3. Taming Technology: Domesticating enterprise social media in practice

ABSTRACT

We study the emergent domestication of an enterprise social media (ESM) (i.e., Yammer) at a healthcare organization. To progress theorizing on the use of ESM in practice, we draw on the literature on domestication and provide an empirical inquiry on how the therapists have integrated Yammer into their daily work. We combine interviews and observations with quantitative Yammer-data (coded qualitatively) from between 2011 and 2016 to understand the process through which Yammer becomes domesticated, and what the conditions are that support this process. Our findings reveal that Yammer is domesticated because of three supportive conditions: (1) meta-knowledge to locate knowledge and expertise, (2) critical mass of relevant content for continuous learning, and (3) psychological safety to ask questions and engage in discussions. We contribute to literature by introducing the three conditions for domestication, and by showing the importance of combining offline and online data for understanding ESM in the workplace.
3.1. Introduction

In the past two decades, organizations have increasingly implemented enterprise social media (ESM) to increase efficiency of communication and improve knowledge sharing among workers (Kane, 2017; Hwang, Singh, & Argote, 2015; Leonardi & Vaast, 2017; Oostervink, Agterberg, & Huysman, 2016; Mäntymäki & Riemer, 2016; Majchrzak, Faraj, Kane, & Azad, 2013). ESM are communication technologies that afford workers the ability to send private and public messages to others and engage in discussions, create and maintain relationships with others, and share content both directly to others and indirectly to a group of others, much like on popular social networks such as Facebook (Leonardi & Vaast, 2017; Leonardi, Huysman, & Steinfield, 2013; Ellison, Gibbs, & Weber, 2015). Research on the introduction and use of ESM has predominantly studied organizations where ESM are introduced from the top down by administrators and has discussed the struggles that accompany the implementation of these technologies (e.g., Oostervink et al., 2016; Mäntymäki & Riemer, 2016; Hwang et al., 2015; Leonardi, 2014; Wu, 2013). With the advent of social media in society in general, scholars have drawn attention to the emergent introduction of ESM and have explained that such phenomena have remained understudied even though they have profound influence on how work gets done in organizations (Arnaboldi & Coget, 2016; Colbert et al., 2016; Forman et al., 2014; Kane et al., 2014; Aral et al., 2013).

In their editorial in *Academy of Management Journal*, Colbert and colleagues (2016: 736) emphasize that “a digital workforce may develop new ways of working that leverage the full capabilities of technology.” ESM differ fundamentally from traditional communication technologies because they offer so many different affordances for interaction and knowledge sharing (Treem & Leonardi, 2012). Hence, how ESM can become emergently adopted into the core practices of workers remains unclear. In one of the few studies, Riemer & Johnson (2012) describe a bottom-up introduction of Yammer into a consultancy organization and focus on how people talk about the technology itself when they develop a new practice (i.e., micro blogging). However, they do not explain how the technology becomes used for work. So, because research on ESM remains limited, we currently lack empirical and conceptual material that can help us theorize how such technologies might become emergently adopted into the core practices of professionals.

We reason in line with recent calls from information systems scholars (Faraj, von
Krogh, Monteiro, & Lakhani, 2016) that it can be helpful to turn to the literature on
domestication of technologies (Lie & Sørensen, 1996; Berker, Hartmann, Punie, & Ward,
2006) to understand how professionals themselves start to use a new technology.
Domestication concerns the emergent process of “absorbing a strange technology into the
context of everyday life” (Pierson, 2005: 209). An example of domestication is how computers
and the Internet were incrementally “absorbed” in the routines of modern households
(Cummins & Kraut, 2002). Recent studies have advocated its relevance for the emergence and
acceptance of new technologies in organizational contexts (Faraj et al., 2016; Hynes &
Richardson, 2009).

Domestication in organizations occurs when actors integrate a new technology into
their existing practices and routines (Haddon, 2006; Pierson, 2005; Lie & Sørensen, 1996) and
eventually seem to forget about the technology itself. The emergence of an ESM platform
from the bottom-up requires us to understand how organizational actors cope with this new
technology and domestication as a concept helps us focus on the changes that happen over
time, as actors incrementally tame the technology. So, what we still have to unfold is why and
through what processes ESM become domesticated and emergently adopted in the daily work
of professionals.

To progress theory building on the use of ESM in practice, in this paper we examine
how professionals domesticate an ESM platform into their daily work practices. By
conducting an in-depth field study of both online and offline interactions at a healthcare
organization we explore what happens during the process of domestication of ESM. Our data
show that the process of domestication progresses because three conditions assure that over
time the therapists are able to conduct parts of their actual daily practice ‘on’ Yammer. Our
study shows that after the therapists in our case tamed the technology, it became
domesticated into their actual care practices.

