Infrastructures-in-practice: Cultivating Enterprise Microblogging

Daniel Richter  
University of Münster  
richter@wi.uni-muenster.de

Alexander Richter  
Bundeswehr University Munich  
a.richter@unibw.de

Jakob Hamann  
University of Münster  
jakob.b.hamann@googlemail.com

Kai Riemer  
University of Sydney  
k.riemer@econ.usyd.edu.au

Nadine Vehring  
University of Münster  
nave@wi.uni-muenster.de

Abstract

As with other types of corporate social software, companies adopting enterprise microblogging find it hard to make sense of the new service. This comprises both integrating it into their work processes and shaping the implementation and adoption process so that envisioned usage practices evolve. In this paper we are investigating the use of microblogging at a large insurance company by means of genre analysis. We compare and contrast our findings with three similar studies we have conducted prior. We find a significant relationship between the organizational contexts and the related technologies-in-practice that have evolved in the different cases. It becomes clear that management cannot prescribe usage practices for open tools like enterprise microblogging. But management can shape the organizational context in which it is adopted. Thus, we discuss the concept of "cultivation" as a potential management approach for implementing enterprise microblogging successfully.

1. Introduction

In the past years social software has increasingly been deployed to support collaboration and knowledge management in companies. Several studies have already shown the potential benefits of social software in the corporate context e.g. in facilitating user participation and allowing for new ways of connecting, interacting and communicating with other people [8, 9, 19, 21].

Despite the valuable insights such studies provide us with, the implementation of corporate social software still presents a challenge for many companies. In particular, it remains unclear what roles such tools could or should play in corporate work practices, as social software tools exhibit “a form of openness, whereby the technology and its set of features do not precipitate its forms of usage”. Rather “the true nature and potential of such technologies does only manifest when people make sense of and incorporate them in their day-to-day work routines” [16, p.186].

For this reason we argue that corporate social software should rather be understood as open information infrastructures. On this basis we further claim that each company appropriating such a tool needs to make sense of it in their specific context and needs to cultivate emergent use practices. These practices might be very dissimilar for different enterprises and might support varying business processes.

However, we will demonstrate that similar use contexts lead to similar adoption of the tools. The ability to answer the questions posed above might hence come with more experience in the implementation of social software in enterprises in the form of a large set of case studies on the matter.

For our analysis we conduct a genre analysis of the use of the microblogging tool Yammer at a large insurance company. We compare and contrast our findings with three other cases where the usage of enterprise microblogging was equally analyzed by means of genre analysis. In doing so, we observe a strong relationship between the organizational contexts of our case companies and the evolving technologies-in-practice. On this basis we will discuss alternative approaches for the implementation of enterprise microblogging within companies.

Our paper proceeds as follows: We will first give an overview of our study including theoretical background, a case description and our methodology in chapter two. In chapter three we will present the results of our genre analysis and provide descriptions and a comparison of the additional three cases. We will discuss our findings in chapter four before we conclude the paper with a summary and reflection.

2. Study Overview

In this chapter we provide an overview on the theoretical lens we use to study our research object (enter-
prise microblogging). We moreover introduce our case and research methods.

