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Powercrowd: Enterprise Social Networking in Professional Service Work: A Case Study of Yammer at Deloitte Australia
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Powercrowd: Enterprise Social Networking in Professional Service Work: A Case Study of Yammer at Deloitte Australia

Abstract
Social media technologies are making fast inroads into organisations. In the context of knowledge-intensive work the propositions of improving communication, information sharing and user involvement seem particularly promising. However, the role and impact of social technologies in enterprises in general and knowledge work in particular are still not well understood, despite emerging scholarly works in this field. In this study we aim to contribute to this stream of research. We investigate the phenomenon of Enterprise Social Networking (ESN) in the context of Professional Service Firms (PSF). Our case investigates emerging communicative work practices on the ESN platform Yammer within Deloitte Australia. We perform a genre analysis of actual communication data captured on the Yammer platform. We uncover a set of emerging practices enabled by the platform within the case company and reflect on our results in the context of the knowledge-intensive nature of professional service work. We find that Yammer in the case company has become 1) an information-sharing channel, 2) a space for crowdsourcing ideas, 3) a place for finding expertise and solving problems and most importantly 4) a conversation medium for context and relationship building.

Keywords: Enterprise Social Networks, Microblogging, Professional Service Work, Yammer, Deloitte
Introduction

Professional service work is both rich in communication and knowledge-intensive and as such presents a range of challenges from a knowledge management and work organisation point of view. While early knowledge management approaches have focused on capturing, describing and transferring explicit knowledge in documents and databases, newer approaches focus on communicative aspects and take a knowledge-in-action perspective. In this context, the emergence of social software and social media presents as a promising opportunity to reinvent knowledge work. While the first wave of social technologies, social software such as blogs and wikis, focused on the manifestation of explicit knowledge by enabling the joint creation and authoring of content, a second wave of social technologies is enabling knowledge sharing through social connections, conversation and interactive exchange. Social media such as social networking or microblogging have made fast inroads into organisations over the past few years.

However, the potential benefits of social media in the context of knowledge-intensive work are as yet not well understood. While professional service firms (PSF) have always been at the forefront of applying ICT to support communication and work, it remains unclear what the role of these new technologies will be within the repertoire of existing communication and knowledge management technologies.

In this study we aim to contribute to a better understanding of the kinds of work practices that unfold with enterprise social networking (ESN) in knowledge-intensive work contexts. Put differently, we want to gain an understanding of the role and benefits of social networking platforms in knowledge-intensive work and look at PSFs as an example that we anticipate will yield an understanding transferrable to other similar knowledge-intensive environments. The study presents the findings from a case study we undertook to learn how the social networking service Yammer has been applied within Deloitte Australia. We used genre analysis to analyse communication data captured on the Yammer platform in order to characterise the emerging communication practice within the enterprise social network. Consequently, the resulting set of genres is a reflection of the ways in which users draw on the social network in their day-to-day work.

We find that Yammer in Deloitte has emerged as a space for information sharing, idea generation, problem-solving and relationship building. We reflect on the role of Yammer against the background of communication- and knowledge-intensive professional service work and briefly contrast our findings with existing cases. It turns out that Yammer serves a valuable purpose in building the shared context and social fabric that acts as the background upon which all other knowledge work becomes possible. Moreover, we also expose the value and power of the organisational user group for crowdsourcing ideas and solving immediate work problems.

Our study contributes to a better understanding of ESN in knowledge-intensive work. We expose the role and benefits of ESN for professional services and consultancy businesses. With this study we contribute one more piece in the emerging jigsaw puzzle of research into social media applications in organisations. The findings presented here are also one more building block in a multi-stage study that we are currently conducting focusing on the application of Yammer in enterprise contexts, which has already yielded results previously.

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1 Two predecessor studies have so far been published in the BIS working paper series. The first paper reports on a similar study undertaken within the French global technology consultancy Capgemini (http://ses.library.usyd.edu.au/handle/2123/7226); the second paper also uses the Capgemini dataset, but investigates the phases in which social networking emerges within businesses in a grassroots fashion (http://ses.library.usyd.edu.au/handle/2123/8049).
Research Background

In this section we provide an overview of the knowledge-intensive nature of professional service work by drawing on the literature on Professional Service Firms (PSF). There is a large body of literature on knowledge sharing and knowledge management in PSFs and this requires some explanation. We will then introduce Enterprise Social Networking (ESN) against the background of knowledge management.

Knowledge intensity of Professional Service work

Professional Service Firms (PSF), such as consultancy agencies, accounting and auditing firms, or financial planning businesses, have been characterised as both knowledge-intensive and client-focused (Maister 1993). Baumard argues that for PSFs the “main capital is of intellectual matter, and most of their processes are turned towards the exploration, discovery, accumulation, exploitation, and re-selling of societal and individual expertise.” (p. 135) Service provision in PSFs is built around analysis and advice (knowing-what and knowing-how) to support client needs. Consequently, PSFs “are extremely dependent on their ability to attract, mobilize, develop and transform the knowledge of [their] employees to create value for their clients.” (Løwendahl et al. 2001, 912). Table 1 presents the characteristics of professional service work and the knowledge-related implications. Our list of characteristics has been derived from literature that includes Weiss (1999), Beaverstock (2004), Løwendahl (1997), and Løwendahl et al. (2001).