Our study first contributes to the literature on the domestication of technologies in
organizations by offering scholars a scaffold to further our understanding of how new
technologies influence the workplace. Our study also contributes to the literature by
discussing how and why ESM can become not “only” online spaces for knowledge sharing,
but can also become spaces where knowledge is created and integrated into the work at hand.
Third, we also contribute to the literature in terms of methodology because we combine a
large amount of data from both online and offline sources. We show that combining these
two sources of data is essential for our understanding of how ESM become adopted in organizations and hope future research may build on and refine this approach.

The remainder of this article is structured as follows. We will first discuss the literature on ESM within organizations and we will theorize that the emergent adoption of ESM occurs through a process of domestication. We then discuss our empirical setting and will explain the different types of online and offline data we collected. In the findings section, we explain how an ESM platform became domesticated and our discussion will then theorize the implications for the literature. We will conclude with the boundary condition of our implications, some limitations and recommendations for practice, and suggestions for future research.

3.2. Theoretical background

3.2.1. Enterprise social media

Many organizations are exploring the potential of ESM to facilitate knowledge sharing and integration (Kane, 2017; Colbert, Lee, & George, 2016; Leonardi, 2014; Wu, 2013). In their review on the use of social media within organizations, Leonardi & Vaast (2017) illustrate that the recent rise of studies on these technologies have brought forward a variety of terms such as enterprise social media, enterprise social networks, social technologies, social software, collective intelligence technologies, and Web 2.0 technologies. Leonardi and colleagues (2013: 2) explain how these technologies afford professionals to:

(1) [C]ommunicate messages with specific coworkers or broadcast messages to everyone in the organization; (2) explicitly indicate or implicitly reveal particular coworkers as communication partners; (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited and sorted by anyone else in the organization at any time of their choosing.

ESM hence afford workers the ability to interact and collaborate with virtually anybody anywhere in the organization (Leonardi, 2014). In their review of the potential uses of social media in organizations, Treem and Leonardi (2012: 178) emphasize that ESM are fundamentally different from traditional communication technologies “because they afford new types of behaviors that were previously difficult or impossible to achieve before these new
technologies entered the workplace.” Because social media have become so pervasive in modern day society, the introduction of similar technologies into the workplace will not only be initiated by managers, but will increasingly be the result of for example “digital natives” (Colbert et al., 2016), who enter the organization and introduce these technologies (Arnaboldi & Coget, 2016; Aral et al., 2013).

Interestingly, studies on the use of ESM in organizations have almost exclusively reported and theorized about cases where such ESM have been implemented from the top down (e.g., Kane, 2017). Managerial initiatives to introduce such technologies are characterized by the use of champions and organization-wide policies to persuade workers to start using the technologies (e.g., Oostervink et al., 2016; Leonardi, 2014). And while ESM have the potential to serve as online open workspaces (Leonardi et al., 2013) studies so far have only discussed how such technologies can be used for knowledge sharing, and seldom provide evidence of using the technology as an online workspace.

We reason that an emergent process where actors themselves integrate a new technology into their daily practices would require little (or even no) managerial intervention, as actors do not need to be persuaded by managers and policies. The actors themselves want to use the new technology and, through processes we are unaware of, integrate them into their daily work practices. Following this line of reasoning, the concept of domestication provides conceptual and methodological handles to theorize through what processes ESM may emerge and become domesticated in the workplace.

3.2.2. Domestication of technologies

For over thirty years, scholars concerned with understanding how technologies become integrated in the daily life of actors have worked on the concept of domestication (Haddon, 2007; Silverstone & Haddon, 1996). As Haddon (2007: 26) explains:

The metaphor of ‘domestication’ came from the taming of wild animals, but was here applied to describing the processes involved in ‘domesticating ICTs’ when bringing them into the home.

The concept has proved valuable for understanding how relatively small groups of actors (i.e., households) start to accept a new technology into their daily routines. In the context of the
household, domestication concerns the process of accepting a certain technology, as it becomes part of certain routines to such an extent that actors tend to forget that they are using that technology (Lie & Sørensen, 1996; Silverstone et al., 1994). Hence, the concept of domestication allowed scholars to comprehend how actors become acquainted with the technologies they are using (Lie & Sørensen, 1996) and draws researchers’ attention to the micro processes through which (groups of) actors come to “accept” a technology in their practices (Faraj et al., 2016; Hynes & Richardson, 2009). Harwood (2011) for example discussed how hoteliers in Scotland incrementally domesticated the use of several websites that afforded them the ability to accept reservations. And Pierson (2005) discussed the domestication process of communication technologies for fruit-farmers and accountants.

