ELICITING THE ANATOMY OF TECHNOLOGY APPROPRIATION PROCESSES: A CASE STUDY IN ENTERPRISE SOCIAL MEDIA

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Abstract

The investigation of IT adoption and diffusion in organisations is a core topic of the IS discipline. However, orthodox theories take a mostly rationalist view that treats adoption as a decision situation. In this paper, we aim to show that it is necessary to appreciate the process nature of taking new technology into organisational contexts, and the open-ended nature of this process in terms of social sense-making about the new technology. At the same time, as more and more organisations let social media be part of work and communication practices, understanding what happens when individuals begin to experiment with and participate in these new mediums is increasingly important. Against this backdrop, we present the findings of an in-depth data analysis of enterprise-based short message communications shared across the Yammer enterprise social network at international service consultancy Capgemini. We focus on appropriation-related communication in the first nine months of uptake. By undertaking a time-trend analysis we identify the essential phases in which sense-making and appropriation take place as Yammer is enrolled into Capgemini practices. Our study makes an important contribution toward understanding the processes of technology appropriation in general and sense-making in social media in particular.

Keywords: IT Appropriation, IT Adoption and Diffusion, Social Media, Enterprise Social Networking
1 Introduction

Since its inception, the IS discipline has been in the business of investigating the adoption and use of (new) technologies in various organisational contexts (Keen, 1980). The orthodox position is to conceive of IT adoption as a decision whereby an individual or organisation adopts a given IT artefact (e.g. Davis, 1989; Venkatesh et al., 2003). This position is challenged by a large body of work which views technology as socially (co)constructed (Leonardi and Barley, 2010), thereby stressing a process of enrolling a new artefact into an organisational practice by way of sense making and appropriation, in which technology and practice co-evolve (Richter and Riemer, 2009). The latter position is in particular applicable in the context of social media, a relatively new class of technologies that has emerged from the public Internet and made fast inroads to organisations. Social media have been characterised as simple, open and emergent technologies (McAfee, 2009), whose potentials only manifest in context when people make sense of the technology (Riemer et al, 2009).

While the social nature of enrolling new technologies into organisational practice has been exposed, the anatomy of the actual sense-making process that unfolds when technologies are introduced to organisations is not well understood, as primary data is typically hard to come by. Similarly, while the bottom-up nature of technology diffusion of social media in organisations has been recognised, research has yet to investigate what exactly happens during this process. Against this backdrop, we investigate the following research question: What happens during organisational adoption of social media technologies, i.e. how do people come to make sense of and appropriate social media into the workplace?

We undertake a case study investigating the appropriation of the enterprise social networking service Yammer at the global consultancy, Capgemini. Due to the particular nature of social media technologies the conversations thematising Yammer adoption, use, and diffusion are captured on the Yammer platform itself and provide a unique research opportunity for analysing the ‘adoption-related’ user conversations that took place during the first few months of Yammer use at Capgemini. Consequently, we are able to carry out a content analysis of what was actually said, rather than having to rely on post-hoc accounts.

We find a set of conversation types that expose the kinds of communication and sense-making users engage in as they make Yammer part of their work practices. Moreover, an analysis of the distribution of these conversations over time allows us to identify phases in the appropriation of Yammer. With this paper we hope to contribute to a better understanding of how social media, as open technologies, become part of work practices by way of exposing what we term the anatomy of appropriation: 1) the types of appropriation-related communication and 2) distinct phases that characterise the appropriation process. Given that technology appropriation is a core phenomenon at the heart of the IS discipline (Riemer and Johnston, 2011), our findings are important as a first step to developing a more refined, theoretical understanding of IT appropriation in general.

2 Research Background

2.1 Research on Technology Adoption

Studying the adoption and use of IT in organisations has always been a core topic of the IS discipline (Keen, 1980). In doing so, the orthodox tradition in our field tends to view adoption as a decision, where either organisations plan administrative and strategic choices carefully to introduce a new technology or, at the micro-level, individuals act intentionally to adopt a specific innovation with utilitarian outcomes in mind. Various studies imply that these determinations can be evaluated in terms of yes-no decision-making about a bounded artefact. Theoretical frameworks and methodologies such as the technology acceptance model (TAM) (Fishbein and Ajzen, 1975; Davis, 1989) and the unified theory of acceptance and technology (UTAUT) (Venkatesh et al., 2003) have been applied to explore a
range of variables and their attributes in this context. While some of this research acknowledges the effects of other users as significant (Markus 1987), there has been a tendency for research to take an overly rationalist and deterministic stance, which tends to de-contextualise individual adoption (Jeyaraj and Sabherwal, 2008).

