Learning as a coordination processes: the role of displayed practices and culture in managed networks

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(Work in progress)

Abstract

Although coordination efforts in team based work contexts has received much attention in organizational research, there has been little theorizing on practices work environments of independent distributed workers. This is a study of such a context. This article attempt also to increase the understanding of efforts of managing intra organizational networks for knowledge integration. In particular we contribute to the role of sharing of practices in such an arrangement.

The study involves a comparative study of five managed networks, two networks set up for preventing accidents, one for occupational hygiene, and two within the area of psychological well-being. In this paper we ground tree displayed practices for organizational learning in a context of managed Networks of Practice, and discuss their characteristics and implications. Using a cultural perspective, we also suggest that all three of them have new awareness as the a coordination mechanisms build into them. But related to different mechanisms: put in context mechanism (visualized practice), rules and facts in use (documenting practice) and empowerment (testing practice). The practices described are helpful in the balancing act between structure and process for organizational learning.

Introduction

Coordination, the management of interdependencies among tasks (Malone and Crowstone, 1994), is regarded as an important factor for the success of an organization. Today, existing theories on coordination and knowledge sharing do not adequately explain across community coordination practices (Kellogg et al 2006). In addition they do not address coordination efforts within the new forms of organizing and when the situation is changing.
Since coordination through bureaucratic means is not appropriate in a changing and knowledge-based organizational work life, managers instead have to nurture organizational learning mechanisms to ensure the coordination of their organization. From an in-practice perspective, practice based approach, learning and following coordination can take place when individual work practices are presented and discussed among the members of the organization.

The competence networks in our study, or managed Networks of Practice (MNoP), as we label them, are interesting due to several reasons. First, they can be seen as an attempt to move the organization towards heterarchy: more distributed accountability, decentralized decision making and multiple (often competing) evaluative principles. Second, they are an example of a new organizational form set up to form (new) or strengthen existing communities of practice. The learning and coordination processes are therefore somewhat situated both inside and outside their daily practice. Third, this research address a organizational designed situation where the practioners are supposed to conduct their work by coming together in small groups for a short term to conduct project work, and at the same time they are supposed to form a more long lasting group in the managed network.

In this paper we identify, conceptualize and discuss learning based coordinating mechanisms taking place in top-down initiated competence networks in a large public organization in Norway. In this paper we identify, conceptualize and discuss coordinating processes taking place in top-down initiated competence networks in a large public organization in Norway. In our study we have followed up the work of Kellogg et al (2006), who have developed the concept of displayed practices. Displaying learning modes increasing attentiveness and

reflection, i.e. visualizing, documenting and testing. We also add to the study of practices the role of multiple-culture contexts in which these practices may or may not be displayed.

Before we go to the presentation of the research site and context, we draw attention to our theoretical perspectives and the qualitative methods used in this study. After developing our grounded findings we interpret and discuss the context of culture and management in these processes in the managed networks in the study.

Theoretical perspectives on coordination

The contingency perspective which has dominated research on coordination in organizations, stresses towards a mutually exclusive coordination mechanisms structure (program) and process (mutual adjustment) (Mintzberg, 1979). On the other hand the structure concept within structure–actor oriented or process oriented view is a much broader concept (Giddens, 1984) where the two mechanisms are interrelated. This broader way of regarding structure is helpful to us in conceptualizing further elements in the coordination processes. The structure–actor oriented or process view of structure include learning and culture related phenomena in the coordination processes, such as frameworks (Weick, 1995), knowledge (Adler and Boyrs, 1996), shared meaning (Weick, 1993), relations for coordination (Gittel, 2002), communication genres (Im et al, 2005), and in general rules and resources (Giddens, 1984), which when shared and used might increase the ability to coordinate, but also give coordination a temporal character.

These phenomena are sometimes developed informally through social networks and within Communities of Practice (Wenger, 1998), arenas where coordination is often a side effect and not the intention or purpose of the network or community (Thompson, 2003). While contingency theory limits structure to formal procedures, plans, bureaucratic control, manuals and rules (Burns and Stalker, 1961), we will expand structure for coordination to knowledge culture, which sometimes contributes to, sometimes inhibits coordination and sometimes merges or develops new values helpful for coordination.

A cultural context perspective on displayed practices.