We reason in line with recent calls to consider domestication in an organizational context (Hynes & Richardson, 2009) and to expand it as a theoretical lens to understand how communication technologies become accepted in the daily life of professionals (Faraj et al., 2016). When actors integrate it into their daily work, they are using the ESM as an online space where work gets done, and this would be evidence of taming the technology. Because we lack empirical material to help us theorize the process of domestication for technologies in organizations, the research question of this study states:

*How and why does an enterprise social media platform become emergently integrated (i.e., domesticated) into the practices of actors?*

3.3. Methodology

To study the process of domestication of ESM, we conducted an in-depth study at CareInstitute: a Dutch healthcare organization specialized in providing care for children and adolescents with communication related impairments. The therapists used Yammer: an ESM platform that offers users the ability to create personal profiles, public and private groups, connect and follow groups and other users, and are also able to post both public and private messages to individuals and groups. Hence, Yammer serves as a typical ESM platform following Leonardi et al.’s (2013) definition as outlined in the beginning of the theory section. The therapists started to use Yammer voluntarily in 2011 and, following a process approach (Langley, 1999; Pentland, 1999), we engaged in a longitudinal process study (Pettigrew, 1990).
to understand how therapists used the technology through time. We collected qualitative data between 2014 and 2016, and collected Yammer-data from 2011 until 2016.

3.3.1. Field site

CareInstitute cares for children and adolescents who have a combination of communication related conditions such as deafness, autism, blindness, and linguistic developmental issues. The organization has over 4,500 employees in 70 offices and 30 schools across the Netherlands. The different offices and schools have their own specialization and target groups, ranging from audiology centers where diagnostics are conducted, to larger offices that house both classrooms and speech therapy facilities. CareInstitute’s headquarter is located in the South of the Netherlands and also houses a Research & Innovation (R&I) department, where researchers develop new knowledge about diagnostics and treatments. Most employees are specialized therapists such as speech therapists, linguists, psychologists, behavioral therapists, and educators. There are several domains in which clients are classified: Language-development disorders, hearing-impaired, deaf and blind, and autism spectrum disorders. The therapists are specialized in one of these domains but there are also some who span multiple. The therapists have a plethora of methodologies (i.e., diagnostics and treatments) that they can draw upon when providing care.

3.3.2. Data collection

Over the course of 18 months we collected data from multiple sources that helped us make sense of the domestication of Yammer. We conducted 33 interviews with a variety of therapists such as speech therapists, researchers, psychologists, teachers, and former employees between the winter of 2014 and the summer of 2016. The interviews were about the work of the therapists, how they used Yammer, what would happen if Yammer would disappear, and what knowledge or information they noticed. After transcribing all interviews verbatim we contacted some informants for a second and even third time for additional information. The interviews lasted an hour on average: some key interviews (e.g., therapists who used Yammer in their daily work) lasted for up to two hours, and some of the interviews that were after a first interview lasted about 45 minutes. We also attended ten meetings where
therapists collectively make sense of challenges they encounter in their work, so-called knowledge-meetings. These meetings only occurred once every two months and over the course of this study we were able to collect a total 25 hours of observations, resulting in 65 pages of written notes. We paid particular attention to how Yammer was used before, during, and after such meetings. Documenting their use of Yammer over time allowed us to understand how Yammer became part of some of their routines. We complemented these data with documents such as minutes from meetings and policy documents about the use of Yammer in the organization.

On top of these qualitative data we were able to collect a total of 17,599 messages from Yammer that were posted from June 2011 until December 2016. We collected the group ID, thread ID, message ID, sender ID, reply-to ID, timestamp, the number of likes and comments, and the message itself. We filtered the type of message (i.e., system message, first thread message, and comments), which revealed that there were 7132 unique threads, 7541 unique comments, and 2926 systems messages (e.g., when someone joined). To assure the anonymity of the actors and any potential confidential information in the messages itself, the spreadsheet never left the computer of the main researcher and the research assistant – who also signed a confidentiality agreement.\(^5\)

### 3.3.3. Data analysis

To make sense of our data we engaged in several steps to develop a common understanding that would reflect how Yammer emerged and became domesticated in the organization.

