Managing Nomadic Knowledge: A Case Study of the European Social Forum

Saqib Saeed
University of Siegen
Hölderlin Str. 3
57076 Siegen, Germany
saqib.saeed@uni-siegen.de

Volkmar Pipek
University of Siegen
Hölderlin Str. 3
57076 Siegen, Germany
volkmar.pipek@uni-siegen.de

Markus Rohde
University of Siegen
Hölderlin Str. 3
57076 Siegen, Germany
markus.rohde@uni-siegen.de

Volker Wulf
University of Siegen
Hölderlin Str. 3
57076 Siegen, Germany
volker.wulf@uni-siegen.de

ABSTRACT

In this paper we portray a specific type of knowledge which we term 'nomadic knowledge'. It is required periodically by different actors and travels along foreseeable paths between groups or communities of actors. This type of knowledge lets us question generally held assumptions about the way knowledge is enacted. We illustrate our point with an ethnographical field study analyzing the European Social Forum (ESF), a network of political activist organizations. In this network different actors organize a periodic (biannual) event in which some 13,000 activists participated in 2008. We investigate how knowledge about organizing and managing the ESF is transferred between two events respectively, the actors and communities involved. Our study highlights the specific challenges in sharing nomadic knowledge and the consequences of deficiencies on the organizing process. The paper contributes to a better understanding of knowledge sharing practices and opens new directions for technical support.

Author Keywords

Nomadic knowledge, knowledge management, knowledge sharing, ethnographic case study, community informatics.

ACM Classification Keywords

H.5.3 [**Group and organizational interfaces**]: Computer-supported cooperative work

General Terms

Human Factors, Management

INTRODUCTION

There has been recent interest in employing knowledge management practices in organizational business processes to strengthen the competitive capacities of (mainly) companies. These studies have resulted in optimized strategies and solutions for supporting knowledge creation, codification, and transfer in different kinds of organizations. In this contribution we focus on the handling of a specific type of knowledge that we call *'nomadic knowledge'*. We use this term to describe knowledge that mainly 'travels' as it is used frequently on different occasions, but rarely used by the same set of actors again. On every occasion, the knowledge remains resident for some time and addresses crucial aspects of the activities the (current) actors are involved in. This description already points at challenges for maintaining nomadic knowledge and for supporting its transfer: It is a rather unfamiliar type of knowledge the actors get exposed to at the occasion and it needs to be adapted and contextualized to become useful. Furthermore, it becomes almost useless to the actors once the occasion has passed by – while becoming important to actors getting involved with another instance of the occasion. The situation is coined by an (idealized for illustration) imbalance between actors having the knowledge/experience (but not necessarily the need/interest to share it) and actors that need the knowledge, but have no or few prior experiences. This pattern is visible in exceptional situations (emergencies, e.g. all activities that actors need to do to in order to cope with a power outage) as well as periodically recurrent situations (e.g. the organization of events like a scientific conference). We give a detailed definition later.

We explored the specific challenges of this type of knowledge in observing the organization of the European Social Forum (ESF), and more specific, its biannual meeting that is hosted by a different European city (and the local activist groups there) on each occasion. Social movements come together temporarily for a particular event or a specific campaign. Thus, the organization of an event hosted by a social movement seems to be an interesting case for attaining empirical evidence concerning nomadic knowledge. As these issues and campaigns are long-term activities, it is important to learn from the past to avoid repeating the same mistakes. In this kind of adhoc network, it is difficult to find out who has the information, as people keep on changing. A lack of financial and human resources adds further complexity to knowledge sharing processes in these networks. As knowledge is distributed among different actors and partly incorporated in artifacts, [c.f. 2, 7, 15] it is very interesting to understand how information transfers and knowledge sharing takes place within networks of social activists. The ESF is an important

gathering point for activists who follow a globalization-critical agenda and strive for a more democratic society based on equality. Since 2002, the ESF attracts thousands of activists and organizations from all around Europe. The responsibility for organizing the event keeps on changing to a new organizing committee from each event to the next. The organizing tasks such as building the event's agenda, public mobilization, fund raising, logistics of the meeting, and running the IT infrastructure are knowledge-intense. As the responsibility for the organization of the forum keeps on rotating to a new organizing committee, it is a very interesting case of nomadic knowledge. Thus, we will try to understand how the knowledge about organizing an instance of a forum is transferred from one organizing committee to the next and what problems occur in this transfer process. Furthermore, it is interesting to analyze how the artifacts produced in the organization process are reused and redesigned. In this paper, we focus on the knowledge transfer and sharing practices when preparing for the last ESF event in Malmo, Sweden.

The paper is organized as follows: after discussing the related literature (section 2), we define nomadic knowledge (section 3). Then, we introduce the field of application (section 4) and our research methods (section 5). Section 6 focuses on the organizational structure of the European Social Forum (ESF) in 2008. Then we describe the knowledge sharing channels (Section 7) and give an overview of the information transfer process from the Athens event to the Malmo event (section 8) followed by an analysis of organizational problems in the Malmo forum (section 9). Section 10 discusses the relationship of these problems with knowledge management methodologies while the next section focuses on design issues with regard to IT support for nomadic knowledge, finally followed by a conclusion.