Using a cultural perspective on coordination is about less focus on formal coordination structures, emphasizing more on informal implicit coordination through mutual adjustment,

informal feedback from colleagues and the use of shared concepts and perspectives This is in particular relevant, in our view, when organizations are changing from hierarchies towards heterarchies were coordination relying more on communication, relations and learning, than formal control.

In theory, sharing of practices might lead to shared understanding, but as Brown and Duguid put it: "where practice doesn`t prepare the ground, knowledge is unlikely to flow" (Brown and Duguid 2001:207). Related to coordination, culture creates a compass (Alvesson 2002), supporting awareness for some issues, leaving out other issues.

According to Kellogg et al (2006) the cultural perspective sees knowledge as reflecting occupational conventions and understandings rather than rational calculations of efficiency (Wenger 1998) and the knowledge is embedded within members skilled performance and shaped by the community`s values and norms.  It is often said that knowledge sharing and coordination is aided by a common language.  Appreciation of others point of view, listening to others, building overarching language and identity, as well as the use of boundary object`s (Star and Griesmeier 1989) are seen as means to share and coordinate across practices in this perspective. We suggest that a cultural perspective on organizational learning (e.g. Weick and Westley 1996) like when groups of workers look at their own culture and then rethinking, relearning, and reexamining become important for those things they believe they already know, focusing on the contribution of displayed practices that can give more insights into this.

Generally speaking, culture influence on what information are regarded relevant and important, and what is not so. Complex organizations can be seen through the lens of multiple cultural configuration and cultural traffic (Alvesson 2002). In this perspective we should not regard sub-cultures as absolutes, but a mix of different cultural expressions, sometimes different from issue to issue. The fundamental logic of action is in March and Olsens (1989) view the cultural appropriate behavior. Employees do what they regard as appropriate, using cultural norms as a guideline to match the situation they are in with an identity. *What is the situation? Which identity is most important for me and my organization in this situation? What am I supposed to do?* Regarding learning through managed networks, the answers on these questions will in our view influence on the participation in the network, what they share and to what extent the sharing will turn into changed behavior.

Within a cultural perspective , new understanding due to the exposure of practice are dependent on how and when (in which context, e.g. professional or geographical) this practice are shared and interpreted, and if and how it is translated from/to, or reflected upon in, other practices in other contexts. Cultural expressions can also be a pure celebration of identity by a professional/work community, or be what they think regional or national management would like to see, detached from local practices. In this view the researcher has to look for how different issues relates to different culture forms and levels of culture. Sometimes one practice might expresses values important for the local business and sometimes national policy.

This is a study of rather independent inspectors in a distributed organization, often well educated professionals, who have been used to work alone or in pairs in their own district from their home office, or a small local office, often on the run visiting other companies. In such work settings the actual relational and geographical social space will influence the depth of identification (Amin and Roberts, 2008; Macpherson and Clark 2009) In a context, with highly knowledgeable members, the cultural conditions tends to promote "responsible autonomy "*where the employers use their work autonomy to advance the interest of the organization and not just their professional interest*" (Newell et al 2009:41)

On the other hand public organizations tend to be multifunctional and have to take into account different and conflicting interests of users, in addition to coping with issues like: unity (homogeneity) in the task handling, accountability, service quality, professional autonomy and cost efficiency (Christensen et al 2009).

Data collection

The empirical study takes place in two regions of the Norwegian Labor Inspection Authority. The regions are selected due to the large geographic distances between the inspectors in these regions.

Our research study was inductive and focused on generating theoretical insights from an in-depth examination of organizational learning efforts conducted within and between managed Networks of Practice. Following an emergent strategy, we collected data from multiple sources. Data have been constructed through 19 interviews with network members and managers representing five different networks in the organization and a group interview of

five managers and advisors at the organization's headquarters. Our research project followed a semi-structured approach where the informants were asked to tell their story freely (Spradley, 1979). Since these data contain stories and concrete examples, they are very valuable, because as Giddens (1984) notes, people are more knowledgeable and reflexive about what they do than researchers often give them credit for.

The data collection took place over a period of 20 months (November 2008–May 2010). In between the interviews, the literature helped us to interpret and construct follow-up questions on interesting findings in previous interviews. Out of the 18 individual interviews, eight were conducted by telephone, due to the long distances involved. The phone has fewer social cues than a face-to-face situation, which might reduce the richness of the data (Oppdenakker, 2006), but on the other hand, the effects of the interviewer might be reduced (Johannesen et al, 2006), also due to there being fewer social cues. Our experience is that the phone and face-to-face interviews were equally informative and elaborative. All interviews were audio recorded and written out in text before analysis.