**Step 1.** Understanding therapists’ work for the emergence of Yammer: To understand how Yammer could be integrated in the work of the therapists, we need to understand what would constitute “domestication” in the context of Yammer. We follow the work on domestication (e.g., Silverstone et al., 1994; Haddon, 2006; Haddon, 2007) and operationalize the process of domestication of Yammer as a process in which therapists accept the technology into their daily work of providing care for their clients to the extent that it becomes a “natural part of everyday life” (Faraj et al., 2016: 2), like email is domesticated in many organizations today. In

\(^5\) This study has was approved by the University’s Board of Ethics, by the management of the organization, and there was a message on Yammer that explained the purpose of this study by one of the executive managers in 2014.
order to identify when domestication was happening, we developed an understanding of what the work of the therapists looked like. We were able to identify three main elements that characterize working as a therapist at CareInstitute: (1) therapists need to collaborate with other therapists to make sense of clients with complex pathologies, (2) the knowledge in their field is highly transient and so they need to continuously learn about new research and methodologies, and (3) they have a strong sense of community and want to stay in touch with others. As our findings will show, these three conditions are important for Yammer to emerge and become domesticated.

We then constructed a narrative (Langley, 1999; Pentland, 1999) of the domestication of Yammer to understand how therapists actually used Yammer. We coded our data for explanations about how, why, and when therapists used Yammer or when we noticed that Yammer played a role in, for example, offline meetings. We identified themes related to a “feeling of community” and the importance of using Yammer to “keep track of developments”. We also started to code the threads we collected from Yammer itself. First, the first author coded 100 threads from each year to create a preliminary coding scheme. Examples of codes that emerged are “experimenting” (trying out the different possibilities of Yammer), “posting organizational documents” (e.g., posting minutes from meetings), and “posting social activities” (e.g., when users posted about a new movie about a deaf child). In this first step we noticed that the content in 2011 and 2012 was often related to their field of work (e.g., new articles), whereas posts from 2015 and 2016 were more about questions and discussions (e.g., new methodologies) related to their daily work.

**Step 2.** Zooming-in to understand changes over time: The first author continued to code the threads posted in March, June, September, and November for each year. After this second batch of coding we ended up with over 1500 threads that were coded and had developed over 40 different codes. When reviewing our codes and looking for overlapping ones, we noticed that more common (or collective) themes started to emerge. For example codes such as “posting informative content”, “sharing local developments”, “asking for client input”, “searching for expertise” started to reflect a distinction between content related to their community (e.g., news about the deaf community), their general field of work (e.g., speech therapy), and the core of their work (e.g., providing speech therapy sessions to a client). During this step we noticed that Yammer in some cases seemed to have already become part
of some elements of the work of therapists. We for example noticed that, in line with our field
notes, Yammer had become a standard tool for coordinating and organizing the
interdisciplinary meetings.

**Step 3.** Qualitative analysis of our quantitative data: In the third step we continued coding
with the coding scheme we developed in step 2. First we reviewed and re-coded several of the
threads we coded earlier to check whether we would still agree with the codes we assigned.
We noticed that many of the codes indicated minute nuances that were difficult to keep
distinct. Codes for example related to “new knowledge”, “new tool/methodology”, and “new
care improvement” were overlapping to the extent that similar messages could be coded with
any of these codes. We decided to merge such codes and eventually ended up with eighteen
distinct codes and developed a coding scheme that was used to instruct a research assistant.
We realized that coding messages that sometimes have over 200 words can be difficult to code
unambiguously and it is therefore necessary to have multiple iterations of “trial-coding” to
align our interpretations and also to assure that the research assistant understands the context
of research. To be able to grasp the context and meaning of many of messages, the research
assistant read several papers about the organization and transcribed several interviews that
discussed the history of the organization and the therapists’ perception of how Yammer had
been used through the years.

The research assistant and the first author each coded 200 messages at first and we
discussed the results, enhanced several of the definitions of the codes, removed four codes
(e.g., “experimenting”) and engaged in a next iteration of coding. In the second iteration we
coded a batch of 500 messages and ended up with an inter-coder reliability of 65%. We
realized that in particular the codes “Post – community” and “Post – generic”, and the codes
“Question – expertise” and “Question – care input” were often too much overlapping. We
refined the definitions and after the fourth round of coding ended up with an inter-coder
reliability of 85% with fourteen distinct codes: seven were about posting developments and
seven were about asking for input from the others. The research assistant continued coding
the threads afterward.