Work in PSFs is typically conceptual work that creates intangible outputs such as ideas, plans, concepts that manifest in reports, white papers, visual materials and other ideational products. In professional service work the output can essentially be described as (new) knowledge. Moreover, work in PSFs generally revolves around client-specific problems (Løwendahl 1997). They are often unstructured, complicated and novel and require the application of prior knowledge to unique situations. It is for this reason that Weiss (1999) has described knowledge as having a “limited shelf life”. Consequently, because knowledge is both an essential input and the output of professional service work, challenges arise regarding organisational learning and the transfer of knowledge between projects and teams (Weiss 1999).

People working in PSFs are typically professionals trained in a standardised body of knowledge that is understood by all professionals in that sector (Løwendahl 1997), such as accountancy, auditing, IT, engineering etc. That means that individuals typically share a common knowledge background and are enrolled in the same general professional practice. They are further bound by conventions, rules, codes of conduct and norms (“what one does”) that make up their respective professions (Weiss 1999). At the same time, work is carried out by a rather diverse set of people; teams generally comprise firstly a larger number of junior analysts or consultants and secondly a smaller number of experienced partners who bring in their expertise and domain knowledge. Hence, as much as the formal education is important, so are the personal judgements of professional experts (Løwendahl 1997, Weiss 1999). It has been argued that the “true value to their clients (and their source of power within their PSF) derives from their unique combination of experiences and intuition.” (Empson 2001, 814) Consequently, implicit knowledge such as intuition, expertise and experience (which constitutes know-how) plays a key role in the success of PSFs.

Organisation of work in PSFs usually revolves around the client and involves a high degree of direct client interaction (Weiss 1999). This means that professionals often find themselves in client meetings, in client offices and working at a client site as a member of the client’s team. Moreover, PSF workers travel often. From the PSF perspective that means that knowledge is typically dispersed - not just across a range of people, but also geographically (Weiss 1999). The nature of the work tasks in PSFs necessitates a high degree of teamwork and collaboration between individuals to solve problems and finish projects. Such work is characterised by time pressure and is generally regarded to be “deadline-driven”. From a knowledge standpoint that means that access to knowledge and expertise is often diverse, dispersed and needed instantaneously.

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Description | Knowledge implications
---|---
Nature of work tasks |  
Conceptual work, creates intangible, ideational outputs such as ideas, plans, concepts, manifest in texts, reports and diagrams | Prior knowledge required for the creative endeavour  
New knowledge creation as work output  
Client-specific problems, high degree of customisation | Knowledge from a range of backgrounds is needed, knowledge-transfer and learning as challenge  
Unstructured, often complex problems | Problem-solving as integral part of knowledge work  
Novel situations and problems require innovative solutions | Formal knowledge has limited shelf-life  
People |  
Formal, standardised education shared by the professionals in the service practice. | Individuals in the practice share common knowledge background.  
Rules, norms, codes of conduct govern professional behaviour. | Formal knowledge constrains the work of professionals  
Success depends heavily on the experience, expertise, know how and intuition of domain experts. | Embedded (tacit) knowledge is highly relevant and complements formal education.  
Work organisation |  
Client interaction, working at the client site, travel and mobility. | Knowledge and expertise are highly dispersed; locating knowledge as a challenge.  
Teamwork, time pressure and deadline-driven work environment. | Access to knowledge expertise is often needed instantaneously.  
Table 1: Characteristics of professional service work and knowledge implications

The above characterisation of professional service work has exposed a range of challenges PSFs face regarding knowledge organisation and sharing. Professional service work, while grounded in formal education of its professionals, is to a large extent dependent on the expertise and know-how of its people, where knowledge is embedded in social interactions and new knowledge is created as the main output of professional service work. Against this background, supporting professional service work with ICT is regarded as critical (Hsiao 2008), with the newly emerging social media technologies offering a promising value proposition (Riemer et al. 2011). In the following we will provide a brief introduction to the emerging field of enterprise social media with emphasis on knowledge and knowledge management aspects.

**Enterprise Social Media and Knowledge Management**

The field of knowledge management has historically taken an artefactual and asset-oriented view of knowledge. Accordingly, early knowledge management systems aimed to codify knowledge and make it independent from the individual knowledge bearer (Brivot 2011), into systems that have been characterised as ‘people-to-document knowledge management systems’ (Hansen et al. 1999). However, after years of pushing such systems into organisations, the approach has proven largely ineffective. Consequently, newer approaches are grounded in a richer epistemology, where knowledge is seen as always associated with a ‘knower’ and a ‘social practice’. So-called ‘second generation KM systems’ are “designed to encourage the development of communities of practice and to stimulate ‘knowing’ experiences, rather than merely facilitating transfers of knowledge.” (Brivot 2011, 494). Against this background enterprise social software seems particularly promising.

