From Narration to a Conclusion in Online Competence Network Meetings
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Abstract: Information technology (IT) is no longer regarded only as a repository within knowledge management, but also as a collaborative tool where work-related artifacts, like documents, can be shared accompanied by stories for knowledge sharing. This article examines knowledge sharing in two different settings – online and face-to-face discussions – and in particular how these settings structure the knowledge processes. This paper extends our understanding of knowledge sharing and the use of narratives and collaborative technology in combination. My empirical context is a distributed public organization in Norway. The competence networks in the study are an opportunity to explore how the participants use narratives to overcome learning barriers when sharing complex practices and experiences situated in their local context across distance in an online environment. In particular I explore how health and safety inspectors share stories, arguments, documents, and emotions, when constructing and interpreting knowledge regarding how to conduct inspections. I find that the use of narratives helps the participants to overcome barriers related to different interpretations of the same by a ‘narrative add on approach’ in the online meetings observed. This is useful for the participants when trying to develop a consistent proposition regarding how to conduct health and safety inspections among the participants in the online GoToMeeting™ meeting. By the ‘narrative add on approach’ - the participants share how they perceive their clients, what they should look for when inspecting, and who they are as inspectors (identity). They also address contradictions in their practice and share how to conduct discretion. Interview data on the other hand reveals a very interesting ‘testing discretion by a narrative approach’. This approach is seen as more effective done face-to-face, since they have to capture complex experiences and in particular share what the inspector felt (emotions) when conducting the inspection.

Keywords: knowledge sharing, GoToMeeting™, managed competence networks, narratives, communities of knowing, interpretative barriers

1. Introduction
A practice-based perspective of knowledge management has been developed as a response to the criticism of information technology (IT)-based approaches to knowledge management and their treatment of knowledge as an object (storable, transferable and exploitable), thereby neglecting the social complexity and situational and practice-based nature of knowledge (Geiger, 2010). This perspective stresses that that all knowledge or knowing is personal, not something one has but something one does (Hislop, 2009). Research in this area has focused on ‘natural’ knowledge sharing in everyday practice in work situations. Orr’s (1990) widely referenced study of photocopier engineers emphasises how knowledge is developed informally through dialogue and improvisation to adapt existing knowledge to new situations. In particular, there is an interest among researchers in the following: how practice connects knowing with doing (Gherardi, 2000); how knowledge is constructed (Brown & Duguid, 1991); how sense-making between members of organisations takes place (Patriotta, 2003); how knowledge is negotiated (Gherardi & Nicolini, 2000); and how communication systems can support communities of knowing (Boland & Tenkasi, 1995). Within this perspective it is commonly accepted that the narratives that individuals share in everyday activities are a superior medium for knowledge transfer (Patriotta, 2003). There are limits to an organisation’s ability to access previous experiences through informal storytelling and personal networks alone. In particular, knowledge developed in projects sometimes goes no further than the project itself (Swan, Scarbrough & Newell, 2010), and there may be good reasons to develop more formal means of linking individuals across an organisation to fuse conversations. Lindkvist (2005) argues for the deployment of what he terms ‘competence networks’. While ‘lessons learned’ from projects stored in databases are not widely used (Newell, Bresnen, Edelman, Scarbrough, H. & Swan, 2006), collaborative information and communication technology (ICT) tools could offer new opportunities for knowledge sharing because they enable dialogue, and documents stored on computers used in combination with narration might be used as a ‘tool for knowing’ in the setting of a competence network.

My research question is as follows: how do the participants in competence networks use a narrative mode of communication to reach a conclusion? By conclusion I mean the final stage of a knowledge-sharing dialogue, which offers a more or less consistent proposition on how to conduct health and safety inspections in practice. My proposition is that this can be very challenging due to the
different interpretation of the same in organisations and maybe more so in this online context. On the other hand, the participants might also have found ways to overcome this barrier. The paper discuss the role of narratives in this formal online context in study.

2. Theoretical background
The social constructed nature of knowledge applies both to its production and interpretation (Hislop, 2009). To illustrate this, Boland and Tenkasi (1995) use the terms perspective making and perspective taking, namely the social construction of knowledge and the interpretation of existing knowledge interfered by existing cultures. Orlikowski (2002) from a practice based perspective, offer an alternative view. In her view knowledge is not effectively understood as ‘stuck’ in culture or practice– knowledge or knowing according to Orlikowksi is practice. The sharing of narratives can in this perspective be helpful for others if it develops the others’ ability to enact the know-how presented in the narrative. It must be useful in practice.