**Step 4.** Quantitative analysis of our qualitative data: After we coded all 7132 threads in step 3,
we clustered comments according to which category we coded the main thread to provide
insight into all the messages (i.e., threads + comments) from Yammer. We continued with a quantitative analysis to understand how the content and interaction on Yammer changed over time. We grouped our codes into four categories: practice, profession, community, and generic. Table 3.1 provides a description and an exemplary post for these categories.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Exemplary post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice</td>
<td>Messages about the actual work of a therapist such as questions about complex clients or applicability and experiences with new methodologies.</td>
<td>For a deaf-blind kid of 10 years old, completely proficient in sign language, I’m looking for a test or questionnaire to map his social emotional developments AND find a way to discuss the handicap-experience with the child. Any ideas?</td>
</tr>
<tr>
<td>Profession</td>
<td>Messages about the overall profession of the therapists such as new research outcomes, conferences, and information.</td>
<td>Here’s an overview of books in which hearing-difficulties and deafness are implicitly and explicitly mentioned. It’s an overview that therapists can give to a school for their library book collection. […]</td>
</tr>
<tr>
<td>Community</td>
<td>Messages about the social and emotional engagement with the clients and CareInstitute, (e.g., local events).</td>
<td>In October and November there are ballroom dancing lessons for people who are deaf and have mental challenges. Deaf-blind is also welcome (please with a buddy). The lessons are given in […]</td>
</tr>
<tr>
<td>Generic</td>
<td>Messages that contained no relevant content in terms of the therapists’ practice, profession, or community and as a result generally did not entice any response.</td>
<td>Today the central volume that contains personal information has passed the 2 T!! And education has to be on top of that, where is this going?!</td>
</tr>
</tbody>
</table>

Our analysis, visualized in Figure 3.1, shows two important things: (1) the first four years most content was produced by a small group of researchers, (2) between 2012 and 2015 there was little interaction while in 2016 there was more content related to the daily practice of the therapists, and there was more interaction.

First, the broadcasting information phase: we divided the users into four groups (i.e., researchers, therapists, managers, and staff) because our qualitative data suggested that the researchers were “broadcasting information” during the first four years, while in 2016 the therapists became more active. We also wanted to see the level of interaction and therefore compared the number of comments with the number of threads: between 2012 and 2015, the
researchers posted 40% of the threads but only 10% of the comments, whereas the therapists posted 40% of the threads, and almost 70% of the comments. In 2016 then, the ratio changed: the researchers posted only 10% of the threads and a little less than 10% of the comments, while the therapists posted 50% of both threads and comments in that year. And given that the group of researchers consists of 30 people on average, while the group of therapists consists of almost 275 people on average, these findings highlight that between 2012 and 2015 a lot of content was broadcasted by a small group of actors.

Second, there was little interaction between 2012 and 2015 but there was a boost in practice-related interaction in 2016. Figure 3.1 shows that: (a) between 2012 and 2015 there was fairly little interaction, (b) the conversations were proportionally more about practice in 2016, and (c) those conversations were more interactive because they received more comments. The bars (related to the left vertical axis) show the proportion for each of the thread-categories per years, and the lines (related to the right vertical axis) indicate the average amount of comments per thread. The numbers in Figure 3.1 show that over time the total number of messages declines (i.e., less broadcasting), the comment-to-thread ratio rises (i.e., more interaction), and there are more practice-related messages (i.e., more work-related
discussions). In 2014 there is an increase in the number of practice related messages while all other messages are declining. In 2014 there were a number of departments that were experimenting with a week without email, and as such used Yammer a lot more for their daily work. Because it was only a temporary experiment, both interviews and Figure 3.1 show that the total number messages declined again in 2015. The analysis shows that between 2012 and 2015 there was a lot of broadcasting, while in 2016 there was less broadcasting and more interaction: fewer new threads while each thread elicits more responses.

**Step 5. Understanding why Yammer was domesticated:** Based on our discussions about our emergent insights that we derived from our data, we started to combine our different insights. We sought for elements in our data that could explain why therapists had continued for so long with using Yammer, why we noticed an increase in practice related content in 2016, and specifically why the therapists themselves also explained to use Yammer more during their actual work. Table 3.2 shows how each source of data influenced our data collection and analysis process. We realized that the abstractions developed during data analysis were only possible because we could combine data from interviews and observations with data from Yammer itself. This highlights the importance of combining online and offline data. By attending meetings, observing their work, and studying organizational artifacts (e.g., minutes) we were able to grasp what the therapists actually *did* in their daily work, which proved essential for our understanding of how Yammer became part of their daily practices, as we will discuss below.