In recent years, social software applications have found their way into corporate practice, and we have seen a continuously increasing demand for enterprise social software to support knowledge transfer and collaboration (e.g. Bughin and Manyika, 2007; McAfee, 2009). Meanwhile, there is a huge amount of research on the potential benefits of social software in the corporate realm, which shows that social software facilitates user participation (e.g. in wikis and weblogs; e.g. Holtzblatt et al., 2010; Ip and Wagner,
2008) and allows for new ways of connecting, interacting and communicating with other people (via social networking services and microblogging: e.g. DiMicco et al., 2008; Zhang et al., 2010).

Interestingly, it turns out that the social software field seems to mirror the developments in the knowledge management domain to some extent. When weblogs and wikis emerged on the Internet this spurred immediate interest among knowledge management academics and professionals alike. A range of publications have showcased examples of corporate wiki use and exposed the benefits for collaborative creation of content in the enterprise (Grace 2009; Hasan and Pfaff 2006; Watson and Harper 2008). Without doubt, wikis mark an important step away from the mechanistic knowledge harvesting and collecting strategy of the late 1990s. Authors such as Andrew McAfee have rightly argued that wikis are capable of making both the organisational knowledge work and its output more visible and transparent (McAfee 2006; McAfee and Sjoman 2006). A good overview of wiki research can be found in Stocker et al. (2012).

At the same time however, wikis still place emphasis on the explicit manifestation and accumulation of knowledge as content (of the wiki). It is with a second wave of social technologies that a truly interactional space for knowledge work opens up. Enterprise Social Networking (ESN), in particular Enterprise Microblogging (EMB) platforms put emphasis on social relationships, interactive communication and ad-hoc sharing. As such, from a media repertoire point of view (Watson-Manheim and Belanger 2007) they offer to complement nicely the technologies of the first wave that place emphasis on user-generated content. At the same time however, the impact of such technologies for knowledge-intensive corporate work practices remains largely unexplored beyond anecdotal evidence.

In this study we focus on Enterprise Social Networking as a particular phenomenon in the social media space, where the focus lies on short message communication, often referred to as microblogging. On the back of the success of Twitter, microblogging has gained traction and attention from both the popular media and academia alike. Microblogging allows users to send short messages (140 characters in the case of Twitter) into a message stream, from which users can create their own personalised information view by following the messages of a select number of users. Not surprisingly, Twitter and similar microblogging platforms have already drawn attention from scholars investigating usage patterns, behaviour and relationship building (e.g. Huberman et al., 2009; Java et al., 2007; Naaman et al., 2010). Following Twitter’s success, corporations are increasingly showing interest in microblogging for group communication and information sharing in their emerging social networks (e.g. Riemer and Richter, 2010; Riemer et al. 2010). Case studies describing different approaches for implementing microblogging technologies and reporting on initial findings and benefits have constituted early research in this field (e.g., Zhao et al., 2009; Riemer and Richter, 2010; Zhang et al., 2010). In this study we offer a more detailed exploration of a particularly interesting case of microblogging in a knowledge-intensive professional service firm.

**Case Study: Yammer @ Deloitte Australia**

In this section we will first provide an overview of Deloitte Australia, before we introduce the Yammer service and some background on how it was launched within the case company.

**Case Company: Deloitte Australia**

Deloitte was founded in 1845 in London by William Welch Deloitte. Today approximately 170,000 dedicated professionals work in independent firms in more than 150 countries under the Deloitte brand. Each member firm provides services in a particular geographic area. Deloitte is a typical professional services firm, it provides its clients with auditing, consulting, financial advisory, risk management, and tax services. With a reported aggregate revenue of US$26.6 billion for the fiscal year 2010, Deloitte is one of the so-called “big four”, the four biggest accountancy firms in the world.

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In Australia, the member firm is the Australian partnership of Deloitte Touche Tohmatsu. Deloitte Touche Tohmatsu and its affiliates have approximately 512 partners with over 5,700 people located in 12 offices across the country. Its revenue for the 2010 fiscal year was AUD 821 million (Source: Deloitte).

In early August 2008 a group of people in Deloitte began experimenting with Yammer, around the time when the service first emerged on the Internet. As such, the use of Yammer in Deloitte Australia emerged in a bottom-up fashion, which is typical for novel social media services (Riemer et al. 2012). Until April 2009 it was used only by a small group of “geeky types” among its professionals (Deloitte Digital), before the firm decided to bring it to the mainstream. Since this time, the user base has grown rapidly. The data provided for this study showed that 5124 users joined the network and created 394 groups (until April 2011). Today, Deloitte calls Yammer “an important tool […] used for so many different things” and “also a crucial part of our innovation program where ideas are discussed and executed.” (Deloitte Digital)

Yammer

Yammer is an enterprise social network service that was officially launched in September 2008. It is used by more than 100,000 companies and is claiming a user base of more than four million people.2

The service is organised using the concept of networks, with each network typically representing one company. Anyone can create a network for their company by registering with their email address on the platform, and depending on the setup, new users can join easily by way of registering with their corporate email address, which serves as their identifier. Besides typical microblogging features Yammer today provides private messaging, shared workspaces, document sharing, and the possibility to install third-party applications. Advanced admin tools and security features are available for a monthly fee. In our case study we focus on the core communication (microblogging) capabilities.

