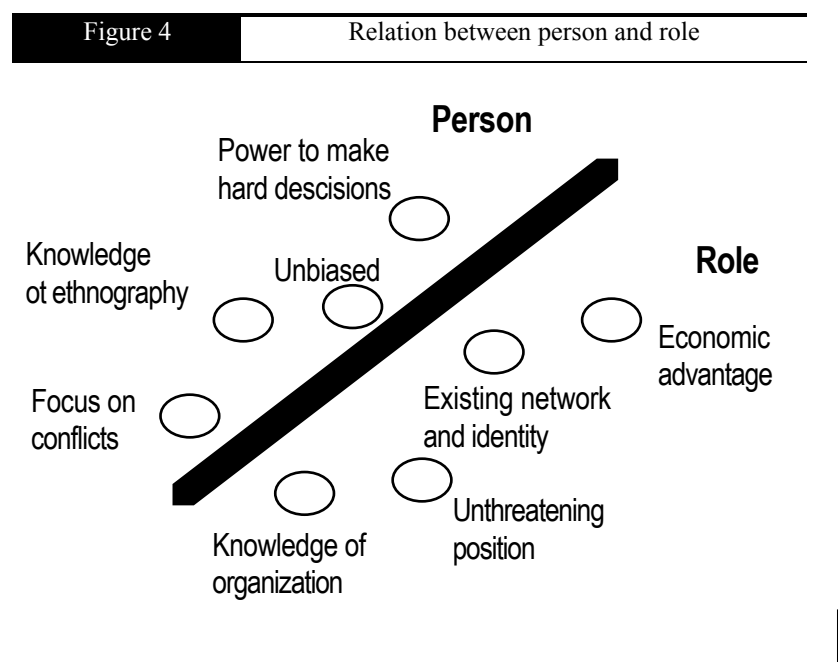
Conclusions

If we assume that evaluation is important in the design of CSCW systems, with regard to the social aspects of work, we have no alternative but to use ethnographers. As a result, there arises an inevitable gap between designers and ethnographers. Using a facilitator may be a viable solution to this problem.

To attempt to define the facilitator, we may say that, besides the general skills mentioned for third parties, a facilitator should:

• Have the goal of being as unbiased as possible;

•Not be just a "translator", but have rhetorical skills and handle situations and people with a sense of what is appropriate, and also be able to improvise;

•Be aware of the importance of social networks and have knowledge of how to create them;

• Have strong motivation and a "personal need to participate" and learn from his or her experiences (c.f. the discussion of "fiery spirits".);

• Be aware of the advantages of a boundary role; neither a formal leader nor a full participant;

• Knowledge of systems design as well as ethnography, particularly concerning the differences that cause the key gap.

Next, where should this facilitator come from? A discussion of the facilitator as a role or as a person showed that the facilitator may be in context already; no third party may need to be hired. To look upon the facilitator as a role showed several advantages such as, knowledge of the target organisation, ease of economic acceptance, existing social network in context, and an unthreatening position. Additionally, the facilitator as a role showed certain advantages such as focus on conflict, knowledge of ethnography, lack of bias and the power to make hard decisions. These assumptions are generalisations, though; an actual situation is far more complex. Everything is dependant upon the situation. This fact should not be discouraging though; the comparison should be made between a situation *with* or *without* a facilitator, rather than between pros and cons of the facilitator as a role or as a person.

Who in the organisational context should take on the role of a facilitator: a user, interested in systems development and with a "personal need to participate"; a designer with a knowledge of ethnography; or a researcher, who is by definition supposed to be unbiased? This question is impossible to answer; every situation is unique and requires particular personal skills from the facilitator concerned.

The purpose of this paper is not to answer these questions, nor to suggest that the concept of a facilitator in CSCW design would easily solve the problem of a gap between designers and ethnographers. The present purpose of the paper is simply to show the pros and cons of this concept, and by doing so, point out the importance of discussing and solving these problems. Ethnography is important in CSCW; hopefully this paper will stimulate to further research on this issue.

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