We inductively derived three conditions that assure the process of domestication to progress to the point where it was integrated into the daily work of the therapists. (1) Meta-knowledge: therapists use Yammer to locate knowledge and expertise because they were able to develop their knowledge about who-knows-whom and who-knows-what. (2) Critical mass of relevant content: therapists use Yammer to stay informed about developments in their profession and community because there is a continuous flow of content about new research, conferences, methodologies, social developments, and the like. And (3) psychological safety: therapists use Yammer to ask others for input in how to diagnose, provide treatment, or interpret the pathology of a complex client because on Yammer people provide valuable input without being negative or otherwise harming psychological safety.
Table 3.2
Data sources, descriptions, insights, and influence on the data collection process

<table>
<thead>
<tr>
<th>Data source</th>
<th>What we collected</th>
<th>Influenced data collection</th>
<th>Insights derived</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
<td>Interviews with therapists, researchers, executives, and staff to understand how and why actors used or did not use Yammer for certain ends.</td>
<td>Based on conversations we selected additional workers, for example to talk to some of the early adopters and to talk to some of the more skeptical (non)users.</td>
<td>The motivations for workers to use Yammer changed as Yammer became a “standard” part of their toolbox of communication tools. All three conditions emerged in the interviews.</td>
</tr>
<tr>
<td>Observations</td>
<td>Observations of interdisciplinary meetings and client-centered meetings to better understand work at CareInstitute and the role of interaction(s).</td>
<td>We selected additional interviewees and paid attention to conversations that took place on Yammer that reflected some conversations that happened during meetings.</td>
<td>Yammer became used for coordinating and organizing the interdisciplinary meetings. Some offline conversations continued online, which strengthened actors’ metaknowledge and experienced psychological safety as they felt at ease with posting questions in their peer group.</td>
</tr>
<tr>
<td>Documentation</td>
<td>Documentation on methodologies, minutes from various meetings, and descriptions and presentations on the history and use of Yammer.</td>
<td>Some documents explained who the early adopters were, who were recognized as “influential”, and who were part of different important (e.g., active) groups.</td>
<td>Yammer also became seen by managers as an important element for internal communication and supported therapists who integrated Yammer into some of their work practices thereby reinforcing the process of domestication.</td>
</tr>
<tr>
<td>Online conversations</td>
<td>Conversations from Yammer between 2011 and 2016 to understand how the interactions changed over time and what things were discussed (or not) in what groups.</td>
<td>By looking at who started discussions, what the timing was, and for example how complex the question was we were able to ask interviewees questions about what they themselves noticed on Yammer.</td>
<td>All three conditions we identified emerged during coding of the content as we noticed that conversations changed over time in terms of who was involved and what was discussed.</td>
</tr>
</tbody>
</table>

3.4. Findings

We set the scene based on our qualitative data to describe what characterizes working at CareInstitute. The next section will then provide a narrative on how Yammer emerged and
how the therapists used it over the years. The final section will then discuss the three conditions for domestication in detail.

### 3.4.1. Working at CareInstitute

Other than for example regular speech therapy facilities, CareInstitute is specialized in treating clients who experience multiple challenges together, such as deafness together with mental challenges. And because their clients face complex pathologies, there are three elements that characterize working at CareInstitute: (1) interacting interdisciplinary, (2) continuous learning, and (3) engaging the community.

(1) Interdisciplinary interaction: most of the work of the therapists consists of providing care for their clients. And because their clients face combinations of communication related challenges, it often requires them extensive diagnostics of the complex pathologies of their clients to determine the appropriate course of treatment. Typical for their care-related work is that they often rely on interacting with other therapists to understand the nature of certain complex challenges: they talk to other therapists about their experiences, and discuss how they could provide optimal treatment for a client. For example, they need to consult a linguist to understand why certain speech language therapies do or do not work in the desired way. It is standard-practice that each client has a web of specialized therapists that can consist of sign-language teachers, speech therapists, psychologists, behavioral therapists, social workers, et cetera. So interaction with (interdisciplinary) peers is a vital element of working at CareInstitute.

(2) Continuous learning: because of the complexity of their clients and the transient nature of knowledge in their field, the therapists cannot merely rely on their formal training (e.g., Bachelor’s degree in speech therapy). They need to continuously keep “refreshing” their knowledge about relevant treatments, methodologies, new research insights, and the like. As one therapist explains:

As a therapist you of course need to know that the treatment that I learned five years ago, is that actually still effective? Are there new insights? And that also applies to teachers who have their own methodologies. So as a therapist you have to keep up with new scientific research.
To learn, the therapists regularly engage in interdisciplinary meetings where they will for example discuss the applicability of a new treatment or diagnosis methodology. For example, we observed a discussion about a questionnaire that was intended to assist therapists to determine whether a multilingual child had language development issues, or potential difficulties with learning a new language. The therapists have to collectively discuss such new tools because the distinction between the two diagnoses will have implications for what treatment would be most appropriate. Hence, the therapists at CareInstitute are highly motivated to continuously learn about any developments in their field of work.