KNOWLEDGE SHARING IN NETWORK ORGANIZATIONS

There have been empirical studies of knowledge management in CSCW literature [cf. 1, 2, 20, 21, 24]. Fitzpatrick has empirically analyzed a branch of a state department and discussed expertise sharing practices in newly established groups [12]. Pipek, Hinrichs, and Wulf carried out a study of knowledge sharing in a networked community of trainers and consultants and describe the problems in supporting knowledge and identifying expertise [23]. Reichling and Veith conducted a field study to support expertise sharing in a major European industrial association [26]. The knowledge generated in these conventional network organizations is focused around efficiency, best practices, optimization and continuous improvement of business processes but in our case the knowledge is neither continually present at one location nor applied by the same actors. Instead it is instantiated to particular settings and then this knowledge becomes important for another set of actors.

Fagrell has looked at highly mobile workers, such as journalists [8] and electricians [9], and their knowledge sharing practices when working away from their office space. In these cases knowledge is enacted in a continuous and partly mobile mode by an identical set of actors. On the contrary, in the case of nomadic knowledge it is enacted in a discontinuous, typically stationary manner by changing sets of activists.

While Bechky has described how temporary organizations coordinate their work through role systems [2], civil society organizations are still a challenging area, where knowledge management perspective has not been thoroughly investigated. There has been some work on technologically supporting community organizations and their work practices [c.f. 10, 11, 22]. Furthermore, Rohde has helped to electronically support a network of Iranian NGOs so that they could build social capital [27]. Klein et al. have helped NGOs working for child rights in Africa by designing a learning environment for sharing ideas and best practices [19]. Despite the aforementioned research, a clear focus on knowledge sharing practices in networks of activists and other community organizations is missing. In our work we focus on civil society organizations which are characterized by a volunteer setup, an adhoc nature of organization, an informal non-hierarchical structure, the absence of recognizable central leadership, and limited financial and technical resources. In studying nomadic knowledge around the organization of the European Social Forum we explored who is interested in using, documenting, and sharing knowledge at a specific time and along what mediation paths the knowledge 'travels'.

A DEFINITION OF NOMADIC KNOWLEDGE

Based on the experience with and considerations of the knowledge flow in network organizations, we distinguish nomadic knowledge as a specific challenge using the following characteristics:

Community-bound

The knowledge has a purpose that is constituent for a community of practice (e.g. organizing an event).

Urgency

The knowledge is necessary to master a special situation (importance), and the practices in which the experience the knowledge bases upon is being gained, and in which the knowledge is being used in a later instance, require the full attention of the actors involved and require time-critical decisions (urgency).

Supporting a Discontinuous Practice

Knowledge providers and knowledge seekers come from different communities of practice, operate at different locations and have their high time of interest in the knowledge at significantly different points in time. The knowledge is of little interest for the people acting in that situation once the occasion is over, and, as a consequence, actors easily forget about details and there is little interest in investing additional work to conserve the knowledge.

It is the tension between the urgency for the practice and the diverging interests and attention patterns of knowledge providers and knowledge consumers that makes it so interesting to look at practices for knowledge transfer with this type of knowledge, and to discuss implications for designing support.

FIELD OF APPLICATION

In order to analyze the knowledge sharing practices of voluntary network organizations, we empirically studied the anti-globalization movement. It deals with the problems caused by economic and political globalization effects [c.f. 4]. This movement gained popularity after the Seattle demonstrations and combines diverse civil society networks, organizations and activists [18]. The World Social Forum (WSF) is a global gathering of community workers, trade unions, social movements, academics, and activists to discuss strategies for more democratic society. The WSF is an annual event which started in 2001; the last event was held in Belem and attracted nearly 140,000 activists and four heads of state, each respectively coming from Bolivia, Ecuador, Paraguay and Venezuela [17]. After the success of WSF, different regional, national, and thematic social fora emerged, building upon their specific organizing processes.

We investigated into the European Social Forum (ESF), which is a central event of civil society organizations and activists all across Europe. In the 2008 ESF some 13,000 people participated. Around 800 items were proposed by different organizations which were then shortlisted to 272 activities. To organize an event of such magnitude, extensive planning, management, and implementation activities are required. The organization of the event includes finding donors to finance the forum, preparation of the program (seminars, workshops, assemblies, cultural activities etc.), arranging logistical support (rooms, translation equipments, translators, IT infrastructure etc.), and large scale mobilization to ensure maximum participation.

RESEARCH METHODS

The findings of this paper are part of a long-term field study of the European Social Forum process. In this study different qualitative research methods are used: Content analysis, participant observation, and interviewing. For the participant observation, we carried out four field visits. One field visit at the European Social forum event held in Malmo, Sweden during 17-21 September 2008. Each of the other three field visits were of 3 days long and during the European Preparatory Assembly (EPA) meetings in Berlin (Germany), Athens (Greece) and Vienna (Austria), in February 2008, March 2009 and June 2009, respectively. Furthermore, three online meetings were attended during the period of June - August 2008, using Skype. Additionally, we joined one telephone conference of volunteers engaged in the setup of the technological infrastructure for ESF 2008. A total of 22 people were

interviewed, resulting in nearly 12 hours of recorded content. There were some telephone and some face-to-face interviews. The total time of the recorded content was approximately 9 hours of telephone interviews and 3 hours of face-to-face interviews. The selection of interviewees was based on their involvement in the ESF process. Among the interviewees there were four people from the Nordic Organizing Committee (NOC), four people from the previous organizing committee and seven actors participating in information technology initiatives for ESF and another seven who participated in ESF activities. The interviewees were from Greece, Sweden, Germany, UK, France, Italy, Turkey, and Hungary. The interviews were semi structured and contained questions about knowledge transfer, collaborative practices and problems in the organizing process. All the interviews were recorded to avoid a loss of information. In order to perform our analysis, the records of the interviews were transcribed and the written material was categorized. In order to understand the specific problems and issues, related data was clustered together. In our earlier papers, we analyzed the involvement of technology in the organizing process [28] and the usage of a collaborative application by this network of activists [29]. In this paper, we have basically drawn on the same data. However, we interpret it from the perspective of knowledge sharing. Moreover, we extended the empirical material by conducting two additional field visits and interviews.