There is on the other hand a large and growing body of research that emphasises social construction of technology in organisations (for an overview see Leonardi and Barley, 2010). It is a fundamental premise of this view that the meaning of (or reason for) adoption does not inhere in the technology (alone), but is realised through interactions with it. This stream of research is interested in how technologies come to be interpreted and understood in social contexts by their users (Lamb and Kling, 2003, Pallud and Elie-Dit-Cosaque, 2011). Our research contributes to this stream.

We aim to show that rather than conceiving of adoption as a decision, it is necessary to appreciate both, the process nature of taking new technology into organisational contexts, and the open-ended nature of this process in terms of social sense-making about the new technology. We use the term appropriation to denote this phenomenon and distinguish it from earlier work on adoption, defining the concept as: “the way in which technologies are adopted, adapted and incorporated into working practice. [...] Appropriation relies on flexibility in both practice and technology, and in particular, flexibility in the way in which the technology can be mapped onto user needs.” (Dourish, 2003, 5). Hence, we take a perspective that appreciates “users’ adaptation, learning, and reinvention behaviors around a system” (Benbasat and Barki, 2007, 215).

2.2 Nature of social media in corporate contexts

In recent years, Web 2.0 applications have found their way into corporate practice, and we have seen a continuously increasing demand for corporate 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 in creating web content (via 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).

An often-stressed characteristic of social media is that organisational adoption might occur in a “bottom-up” manner, driven and supported by employees, while the management might not be aware that use of social media emerges in the organisation (McAfee, 2009). At the same time, it has been pointed out that communication platforms such as social media are open, flexible platforms that 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” (Riemer et al., 2009, 186).

In this study we focus on Enterprise Microblogging (EMB) as a particular phenomenon in the social media space. Microblogging presents a service for short message broadcasting and exchange. 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, as evidenced in the emergence of more than thirty microblogging platforms for corporate application. Case studies describing different approaches for implementing EMB technologies and reporting on initial findings and benefits have constituted early research in this field (Zhao et al., 2009; Zhang et al., 2010).
3 Study overview

Research on adoption and appropriation has typically relied on user accounts, mostly through interviews and surveys, or on user observation. Researching social media brings with it a new opportunity: social media captures user conversations as they are stored as messages on the platform, and with it conversations about the technology itself. It is these self-referential conversations captured in the very technology they are thematising that we draw on in this paper to investigate the unfolding of the actual appropriation and sense-making process by the user group.

3.1 The case

Capgemini is a consultancy business with 106,000 employees in over 35 countries. In September 2008 a small group of consultants in the Dutch division started using Yammer. Yammer is an Enterprise Social Networking platform that revolves around a core EMB capability. The platform itself was launched in the same month. The service is organised using the concept of networks, with one network typically representing one company. Anyone can create a network for their company by registering with their email address on the platform. New users can join simply by registering with their corporate email address, which serves as their identifier. The web frontend of Yammer resembles the look of Twitter or Facebook with the posting stream being the focal element. Like Twitter, Yammer is based on the "follower"-principle i.e. users can choose who they follow. Whenever new users join a company network they initially subscribe to the message streams of all users within the network. The platform also features other Twitter-like functions, such as bookmarking of posts, tagging, mentioning of and replying to other users, as well as direct messages.

For the small group of early adopters it was “quite a different dynamic as Twitter and it was interesting to figure out what we could do with it” (Interview C001). In the first months, the number of users grew rather slowly. In February 2009, only about 300 Capgemini Yammer accounts were counted in total. Shortly after that a critical mass point (Markus, 1987) seems to have been reached, with user numbers growing rapidly from March 2009 onwards with new registrations of more than 500 per month. Within one year the number of accounts was nearly 6,000, half a year later it exceeded 10,000 accounts, towards the end of 2010 the network had more than 18,000 Capgemini members from all over the world, making it one of the largest networks on the Yammer platform.

3.2 Research method

3.2.1 Data collection and preparation

We obtained the complete Yammer data set from Capgemini in Microsoft Excel format. This data ranges from September 2008 until July 2010 and contains all 113,855 messages that were posted within Yammer over this period. Each message consists of metadata such as message ID, a reply ID, a thread ID, a user ID and the content of the message. To ensure confidentiality all personally identifying information (user names and client names) had been removed prior to handing over the data. In Yammer, a message is either a reply to another message that inherits the thread ID of this original message, or it is a new message commencing a thread with a new ID. Thus thread IDs can be used to analyse related communications in the data.