2.1. Theoretical Background

In the context of this paper we conceptualize enterprise microblogging as an information infrastructure. Hanseth and Lytinen [11] define an information infrastructure as “a shared, open (and unbounded) heterogeneous and evolving socio-technical system (which we call installed base) consisting of a set of IT and their user, operations and design communities” [11, p. 4]. An information infrastructure does not have a predefined goal, like other software applications, but may be used for various purposes and in various ways. Hence an information infrastructure needs to be interpreted and appropriated by its users and thus needs to be integrated into existing work practices [16]. Thereby, an information infrastructure is embedded in social practices and is shaped by conventions of practice [6, 18]. Due to these specific characteristics of information infrastructures their diffusion, impact and actual usage are hard to predict. Accordingly, Ciborra and Hanseth [7] state that “the scope for control over an infrastructure cannot be limited, and management has to cope with a resource that they can govern only in part” [7, p. 309]. It is hence of question how such infrastructures can be managed. Thus, it is essential to view the technology within its social or organizational context and the work practices in which they are embedded [5]. For this purpose we take a technology-in-practice perspective as proposed by Orlikowski [12]. It builds on the idea that by adopting and using a certain technology users are not only influenced by the technology but can affect technology structures as well [10]. Hence by interacting with a technology and against the backdrop of existing technologies-in-practice users constitute a new, specific technology-in-practice [12]. Thus a technology-in-practice can be understood as a combined perspective on a technology and the ways of using, that users in a specific context have developed. Such a technology-in-practice is necessarily situated in a broader organizational context or institutional setting [14]. Consequently similar conditions for the adoption of a new technology (existing practices, social situation, e.g.) can lead to the development of similar practices and hence a similar technology-in-practice [12].

2.2 Case Overview

We have analyzed the usage of Yammer in a large insurance company that we call INSURE.

Yammer is a so-called freemium web-service that is organized based on the concept of networks, with one network typically representing one company. The service has more than 5 million users in more than 100,000 companies worldwide and has been acquired by Microsoft in June 2012. In Yammer anyone can create a network for their company by registering with their corporate email address. Other users can join by registering with their corporate email address that serves as their identifier. Like Twitter, Yammer is based on the "follower"-principle, i.e. users can select users and are then constantly informed about their platform activities as they happen. Whenever new users join a company network they initially subscribe to the message streams of all users within the network.

INSURE has approximately 150,000 employees that work in geographically dispersed teams and different divisions and have a high need for efficient collaboration. By the end of 2010, INSURE was perceived by employees as having “a conservative and wait-and-see attitude regarding social media […] there was no platform for internal communication”¹. In 2011 the company intensified its activities with regards to social software in several of its international subsidiaries. In the IT department a group of approximately 10 employees set up a network on Yammer.com to prepare a corporate event. In May 2011 about thirty middle managers from INSURE’s IT department carried out the event in the form of a bar camp. Participants were invited into Yammer to share opinions and report on sessions during the event. One of the main facilitators of the platform described this as follows: “Then I started activating the [Beta] network and invited other executives and said: “Let’s get familiar with this tool!” and we already supported some of the bar camp preparations with this tool”.

At the event itself, after initial skepticism about the platform and the format of the retreat, many users found the platform suitable and used it. In one of the bar camp sessions the participants collaboratively developed a code of conduct for the Yammer platform. A facilitator comments: “We provided a set of rules, encouraged users to participate and proposed communication methods”. After the retreat some of the users were so convinced by the service that they started out to invite other colleagues to the platform. “After the retreat some employees were thinking: ‘Hey, I could imagine using that with my colleagues in my unit.’ Or: ‘I have an idea and I could share it with the community through Yammer’ […] So 10 or 15 people were really motivated and carried on the spirit’.

Through the invite function and user-driven word-of-mouth Yammer spread in an avalanche-like effect, initially through the IT department and later to other departments as well. The tone on the platform was very

¹ This and some other quotations were originally in German and were translated.
positive and new users were either welcomed by one of the facilitators personally or as a group. Users were further encouraged to experiment but to also mind a professional attitude: “A warm welcome to everyone new here on the Yammer platform. Try the capabilities of the platform and simply get an idea of whether it helps and improves communication. The use is completely voluntary and not related to other tools. Please note the policies for the use of Yammer.”.

Another aspect that improved the adoption rate was that upper-level management including the board of directors were informed about the movement and sporadically participated on the platform. In their posts they also encouraged employees to use Yammer. A member of INSURE’s global board posted the following as his reason to join the Yammer platform: “I am mostly interested in how you want to bring forward your division, our company, our economy. To do so, any means of communication suits me. It’s the content that counts, that inspires me and also brings together brothers in spirit. It is important to take time to communicate and to have friends who help to filter the right information.”