The term ‘narrative’ is here used to refer to the ways people talk about their experiences as a set of events, and this includes the contextual details that surround the occurrence of the event (Bruner, 1986). The interpretation of these events are shaped by the values and assumptions of the social and cultural context where the people live and work (Hislop, 2009). Stories and narratives are two separate concepts: a story is a description of what has happened, while a narrative is a story that offers a particular point of view of the situation (Bruner, 1986), like a lesson learned. Narratives provide a way for people to share their knowledge with one another to solve collective problems (Brown & Duguid, 1991). This perspective taking might fail if the participants interpret and understand their work differently (Dougherty, 1992). The use of narratives might solve this problem when it helps the participants to understand the perspective of the other and integrate it with his or her existing perspective. Perspective making is a learning activity at the individual level and developing a technical paper or documenting lessons learned from a project are examples of perspective making. Narrative and argumentative modes of communication can be characterised as different ways of persuading and communicating a good story and a sound argument in different socially constructed ways of persuasion and sense-making (Geiger, 2010). In contrast to the narrative mode of communication, the argumentative mode has the potential to reduce incoherence in the interpretation process, since its underlying assumptions are (more I would say) explicit (Geiger, 2010). Narratives are judged to be good if they are interesting, as well as plausible and believable; good arguments are logical, coherent, consistent and non-contradictory (Boland & Tenkasi, 1995). Narration is seen as effective since it captures complex experiences that combine sense, reason, imagination and emotion (Weick & Browning, 1986).

3. Methodology
The Labour Inspection Authority was selected for this interpretative case study due to two interesting aspects. First, its tasks are complex and changing. Second, the inspectors are distributed both nationally and regionally. The competence networks in the study are therefore an opportunity to explore how the participants use narratives to overcome learning barriers when sharing complex practices and experiences situated in their local context across distance in an online environment. Thirteen online meetings were observed in the area of occupational hygiene (six meetings) and in the area of psychological well-being (seven meetings), all adding variety to this study. A moderate participative role was adopted during observations (Spradley, 1980), involving asking questions, giving some feedback, and interacting socially. The technology used in the competence network settings was the GoToMeeting™ tool, a web-based tool that allows every participant in a group meeting to share whatever is on each other’s computer. The tool contains features such as the sharing of screen, keyboard and mouse control, chat, and phone, and it is also integrated with email and the Outlook calendar for the efficient booking of meetings. While it is possible to share everything on each person’s computer and to conduct a conference call, the participants do not see each other. This tool is the main channel for the organisation’s networks, which meet once a month online (but only once or twice a year face-to-face). In addition, I have interview data that covers two networks set up for the prevention of accidents, one for occupational hygiene, and two within the area of psychological well-being: in total 18 qualitative interviews. The informants were selected to ensure variety to the study regarding experience and knowledge types. The interviews were recorded and transcribed, and we I transcribed notes from my observations. In the data analysis I used QSR Nvivo
8, a popular tool for organizing qualitative data. While the data have been compared to create categories, theory has been used in the interpretation of my findings.

4. Findings
The first step was to investigate the diversity of the 13 observed meetings in these networks, which ranged from academic lectures, information meetings to meetings where experience based narratives were shared. In the second step four networks meetings were selected (see table 1). These were selected because they give insights into how the inspectors use narration in these online meetings. In the third step, interview data were added to enable me to explore further why and when sharing by narratives sometimes are more dependent on face-to-face interaction.

Table 1: Activities in the GoToMeeting™ meetings

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<tr>
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<tbody>
<tr>
<td>Narration</td>
<td>'The farmer'.</td>
<td>'Knowing why and how to conduct discretion’</td>
<td>'The paralysed business story’.</td>
<td>'Are we, generalists or specialists?’.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Focus on the health and safety of the individual farmer.</td>
<td>Mechanical ventilation is often not necessary.</td>
<td>We cannot contribute to this issue.</td>
<td>'We should walk more together’.</td>
</tr>
<tr>
<td>Evaluated as</td>
<td>Useful and interesting.</td>
<td>Useful and interesting.</td>
<td>Too much information.</td>
<td>Interesting.</td>
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</table>

In the following sections 4.1- 4.4 each meeting will be presented in detail.