The Yammer web frontend resembles the look of Twitter or Facebook with the message stream being the focal element in the middle of the screen (see figure 1). It uses a three-column layout with a navigation menu on the top. All parts of the page are arranged around the text input field labelled “What are you working on?” similar to Twitter’s “What is happening?” Here, the user can post updates, attach files and add tags to his or her message. Contrary to the restrictions imposed by Twitter, Yammer messages are not length-restricted.

In general, like Twitter, Yammer is based on the "follower"-principle, i.e. users can choose which users they follow. Whenever new users join a company network they initially subscribe to the message streams of all users within the network. However, unlike Twitter, Yammer provides a group feature. Groups consist of different members within a network and can be created according to requirements, e.g. for a specific topic or a project team. There are two types of groups. On the one hand, messages in public groups can be viewed by all network members and they are open to join. The communications of private groups, on the other hand, are only visible to group members and only invited users can become members.

On Yammer all replies to a post are grouped and shown chronologically below the message they are related to, creating a conversation thread. It is also possible to comment on a specific reply and the referred post is mentioned in the header. There are several options to organise the composition of the message stream. Normally Yammer displays the ‘Top Conversations’ which are selected automatically via an algorithm. Alternatively the user can use a dropdown menu to view all conversations, only the followed ones or the bookmarked ones.

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Research Design and Data Analysis

In this section we will provide an overview of our research design analysis method. We begin by giving an overview of the available Yammer dataset provided by Deloitte Australia. We then introduce genre analysis as the main method. Genre analysis is a way of eliciting communicative practices from data. We then explain the approach we took in deriving a manageable data sample and finally explain how the analysis process was organized.

Data Set

Deloitte provided a dataset that contains posts for the period of September 2008 to April 2011. The data was stored in a Microsoft (MS) Excel file containing 44,589 lines (one message per line) and seven columns. Besides the (text-) body of the messages, the other columns comprised the following (meta) information: a reference to the post it replied to, a thread unique identifier (UID), the timestamp, a group name, a user UID and a number representing whether a file was attached or not. In order to understand the role of these fields, it is necessary to understand how Yammer organizes its messages. Every post has a UID and is automatically part of a thread. If it is not a reply post a new thread UID is created. All messages in a thread share a common thread UID. Due to the possibility to comment on other comments, they can also hold the UID of the post to which they reply. In the following we will refer to threads that have at least two messages as a conversation.
Eliciting communicative practices from the data set: Genre Analysis

The main aim of this study is to investigate the role of Yammer in Deloitte Australia by exposing the communicative (work) practices that have emerged on the platform. For doing so, we apply the method of genre analysis. Genre analysis of communication data treats communication messages as traces of existing practices. The underlying logic is that over time, as a technology becomes part of the normal work environment of people, certain ways of working, comprising common activities and routines, emerge that are shared and enacted by the members of the community. Communicative practices can be exposed by systematically analysing the set of messages captured on the Yammer platform.

Genre analysis has been used in Information Systems research previously to study the relationships between communication practices and technologies within organizations and to trace technology adoption and patterns of communication that emerge in the process (Westman and Freund, 2010). Genres can be defined as “socially recognized types of communicative actions [...] that are habitually enacted by members of a community to realize particular social purposes” (Yates et al., 1999, 84). Genres are descriptions of communication patterns that develop over time and, due to the dynamic nature of communication alter “the ongoing communicative actions of community members through their use of it” (Orlikowski and Yates, 1994, 542). Essentially, genres act as templates for communication and thus inform us about the shape and shaping of social activity (Kwasnik and Crowston, 2005, 80).

There are different approaches for identifying genres from data sets. Shepherd and Watters (1999) defined genres explicitly along the dimensions of content, form and functionality. A more granular method of genre classification is based on the idea that genres serve as carriers of social context, representing elements of the “who, what, where, when, why and how” (Yoshioka et al. 2001). For the purpose of our study, the identification of shared communicative practices, the definition of Swales is useful. He defines genres as “a class of communicative events, the members of which share some set of communicative purposes” (Swales, 1990). According to the author, the communicative purpose is a “privileged criterion” that shapes a genre and provides it with internal structure. Yates et al. (1999) further state that the purpose of a communicative event "is not the individual’s private motive for communicating, but a purpose constructed and recognised by the relevant organizational community, whether small or large" (Yates et al., 1999). Hence, in the following analysis messages on the Yammer platform will be classified according to their collective purpose, according to the role a message plays when seen from the perspective of the community. That way it is possible to elicit the nature of the shared practice evidenced through the emerging communication on the platform.