In the short time frame from May to July 2011 more than 1,600 people joined the company’s Yammer network. Even though usage started at middle management it spread all the way to the executive management and employees were neither constrained by their managers to use the platform nor was there a formal rollout of Yammer. The main facilitator notes: “There were also critical voices: ‘We don’t know our way around, this is all too much and too confusing’. This criticism was justified as well. […] Apparently the understanding to decide whether to discuss topic-specific matters in a community or a group had not been universally established yet. I tried to explain and comment how people should use the platform”.

Notwithstanding these critical voices, INSURE’s Yammer network grew rapidly. Soon concerns about data security emerged. Since the Yammer platform and its usage data is hosted outside the company’s firewall and IT security personnel was concerned about security vulnerabilities of the platform, executive management finally decided to shut down INSURE’s Yammer network after only three months. Simultaneously it was decided by the board that a new platform would be implemented in the subsequent months.

2.3. Method and data analysis

Our study concentrates on the three months of Yammer use at INSURE. In order to get a good grasp of the case we conducted nine interviews with employees that used Yammer and were involved in its adoption and one interview with the facilitator of the platform. We further used genre analysis in order to get a deeper insight into how Yammer was used at INSURE. The reason we chose this method is because “genre analysis can serve as an instrument to understand the communication practices of a social group” [15].

Swales [19] defines genres as follows: “A genre comprises a class of communicative events, the members of which share some set of communicative purposes. These purposes are recognized by the expert members of the parent discourse community and thereby constitute the rationale for the genre. This rationale shapes the schematic structure of the discourse and influences and constrains choice of content and style.” [19, p. 58].

A genre analysis hence targets the identification of these genres to establish an understanding of the practices mentioned above. To identify these genres, we utilized the purpose of the status updates. To enrich the genre analysis with additional information about the communication practices, we also analyzed the content, the type and the target (if explicit) as suggested by Orlikowski and Yates [13] as well as Askehave and Swales [1].

In total we analyzed 1,600 posts, taken from two different time periods. We chose to analyze two different time periods in order to be able to ensure the stability of the emergent use practices. This is especially important as the overall usage phase of Yammer at INSURE is rather short. Consequently our samples stem from the end of June and July respectively, as usage practices needed to emerge first. In order to ensure coder reliability, the posts have been coded by two researchers and constantly compared to align the emerging set of genre codes. Moreover the codes have been discussed, based on example posts with two more researchers in order to ensure plausible codes.

3. Presentation of Results

In this section we first present our findings from the INSURE case, before we will show similarities and dissimilarities to the results of other genre analyses looking at enterprise microblogging usage. This will lead us to the discussion of similarities of our case to one other case. Moreover we will show that both cases can be characterized by a similar context. Beyond that we will refer to examples where a different context led to different usage practices.

3.1. Findings from the INSURE Case

In our analysis we have identified a total of 15 genres with five top-level genres. Our findings are based on a total of 2,085 genre instances. In the following we
will give a brief overview on the top-level genres, which are:
- Opinion sharing and Discussion
- Share Information
- Problem solving
- Socializing
- Other

The largest genre we identified is *Opinion sharing and Discussion* representing about 49% of the genre instances. This category consists of messages regarding one’s opinion (“Ask for Feedback”, “Provide Feedback” or “Share Opinion”) and messages that are part of a discussion (“Discuss” or “Clarify”) where the latter more strongly aim at convincing someone of one’s opinion. People shared personal opinions (e.g. “I prefer Firefox over IE7”) as well as opinions about business matters (e.g. “In my opinion INSURE should focus more on potential customers…”). Moreover these posts did open a discussion as other users replied with their opinions (e.g. “I prefer Android over iOS, as it’s more stable”; “my iPhone never crashed and I prefer the design.”). In summary all posts in this section are part of rather lively interactions on Yammer.

The second most common genre is *Information Sharing* (27%). Posts in this genre are less interactive as users predominantly only read the shared information instead of replying to it. The information shared in the posts is most often work-related and about half of the posts contained links. Moreover posts that are “asking for information” (4%) are included in this genre.