ORGANIZATIONAL STRUCTURE OF THE ESF

It is important to understand the structure of the social forum's organizing process. After the 1st ESF in Florence, it was decided to have regular European Preparation Assembly meetings (EPAs), open to social movements for the preparation of the next forum. It was planned that this ESF process would take place parallel to the WSF but would be independent in its functioning.

There are two important entities which collaborate in the preparation of the ESF: the European Planning Assembly (EPA) and a local organizing committee. The organizing committee keeps on changing every two years from one event to the next. As we are focusing our analysis on the 2008 ESF, the relevant organizing committee was the Nordic Organizing Committee (NOC). The Nordic Organizing Committee was formed in September 2007 and consisted of 139 organizations. Under the NOC there was a board responsible for financial matters and eleven working groups dealing with activist mobilization and other organizing duties.

EPA is an open meeting for all activists who adhere to the charter of the social forum. These meetings take place usually 3-4 times in a year and anybody can attend these meetings and discuss matters. The EPA makes decisions about the ESF preparation while mainly focusing on political issues whereas the practical work and ground level planning is done by the respective organizing committee.

Usually organizing committee members of the next European Social Forum present their work here, different activists give their feedback, and finally decisions are drawn by consensus.

There are three important collectives related to EPA: the European networks, Babels, and the Webteam. The European networks are self-constituted groups of activists and organizations on a specific thematic area. These networks attract activists interested in a specialized theme with the intention of planning joint activities. Since these themes are related to ESF debates, the participants of these networks are also actively involved in shaping the program of a social forum. There is a meeting of these networks one day before the EPA meeting. Babels are a group of interpreters who volunteer with their translation services at the fora, whereas the webteam is a group of volunteers responsible for the forum's IT setup.

KNOWLEDGE SHARING PRACTICES

The European Preparatory Assembly (EPA) meetings take place regularly every 3-4 months to discuss political initiatives and actions along with the planning of the next European Social Forum. These EPA meetings are a major source of knowledge transfer where activists who have participated in the previous fora present feedback on the plans of the current organizing committee. Organizations and activists interested in hosting the next ESF event make their informal decisions at their country level gatherings and then they propose this to the EPA. Activists present in EPA meetings from all across Europe discuss the implications of the offer, especially the possibility of financial guarantees. Once the decision is taken by the EPA, the activists from the host country try to enlarge the organizing team in their home country by inviting different trade unions, labor organizations, professional bodies etc. The majority of people working in the organizing team are volunteers or activists from the local member organizations. Once the organizing structure is finalized, members of the different working groups start to plan their work in specific meetings and report the work at EPAs. Since the majority of practical work is done by the local organizing committee, it is important for the new committee to know how things were done at the previous forum. It's not possible for all members of a new organizing committee to attend all EPA meetings, thus, the representatives who participate in these meetings guide others, too. Some members may have participated in previous fora, so they know some aspects of the preparation work and sometimes know key persons. Therefore, on these EPA meetings they try to connect with relevant persons of the previous organizing committee to discuss what should be done, what the requirements for organizing the event are, and what the problems are. Usually organizing committee members of the next European Social Forum present their plans. Different activists offer their feedback based on their previous experiences. The presentations can be supported by documents such as the proposed budget, proposed themes,

or a call for actions. These documents are normally present on the entrance and also a representative distributes it to everyone in the meeting. Some of such documents are also sent via mailing lists.

There is always use of IT artifacts such as websites and mailing lists in the organizing process of the ESF. This IT infrastructure needs maintenance and updating. There is a web-team of volunteers who try to help new organizing committees with regard to the (re-)establishing of the IT infrastructure. They act as a bridge between different organizing committees so that consistency could be achieved, but often a lack of technical skills and missing funds hurts this process. ESF has a permanent official website [14], but for each forum there is a separate website as well, and currently there is also another collaborative website [13] to serve as a platform for the continuation of political discussion in between the ESF events. The official website provides documents related to all previous fora and important information is posted. Although the official website stores information about previous events, the information available is not comprehensive and complete. In particular information about the organizing process is of interest mainly for starting a local committee, but not much of this information is available on the website. The use of the IT infrastructure by these activists has been discussed in detail in earlier papers [c.f. 28, 29].

In addition to that there are always different mailing lists to channelize communication among the members of the organizing committee. These mailing lists change when the event moves towards a new organizing committee. There is also a permanent European mailing list which serves as a major source of information. All important information such as the announcement of EPA meetings is posted via this mailing list. This flow also helps in knowledge sharing and networking, since people from all across Europe are present. Sometimes decisions can be made in discussions on this mailing list. One example is the scheduling of the 1st EPA of 2009. During the last EPA meeting of 2008 in Istanbul, it was not decided where the next EPA meeting should take place. So on the mailing list some Greek activists proposed Greece as the venue. They proposed the dates for the meeting and asked for feedback. Some people gave feedback via the list. However in the meantime Greek activists met up with other Europeans at the World Social Forum in Belem and these personal meetings resulted in the finalization of dates.