Data Sampling

Since the full dataset contains more than 44,000 lines of information it is necessary to select a suitable sample for our analysis. As we are looking to elicit established practices it makes sense to select a time period from the later months of our data set. At the same time the sample needs to be large enough to still cover a period long enough for traces of shared practices to be witnessed in the data. Consequently, we decided to analyse the last 14 days of our dataset, covering the period 28 March to 11 April 2011. This represents 1,985 messages in our Excel sheet, which included system-generated notifications announcing new users joining the network (152) or the creation of new groups (14). These messages were excluded because they do not represent shared communicative practices established by the community. For filtering SQL queries with suitable regular expressions were used. To execute the queries all data were exported to MS Access. The coding itself was performed in MS Excel with four additional columns created for applying genre codes. After a further data cleansing (e.g. of a few empty posts), the final data set consisted of 1,809 messages.

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Data Analysis Process

The analysis of the data set was carried out by one researcher with a second experienced researcher acting as a discussant. After an initial phase of familiarisation with the data set through reading long passages of conversations, data coding was carried out in a bottom-up fashion. Starting with a small set of messages, each message was interpreted by assigning genres codes that label various purposes for posting a particular message into the space. The genre codes emerged through constant iteration; a previous study that we carried out on a similar data set was used for calibration and comparison (Riemer et al., 2011). An initial set of genres was first discussed and agreed upon; messages were then successively coded and whenever a new genre candidate occurred it was compared to the existing genres. If it did not match these genre codes we created a new genre code. Consequently, all previously coded messages were reviewed and re-coded with the new set of genres.

Using MS Access we elicited the frequency of each genre code. If a genre category grew particularly large, the related posts were revisited to decide if the genre code was too general and needed to be split. This happened only once and led to a separation of ‘speculate’ from ‘opinion’. The differences between these two genres are outlined below. More commonly it occurred that a genre was clearly under-represented (far less than 1% of codes assigned). If it turned out to be too specialised, the genre was merged with a more general one. Generally, posts with multiple purposes were coded with multiple genre codes. On average 1.2 genre instances were assigned per post. The average message length was 220 characters. In the following section we describe the resulting genre repertoire.

Findings: Genre Repertoire of Yammer communication practices at Deloitte

As a result of our analysis a total of 18 genres emerged, twelve of which were further described by two sub genres each (see genres with a ‘plus (+)’ in the figure below). For each of those genres we distinguished between ‘ask for X’ and ‘provide X’. All other genres consist of ‘provide’ only. Furthermore, we were able to usefully group the resulting genre set into seven top-level genre categories. Figure 2 provides an overview of the identified genres and the seven categories. In the following we describe all genres, grouped by category; figure 3 provides an overview with the proportional distribution of genre categories.

Figure 2: Overview of full genre repertoire

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Figure 3: Proportional distribution of genre categories

**Discussion**

The most common genre (category) found in the dataset we term *Discussion*. The category makes up 38% of all assigned genre codes and includes three genres, all of which include the two sub genres *Ask* and *Provide*. The largest of the genres is called ‘Opinion (Provide)’ with more than 20% of genre instances. The code was assigned when someone offered their opinion or judgement on various matters during a discussion. A typical example reads “*Agree - great presentation. Looking forward to the new features of Office 2010.*”

However, the ‘opinion’ code was not assigned to every post containing a user’s judgement. For example users tended to add their opinion to almost everything they shared. Hence, the message “*Check out this mega cool video on youtube [link removed]*” was not coded as an ‘opinion’ as it is mainly about the video and the point that someone wanted to share it.

Another 10% were coded as ‘Content (Provide)’. This genre is separate from ‘opinion’ as it is less about personal assessments and more about contributing facts or experiences to a discussion. This is best illustrated with this example: “*Wow - elections are expensive, inefficient and environmentally unfriendly. The 2007 federal election cost $163 billion*”. It seems the main point of the statement is not to share the user’s personal opinion but rather she/he wants to share and put up for discussion a fact from the news. Finally, we distinguished the genre ‘Speculate’ as a special case where users made assumptions about future events like developments of the stock market. However, this genre only accounts for 1.2% of codes assigned.

Generally, discussions can emerge from almost any post on the platform, interestingly questions in this genre category are relatively uncommon: requesting an opinion accounted for only 3.7%, asking for content 3.5% and ‘Speculate (Ask)’ made up less than 0.4%.

**Sharing**

The second most common category is the *Sharing* of non-task-related information with a proportion of 15% of all genres instances. In this category, users typically share something out of their own initiative; sharing is only very rarely solicited with a question (less than 1% of genre codes include ‘Ask’). The fun-
damental notion of this genre is that users want to provide others with information that they think might be useful.

Typical information shared are links to websites (6.2%) or references to articles in magazines and newspaper. (4.2%). It is noticeably less frequent for users to point to audio files (0.8%), videos (0.7%) or software (less than 0.3%). Apart from this, Yammer is also used to exchange files. 2.7% of all posts contained an attachment (which corresponds to 2.2% of all genre codes). In contrast to the research of Zhang et al. (2010) who identified internal news as a major topic when sharing information, in this study internal news represented only a minority. Users focused clearly on sharing information from external sources.