4.1 The construction of ‘the farmer’
In the first meeting a narration of ‘the farmer’ took place. It took the form of individuals adding to the description of what farmers are like and how farmers perceive the world. Insights that added to their written checklists were shared on the screen.
Inspector 1: Farmers think that if the food authority conducts an inspection at their farm, everything is in place.
Inspector 2: Could ‘barns’ underline that there is no working environment thinking in farming.
Inspector 3: We have a challenge here.
Inspector 4: We should be aware that the farmers probably store chemicals in a similar way that sea farmers do – with all the hazards that it might imply.
The first statement (inspector 1) in this conversation is taken from experience and underlines that farmers relate to different authorities and are more focused on animal welfare than human welfare, which is something that the inspectors have to take into account when conducting their inspections, particularly with regard to how they should communicate with farmers. The second quote (inspector 2) enlarges on this problem in the agriculture sector by supporting the conclusion that they have a challenge regarding communications with farmers. Inspector 4 – the comment on the storing of chemicals – triggered a discussion regarding how farmers use different chemicals and how they probably handle it. Here, the conversation, through a narrative mode, reveals elements which it is
important to consider when communicating with farmers, which the checklists do not contain. By adding similar experiences of the farmers the participants simultaneously make sense of and confirm how they have understood the other.

4.2 Knowing why and how to conduct discretion
In the second meeting the inspectors discussed why and how discretion must be used. Each participant commented on why or how to conduct discretion in practice. This meeting had an argumentative opening by reporting on the legislative background and the need for discretion, but also a narrative backing as revealed by a discussion of the function of the legislation in relation to different situations and circumstances of their inspections (see Table 2, items 2, 3 and 5).

Table 2: How and why we conduct discretion in practice (meeting 2)

<table>
<thead>
<tr>
<th>Activity in task handling process</th>
<th>Observational data from the meeting</th>
<th>Mode of communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Applying the legislation.</td>
<td>‘Since we have a function-based legislation, we have to use discretion’.</td>
<td>Argumentative mode.</td>
</tr>
<tr>
<td>2. Writing reports and orders.</td>
<td>‘We always use discretion regarding what we shall assess, and on what grounds’.</td>
<td>Narrative mode.</td>
</tr>
<tr>
<td>3. Measuring air quality is also about discretion.</td>
<td>‘The production (in the inspected business) is going up and down’.  ‘The polluting production processes takes place rarely’.</td>
<td>Narrative mode.</td>
</tr>
<tr>
<td>4. Balancing the need and the cost.</td>
<td>‘Mechanical ventilation facilities are expensive, too expensive for the business’.</td>
<td>Argumentative mode.</td>
</tr>
<tr>
<td>5. Handling different situations.</td>
<td>‘There are many types of businesses; I often quickly find that a large ventilation facility is not needed’.</td>
<td>Narrative mode.</td>
</tr>
</tbody>
</table>

The individual perspective making is here intertwined with perspective taking, since the individual makes sense of the argument or narrative of the other by producing his or her own narrative out of his or her experience. A clear point is shared in the conversation, and the meeting was evaluated as useful (Table 1, meeting 2), but the narratives could have provided more to help the listeners enact the know-how shared in their practice. For example, sharing how reports and orders are written up and why, something which in my interview data is thought of as a very useful way to share knowledge, but something I have not seen done in the 13 online meetings I have observed.

4.3 The paralysed business story
The paralysed business narrative (Table 1, meeting 3) is an example that questions the underlying logic of the inspection practice, but sadly enough this was not reflected upon by the participants. This was a very interesting and maybe a very challenging experience from an inspection where an accident happened. It was presented at the end of the meeting by one inspector and the core argument is contained in this quote:

The business had all the routines and documents in place, but they were unable to act when we by chance witnessed an emergency while inspecting their documents.

(Inspector)

The only one who responded was the participating lawyer who responded that she should focus on emphasising the implementation of safety in her report to the inspected business. The narrative challenges the idea that documents are a sufficient basis for inspecting readiness for handling an accident. If this issue had been raised earlier in the meeting, it could have fuelled a debate, but at the end of this meeting it seemed as though everybody was more interested in ending the conversation. They had already been on the phone for nearly two hours and the meeting was evaluated as being
loaded with too much information from management (Table 1, meeting 3).

4.4 Are we generalists or specialists?
In the fourth meeting, when discussing the proposed competence plan, the narratives revealed conflicting identities (Table 3). Are health and safety inspectors people who have some knowledge in all areas (i.e. a jack of all trades) or should they be more specialized? (Table 3).

Table 3: Are we generalists or specialists?