Activists and volunteers working in different European networks and the Babels group have also prior experience since they participated in earlier fora. Thus, they also play an important role in knowledge transfer on what were the problems in previous fora and how they could be dealt with. Besides the transition between the current and the previous forum organizers, we also looked at the knowledge sharing practices within the Nordic Organizing Committee. The physical meetings of NOC and working groups along with

telephone and emails were the major tools for communication among the NOC members. Some information, such as those relevant for the mobilization of the ESF, needed to be transferred to a vast number of participating organizations, so newsletters and mailing lists were used as medium for information dissemination. Therefore, NOC members were able to reuse text by forwarding messages to many local and regional fora and groups across Europe.

KNOWLEDGE TRANSFER FROM ATHENS TO MALMO AND BEYOND

Since new sets of actors take over responsibility of organizing tasks every time, they need to understand quite a bit about the activities of the ESF. As the 2006 event was organized by Greek activists, NOC's local organizers tried to relate to their experience. One member from NOC's working group responsible for building the program described his experience as follows:

"In general what I have been talking to my colleagues [about] is that there was not enough contact and that we didn't learn enough from the Greek experience. We had a very short report when they gave us advice before we started, but I think that that was not enough information and we think maybe many problems could have been avoided if we had more contacts and more exchange of experiences."

There are no specialized knowledge management methodologies in place. One activist working in the Nordic Organizing Committee described her practice of getting information from Greek organizers in the following way:

"I think we knew some people already from the meetings that we have been to. We just asked them, the Greek people, and they told us that this person was dealing with this and that person for that and ask him about the program and ask him about visas and things like that. So, we were kind of referred to people by the organizers not only the Greeks but also the other people and I think even before we made the proposal for ESF some other people were in contact with one guy and we arranged to meet in Lisbon where it was decided that we were going to do the next ESF. And we had a meeting basically where we sat down and talked and also had a meeting with web people and we sat and talked together to know what are the websites and what is our responsibility and what we do need to think about and what to do."

She further described her experience with regard to support from the Greek organizers:

"Basically we had a lot of help from the Greek organizers. In the beginning, every EPA meeting that we went to, we made sure we went to them [Greek Organizers] and talked together and ask questions that we were wondering. For example we got a budget from them, we got hints on what to think of and what mistakes not to do and things like that,…it was really valuable for us in the beginning to have their

information and we also invited one of their key persons to come to Malmo and talk to more people, than the people who could go to EPAs. There was also quite a lot of email contact with some other people, especially in the beginning so we had a lot of help from them in the onset. They were saying that we were lucky because they did not get any help at all from the previous organizers of London ESF because they just kind of disappeared so that was really good and really important for us."

One member responsible for mobilization activities in the NOC described the knowledge sharing process as follows:

"Well, of course there were supposed to be people who knew these things, who have gone to these European Social Forums (ESFs). I have never been to a European Social Forum but we found out all the time that information is firstly not simple and the contacts are there - no question about that. Then some people are not critical enough when they try to find things out; they live in a romantic world."

One member of the Greek organizing committee described the information transfer process from her perspective:

"We tried to help e.g. we have some meetings trying to explain to them how we prepared the budget or how we arranged the space or what kind of problems we faced relating to the solidarity fund or the program and also we tried to transmit technical information."

As the next ESF will be in Istanbul in 2010, it was interesting to analyze the plans for knowledge transfer from Malmo to Istanbul. One member of the NOC commented on it as follows:

"We were already in Turkey for the first EPA after the Malmo ESF and we were invited by the Turkish organizers and there we had first of all a bit of an evaluation and then we were supposed to have meetings with Turkish organizers to go through and basically do the same thing as the Athens people did. But somehow it did not really happen. I am not quite sure when that's going on. But they are planning to invite few people to explain different things about the process and kind of transfer the knowledge that way."

When a new organizing committee takes over responsibility, in an initial phase the knowledge transfer process can suffer from lacking awareness of the problem domain, need to learn and under-specified responsibilities within the newly constituted team. This is reflected in the quote from another member of the NOC.

"My expression is that Turkish organizers are not ready, interested, or willing to have exchange with us. I was in Istanbul preparatory [EPA], so I think there is problem with and most likely amongst the Turkish organizers in organizing the structure; I think they maybe need to do that first."

PROBLEMS OF THE MALMO FORUM

When organizing such an event, there are always issues which can go wrong. Some activists attributed these problems to the limited experience of the NOC. One activist described:

"I think that the biggest problem in the Malmo [event] was about the committee, they were all new people involved in the process. There was not a lot of experience from previous ones [ESFs]."

In the following chapters we discuss some of the problems that occurred during the organization process of the Malmo event more systematically.

Budget Deficit

At the end of the ESF event the Nordic board (body of NOC to make financial decisions) was bankrupt, having a financial deficit of about 180,000 Euros (mostly being in dept to Babels, interpreters, cultural workers, individual activists, and different small to large organizations and companies). This was mainly the result of the lower number of registrations than expected and low resale of radios and ALIS equipment. Furthermore, an insurance company owned by trade unions and cooperatives did not donate a promised 9,000 Euros [6]. After the event a legal body was founded to acquire funding for this debt. One member of the organizing committee explained that they did not receive information on the exact number of participants from the Greek people which was also a reason for this problem.