We also collected data during observations of face-to-face meetings and online meetings (GoToMeeting) over eight months in two of the networks, which gave us insights into their displaying of working practices in their real context. In addition we collected different documents: minutes of meetings, powerpoint presentations, documents containing what we saw on the screen observing GoToMeeting meetings using the print screen function on the PC, and various official documents, valuations and input to such evaluations on the role and conduct of the managed networks in the study. All of this was helpful in getting a better understanding of the sharing of practice.

In the data-analyzis we used QSR Nvivo 8, a popular tool for organizing qualitative data.

The category building is done with reference to the constant comparison method, were data is compared with data (Boeije, 2002). First we identified "incidents" of displayed practice in our open coding. The second step, axial coding, involved our combining and collapsing categories of practices of displayed practice. Further on we looked for the contexts of which the practices of displaying practice we had grounded were situated . In this later stage data has been compared with theory to enrich our interpretations.

Member checks (discussing findings and interpretations with informants) have been conducted several times using the GoToMeeting tool, to get feedback on interpretations of findings and to ensure accuracy.

Research site and context

The empirical study takes place in a large distributed public organization, and involves a comparative study of five different managed networks set up by the organization. The networks consist of 10-15 people. The members of these are inspectors, self-managed professionals, traditionally working independently in the field, often alone, in pairs or in small groups. This regulatory authority has adopted a new inspection policy. Previously, emphasis had been placed firmly on exercising control over its subjects, where as now there would be more focus on providing information and guidance.

The mission of the organization is to help solve problems ranging from all types of accidents (due to falls, chemicals and misuse of tools), matters of social and psychological well-being, the prevention of back problems, and so on. Their duties involve inspecting work locations in nearly all sectors of work life within their geographically defined area. It is fair to say, then, that their tasks are very complex and constantly changing. Second, they are distributed both nationally and regionally, with inspectors throughout the country, all of them operating with high autonomy. This is of special interest, because when tasks are complex, uncertainty increases, so more interaction and communication are typically needed. The individual inspectors have to handle different contexts, handling different knowledge types and at the same time must try to accomplish better practice and as the bureaucratic standards state, their practice has to be as similar as possible from inspector to inspector.

Re-organization since 2004 has taken the organization from a hierarchy based bureaucracy toward a more professional, knowledge based bureaucracy (Mintzberg, 1979) and also towards heterarchy, relying more on collaboration and cooperation (Solvell and Zander, 1995) – a more decentralized project and network based organization with marked orientation, however, still with mixed logics and several unsolved problems. The competence networks in our study, or managed Networks of Practice (NoP), as we label them, are interesting for several reasons. First, they can be seen as an attempt to move the organization towards heterarchy: more distributed accountability, decentralized decision making and multiple (often competing) evaluative principles. Second, they are an example of a new organizational

structure set up to form new or to strengthen existing communities of practice. The learning and coordination processes are therefore situated both inside and outside their daily practice. Third, this research addresses an organizationally designed situation where the practitioners are supposed to conduct their work by coming together in small groups for a short time to conduct project work, and at the same time they are supposed to form a more long-lasting group in the managed network. Fourth, they are supposed mainly to communicate online, using Information and Communication Technology (ICT) and only meet each other once or twice a year. In general ICT makes it possible to participate in several communities (Boland and Tenksai, 1995)

The coordination efforts range from sharing experience from inspected sites, sharing facts and technical information, professional knowledge, interpretation of specific rules and legislation, and promote equal handling of similar matters in general among all inspectors.

COORDINATION AND LEARNING PRACTICES IN THE ORGANIZATION

Coordination and learning practices in the Managed Network for Practice (MNoP`s) are shaped work context, technology use and the management of the knowledge sharing meetings.

The inspectors are independent workers, working from small district offices or from a home office. Often alone or in pairs, conducting inspections in enterprises within their region, they are often on the move and spend time with clients to control, motivate and support work conditions as intended by the law. Their work is evaluated by their management regarding the number of inspections conducted and by their clients, as regards 'equal handling' across enterprises, but at the same time adjusted to enterprise-specific needs.