For our project we were only interested in user communications concerned with Yammer itself, i.e. those posts that in one way or another are self-referential in their concern with Yammer, and its appropriation. By using a set of keywords, prepared through a preliminary analysis of the first three months of communication, we were able to identify posts relevant to our enquiry. The key words identified were: yam, tweet, twitter, following, chatterous, feed, thread, direct message, group, communities, socialcast. While this list might not be complete, sample testing confirmed that it was sufficiently broad to capture all relevant posts. Filtering was non-case sensitive and focussed on messages that contain at least one of the keywords as a single word, a word stem or, part of another word in the initial message.
(capturing terms such as yam, Yam, Yammer, Yammer, reyam and so forth). This filtering was carried out at the thread level in order to preserve communication context and coherence and these threads were then ordered by time for coding and content analysis.

For our study we were interested only in the communications during the phase in which the platform was introduced to the organisation. We made the design choice to conduct coding up to the second month after the critical mass was achieved. Within this scope 5,411 messages were analysed. As the data filtering was broad and aimed not to miss any relevant posts, this set included many false positives. In the end, 1,722 messages turned out to be suitable for the appropriation analysis covering the time frame September 2008 to May 2009. These messages were written by a total of 244 users with an average character length of 174.5, spread over 511 threads with an average length of 3.4 messages per thread.

3.2.2 Participant Interviews

Between April and June 2011, we interviewed 14 Capgemini Yammer users in regions spanning the United Kingdom, Europe and India. Both face-to-face and Skype interviews were undertaken (depending on the participants location and availability). Our aim in conducting interviews has been to establish a rich understanding of the way enterprise social networks are being brought into organisational practice. We used semi-structured questioning techniques to open up the conversation with participants and allow them to reflect on their own experience. All interviews were treated confidentially with anonymity established before analysis commenced. The interviews allow us to support, verify and expand on the findings of our microblog data analysis with descriptive accounts from people actively engaged with the network. Our approach to interview analysis in this study has been to triangulate pertinent discussions from participants who were using Yammer during the same period of time set for the analysis of Yammer EMB communications at Capgemini.

3.2.3 Qualitative content analysis

Our approach for coding and analysis of EMB communications in this study is qualitative content analysis. The main aim was to identify patterns in the conversations that revolve around the uptake of Yammer in the organisation. We wanted to learn about the kinds of conversations people engaged in when making sense of this new technology in the context of their own environment. In doing so, each message was coded according to the purpose it serves regarding sense-making and adoption. Much like in communication genre analysis, such codes are not imposed in a top down fashion but identified from the ground up through the qualitative analysis of the “…socially recognised communicative purpose” (Yates and Orlikowski, 1997, 50) of each single message, when interpreted against the background of the overall case. From this analysis, patterns in the form of conversation types emerge. As such, the approach taken to determining conversation types is constantly recursive and reflexive with an aim of being “…systematic and analytical but not too rigid” (Althiede, 1996, 16). The data was coded by one researcher with a second researcher acting as a discussant and analyst in a confirmatory role. We frequently reviewed our set of conversation types, any variations were discussed and conflicts were resolved by either adding a new type, splitting an existing type or merging two types into one. This process was iterated until all adoption-related posts were successfully coded and both researchers agreed on the outcome. As a result five top-level conversation types emerged, which together contain a total of 20 sub categories that represent the single codes used to categorize messages.

In this process, our interviews serve an important purpose: they are a method for triangulating and verifying our interpretation of the communications we have analysed. We approached the interviews from the same bottom up approach, by first asking the interviewees to speak about their own early experience in using Yammer, then joining our analysis of the interviews to the conversation types we have identified. Conversation types (outlined in the next section) were used to code the interviews within the broad theme of Yammer use and adoption. Coded qualitative content was then reviewed by a second coder to ensure inter-coder reliability.
4 Findings: Conversation types describing user sense-making

Our content analysis led to the identification of five conversation types or categories that usefully describe the variety of communication about Yammer, thus representing user communication regarding appropriation and diffusion. We will briefly describe each conversation type, outline subcategories and provide a typical example, before we offer an analysis of their distribution over the course of the appropriation time frame in order to lay bare the anatomy of the Yammer appropriation process in Capgemini.