"Well, one of the problems was that I don't think that they [Greek Organizers] had the exact number of attendees. So, we were calculating a bit too high there which made the financial deficit we have in the end."

She further described one major reason for attendees not paying their registration fees.

"Since we did not have enough volunteers there were not enough people checking doors and the registration was too slow so a lot of people never actually paid."

Another member of NOC described it as follows:

"The whole budget of the NOC was based on the assumption that there were 30,000 paying participants in Athens. Greek organizers still claim that this is true but I found out six months too late that there were very different opinions about [this number]."

Failure of the Translation System

A large number of activists participating in ESF cannot speak English; therefore, translation setup is an important issue. An interpreting system (ALIS) was developed by the Greek organizers. Describing the design of the system, one Greek activist described it as follows.

"I went in January 2005 to Porto Alegre [World Social Forum], they showed how they manage their alternative interpretation system, it was called "Nomad", and

collaborated in the team that built the system. That system was a complete failure. It did not work, but the experience was very important. I used this experience to build our own system (ALIS)."

NOC was suggested to use this system for translation facilities during ESF. It is very interesting that one member of the Greek organizing committee said that they were aware in advance that there would be problems with the translation system.

"For our part from July we knew that they [NOC] could not work [with the ALIS system]. Of course it is their responsibility and we could not go out making declarations that it would not work. It's a technical system; you need to have technically aware people to support it. [...] The main problem in Malmo is that they did not manage to setup a support team. There were few, if any, people that would know how to setup, test, and repair the equipment. From our part we offered to send an experienced technician one month in advance to do testing and repair of equipment and to teach other people but, for financial reasons, they did not accepted it. So they were left with the equipment that they did not know how to install and how to work."

Furthermore there were problems among interpreters and NOC as well. One activist described the problem in the following words.

"There were conflicts between Babels and the organizing committee. The conflict arose from practical issues; for instance interpreters were promised that they would be reimbursed the travel expenses during the forum but in fact we did not have the economic resources to do that. The majority of them could get reimbursements after the forum and actually to this date there are many volunteers who have not been reimbursed."

Selection of Venues

The event was held at many different locations and it was very difficult for non-local participants to get used to the city routes and attend the seminars of their interest. One member of the Greek Organizing Committee commented on the preparations carried out by the NOC as follows:

"The Greek Social Forum gave a lot of information and our experiences to the Swedish colleagues to organize Malmo but they did not take so much care about it, so they dispersed it all over the city of Malmo………. They told us at the beginning that it would be at one venue, one big venue, but they dispersed it. After they dispersed it over the city, it was very difficult and it needed a lot of people to organize it and they were very few to organize at all these venues."

A similar problem had already occurred with the organization of the second ESF in Paris. This event was distributed across three rather distant areas; Moving between the areas took '*half a day*' according to another Greek activist.

Setting up the IT Infrastructure

A software company offered NOC to develop the website for free. Additionally, the Greek organizers offered to extend their website. Nevertheless, the Swedish developers in the company were not capable of dealing with the PLONE system with which the Greek website had been implemented. Thus, they started developing a new website from scratch. This website was used initially to post information but later on there were delays in extending the features and NOC decided to hire the Greek developer to extend the Athens ESF website for the Malmo event. This changing of websites also resulted in some information loss about proposed activities. NOC members had to resubmit the missing data into the new website.

KM PROCESS WEAKNESSES

The information which was gathered by NOC from the Greek organizers was helpful but quite often it was not detailed enough. After we have described some of the main organizational problems of the Malmo event, we try to analyze how they were related to weaknesses in knowledge sharing processes and practices.

Delays in Information Sharing

As it was also observed, there were some serious problems in communication between the Greek organizers of the Athens event and the NOC members. One member of the NOC commented on this in the following words.

"Sometimes it was difficult to get hold of people, I mean some people didn't answer email but I am sure it is the same now with the Turkish organizers. They [would be] wondering [about] a lot of stuff and nobody answering the emails."

Another member of NOC gave another example of problems in information transfer. He had difficulties in getting a list of email addresses of all organizations that participated in previous social fora.

"There is a collection of all email addresses of all organizations that have organized seminars at earlier European Social Fora. That is to me an obvious participant resource. The first thing I started to wonder about as sort of very interested in European mobilization how to get all email addresses. Nobody informed me that there was such an email address list. [...] I heard only rumors that somewhere one existed. It took three months from when I heard in November until February to find it."

When organizing an event on such a large scale, adhoc-solutions have to be found for many problems. So for new organizing committees, knowledge about tackling these issues could also be very helpful. One example for this was the following.

"One find(s) out very very late much pertinent and important information. For instance, officially it's always a fee for central and east Europeans to come to European Social Forum but in reality they never have paid anything.

So it is very hard really to find out what has actually taken place or not. This is of course partly because that one wants to avoid the setup of European bureaucracy which I say is good but also means that you get adhoc solutions every time."

Uneven Distribution of Information

Relevant information was not equally available to all the actors in NOC. Certain members of the different working groups did not have the money to attend all EPA meetings. Attending members had better access to certain information although all working groups had created mailing lists to share information with each other. Lack of information sometimes created doubts and misinterpretations, too. One activist described the following example to highlight this problem.