The genre *Problem Solving* covers 13% of the genre instances. Sub-genres in this category are “Ask for help”, “Propose idea” and “Provide solution”. When providing a solution this could be by simply answering a question. Beyond that users of Yammer also facilitated contact to experts that might be able to solve the problem. Hence by asking for help users could draw on the network knowledge (social capital) of others.

The genre *Socializing* subsumes messages with the purpose to engage in personal conversations about non-work-related matters. 10% of the genre instances belong to this top-level genre. This includes welcoming and introducing new members to the platform.

**Illustration 1:** Distribution of top-level genres

Posts that could not be assigned to any of the categories above were classified as *Other* (1%). More than half of the genre instances in this top-level genre were those “Coordinating others”.

Illustration 1 summarizes the distribution of the top-level genres. It becomes obvious that about 75% of the genre instances are somehow related to opinion or information sharing. The vast majority of these posts deal with work-related topics. This is somewhat surprising as the platform emerged bottom-up and with no pre-given context of use from a business process perspective.

### 3.2 Comparison with other EMB Cases

In the following we will compare our findings with three other cases where we conducted a genre analysis of enterprise microblogging. All of these cases have been published and presented at major IS conferences [2, 3, 4]. Thus we will only briefly describe the cases. We will highlight similarities as well as differences and point out the context of use and platform introduction.

**CONSULT**

CONSULT is a consultancy business with more than 100,000 employees in over 35 countries. In September 2008 a small group of consultants in one of its divisions started using Yammer. The group of early adopters started using the platform out of curiosity and a phase of experimentation and learning commenced to see whether the platform could be usefully integrated in the daily work practices.

The use of Yammer hence emerged in a similar manner compared to INSURE in developing bottom-up and out of experimentation of a dedicated group of employees. However, in this case no management intervention occurred. Rather, several senior managers of the company joined the service to also discover poten-
tial uses of the service for themselves. One executive remarked that he was “convinced of the benefits for the company, and more interested in identifying new application scenarios.”

It became clear over time that Yammer could become a powerful means for knowledge sharing by connecting employees, creating more transparency and making it easier to find experts. We again conducted a genre analysis on CONSULT’s Yammer posts [2]. The genres we found are listed in Table 1, together with the corresponding genres from our INSURE analysis. In order to ensure comparability we had to split our top-level genre “Sharing Information” into “Sharing of work related information” and “Provide updates”. Moreover, in our previous paper we did eliminate any none work-related posts from the analysis, which we reintegrated for the comparison as the posts seem to fit with our top-level genre “Socializing”.

Despite some differences in the percentage value both cases show very similar general patterns, in particular when compared to the next two cases discussed below. Discussion and information sharing in both cases is the most prominent use of microblogging. Beyond that, usage is very interactive in both cases with 87% and 77% of posts being part of a conversation in the INSURE and the CONSULT case respectively.

Nevertheless, the cases reveal differences in detail. First of all in the INSURE case the usage is slightly more interactive. In particular users engage more in discussion with each other. Moreover the users in the INSURE case tend to share more information. Partly this seems to be related as shared information in some cases is the nucleus for discussion. In the CONSULT case Yammer is used more to notify other users of task and status updates. Even though the genre “Provide updates & notification” only shows little difference much more of the genre instances in the case of CONSULT are concerned with creating work-related awareness. Beyond that in the case of CONSULT genres like “Self Marketing” and “Social Feedback” (both part of “Other”) have been observed that are not present in the INSURE case.

Aspects like coordination of work are, however, not the focus of the microblogging usage in any of the two cases, in contrast to other cases as we show below.