Regarding technology use, they are accustomed to using the phone a lot to keep in touch. But the reorganization and new technologies have shaped the present situation. The tool used in distributed project work and learning through top-down initiated networks is the GoToMeeting tool, a highly rated (*PC Magazine*, 2 July 2007) web-based tool that allows everyone in a group meeting to share whatever is on each participant's computer (see *http://www.gotomeeting.com*). This tool is the main channel for ongoing project work and the activities in the networks.

The networks are managed by an assigned coordinator, without any instruction authority. Line managers are those who have the authority to instruct, and are responsible for the work conditions and individual competence planning. As one coordinator puts it:

> *"I can't force anyone to contribute, I can only motivate. It is difficult."*

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Regarding technology use: They use the phone a lot to keep in touch with. The reorganization has included implementation of new technologies, which has partly shaped the learning context. The new tool used in distributed project work and learning through top down initiated networks are the GoToMeeting tool, a highly rated (*PC Magazine*, 2 July 2007) web-based tool that allows everyone in a group meeting to share whatever is on each participant's computer (see *http://www.gotomeeting.com*). This tool is the main channel for

In the next paragraphs, we will now ground sub-categories to the displayed practice category of Kellogg et al (2006), using our qualitative research strategy to develop several categories of displayed practices. Regarding context there are two important differences here. While Kellogg et al's (2006) category of display practice describes the ongoing visualizing of work through various information technologies to ensure coordination in ongoing joint project work (information about what anybody else is doing), we develop categories in which display practices are useful for knowledge sharing regarding how individuals conduct their task handling. They are not directly interdependent, since they often conduct their work very independently, but interdependent since the outcome of each individual or project should be based on professional knowledge and is intended to be 'equal'.

Visualized practice

Sharing through ´vizualized practice´ inform about and discuss what they have seen at inspected sites. The ´visualized practice´ category represents findings were the inspectors through the GoToMeeting tool are able to present visually on screed the whole process of case handling like inspection on site, picture taking, dialog with other public bodies and inspected

business. Here norms regarding the quality of work come into play, like quality of interviews, note taking, communication, pictures and written correspondence. ´Visualized practice´ is possible due to the technology at hand, and facilitates efficient knowledge sharing.

Pictures taken at enterprises are presented at conferences, off- as well as online. This learning practice in the network is used mostly by the networks set up for knowledge areas in the naturalistic knowledge areas, i.e., accident networks and occupational hygiene networks in this study.

 Historically, various types of engineers are used to illustrating their work through drawings or prototypes. In the labor inspectorate, pictures are used to illustrate practice: What can go wrong with different equipment and what must we look for while we are conducting inspections? How should a proper scaffold look like? It is also used to define new types of equipment: Is it a truck or another kind of vehicle? Through the GoToMeeting tool it is also possible to visualize a whole task-handling process. Some of our informants stressed the importance of taking and attaching pictures to the case before putting it into the archive, useful for the task handling and for later sharing online on GoToMeeting in projects or in the network. Several times they have gone through accidents or events, sometimes the whole process, other times only through what happened. GoToMeeting is in this respect regarded as very effective:

> *"If the legislation is changing, pictures on screen can easily create a mutual understanding of the new legislation. Like when I present machines and equipment that are in line with the new rules. Using the GoToMeeting tool, using pictures takes three minutes as compared to 30 minutes if you had to explain only with words."* *(Experienced employee)*

The visualized practice facilitates distributed learning and coordination. Even though they are working with different clients in different districts of the region, pictures of what you can expect to see are very helpful while sharing information.

Given the different work context the inspectors are inspecting, pictures are often used to inform about and discuss what they have seen at inspected sites. Pictures taken at enterprises are presented in MNoPs at conferences, ftf as well as online. This learning practice in the network is used mostly by the networks set up for knowledge areas in the naturalistic knowledge areas, i.e the Accident networks and the network of Occupation Hygiene in this

study. Example of picture in use is presented below (picture 1 and 2) from a F-16 fighter in a hangar.

Picture 1:

Picture 2:

The picture 2 is illustrating pens development of surface coatings in air in an aircraft hangar. In the elaborations they focused on the work processes related to this job, the chemicals in use and experiences regarding risk preventing efforts. The picture illustrates how polluted air is taken out of the hanger through a point extraction, put on the engineer were the maintenance is taking place..