"Not everybody in our organization had access to information. I think it was especially hard to access useful information. It took a very long time for our Babels coordinator before she really got in contact with Babels and could get the help she needed [...] An abundant amount of information came really early on and then people who were there from the beginning retained it. Though sometimes not everybody was there and had it, [...] i.e. they didn't have access to same contacts, unless they asked, of course. By then it was also like, yeah, you have been working on something for a long time and you kind of developed your own knowledge and then people don't ask where it comes from. They just assume that it is there for some reason and they don't think about it is from previous organizers."

Information Vagueness

People in this specific network of networks come from different organizational backgrounds, of varying experiences in different working environments, and from different political practices and points of view. This fact affected the knowledge sharing practices, too. The new members of the NOC did not know about the European Social Forum process before, they sometimes received information from local actors who were involved in the process before. They typically could not verify this information, which at times turned out to be inaccurate after the fact. One Swedish volunteer described such a situation in the following way:

"So all the time there is vagueness and you can never really trust figures and there is a sort of elite claiming that certain things are specific and you have to follow it but then in the end you can find out that this is not so true, that there are other kinds of information and so on. It's both politically and practically totally impossible to trust anyone."

According to WSF declaration, no political/armed organization is allowed to participate in social forums. In giving this example, Swedish voulanteer further described information vagueness problem:

"The claim is that the ESF has adopted WSF declaration. Thus everything politically has to go according to WSF declaration. This is false, [...] we found out that this privileged information, some key persons claim to have, was not correct. So in Greece, for instance, the Greek organizers, when we finally could meet them, claimed that this is not at all true. They have stated at EPA that Greece is very close to the Middle East, and thus, it will be necessary to invite Hamas and Hezbollah and, if you don't accept that, there will be no ESF in Athens, which is totally contrary to WSF declaration. So they did and Hezbollah was at ESF in Athens. [...]For some reasons it seems like the first Swedish people that were claiming that they had knowledge never asked critical questions. So they never got these things. This is what we found out afterwards."

On the other hand Greek organizing committee members contradicted this statement by saying that Hamas and Hezbollah did not participate. However, some actors were present who belonged to these organizations but effectively represented other social organizations.

DISCUSSION
From the point of nomadic knowledge, organizing an ESF resembles other scenarios such as coping with emergency situations or managing unusual situations in professional work life. After the end of an event there is a hibernating period before the new organizing committee takes over its role fully. During this time knowledge sources fade away from the process and people with limited firsthand knowledge take over. This was highlighted by the limited readiness on the part of Turkish organizers to directly take over fully after the Malmo event. Even in case there was an opportunity to share knowledge appropriately, spatial segregation and limited financial resources became a hindrance. The problems in transferring knowledge to operate the ALIS system illustrate this point. Conflicting interests may additionally impact these structurally fragile knowledge sharing practices. To be regarded as very successful, the Greek organizers had a strong interest in communicating a (too) high number of paid participants, which made the Nordic committee overestimate incoming registration fees.

The transfer of nomadic knowledge was affected by a lacking information flow, inconsistent interpretations, and conflicting interests within the local organization committees. Dealing with Hamas and Hezbollah is an example of this issue. In this case, the way the WSF declarations were applied was understood differently within both the Malmo and the Athens organizing committees. This confirms findings from the knowledge management literature [7] that knowledge transfer between different communities is not only a logistic problem, but may also be hindered by differing interests or value systems.

Learning from earlier instances of the event may not always be possible in case local conditions differ. The Greeks - based on the Paris experience - advised to hold the event at only one location, but finding a single big place was too difficult because of many factors such as availability, suitability, and costs. Accordingly, nomadic knowledge needs to be restructured and realigned.

Organizing an ESF does not have an explicit structure; there are only few explicated rules that apply across different meetings. So the level of codification of the nomadic knowledge is low in our case. Some of these rules were even quite drastically reinterpreted locally, e.g. rules with regard to the fees of participants from Eastern Europe. To gain legitimacy, local reinterpretation referred to those of earlier events. Still, these reinterpretations of rules were not well documented or publically accessible.

In the absence of structured, sustainable knowledge sharing practices, knowledge seeking strategies focus on personal contacts as well as on the retrieval of documents. However, document tracking lacks a solid historically grown base, as it was observed in the case of email address list of the participating organizations in previous fora.

The characteristics of nomadic knowledge pose a real challenge for designing technical support for its sharing. The problems with organizing the ESF cannot be solved by technological means only. One possible reaction is to strengthen and support knowledge sharing continuously. This approach is being followed to a certain extent, which manifested in the meeting structure between the events. But due to the low level of professionalization and the high member fluctuation the main challenge remains.

The described problems in organizing an ESF and the temporal and spatial distribution of the actors seem to indicate certain space for technical support. Huysman and Wulf [16] distinguished four classes of IT support for knowledge transfer: member-centered communication spaces (supporting personal communication between members of a community), topic-centered communication spaces (supporting communication around a specific topic), repository approaches (storages of possibly structured explicit information, maybe combined with knowledge mining tools), and social mapping tools (expert recommender systems, expertise awareness systems, analytical tools to uncover social ties e.g. for social network analysis).