4.1 Appropriation-related conversation types

![Figure 1: Percentage distribution of conversation types](image)

The largest category, representing 33% of all codes, we termed Opinion. Users offer their personal opinion as they scrutinise Yammer and describe ways of using the service and the emerging benefits they see. Further subcategories cover personal opinions regarding emerging norms, and security issues. A typical post regarding Yammer use asking for others’ opinions is as follows: “So... is Yammer working for you? Adding value? If so... then do tell.” (Message ID: 1951176)

The second largest category, named Functionality, covers posts that refer primarily to perceived single features and functionalities of Yammer. In doing so, users comment on Yammer functionalities in positive, negative or merely informing ways. Furthermore, users ask questions about certain functionalities, while other users respond to assist them. The last subcategory covers instances where a user expresses a proposal regarding new functionality, as they might not be satisfied with that particular feature in Yammer currently. An example of a feature-related question is: “Another question: how can I let Yammer make a sound whenever someone does a post?” (Message ID: 392203)

The Diffusion category subsumes all messages that have to do with actively initiating, managing or supporting the diffusion process. Diffusion messages were mostly about promoting Yammer to get more attention and more users on board. A lot of users also posted information about diffusion, such as current number of users, groups or the use of Yammer in their divisions. People also asked for help and assistance in the promotion of Yammer within the organisation: “How can we recruit more Capgemini people into yammer to get this thing going? Could be a great tool if more people started using it!” (Message ID: 2144075)

As part of the Yammer-related discussions a significant number of posts engaged in Norming behaviour. Users engage in discussions about appropriate language and observe ‘non-compliant’ behaviour, discuss the appropriateness of what to post in Yammer (content) or how to use Yammer in more general terms: “Welcome all new Yamsters (or whatever we're supposed to call ourselves!) - here's hoping you get lots of value from Yammer - "twitter for people with a job to do." As we've had many new
joiners recently, and it is Monday, it seems a good time to mention the one Golden Rule: While Yammer is 'private' it is not managed by Capgemini. Therefore, please do not publish anything here that is strictly company confidential. That's why we have GIMS and email. :-(" (Message ID: 2902693)

In messages under the Comparison category users compare Yammer to other technologies they are already familiar with. Such a comparison can again be positive or negative or merely informative in nature. Users might also ask questions regarding comparison of Yammer. A typical post with a negative undertone is the following: “So this is like a cross between Chatterous and Twitter with a couple of extra ‘corporate’ features - like the org chart. I think Laconica looks more interesting...” (Message ID: 70296)

<table>
<thead>
<tr>
<th>Opinion (33%)</th>
<th>Functionality (25%)</th>
<th>Diffusion (16%)</th>
<th>Norming (15%)</th>
<th>Comparison (11%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use (85%)</td>
<td>Assisting (34%)</td>
<td>Assisting (59%)</td>
<td>Use (69%)</td>
<td>Informing (42%)</td>
</tr>
<tr>
<td>Security (12%)</td>
<td>Asking (26%)</td>
<td>Informing (34%)</td>
<td>Language (24%)</td>
<td>Negative (30%)</td>
</tr>
<tr>
<td>Norms (3%)</td>
<td>Informing (20%)</td>
<td>Asking (7%)</td>
<td>Content (7%)</td>
<td>Positive (17%)</td>
</tr>
<tr>
<td></td>
<td>Negative (10%)</td>
<td></td>
<td></td>
<td>Asking (11%)</td>
</tr>
<tr>
<td></td>
<td>Positive (7%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Propose (3%)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Overview of sub categories and their percentage distribution

### 4.2 Time-trend analysis of conversation type distribution

In this section we analyse in more detail the changes in appropriation-related communication over time. In doing so we will draw on 1) changes and trends in the distribution of the top level categories (as represented in figure 2), 2) a more detailed analysis of the distribution of sub categories over time, and 3) those interviews with users who were part of this early phase in the Yammer endeavour that provide depth to our insight. This analysis will ultimately lead us to the identification of distinct phases in the appropriation process, which we present in the discussion section.