Historically various types of engineers are used to illustrate their work through drawings or prototypes. Practices regarding: What can go wrong with different equipment and what must we look for while we are conducting inspections? How should a proper scaffold look like? It is also used to define new types of equipment. Is it a truck or another kind of vehicle? Through the GoToMeeting tool it is also possible to visualize a whole task handling process . Some of our informants stresses the importance of taking and attaching pictures to the case

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> *" If the legislation is changing, pictures on screen can easily create a mutual understanding of the new legislation. Like when I present machines and equipment that are in line with the new rules. Using the GoTo meeting tool, using pictures takes like tree minutes compared to 3o minutes if you had to explain only with words"* *(Experienced employee)*

The ´visualized practice´ facilitates reflections, dialogue and constructions at individual and collective levels, and hence distributed learning and coordination. Even though they are working with different clients in different districts of the region, pictures of what you can expect to see are very helpful while sharing. The visualized practice represents a culture of engineers and focus on practical solutions, easily transferred by the use of technology. The coordination mechanism here is the sharing of an inspection context accompanied by small stories. While others argue that awareness is hard to develop online (Olson 2002) visualized practice creates awareness quickly in this online context, but here this mechanism is also supported culturally by the strong task oriented identity, the importance of doing inspections, and the phenomena these employees work with.

Documenting practice

In addition to presenting pictures of inspected sites, the inspectors open up the archive to share their way of reporting in official documents on inspected enterprises. In a bureaucracy documents are seen as a means of ensuring the impersonal use of the law for the individual client (Weber, 1947). In the archived files all written official documents regarding a case have to be stored to ensure equal task handling. This archive is also important material for knowledge sharing and learning, not only through content analyses but through the conversations they help to create. The use of documents is a necessary resource for learning activities in a bureaucratically organizational context. To achieve 'equal handling', documents are needed to understand the practice of others:

"We are very dependent on presenting each other's documentation, where the information is, what it says, how we use it, then we use GoToMeeting." (Experienced Inspector)

In this learning mode, in documenting practice, they show each other documentation of conducted task handling, legislation used, where it is and what it says. Then this can be shared and discussed. This practice differs from visualized practice since it adds the following essentials:

1) The inspector displays how he or she formulates letters and how he or she makes references to the law, and sends information to the inspected enterprise.
2) The inspector displays the whole process from the first letter to the enterprise, notes taken at the inspected site and how he or she has followed up after orders have been put on an enterprise.

Using documents is a way to share the practice of individuals with a group since it reveals both standard procedures of the organization, and also local variants and personal interpretations and habits regarding the process and how the task handling is written up.

Testing practice

The ´testing practice´ category refers to the question: did I conduct my case handling correctly? This practice of cross community coordination also set norms for objective case handling into play, focusing on the role of subjective judgments, were the subjective judgment of a group are regarded as more "objective" or correct than of one. f2f communication, or in dispersed units the GoToMeeting tool is the media for this cross community coordination activity. This practice is supporting individual decision making and distributed authority, through confirming or adjusting individual subjective judgments.

The members of the two networks within the area of psychological well-being described to us a third mode of sharing practice – 'the use of testing practice'. In the authority they distinguish between Level 1, 2 and 3 inspections. Level 1 is the easiest, where the inspector conducts unannounced inspections using a simple questionnaire, interviewing some of the people he or she meets at the work site. Levels 2 and 3 are more advanced inspections, involving announced inspections and separate interviews with management and employees or

group interviews. Within the area of psychological well-being, inspections are always Level 2 or 3, producing a lot of material for the inspector which must be analyzed and interpreted in relation to professional knowledge, such as the consequences of stress, and the law.

The 'testing practice' differs from visualized practice and documenting practice regarding the following:

1) The role of the colleagues in the network.
2) The role and use of technology.
3) It also involves comparing correct task handling and actual achievement in the enterprise inspected.

While the colleagues commented that presentations were more or less unprepared in visualized practice and documenting practice, some of the commentators in 'testing practice' have to read through all documents, and minutes of observations and interviews, to try in advance to pick out and argue for the relevant and most essential 'facts' to be discussed in the case. This is time consuming for the individual since the participants in the discussion have to be prepared before the meeting. Due to the complexity of the material and the role of personal likes and dislikes which the inspector might have, social cues are important for sharing through testing practice. If it is preferred, online discussions are possible but then it is not always possible to have in-depth discussions.