<table>
<thead>
<tr>
<th>INSURE</th>
<th>CONSULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>49% Opinion Sharing &amp; Discussion</td>
<td>40%</td>
</tr>
<tr>
<td>18% Sharing of work-related information</td>
<td>10%</td>
</tr>
<tr>
<td>9% Provide updates &amp; notifications</td>
<td>14%</td>
</tr>
<tr>
<td>13% Problem Solving</td>
<td>17%</td>
</tr>
<tr>
<td>10% Socializing</td>
<td>12%</td>
</tr>
<tr>
<td>1% Other</td>
<td>7%</td>
</tr>
</tbody>
</table>

Table 1: Comparison of INSURE and CONSULT case

CREATE

The second comparison case is CREATE. The 180 employees of CREATE collaborate in knowledge-intensive software development and consulting projects. Work is generally carried out in various project teams. Due to the rapid growth of the company, difficulties in sharing information and ideas between organizational units and between projects were identified in spring 2008. An employee proposed to investigate the potential of Twitter or a similar service to facilitate communication within the team. This idea found support by management and a quick decision was made against adopting a public microblogging service and for the in-house development of a dedicated solution, called Communote.

Communote is a browser-based “on premise” platform, which revolves around the concept of multiple microblogs (blog streams), to which users can be added on a case-by-case basis. Technically it draws on Web 2.0 technology (Ajax) and design elements (i.e. a ‘clean’ look & feel). At first glance, Communote looks much like Twitter, as the key elements are the same: the posting stream is the main element and a panel with filtering and navigation options is situated on the right. However, a major difference is the drop-down list on the top. This element is used to choose the streams in which to post and is similar to groups in Yammer. So, rather than to post in one large general stream as with Twitter (where users then need to configure their own personalised streams by way of creating a list of people they follow), Communote allows to setup blogs/streams deliberately associated with projects or teams. Users are then given access to these blogs, and can decide in which context to post. A user’s start page then shows a synthesis of postings from the user’s microblogs. In order to read the messages associated with a project, users can simply select the respective blog and read through the stream of messages. Like Yammer, Communote is used by small, but also by several big companies (>10,000 employees) and in general can enable the same usage practices.

Usage of the tool started in November 2008. At the beginning it was unclear which use cases the platform could and would support. Thus the senior executives decided that users should explore the potential of the platform for themselves to initiate a learning and knowledge exchange process. At the same time, the senior executives were convinced of the benefits of using the platform. They thought that emerging "success stories" should be selected to communicate new usage scenarios demonstrating in which way the service might be used. This was predominantly done in small teams, mostly teams of collaborating programmers.
We have conducted a detailed genre analysis of how the tool (cf. Table 2) is used [3].

<table>
<thead>
<tr>
<th>CREATE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Coordination</td>
<td>41 %</td>
</tr>
<tr>
<td>Provide updates on context &amp; events</td>
<td>16 %</td>
</tr>
<tr>
<td>Share Information</td>
<td>8 %</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>19 %</td>
</tr>
<tr>
<td>Opinion Sharing &amp; Discussion</td>
<td>3 %</td>
</tr>
<tr>
<td>Decision making</td>
<td>5 %</td>
</tr>
<tr>
<td>Other (includes Social Feedback)</td>
<td>8 %</td>
</tr>
</tbody>
</table>

**Table 2**: Genres in the CREATE case

In contrast to the INSURE and the CONSULT case the platform used by CREATE has become a medium for organizing task-related collaboration on a micro-level [3]. For example, it served the purpose of creating awareness within the team for the immediate task context, so that when someone finishes a task someone else can take over. Hence, “Task Coordination” is by far the largest genre. Also, people help each other and solve emerging problems together. Consequently, for CREATE microblogging enables the coordination of highly interdependent work in a software engineering team, where people work on joint work objects (e.g. software code) and draw on Communote to coordinate their work through task status updates, problem-solving, and task delegation. In contrast only 0.6% of all genre instances belonged to this genre in the INSURE case. At the same time, we find virtually no discussions or people uttering their opinions in the CREATE case. In summary, the differences in the distribution of communication among the top-level genres between the CREATE case and the previous two are quite obvious (cf. Table 2 and Table 1). It clearly is a very different interpretation of microblogging.