Update

The third largest category with 14% is the Update category. Within this group ‘update status’ is the most widely assigned code. This genre includes reports about what a person is doing or what he or she did in the near past. Many users tell the community about events like workshops they visited and clients they met with. This genre claims 8.5%. It was not possible to identify any questions occurring in this genre.

Notifications about upcoming events were coded as ‘update event’ and make up 4.8% of all codes assigned. It is also common for event updates to be combined with links so that users can find further information or register for the event. Finally, ‘Update task’, a genre that was commonly found in other cases documented in the literature (e.g. Riemer & Richter 2010), was very uncommon. This genre is defined as messages where users announce that they finished a work task.

Problem Solving and Advice

The category Problem Solving and Advice represents 13% of all genre instances. Messages in this group are highly related to supporting one’s daily work. This means most posts in this category start with a question, requesting some kind of help or answers. Only a small amount of messages were identified as providing proactive support. For example: “Tired of MS Word being painfully slow (and almost unusable) when connected on NextG? Change your default printer to be PDFdocs, and Word will stop trying to poll the printer, speeding up its responsiveness.” This is also reflected in the balanced ratio of ‘Provide’ and ‘Ask’. Whereas ‘Provide’ outweighs ‘Ask’ by far in all other categories, the proportion here was only 1.3 to 1, which means that this genre is clearly driven by use questions.

We did a fine-grained analysis of sub genres in this category. The largest genre is ‘Contact (Provide)’ with 3.8% of genre instances, with ‘Content (Ask)’ accounting for 1.5%, which means requests for contacts usually elicit two or more replies, a result that is indicative of the value of ESNs in solving problems by pointing to the appropriate expertise within the network. The second most frequent genre is ‘Clarification (Ask)’ (with 1.8%). In these messages users want to coordinate next steps or make sure they understood previous statements correctly. However, such requests for clarification are not always answered, evidenced in a slightly lower provision of clarifications (1.2%).

Social & Praise

The category Social & Praise makes up 12% of all assigned genre instances. The main part of this category consists of messages where users thank somebody for their personal contributions (4.9%). All forms of public commendation and praise were coded as ‘Social feedback’, which represent a share of 3.1% (“well done to Tran, Michel and Luy in putting something excellent together and thanks for investing a lot of their own time”). The third genre in this category is ‘fun’, which includes informal communication about clearly non-work related matters; this makes up 3.8%. However, typically those comments are embedded in larger work-related conversation. Only surprisingly few threads consist exclusively of informal conversations such as jokes. At the same time however, a number of threads include opinion pieces that are located on the verge to the ‘informal’, for example discussing the song list for an event the company hosted.

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**Idea generation**

The category *Idea Generation* is the smallest category and comprises only 5.8% of all genre instances. However, this is a particularly interesting genre that amounts to an online brainstorming practice eliciting creative input from others. Most of the creative input is solicited by explicit requests, while only a few cases were found where users present ideas proactively. Consequently, the genre ‘Idea (Provide)’ makes up 4.7% and the corresponding ‘Ask’ only 1.1%. Hence, on average every request is answered with more than four ideas. But in contrast to other genres users do not tend to post ideas without that ‘open call’. A further analysis showed that approximately 50% of brainstorming requests are answered. These threads are then clearly longer than the average and quite remarkably some are among the longest in our sample.

**Others**

Finally, we have grouped some outliers in the genre category, *Others*. These are posts that occurred a few times, but could not be classified with the rest of the emerging genre repertoire. Some posts in this category aim at delegating tasks or, for example, the allocation of mentors and trainees. A handful of network members used Yammer to promote their profile in other networks, like Facebook and LinkedIn. Furthermore, minor complaints were expressed (“There is not one single fork in the level 13 kitchen in Melbourne.”) or users threw in catch phrases like “THE PIES!!” in a Twitter-like style offering random thoughts. Overall, such instances were very rare.

**Discussion: Exploring the role of Yammer in knowledge-intensive professional service work**

In this section we will reflect on and discuss our findings in light of the particular nature of knowledge-intensive professional service work. We will discuss both, the knowledge practices we find within the data set and those that have not emerged in the Yammer space, but were documented in other microblogging cases. Overall, the genres derived from our analysis represent four distinct aspects of knowledge-intensive work:

1. **Providing input**: A key ingredient of all knowledge work is new information input. Consequently, an important practice is the posting of content, files, links to web pages or otherwise information that users think might be interesting and relevant to their colleagues. The extent of the *Sharing* identified in our sample is doing just that. It lays the seeds for serendipitous moments to happen that have been described as one of the main benefits of enterprise social networking (Zhao and Rosson 2009), whereby users stumble upon relevant information without actively searching for it.