<table>
<thead>
<tr>
<th>Arguing for</th>
<th>Observational data from the meeting</th>
<th>Mode of communication</th>
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<tbody>
<tr>
<td>For generalist role</td>
<td>'If you do not answer a question, they [whom you inspect] can get the impression that you are less competent' (inspector 1).</td>
<td>Argumentative mode.</td>
</tr>
<tr>
<td>For generalist role</td>
<td>'We should know more than the areas we conduct inspections in, since they will ask us' (inspector 1).</td>
<td>Narrative mode.</td>
</tr>
<tr>
<td>Against generalist role.</td>
<td>When I began we were generalists . . . very glad it is over' (inspector 2).</td>
<td>Narrative mode.</td>
</tr>
<tr>
<td>A problem.</td>
<td>'The experienced employees are not mentioned in the competence policy plan . . . everything in the policy is targeting new employees’ (inspector 2).</td>
<td>Narrative mode.</td>
</tr>
<tr>
<td>A problem.</td>
<td>'We must not become two groups; the experienced and the new employees' (inspector 2).</td>
<td>Argumentative mode.</td>
</tr>
<tr>
<td>A problem.</td>
<td>'There are less resources targeting training of groups' (inspector 3).</td>
<td>Narrative mode.</td>
</tr>
<tr>
<td>Conclusion</td>
<td>'We should walk more together’ (inspector 2).</td>
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The meeting was evaluated as interesting, but the word useful was not mentioned here (see Table 1, meeting 4). The reflection on who they are becoming and human resource policies in the organisation were regarded as interesting, but maybe not directly useful for their inspection practice. The meeting had a relatively clear conclusion, which says that they should walk more together, meaning that they with their different individual competences could benefit from doing more inspections together and not alone.

4.5 ‘Did I conduct the inspection correctly?’ – The use of emotions when sharing knowledge by narration
My interview data, on the other hand, reveal that the use of narratives when sharing inspection practice often relates to the question: did I conduct my case-handling correctly? Here the person who has the question also shares the story. The activity is closely related to the norms for objective case-handling in that it requires awareness of the personal and subjective perceptions and judgements of protagonists as they work towards more ‘objective’ handling through socially shared, controlled and negotiated solutions within their network. The inspection authority distinguishes between level 1, 2 and 3 inspections. Level 1 is the most basic, where the inspector conducts unannounced inspections using a simple questionnaire, and by interviewing some of the people they meet at the work site. Levels 2 and 3 are more advanced inspections, involving announced inspections and separate interviews with management and employees, individually or in groups. Within the area of psychological well-being, inspections are always at level 2 or 3, producing a great deal of material for the inspector which must be analysed and interpreted in relation to their professional knowledge, particularly with regard to the negative effects of stress in relation to the law. Due to the complexity of the material and the role played by the inspector’s personal likes and dislikes, social cues are important for sharing. Face-to-face meetings are preferred, although online discussions are possible. This activity shares some similarities with the traditional learning mode.
where the apprentice follows the experienced inspector on inspections and learns by observing, sharing and discussing the experience. However, by sharing a story, this learning occurs without joint inspections. Instead, notes, stories and emotions from inspections are shared in order to recreate some of the richness and complexity:

*We have so much data after level 2 or level 3 inspections. It is hard to sum up the best solution. If somebody is unsure about if he or she has done it correctly, we can do a 'test'. Go through his or her case and discuss it. Very often it turns out that he or she was not very wrong in their thinking. We discuss if it is acceptable that a manager is moody; one day he gives everybody a hug, the next day he does not look at you at all – and the employees tell us that they feel unsafe. Then we use our own emotions to conduct our judgements. This is an important role of our network, to discuss with colleagues the judgements in our work, our use of our personal emotions. Like: what is too much and what is acceptable moody behaviour? (Coordinator of a network for psychosocial well-being, my italics)*

Sharing the story about handling a case reveals a previously 'hidden' or 'tacit' level of attention and attunement, in addition to the more formal checklists used, and judgements made, by inspectors who work within the area of psychosocial well-being. One can argue it involves intimacy and 'know-how', largely based on personal knowledge but also distributed across inspectors. To share their own more tacit 'checklist' (what they felt at the inspection) inspectors first have to find a way to express their own emotions about the case, including the emotions experienced during inspections. Previous personal and shared experiences will have contributed to forming their emotions and prior understandings, which the inspectors then use when they have to assess whether, for example, the behaviour of the manager (in the case above) was foreseeable or not, and whether the work environment is or is not a risk. This sharing practice supports individual decision-making and dispersed authority through confirming or adjusting individual subjective judgments within collective processes.

5. Discussion
In this article I set out to investigate how the participants in competence networks use narratives to reach a conclusion. I found that the participants use two different approaches when using narratives for knowledge sharing.

Out of my observations of online meetings I found within both competence areas in this study (physiological well-being and occupational hygiene) the use of a 'narrative add on approach', where several similar stories that offers more or less the same point of view of the situation are shared. On the other hand, in my interview data within the competence area of physiological well-being, I found the 'testing discretion by a narrative approach'. These approaches give us insights into the intertwined process of individual perspective making and group perspective taking in knowledge sharing, which here are structured by the sharing of similar narratives or by sharing many details ranging from documents to what the inspector felt and critical examination.