(3) Engaging the community: the therapists are highly committed to their community of therapists and clients and often share developments that show their social and emotional commitment to their peers, clients, and target group at large. Examples are sharing news about a new French movie about a deaf-blind girl (Marie Heurtin), or celebrating World Deaf Day. Being so engaged with their community, a speech therapist does not merely perceive herself as a “speech therapist” but rather as a “CareInstitute speech therapist”. One of the therapists expresses this profound feeling of passion and community:

That openness and passion, that commitment – not only towards each other but also towards others, clients – you really experience that during the days that you meet your colleagues from CareInstitute. That drive, especially that drive, that devotion to our profession and clientele.

The next sections will explain why these characteristics served as fertile ground for Yammer.

3.4.2. Case description: Yammer at CareInstitute

In this section we discuss how Yammer was initially introduced into the organization by social workers, and we continue to explain the developments over time that led to the domestication of Yammer in 2016. We distinguish two phases: (1) the broadcasting information phase and (2) the discussing practice phase. Because domestication occurs as an incremental process, we made this distinction for analytical reasons: dividing the process into two phases allows us to unravel the differences between the early years and the years in which we notice that Yammer had become domesticated. This narrative serves as a scaffold: we discuss the three conditions in more detail after this section.
Yammer emerged at CareInstitute in the summer of 2011 when a group of social workers decided to start using Yammer. This introduction was emergent because these initial users stumbled upon Yammer: it was available for free online and did not require any organizational intervention. The therapists first utilized Yammer to engage in a discussion about changes to their job-description because they did not have enough possibilities to engage in discussions offline due to their geographic dispersion. At the same time, a select number of researchers and other therapists also started to use the platform for exploratory reasons to find out how it worked and what possibilities it had as an online platform.

**Broadcasting information between 2012 and 2015**

Several early users explain that they perceived most of the content shared on Yammer to be relevant for their profession as “CareInstitute-professionals” and hence they perceived Yammer as a tool that facilitates knowledge sharing across the entire organization. A sign-language teacher we interviewed indicates how the first years were all about keeping track of developments at CareInstitute:

> Well for me the most important thing is to know how it works, what is going on, and I like it to be in the know about what is going on [at CareInstitute]. [...] And well, with Yammer, we talked about that before, there is where I like to pitch in: to let myself get informed.

The therapist indicates that their profession was an important driver to keep visiting Yammer as it allowed them to stay informed about developments within the organization. This was something all informants indicated as they explained that CareInstitute was a close community of professionals committed to their profession of providing care for their clients. They also feel committed towards each other to make sure they can help others provide care for their clients. The therapists had the strong sense of community already running through their veins before Yammer was introduced. They wanted to share social happenings that did not necessarily have anything to do with providing care, but did have everything to do with their sense of community. Figure 3.1 shows that almost 30% of the content on Yammer each year is related to community developments. The therapists appreciated such posts: it allowed them to stay “in the know” about developments at other locations.

Our data also show that between 2012 and 2015, there was a group of users most
visibly active on Yammer that consisted of technology enthusiasts and professionals who had a research-related position within the organization. The content these researchers produced was generally relevant for the general profession of the therapists at CareInstitute: they posted new research outcomes and other knowledge developments that were not directly related to the daily work practices of the therapists, but it was important for the therapists to stay up to date with these progressing new insights. The researchers also indicated that they thought it was important to make sure that all the knowledge they encountered (e.g., new studies) would be disseminated to the rest of the organization: it would make CareInstitute as a community of professionals more knowledgeable. The therapists explained to appreciate the content broadcasted by the researchers: they were highly motivated to continuously work on their level of expertise, so the content produced by the researchers allowed them to stay up to date when new knowledge (e.g., about methodologies or client groups) was available.

Management was also aware that the therapists used Yammer. And because the organization has a strong culture of facilitating knowledge sharing, around the summer of 2015 management decided to include a shortcut to access Yammer through the existing intranet page that all therapists would see first when they activated their workstation computers. One therapist mentioned how this move by management increased Yammer usage: “And now you just have so many people that use Yammer! It’s on Intranet by default. You can just click through on Intranet [to Yammer], that was quite different than before [laughs]!” So around Q3 of 2015 Yammer started to be used more often by more therapists.

**Discussing practice in 2016**

Around the end of 2015 we noticed an interesting change: while Yammer still contained similar content as before, our interviews and observations showed increasingly more comments about using Yammer in the day-to-day work. See Figure 3.1 for the increase in practice-related messages. Yammer for example became the standard tool for coordinating and preparing interdisciplinary meetings. And whereas before 2016 the therapists indicated to check Yammer maybe once a week, more therapists indicated to check Yammer almost multiple times per day – as they would also do with their email, as commented by a therapist in late 2016: “I check it every day, yeah practically every day.”