**RESEARCH**

The third case, RESEARCH, is an interfaculty and interdisciplinary research project that consists of eight different sub-projects in areas as diverse as inter-organizational learning, innovation transfer and engineering at a German university. The project team decided to adopt Communote (as described above) as a platform for their project communication. The RESEARCH culture was described by the team members as receptive and casual, with a high degree of self-organized work.

<table>
<thead>
<tr>
<th>RESEARCH</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Task coordination</td>
<td>22 %</td>
</tr>
<tr>
<td>Time coordination</td>
<td>18 %</td>
</tr>
<tr>
<td>Discussion &amp; clarification</td>
<td>18 %</td>
</tr>
<tr>
<td>Event reporting</td>
<td>16 %</td>
</tr>
<tr>
<td>Input generation</td>
<td>11 %</td>
</tr>
<tr>
<td>Informal communication</td>
<td>6 %</td>
</tr>
<tr>
<td>Information storage</td>
<td>5 %</td>
</tr>
<tr>
<td>Problem solving</td>
<td>4 %</td>
</tr>
</tbody>
</table>

**Table 3**: Genres in the RESEARCH case

The findings of the genre analysis concur with the task-relatedness of the communication identified at CREATE (cf. Table 3). We had designed the study specifically with the purpose of allowing comparability with the CREATE case [4].

We found that the main usage practice task coordination is present in both cases and comparable in nature. However, we also identified major differences between the two cases. In the RESEARCH case Communote was used intensively for discussion and for managing the time and place for joint project meetings and similar, a practice that does not show up in any of the other cases. In contrast in this case “Problem solving” does not play a major role.

We can summarize, that despite a similar usage in general, the two cases reveal notable differences when taking a detailed look at the usage practices. These differences seem to be triggered by the specific local organizational context [4]. This can similarly be said concerning the two cases using Yammer. In the next chapter we will elaborate in more detail on these differences and the consequences that can be drawn from these observations.

**4. Discussion**

In the following we will first discuss similarities and differences between the described cases with regards to their context of use and the emergence of use patterns. Furthermore we will deduce implications on how enterprise microblogging can be introduced within companies and moreover how the emergence of use practices and with that technologies-in-practice related to this new type of service can be influenced.

Before we compare the four cases in more detail, we would like to comment on the different technologies applied in the cases. Essentially, we believe that we can rule out any influence by the underlying technology platform, as both platforms are essentially microblogging services that are quite similar, which means that all observed usage practices can be executed on either Yammer or the Communote platform. Moreover, while the first two cases, using Yammer, are
quite similar, the second two, using Communote, are actually quite different. Therefore, we attribute the observed differences largely to the organizational context.

4.1. Comparison of the four technologies-in-practice

Comparing the four case descriptions it becomes obvious that while the first two are quite similar to each other in terms of their genre profiles, the other two are very different to this group of two but show certain similarities to each other.

The CREATE case illustrates how the organizational context influenced the technology-in-practice and also the technology itself from the very beginning. Based on their requirements and the existing work practices, CREATE decided to develop a new solution that was necessarily developed against the backdrop of existing technologies-in-practice and the organizational context. Hence in this special case the new tool itself (not just its adoption) evolved out of the existing organizational context and work practices.

In the case of RESEARCH some of the work practices that Communote was designed for within CREATE can be found as well, such as task coordination. One might reason that the team in the RESEARCH case adopted the usage practices the tool was designed for. However, the case also shows distinct differences such as the time coordination practice and very little problem solving.

On the other hand, taking a look at the usage in comparison to the cases of INSURE and CONSULT, at RESEARCH we have a closed team of limited size, that is working on a collaborative task (executing a specific research project) in contrast to microblogging users that do not share any task relations but ‘only’ belong to the same organization, such as in the first two cases. Thus, we can say that we have one group of two cases who adopted enterprise microblogging for the usage in work-teams (CREATE and RESEARCH) and one who adopted it for communicating with a large network of heterogeneously related individuals of one organization (INSURE and CONSULT).