Generalizing the study along the characteristics of nomadic knowledge, we can derive framing conditions and requirements for technological support. It is the *embeddedness in community practice* of this knowledge (e.g. local interpretations of the WSF declarations which already resulted from local negotiations among the organizers that would have been difficult to transfer between the sites) that makes externalization of the knowledge so problematic, and purely repository-based approaches less likely to work. Social mapping tools could be helpful to find participants of prior discussions in order

to understand and learn from the construction of knowledge.

It is the *urgency* of the knowledge (importance; actor's attention bound to getting things done; time-critical decisions), exemplified in our study with regard to e.g. the knowledge about calculating the ESF budget appropriately, or the knowledge about about organizing translation services, that hinders possible knowledge providers to invest a lot of work into the conservation of knowledge gained, and that motivates knowledge seekers to invest a lot of energy into reconstructing and contextualizing nomadic knowledge. Simple tools for knowledge providers e.g. to highlight particularly important contributions in communication spaces could improve the conservation of knowledge for the next event. But tools for knowledge seekers may provide a greater benefit, and here searching and data mining tools may help with repositories, but again social mapping tools, particularly expert recommender systems [21, 25], may offer the fastest access to the right information at the right level of detail.

It is the *discontinuity* aspect (e.g. the general temporal and spatial distribution of the communities of practice) that may be most problematic, because it prevents learning to happen via enculturation into an existing community of practice. The problems described in the sections "Setting up an IT Infrastructure" and with "Uneven Distribution of Information" illustrate this point. With regard to knowledge transfer between the communities, this aspect hinders a purely communication-based solution. The incongruent interest patterns of providers and seekers regarding the knowledge transfer may lead to less willingness (Once the job is done, providers are significantly less interested in the knowledge) and less ability (When the knowledge is needed, the practice that produced it does not exist anymore) of the knowledge providers to communicate appropriately (which became visible e.g. in the information delays described above). Moreover, our case illustrates that the discontinuity - also with regard to ICT infrastructures - makes it less likely that there could be just *one* tool supporting the knowledge transfer, and it becomes less likely that a routine usage of possible support tools can be developed, which calls for very simple, easy-to-use tools (attractive also for casual users). In repository approaches, the creation and transfer of metadata on the documents and communications (indices, automatically generated folksonomies/ontologies) stored from prior events could improve the services for the information seekers when they navigate in the repository. However, changes in the IT platforms did not let a large document repository emerge [28]. So, social mapping tools that help in finding experts from prior events that could actually assist in the recontextualization processes among knowledge seekers look most promising. But, to identify experts certain historical data representing an actor's expertise may be required.

In the CSCW literature, the repository and expert recommending approaches have been appropriated in different organizational settings [16]. Bieber et al. [5] have proposed a repository based community knowledge evolution system. However, this approach seems to offer little benefit in case of nomadic knowledge. Every instance of the ESF uses its independent IT infrastructure [28]. So, the setup and maintenance of a centralized repository system seems less viable. Furthermore, knowledge actors become passive after the event and a direct computer mediated communication may offer only few benefits.

In the current state important information is distributed across different persons, websites, and mailing lists and that tracking specific information is a troublesome process. Appropriate search engines and crawlers that operate on the 'old' information infrastructure should become an integral part of the new infrastructure. The 'old' information structures should be visualized, but the 'new' actors should be supported to create their own clusters of remembered pieces. Furthermore, a shared map of persons and their expertise supported by expert recommender technology may be an approach to make the complex network more transparent [25].

CONCLUSION

Most studies of expertise sharing in network organizations [c.f. 23, 26] focus on knowledge management processes in much more stable organizational environments, where knowledge creation and reusability processes are carried out in the same settings. The professional nature of knowledge helps in optimizing practices. However, in our case study knowledge about organizing an ESF event 'travels' among different organizing committees and is re-instantiated according to local conditions. There is also some passive period when the new committee is rather focused on increasing local participation and setting up organizational structures. The nomadic knowledge dealing with organizing an event is not used during that time. The actors possessing this knowledge from previous events may disperse and their institutional engagement in the ESF process may also weaken. These attributes differ from traditional knowledge sharing practices. The knowledgeable actors may even follow different politic agendas and hide or obscure certain types of information. In the absence of an organized knowledge transfer process, much of the information flow is based on accessing knowledgeable and trustful actors and personal reconstruction of relevant pieces of information. As some key aspects (logistics, politics etc.) need to be appropriated according to every new location and volunteering activists keep on changing, it becomes difficult to track the source of information and to check its validity. Since organizational knowledge from earlier events deemed to be quite helpful, there is a need for supporting the documentation of the organizing process as well as the remembrance work of old and new actors.

The core finding of our paper is of a conceptual nature. We postulate the concept of 'nomadic knowledge', and the specific challenge it poses for IT support. The concept is introduced and illustrated using an in depth empirical case study of the ESF, where we observed how knowledge is transferred among the organizers of two biannual events. Our case shows the potentials and problems for technical support and for transferring nomadic knowledge: the specifics of the network setting and the particularity of the current practices require us to consider solutions beyond a 'one tool' approach, and show a need for flexibly connectable IT infrastructures that are manageable by end users. It is neither the structure nor the content/domain of the knowledge that defines the requirements for the tools needed; rather the specific framing conditions of the production/consumption situations define these requirements.

REFERENCES

1. Ackerman, M. S. Augmenting Organizational Memory: A Field Study of Answer Garden. *ACM Transactions on Information Systems, 16*, 3 (1998), 203-224.