2. **Creating new knowledge**: The *Idea generation* we uncovered in our genre analysis represents shared brainstorming sessions, initiated by users with the aim of creating new knowledge, such as ideas for products, projects, meetings or other events. For a detailed description of this particular practice see the textbox below (table 2).

3. **Harnessing existing knowledge**: Users are aware of the value of the social network on Yammer. They draw on existing expertise actively and explicitly when they have a problem. In the genre category *Problem solving and Advice* we are able to witness “knowledge in action”. This represents the most applied and immediately work-related activity taking place in the Yammer space, where the existing expertise of the crowd is harnessed by posting a specific question into the space. Hence, the platform is an effective way for having questions answered, but also for learning about other people’s expertise and for accessing the geographically dispersed expertise of one’s colleagues in an almost instantaneous fashion.

4. **Building the social fabric**: Effective communication and knowledge work requires people to develop a shared background, a phenomenon that has previously been described as common ground (Clark and Brennan 1991), mutual knowledge (Cramton 2001), or cognitive social capital (Nahapiet and
Goshal 1998) or simply a shared background in practice (Riemer and Johnston 2011). This understanding of knowledge is grounded in hermeneutics, whereby knowledge is always enacted in practice (Olikowski 2002). Yammer, in our case company, is serving precisely that purpose: through discussions and sharing updates people get to know each other, learn what is important in the organisation, how others interpret and talk about matters of interest. What emerges is the shared background that makes the world intelligible in similar ways (Riemer and Johnston 2011) and that is the foundation for all other knowledge work to happen. In overly rationalistic accounts of organisational work this highly valuable exercise might be easily overlooked, as it might be seen to not serve an immediately work-related purpose (such as direct, task-focused problem-solving). However, the emergent nature of a shared background in communicative practice is the glue that makes possible all other knowledge work. Only if people are aware of what others are doing and what they are interested in can they post the relevant information that provides the foundation for serendipity to happen. Moreover, a shared background is also important to understand and interpret correctly other people’s questions, be they problems or requests for ideas, and others’ input.

The discussion shows that Yammer in Deloitte Australia has been appropriated as a space for discussion, sharing, new input generation and problem solving, but not for actual work coordination. Yammer assumes the role of a feeder into knowledge work and as a social networking and conversation space for building social connections and a shared background. As such, it is highly valuable for the organisation. At the same time however, it is markedly different from other documented cases of microblogging in knowledge-intensive work contexts, where a different set of knowledge practices were observed. In particular, we did not find evidence of the following practices:

- **Task coordination**: Riemer and Richter (2010) have documented a case of enterprise microblogging in software development teams, where the service has been appropriated as a task- and team-focused coordination medium. In this case, microblogging resembled a stream of activity and awareness-related posts on which people can draw to enable coordination and alignment of immediate shared work and task matters.

- **Project management**: In yet another case, Riemer et al. (2011b) found practices of project management whereby microblogging was used to coordinate and organise shared project meetings in a University context. Users posted agenda items with tags attached into the shared stream, that were then later used as a jointly developed team agenda.

- **Information storage**: In both of the above cases, the authors observed that users posted into the shared space “notes to self” (or to the team) with attached files for later reference. The practice evolves around using the platform as an unstructured storage space, where information is later accessed facilitated by tagging and a powerful search function.

In summary, we did not find evidence of immediate knowledge work practices, where tasks or projects are coordinated via the Yammer platform, nor did we find evidence that the Yammer space was used to store information for later reference, which would amount to a more traditional use as a knowledge capturing tool. It is easy to see why Yammer has not been appropriated in these ways. The user group that comes together on Yammer at Deloitte Australia does not share (as a whole) an immediate work context, such as shared work tasks or projects. The group is much larger, more diverse and dispersed as in the above-mentioned two cases. Accordingly, Yammer has assumed a very different role.

Yammer in Deloitte Australia provides a typical example of what has been described as a personalisation approach to knowledge management, where the “focus is on dialogue between individuals, not knowledge objects in a database” (Hansen et al. 1999, 2). Moreover, it is a typical example of a second wave enterprise social media service, where the focus is on conversation, rather than work organisation or shared work on formal content (like reports). Yammer has been appropriated and found its place within Deloitte Australia as 1) an information-sharing channel, 2) a space for crowdsourcing ideas, 3) a place for finding expertise and solving problems and, most importantly, 4) a conversation medium for context and relation-
ship building (see figure 4). Other means exist within the company that enable task coordination, project management and collaboration of shared content.

**Idea Generation as a form of Online Brainstorming**

In our data sample, we found several communication threads that were started for the purpose of sourcing ideas from the user group. As such, it amounts to a form of ad-hoc, internal crowdsourcing. Crowdsourcing is generally described as a “web-based activity that harnesses the creative contributions of a diverse large network of individuals (the crowd) through an open call requesting for their participation and contributions” (Stewart et al. 2010). In the context of knowledge-intensive work in our case company, such crowdsourcing activities can also be viewed as a form of online brainstorming. Considering the most common challenges of group brainstorming we come to appreciate this practice as an effective form of ad-hoc idea generation.