From September 2008 to January 2009 both the total number of messages and appropriation-related messages are quite low (figure 1). In March 2009 the number of appropriation-related messages shows a sudden spike. This marks an important turning point in the evolution of Yammer that we would expect to see reflected in our data as well. In the following analysis we will show that this is indeed the case, as we discuss the distribution of subcategories of each conversation type over time (see figure 3).
Comparisons of Yammer with other already known services such as Twitter, Chatterous or Laconi.ca are present from the very beginning; the comparing of Yammer with existing communication alternatives is also stressed in the interviews: “Within the UK we have a mailing list that was set up years ago for the technical community …if you’ve got a question you’ll send an email out with RFI as a tag on it… Yammer provides a bit more structure and an internationalised alternative to that.” [Interview C005] Interestingly, within the comparison category, positive and negative comparisons dominate until February/March, when a significant change happens with comparisons becoming more neutral, informative and constructive in nature. At this time a clear change in tonality and sentiment happens; after the critical mass point is reached comparing serves illustrative purposes, not the promoting or devaluating of Yammer.

A change in tone is also evident in the functionality category as time progresses (see figure 3). In the lead up to the critical mass point, negative evaluations of Yammer functionality grow strongly in February and peak in March. Positive evaluations are low at first, but suddenly spike and overtake negative messages in March; after that both positive and negative evaluations drop off. At the same time it is evident that people become suddenly interested in Yammer in February and March, with many people asking questions. Moreover, people strongly support each other with assisting and informing posts. This supportive and informative communication is strongest around the critical mass point, but stays at a rather high level even after that. Posts proposing new Yammer features grow after the critical mass point, as people begin to reflect in more informed ways on the potentials of the new technology for their work practices.

At the same time as the critical mass point is reached, personal opinions regarding Yammer use show a big spike. People weigh in to the discussion regarding ways to use Yammer productively in their daily work. Many lively discussion threads evolve on Yammer discussing ways in which Yammer is or might be used. Interestingly, while people question the productive use of Yammer in earlier months, a very common concern from March onwards is the sudden flood of messages in Yammer, in particular how to keep up, concerns as to how Yammer might distract people from work and then discussions of strategies for how to cope with the message flood.

Posts that concern the actual diffusion of Yammer are virtually non-existent until January 2009. This whole category emerges from the data at the point of critical mass. In February, people start informing others about what they have done in promoting Yammer in their groups and divisions, others ask for ideas and assistance in doing so as well. Then, as questions regarding diffusion recede, informing and assisting posts show a large spike in March. Assisting communication stays strong in subsequent months. Interviewee [C02], who joined Capgemini’s Yammer network at the end of this period in June 2009, provides a revealing insight into the motivations in play at this time: “I mean who joins a system in the first place when it’s totally voluntary? When it’s not an official tool? When there is no pressure to use it? It’s people who really want to use it and who really stand behind the use it? I think it’s natural that those people are interested to keep the conversation going, to foster participation.”

Finally, as Yammer is suddenly taken up across the organisation in March, people realise not only the potentials of Yammer, but also the risks of inappropriate use and content posted on the platform. People start engaging in norming behaviour. Driven by early adopters, an initiative emerges to develop a code of conduct (COD). This COD is collaboratively developed within a specific Yammer group open to anyone and later posted in a wiki accessible to all employees. Subsequently, users who do not adhere to the COD are being advised by others in Yammer. One of our interviewees had participated in writing the code of conduct: “I think it’s also good that, if you do see some poor behaviour, that not only does the community tend to self-policing but it also does have something that it can refer people to and say, look, you’re breaking the rules, the rules are written down here. But, to be honest, it should be common sense and don’t do it.” [Interview C09] As the platform grows globally and colleagues from other countries join, a discussing regarding language use springs up in April during which the users agree to make English the lingua franca in Capgemini Yammer.
Figure 3: Detailed overview of sub category distribution over time.
5 Discussion: Exposing the IT appropriation process

Drawing on our analysis of the types of communication that Capgemini employees engaged in when first using Yammer, we are able to identify four distinct phases in the uptake of Yammer. These phases show a distinct pattern in which Yammer appropriation evolved (see table 2). We argue that the pattern that emerges from the Capgemini data provides a valuable insight into the anatomy of processes of organisational IT appropriation, in particular regarding the bottom-up emergence of social media. This pattern is a useful model for organisations aiming to understand their own appropriation of the technology.