Furthermore, when comparing the cases of CREATE and RESEARCH in our prior analysis [4] we found that the differences in adoption very well matched the specific organizational contexts. In the case of CREATE we have observed highly task-specific work in a software engineering team. The team is characterized by a long history of working together. Consequently, the team has established means for discussion and no need for additional context building. Communote was therefore mostly used for team coordination on a micro level, which fits well with the task-specific work. In the case of RESEARCH the group is much more heterogeneous with members from different institutions and disciplines that prior to the project have not worked together in this formation. Thus, a shared organizational context did not exist when the team started using the microblogging platform and the team members used the tool a great deal for the purpose of discussion. Both usage practices supported the team in context building and in developing a common understanding within the team. There was however no need to share an immediate task context, as the micro level work contexts were largely different. Posts with a coordinating purpose mostly related to the organization of joint project meetings.

When comparing the other two cases (INSURE and CONSULT) we could also observe differences in the adoption that seem to be caused by the organizational context of use. The employees of CONSULT are most often organized in project teams. Accordingly the consultants share what they are currently up to in order to create awareness and which problems they have to solve, thus looking for help. On the other hand, the work of INSURE’s Yammer users seems to be more heterogeneous and less related. Maybe the culture is even less competitive compared to a consultancy business. The usage is consequently much more focused on an open exchange in sharing information and discussing diverse topics.

In summary we see that the organizational context and the process of introduction play a very important role in developing the technologies-of-practice in all four cases. Even though the adoption of a new tool is always a unique process we could observe a strong relationship between specific contexts and related usage practices. First, there are plausible explanations for the technologies-in-practice that have emerged based on the specific organizational contexts. Second, we could show that a similar context can induce a similar technology-in-practice by highlighting the two clusters within our cases, one focusing on large, diverse groups, one on work-teams.

4.2 Emergence of usage practices in different contexts

When introducing the concept of technologies-in-practice Orlikowski [12] describes how the existing context shapes the emergence of new technologies-in-practice and how this process is always unique. However, she also states that similar contexts might likely induce the emergence of similar technologies-in-practice. This fits very well with what we have observed in the four cases.

First, we can see how in each case the process of adoption and the resulting technologies-in-practice
differ. However, second we can also observe how similar organizational contexts induce similar usage practices. The technology-in-practice that a team develops indeed does not make the impression of being random, but as Orlikowski already predicted seems to be influenced by the organizational context.

In our study we have looked at four cases of enterprise microblogging usage. We found that the cases of INSURE and CONSULT are relatively similar both in the context of adoption and the resulting usage practice and hence the technologies-in-practice that have emerged. The same is the case for the remaining two cases (CREATE and RESEARCH), even though similarities are less striking. The first of these two groups is characterized by a bottom-up introduction, since Yammer is a freemium web platform and no approval by management is necessary to use it. Consequently, management does neither steer nor control the introduction but the adoption is triggered by the will of the participating individuals to interact with a large network of colleagues. Moreover the introduction is not characterized by a specific task or certain team relationships in either case. In both cases the most prominent genres are related to discussion and opinion sharing. The topics are mostly of a general nature, though business related. However posts are not concerned with task-related details or the coordination of work. This fits well with the context of introduction as users were seeking a place to exchange with a broad network of individuals.

In the other two cases the microblogging tool was introduced into an existing (CREATE) and a newly formed team (RESEARCH). Thus, the usage is much more focused on team coordination. The evolving usage practices are consequently mostly concerned with the coordinating the teamwork and creating awareness. In the one case, however, the coordination takes place on a micro or task level and in the other case more on a meso level, concerned with coordinating meetings and creating common ground for collaboration (context building).

In summary the usage practices that have developed are not only related to the organizational context, but seem to be catalyzed by it. This raises the question of how management can impact the way a certain tool is used.