2. Ackerman, M. S. and Halverson, C. Considering an Organization's Memory In *Proc. CSCW 1998*, ACM Press (1998), 39-48.

3. Bechky, B. Gaffers, Gofers, and Grips: Role-Based Coordination in Temporary Organizations. *Organization Science, 17*, 1 (2006), 3-21.

4. Bennett, W.L. Communicating global activism: strengths and vulnerabilities of networked politics. In Van de Donk, et al. (Ed.) *Cyber protest – New Media, citizens and social movements*, Routledge (2004), 123-146.

5. Bieber, M., Engelbart, D.,Furuta, R., Hiltz, S.R., Noll, J., Preece, J., Stohr, E. A., Turoff, M. and Van de Walle, B. Toward virtual community knowledge evolution. *Journal of Management Information Systems, 18* (2002), 11-35.

6. Cijvat, E., Danielson, J. and Brusewitz, E. *Report Post-ESF 2008 Economy* March 2009.

7. Davenport, T. H. and Prusak, L. *Working Knowledge: How Organizations Manage What They Know*. Harvard Business School Press, Boston, MA, USA, 1998.

8. Fagrell, H. and F. Ljungberg A Field Study of News Journalism: Implications for Knowledge Management Systems In *Proc. PDC 2000,* CPSR (2000).

9. Fagrell, H., S. Kristoffersen and F. Ljungberg Exploring Support for Knowledge Management in Mobile Work, In *Proc. ECSCW 1999*, Springer (1999), 259-275.

10. Farooq, U. Conceptual and Technical Scaffolds for End User Development: Using scenarios and wikis in community computing. In *Proc.VL/HCC 2005*, IEEE Press (2005), 329-330.

11. Farooq, U., Merkel, C., B., Nash, H., Rosson, M., B., Carroll, J., M., and Xiao, L. Participatory Design as Apprenticeship: Sustainable Watershed Management as a Community Computing Application. In *Proc. HICSS 2005*, IEEE Computer Society (2005), Vol. 17, 178c.

12. Fitzpatrick, G. Bootstrapping Expertise Sharing, In Ackerman, M., Pipek, V. and Wulf, V. (ed.), *Sharing Expertise: Beyond Knowledge Management*, MIT Press (2002), 81-110.

13. http://openesf.net

14. http://www.fse-esf.org

15. Hutchins, E. *Cognition in the Wild*. MIT Press, Cambridge MA, 1995.

16. Huysman, M. and Wulf, V. IT to Support Knowledge Sharing in Communities: Towards a Social Capital Analysis, In *Journal on Information Technology (JIT), 21*, 1(2006), 40–51.

17. Imbach, Pauline *An interview with IIRE Fellow Eric Toussaint http://www.iire.org/content/view/161/*

18. Kavada, A. The 'alter-globalization movement' and the Internet: A case study of communication networks and collective action. *Paper presented at the Cortona Colloquium 2006,* Italy.

19. Klein, R. R., Letaief, R., Carter, S., Chabert, G., Lasonen, J. and Lubart, T. CSCL for NGO's cross cultural virtual teams in Africa: an Ethiopian children advocacy case study against exclusion and toward facilitation of expression, innovation and creativity In *Proc. ICALT 2005*, IEEE Press (2005), 1037-*1041.*

20. Lutters, W. G. and Ackerman, M. S. Achieving Safety: A Field Study of Boundary Objects in Aircraft Technical Support. In *Proc. CSCW 2002*, ACM Press (2002), 266-275.

21. McDonald D. W. and Ackerman, M. S. Just Talk to Me: A Field Study of Expertise Location In *Proc. CSCW 1998*, ACM Press (1998), 315-324.

22. Merkel, C., B., Xiao, L., Farooq, U., Ganoe, C., H., Lee, R., Carroll, J., M., and Rosson, M., B. Participatory Design in Community Computing Contexts: Tales from the Field. In *Proc. PDC 2004* ACM Press (2004), 1-10.

23. Pipek, V., Hinrichs, J. and Wulf, V. Sharing Expertise: Challenges for Technical Support In Ackerman, M./Pipek, V./Wulf, V. (ed): *Sharing Expertise: Beyond Knowledge Management,* MIT-Press (2003), 111 – 136.

24. Pipek V. and Wulf, V. Pruning the answer garden: knowledge sharing in maintenance engineering In *Proc. ECSCW 2003,* Kluwer Publishers (2003), 1-20.

25. Reichling, T. and Wulf, V. Expert Recommender System in Practice: Evaluating semiautomatic profile generation. In: *Proc .CHI 2009,* ACM-Press (2009), 59 - 68.

26. Reichling, T., and Veith, M. Expertise sharing in a heterogeneous organizational environment, In *Proc. ECSCW 2005*, Springer (2005), 325-345.

27. Rohde, M. Find what binds. Building Social Capital in an Iranian NGO Community System. In Huysman, M., Wulf, V. (ed.): *Social Capital and Information Technology*, MIT Press (2004), 75-112.

28. Saeed, S., Rohde, M. and Wulf, V. Technologies within Transnational social activist communities: An Ethnographic Study of the European Social Forum: In *Proc. C&T 2009* ACM Press (2009), 85-94.

29. Saeed, S. and Rohde, M. Computer Enabled Social Movements? Usage of a collaborative web platform within the European Social Forum In *Proc. COOP 2010* Springer (2010).