<table>
<thead>
<tr>
<th>PHASE:</th>
<th>Encounter</th>
<th>Sleeping</th>
<th>Make-or-Break</th>
<th>Uptake</th>
</tr>
</thead>
<tbody>
<tr>
<td>What happens</td>
<td>The new artefact is scrutinised and compared against existing experience and technologies</td>
<td>The new artefact is scrutinised quite negatively, and is on the verge of vanishing from discourse</td>
<td>Interest grows, positive examples from emerging work practices are shared, the community actively promotes diffusion</td>
<td>Shared norms emerge and are observed. People assist new adopters.</td>
</tr>
<tr>
<td>Typical user questions</td>
<td>What is that?</td>
<td>Is it useful?</td>
<td>How do we get others on board?</td>
<td>How do I cope?</td>
</tr>
</tbody>
</table>

Table 2. The phases of appropriation

The first phase we term *Encounter*. During this phase the new artefact is encountered for the first time by a group of people in the organisation. A sense-making process begins, which compares the new artefact against prior experience with other, similar technologies. Moreover, the new artefact is evaluated mostly in terms of its features. Interestingly, in our case the undertone of the discussion is rather negative as people assess the new thing against what is already known. In line with our earlier argument about the openness of social media we reason that the potential benefits of the new artefact are not yet evident, but will emerge over time through experimenting, use and eventual practice.

The second phase we term *Sleeping*. After the first phase of encounter and comparison, communication about the new artefact largely subsides. This bears the risk that the initiative dies off, as the new technology vanishes from conversation. The general tone of conversation is still often negative, with people questioning the artefact’s usefulness. However, at the same time the first groups of people start taking the new technology on board, evidenced in the number of messages on the platform growing slightly, while the relative number of posts about appropriation declines.

The third phase is crucial; we term it the *Make-or-Break* phase. A sudden spike in appropriation communication is evident as EMB gains interest across the organisation. The communication is quite passionate with people uttering their opinions in emotional ways. Negative evaluations begin to give way as the focus shifts to discussing and sharing practical ways of communicating and the tone of appropriation communication becomes more positive. Many questions are being asked, while others offer assistance regarding use and benefits of the new technology. At the same time, people begin sharing how they promote the technology in their groups. This leads to others asking for help in promoting diffusion and they receive assistance in turn. Finally, as people gain some familiarity with the technology in their work practices they become aware not just of the benefits but also its risks. People thematise appropriate use and begin engaging in norming behaviour to observe emerging norms in others.

With reaching the critical mass, the appropriation process gradually enters a new phase, which we term *Uptake*. The tone in conversations becomes distinctly neutral; both positive and negative assessments make way to more informative communication. At the same time, the topics of questions change from “what can I do with it?” to “how can I cope with the sudden increase in information?” People share coping strategies for avoiding personal information overload. After reaching the critical mass the relative amount of appropriation messages decreases markedly, making way for productive work-related communication. However, a baseline of self-referential communication remains covering norming, questions and assistance, helping new users to get started with the technology. Finally, a new
form of communication also emerges, in that new features are being proposed as people become familiar with the technology in their work practices and new ideas for further improvement emerge.

It is worth observing that consistent with our earlier argument, these phases of appropriation and sense-making are not about accepting a pre-given, stable technology, they are about the joint crafting of new ICT-enabled, enterprise-wide communicative work practices. As people in Capgemini began to see the emerging benefits of Yammer in their own work practices, they started actively promoting these emerging ideas and benefits to grow the social network and thus also the benefits for themselves: "Things that are happening around the organisation help me do my own job better and so I could start to see the potential in a tool like this. Once we got a reasonable critical mass we could see that really developing well. In some ways, though, we also ended up creating the network of people ourselves. As we started to see benefit we started to encourage others and get them in there and get them involved." [C09]

On a final note, our data further shows that the point of critical mass, where user and message numbers increase sharply, is preceded by what we might term a point of engagement. This moment in our case is the point where people begin to engage with each other (asking assisting, informing, norming) rather than evaluating the artefact (by offering opinions, comparing tools and assessing functionality).

6 Conclusion

Our study marks the first step toward a theoretical contribution outlining the anatomy of organisational processes of IT appropriation. Taken against the backdrop of traditional IT adoption research that treats adoption as individual decision-making, our study has exposed the complex and multi-faceted nature of social sense-making at work in enrolling a new communication platform into organisational practice. We further contribute to a better and richer understanding of the bottom-up nature of social media proliferation, which has often been stressed, but not been investigated in detail before.

Our research is bounded by certain design choices and the nature of the available data set. Firstly, we cannot capture communication about Yammer outside the platform itself. Hence, we do not have access to conversations by non-adopters, which might still contribute to the sense-making process, even though in an indirect way. Secondly, our study is based on a single case with the respective limitations for generalisation. Finally, this paper marks only a first step in theory development. While we have exposed the patterns emerging from our data, future work will have to engage with these findings in the context of prior literature, which was beyond the scope and page restrictions of this paper.

References