Hymes and Olsen (1992) identified five constraints that typically interfere with the idea generation process. Firstly, in traditional brainstorming sessions available speak time is typically limited, so that participants can often not contribute as much as they want. Hence, because of limited air time group members are sometimes forced to hold back their ideas. This increases the risk of forgetting ideas or the individual decides not to share them. Furthermore, during these periods group members are less likely to think about other ideas than those already uttered by others. Finally ideas are presented serially most of the time. Thereby groups tend to develop fewer ideas of a different kind.

The above problems appear to be alleviated with the emerging idea generation practice on Yammer. Users can formulate their ideas with as much details as they want. Through the attachment of media files the disadvantages of text-based communication can be lessened. Users do not have to wait until they can contribute their ideas. Mobile applications allow users to share thoughts independently of their actual whereabouts, so they can virtually contribute their ideas any time they want. Finally, the ideas of others can be absorbed, digested and reflected in whichever way is most suitable for the individual user.

**Table 2: Interpreting the idea generation practice as a form of online brainstorming**

<table>
<thead>
<tr>
<th>Knowledge practices:</th>
<th>Yammer as a space for...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Providing input</strong></td>
<td>Input from external sources is a key ingredient of any effective knowledge work. Information sharing is the basis for serendipity.</td>
</tr>
<tr>
<td><strong>2. Creating new knowledge</strong></td>
<td>The user group is draw on for ad-hoc crowdsourcing of ideas. These online brainstorming sessions allow users to express ideas freely.</td>
</tr>
<tr>
<td><strong>3. Harnessing existing knowledge</strong></td>
<td>Users draw on the dispersed expertise of the user group. Problems are solved and access to resources and experts is facilitated.</td>
</tr>
<tr>
<td><strong>4. Building the social fabric</strong></td>
<td>A shared background is the basis for all knowledge work to happen. People get to know each other and build a shared context &amp; awareness.</td>
</tr>
</tbody>
</table>

**Figure 4: Knowledge practices and corresponding roles of the Yammer platform at Deloitte Australia**

BIS WP2012-02 Powercrowd: Enterprise Social Networking in Professional Service Work (Yammer@Deloitte AU)
Conclusion

In this paper we have reported on a study we undertook investigating the nature or Enterprise Social Networking (ESN), in particular Enterprise Microblogging (EMB), at Deloitte Australia. We began by exposing the knowledge-intensive nature of professional service work. Our study is based on a genre analysis of actual communication captured on the EMB platform Yammer. Our analysis reveals a repertoire of genres that reflect the communicative practices that have emerged on Yammer in Deloitte Australia. We have reflected on our findings against the background of knowledge-intensive professional service work.

On the most general level, our study contributes to a better understanding of Enterprise Social Networking and EMB, as we have exposed the activities comprised in practice for our case company. In more specific terms, we contribute to a better understanding of the role of ESN in knowledge-intensive work contexts, of which professional service work is a typical example.

Our genre analysis allows us to illustrate with rich data the role that the EMB platform has assumed in the case company. We have revealed that Yammer has become 1) an information-sharing channel, 2) a space for crowdsourcing ideas, 3) a place for finding expertise and solving problems and most importantly 4) a conversation medium for context and relationship building, which underlines its relevance in the context of knowledge-intensive work. Our findings contrast markedly with other cases where EMB has been appropriated as a task and team coordination tool or a project coordination platform. Consequently, we also contribute to a better understanding of the role that shared practices play in EMB adoption. While we were not able to explore this relationship in detail here, this opens up a space for future work.

Finally, our case study has practical implications, because it demonstrates the power and value of the organisation’s user crowd for solving problems and developing new ideas. From an active user perspective, the Yammer crowd can be relied on for solving specific problems, for answering one’s questions, for providing access to experts in the field and for gathering and developing new ideas.

Our study has certain limitations. With regards to the case presented here, by analysing the communication on the platform, we have as yet only investigated what messages are sent on Yammer, but not how and to what extent they are being read and drawn on in everyday work. Interviews with Yammer users will likely reveal a more comprehensive picture of the role of Yammer within the company and, importantly allows us to include the voices of passive and non-users.

Another limitation is that the findings presented here are only based on one case. With more organisations adopting the new technology, and with more case studies appearing in the research space, comparing findings across cases becomes more feasible. This will allow us to contribute to more generalised findings and a more valuable understanding of EMB practices in particular, and social media engagement in general. We have indicated that other studies are finding different practices emerging from EMB. This opens up the space for comparative studies, which might provide a more refined understanding of how EMB informs knowledge-intensive work on different contextual levels.

Finally, Yammer as a platform is changing. Similarly, many of the Enterprise Social Media platforms are evolving from simple platforms (e.g. for microblogging) to more comprehensive collaborative environments with wiki-like features, document sharing spaces and more structured content management options. It remains to be seen how emerging knowledge work practices will change and adapt or simply ignore these emerging features. This opens up further opportunities for future research.

References


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