4.3 Facilitating EMB by means of Cultivation

As our cases illustrate it can be cumbersome to introduce an infrastructure technology in an intentional way. Management cannot simply prescribe certain usage practices and expect the introduction to be successful. Users have to make sense of and adopt the technology on their own and within the context of their group and individual practices and according to their needs. Management can, however, interfere in this process by setting the right context for usage. Ciborra and Hanseth [7] describe such a strategy for managing information infrastructures as “cultivation”. In this context Saccol [17] understands the implementation of a new technology as a natural process that demands support, monitoring, protection and care. Saccol illustrates the idea of cultivation by drawing on the metaphor of cultivating a tree where “there is no total control over its future shape and size, but it is possible to water it, fertilize it, prune the branches to adapt it to certain dimensions, or train it to grow in the right direction” [17, p. 158]. Thus the manager cannot be understood as a controller in this perspective but as a guide or instructor who needs to create an environment where the new technology can grow as intended.

Referring to the metaphor of a plant it is most important to choose the right place for implanting so that it is placed in the right soil, receives enough sunlight and is surrounded by plants that do not interfere with its development. Looking at enterprise microblogging this would refer to the right introduction that includes selecting the right tool, strategy and marketing among other elements. In our cases we have observed how an open (bottom-up) introduction to a diverse group resulted in the emergence of significantly different usage practices compared to the introduction to a closed group or team. Further the existing work practices within the teams exerted a strong influence on the adoption. We reason that, if managers want to affect the development of usage practices a possible approach is to carefully select teams that should act as early adopters. This way teams with established but unwanted practices can be integrated later, when new practices have already emerged within the new platform. The established work practices of such a group will always affect the technology-in-practice that has been developed before but the effect will most likely be more limited.

Once the plant is implanted and growing the caretaker can “water it, fertilize it, prune the branches to adapt it to certain dimensions” [17, p. 158]. This task is even harder for the management and our cases give less evidence for how to act when trying to “prune” the branches. However, in order to amend social practices in most cases a process of reflection is needed. In order for this to take place management needs to start a discussion with the users on how the tool is and should be used, and what benefits it might hold for the company and the individual teams. In the case of CREATE such a discussion induced the process of developing a dedicated solution that fits their needs. In the case of CONSULT the discussion was used in order to create a code of conduct for using the Yammer platform. In such a
discussion emerging usage practices that are beneficial can be supported and others can be contained.

In order to execute such a management approach a good understanding of the organizational environment and the existing technologies-in-practice is necessary. In other words management needs to take a closer look at how their employees work at present. Moreover the relationship between a certain environment and potential usage practices is not well understood. Our cases only illustrate on an exemplary level how the organizational context affects the emerging technology-in-practice.

5. Conclusion

In this paper, we have presented the findings of a genre analysis of Yammer usage in a large insurance company. By comparing and contrasting our findings with three other case studies published prior, we have argued that similar organizational contexts in our cases led to similar usage practices. Thereby our results support the argument of Orlikowski [12] on the context dependency of technologies-in-practice. Our observations are, however, exemplary in nature and cannot reveal a wider understanding of just how (in what way) the organizational context affects the adoption of enterprise microblogging. Our paper should hence not be understood as trying to provide templates for the introduction of enterprise microblogging, but as calling for researching a different approach to managing the introduction process.

Instead of prescribing usage practices management should focus on setting the right context for the usage of information infrastructures like enterprise microblogging. In order to be able to do so a good understanding of the organizational context and the technologies-in-practice that are already embedded is needed.

Our findings need to be compared and contrasted with other case studies in order to create an even better understanding on how the organizational context does affect the introduction of an information infrastructure like enterprise microblogging. Moreover, case studies should try to evaluate the usage of cultivation as a management approach for such an introduction.

With our paper we hope to shed light on the introduction of enterprise microblogging tools, by illustrating the concept of cultivation on the basis of our observations. Further we hope that others will follow in the steps of our research in taking a cultivation lens when researching the current stream of enterprise social media introduction.

6. References