This 'testing practice' of knowledge sharing and learning have a strong resemblance with traditional learning modes in an organization, where the apprentice follows the experienced inspector on inspections and learns by observing the experience, sharing and discussing observations, but here this happens without doing the inspections together. Instead they share their notes from inspections: :

> " 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 have done it correctly, we can do a "test". Go through his or hers case and discuss it. Very often it turns out that he or she did not think very wrong".

> "Justification is important. Where is the line between normal time pressure and problematic time pressure.? It helps when more than one looks at it"

> (Coordinator of a network)

Due to complexity in the material collected and the role of personal likes and dislikes which the inspector might have, social cues are important for sharing through testing practice. F2f is preferred, online discussions are possible but it is regarded as not good enough since it is not possible to get in-depth discussions..

Since the regulations are used in a context, the interpretation of it may vary, as they put it:

> *If you understand the intentions in the legislation, and use your professional knowledge, you do not need to use the law in a rigid way.*
>
> *(Notes from a virtual meeting)*

Often, also at online meetings, the discussions are taken further by elaborating on the dilemma regarding those enterprises who have done everything by the book, but without the expected results as these notes from an online meeting reveals:

> *"If we have an employee who can prove through documentation that they have conducted courses in Health and Safety, but through an inspection we reveal that this is not implemented or understood, then we have to figure out if it is lack of knowledge, ability or willingness which has created this situation. You can put in an order if you are very specific, but you have first also to consider strategically, by using your professional knowledge, if other means are more useful in achieving what you think should be expected from this enterprise regarding Health and Safety".*
>
> *(Notes from a virtual meeting)*

To us this finding suggests that the learning promotes coordination through the empowerment of the individual through professionalism and increases their ability to focus upon their role in the decision making of how to conduct and follow up inspections. Such an empowerment process can promote "responsible" autonomy (Newell et al 2009) , since they promote critical discussion of the use of the rules and professional knowledge at hand.

The presentation of cases among a large group of network members reviles conflicting norms like; norms advocating individual flexibility, professional group norms and norms embedded in the national policy. On the other hand, this "testing practice" involves knowledge sharing and learning which have strong resembles with the traditional learning mode in the organization, were the apprentice follow the experienced employee on inspections and learn

by observing the experienced, sharing and discussing their observations, but in this new network setting it is done here without actually doing the inspections together.

Conclusion

Our findings suggest that through managed Networks of Practice (Brown and Duguid, 2001) participants try to create as rich an environment for knowledge sharing and learning as possible due to several efforts.

First, through the technique of the ideal type practice 'visualized practice', they let others see and reflect upon what they are seeing at an inspected enterprise by the use of pictures. Second they display their work by presenting the legislation they have used in a given case and their own letters to inspected businesses. Third, some go through each other's task handling, reading the minutes of observations and interviews. They later suggest that while they work a distance apart, with different clients, they to try to create a rich learning environment as if they had conducted the tasks together. To use this implies that these practices are helpful in the balancing act between structure and process for organizational learning (Brown and Duguid, 2001) since they create rich and meaningful learning (Hislop, 2005), but without revealing more than the individuals wish to.

Using a cultural perspective helps us to focus on the more implicit and hidden forms of learning practices and their respective coordination mechanisms Through this perspective we see coordination and learning processes implicit forming each individual employee through interactions with the group of people in the network. Raising awareness and creating perspectives (Boland and Tenkasi, 1995). While Olson argue that awareness is hard to develop online (Olson 2002) visualized practice creates awareness related to context quickly online, our study indicate that awareness can be supported culturally by the strong task oriented identity (the importance of doing inspections balancing the law and practical solutions) and that the support can operate also online.

We see three implications of this research. First, since learning and coordination processes takes form of practices these can be identified and nurtured (giving helpful support through developing arenas and technology) further without direct involvement of management, reducing the risk of constraining the delicate dynamic by which these processes are sustained (see Alvesson, 2002, Thompson, 2005 and Agterberg et al 2010). Secondly, practices differ

regarding if they can be displayed best online or not. Some practices are shared easier through pictures or other vizualised means combined with stories. Others rely mostly stories. The search for boundary objects (Star and Griesmeier 1989), to ease knowledge sharing has therefore to take into account the role of stories which accompanies the use of them. Third, others should describe further practices for sharing practices in different contexts.

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