When the participants add similar narratives of the farmer or narratives regarding how they conduct discretion, they simultaneously make sense of (perspective making) and share how they have interpreted the perspective in the previous narrative (perspective taking). In this way, they might have reduced the problem of failed perspective taking due to different interpretations and understandings, a problem described by Dougherty (1992). My findings also suggest that it is not only the argumentative mode which has the potential to reduce incoherence in the interpretation process, as suggested by Geiger (2010), the sharing of narratives can also reduce the incoherence in the interpretation of a previous narrative in the conversation or underline the importance of an argument. These aspects underline that knowledge sharing is a continuous flow of interaction between the narrative and argumentative modes of communication which pervade each other, as suggested by Geiger (2010).

Additionally, it is interesting to emphasis that, in meeting 1 (the farmer), the participants, when evaluating the meeting, expressed that their use of narratives at that meeting were similar to how they used narratives in the field. By sharing narratives and 'facts' they all contributed to the question what to do - similar to how they do it when conducting joint inspections. The narratives therefore do not only function as a way for people to share their knowledge with one another to solve collective problems, as suggested by Brown and Duguid (1991) or enact the knowing in practice (Orlikowski, 2002), the sharing of narratives also enable the participants to enact some of their (informal) collaborative culture in this formal online context which promotes the sharing itself. On the other hand,
these formal online meetings are sometimes too short for in-depth discussions and too loaded with top-down information and debates regarding policy, the later are interesting for the participants, but not seen as so useful for developing their inspection practices.

While the ‘narrative add on approach’ is used in the online meetings observed, interview data from two networks of psychological well-being reveals a very interesting “testing discretion by a narrative approach", where the participants have to go in-depth and critically examine whether or not the task handling of the narrator was within the norms for good task handling. In this activity the participants read documents in advance related to one case handling process and the inspector reveals his/hers emotions during the inspection to inform the others about his/her ‘tacit’ checklist, which the discussants make sense of in relation to norms for task handling. In this process the inspectors need to express emotions through the telling of rich stories to communicate and understand each other’s inspection practice. This is a learning process that goes beyond exchanging a few sentences or anecdotes in a phone meeting. Individuals in the networks for psychological well-being relate to others by using their experiences and ‘gut feelings”; that is, there is intimacy and awareness when communicating in order to accurately represent practices, so that others can use their own experiences and prior knowledge when trying to interpret and understand what the first person is communicating. In this sense, emotions bring resonance, as they tend to generate memories and a more tacit type of knowledge. Having reached a level of understanding of a case through more intuitive approaches, the inspectors are able to start ‘testing’ the retold situation and activity through reflections and sense making. Such activities open up the opportunity for collective elaboration, support and verification, or critical rethinking about what is appropriate and preferable. The interpretation of events are not directly shaped by the values and assumptions as stated in the literature (Hislop, 2009), but through the use of emotions to inform the listeners about what they experienced when inspecting, so that the listeners can judge whether it is within the norms for good task handling or not. This finding underlines that narration is effective since it captures complex experiences (Weick & Browning, 1986), and in this competence area, psychological well-being, narratives are particular effective when emotions are shared when telling the narrative. The sharing of emotions informs on what grounds an order was made. When sharing these emotions, social cues are important and face-to-face interaction is, unsurprisingly, the preferred situation.

6. Conclusion
In this paper, a study of the use of narratives in knowledge sharing among health and safety inspectors, has provided support for the important role of narratives. Even though it is challenging to reach a conclusion in this online context, as my proposition suggested, the participant’s by the use of a ‘narrative add on approach’ overcome knowledge sharing barriers related to different interpretations of the same. The participants simultaneously make sense of and construct narratives in relation to the first narrative or argument presented in the dialog. Like the characteristic of their clients, what to look for when inspecting or share how to conduct discretion. This is useful when trying to develop a consistent proposition regarding how to conduct health and safety inspections among the participants in the online GoToMeeting™ meeting. On the other hand, narration is seen as more effective face-to-face, in particular when the purpose is to ‘test’ individual discretion, since they then have to capture more complex experiences – experiences that combine sense, reason, imagination and emotions. There are several plausible reasons for this. The online meetings observed are short, a lot of time is spent on top-down information and the online context offers fewer social cues. Researchers should investigate further the various forms and functions of narratives in formal and or online contexts. Certainly, further research is needed to explore the role of trust in relation to the sharing of narratives in formal online contexts, an issue which has not been investigated here.

References