The therapists indicated that they felt that Yammer was the most appropriate way to
fulfill tasks such as coordinating and organizing their interdisciplinary meetings. As discussed earlier, such meetings were organized to allow therapists to exchange experiences and discuss new developments in their field and took place every six to eight weeks. One of the linguists illustrates how Yammer became part of this regular routine:

Well back in the day it all used to go through email, but now we already for some years do that [communicate] through Yammer. So we have our own group there, it’s closed [i.e., private]. The minutes are shared, and articles, and files, those are there. And also practical things, like which room are we in, or this and that. So that makes it easy. Because else you had to search and find that email somewhere, ‘where are the minutes?!’ Well now it’s all there, including associated articles.

The example illustrates that the therapists changed how they organized and coordinated meetings. And because actors within CareInstitute started to use Yammer for such tasks, it became accepted as the “standard” tool to use for coordinating meetings. Eventually all meetings were coordinated through Yammer, as one linguist for example mentioned: “it just feels like this is the way it works.”

Our qualitative analysis of the conversations on Yammer also shows that the therapists asked for input from each other on Yammer, and as a result, more discussions emerged. Figure 3.1 shows an increase in practice related content and a rise in interactivity (i.e., comments per post) for the practice-content. They for example asked where to find people with certain levels of expertise, or asked help from others to assist them in diagnosing a client with a complex pathology. The following excerpt from a discussion that was several pages long illustrates how the therapists consulted each other to provide care for their clients:

[Ambulatory supervisor:] As an autism-therapist I’m supervising a client who’s living in the third (crisis-foster-foster)foster-home […] It was clear that there were speech-language-difficulties, the client visited a speech therapist for this, and in school there was also unwanted behavior. […] Next to support in the supervision of a child with cochlear implants, I think this child needs urgent specialized care for processing these traumas. […] Does anyone have good experience with a therapy? I’d like to hear from you.

[Speech language therapist:] In our region we are collaborating with [Institute Y]. CareInstitute and [Institute Y] are working together to provide care for deaf children and children with language development disorders, to help them get suited care for this type of problems. Maybe they can also do something for this child?

[Speech therapist:] Hi Joan, I would put this child with [MentalWellness]. I think there is a clear case of a bad gut feeling.

[Linguist:] Irene and Nancy worked at CareInstitute foster-care (when that still
existed...) and maybe they can exchange experiences from that?

[Policy support officer:] For a question like this you can also go to the central consultation team for (suspicion) of child abuse. For trauma treatments you can also think of youth trauma centers such as [z]. They might also be able to point to you support closer to you if those locations are too far. [...] [Sign language teacher:] Meeting other children with cochlear implants might also be a nice way. That the child can see that it’s not the only one and that there are others with similar experiences (with that regard). You could inform whether there are people at ambulatory supervision if they can help you, or maybe [foundation X].

This example not only illustrates the type of questions that were posted in 2016, but also shows that such questions evoked responses from professionals from different disciplines and that such discussions were part of what the therapists did in their work: when they encountered complex cases they required the input from their peers to make sure the client received the best treatment possible.

We operationalized domestication as the process through which an ESM platform becomes integrated into the work-routines of actors (see methodology). Figure 3.2 serves as a conceptual visualization of the process of domestication of Yammer.

![Figure 3.2: Visualization to illustrate how Yammer was used differently over time.](image)

It illustrates that Yammer became domesticated because the content and use of Yammer changed from first mainly being used as a source of relevant knowledge related to the overall profession of the therapists and in 2016 became integrated into the care-giving practices of the therapists as they used it to learn and discuss complex clients. This shows that in 2016 the
therapists had domesticated Yammer: it had become one of the standard tools to coordinate meetings, locate expertise, make sense of new developments, and discuss cases of complex pathologies.

3.4.3. Conditions necessary for domesticating ESM.

As we will discuss in more detail below, we identify three important conditions that support the progression of domestication: together, the conditions assure that the therapists feel at ease with using Yammer for more and more elements of their actual work. First, our data show that the therapists were eager to expand their meta-knowledge (i.e., who-knows-whom and who-knows-what) as doing so allows them to easily keep track of who posts about what specific disciplines (e.g., autism or multi-linguistics). Second, our data show that because the content on Yammer contains so much relevant knowledge about new developments the therapists experience a critical mass of relevant content. Subsequently, our informants indicated that they feel the normative pressure to stay informed and frequented the platform to stay up to date with new research and developments. And third, the therapists experience a certain psychological safety to engage in discussions as they realize that many knowledgeable therapists will read their messages and provide constructive and useful input.

Meta-knowledge

Yammer affords the therapists the ability to get in touch with each other much easier. The reason for this is that the group of researchers and therapists that joined in 2011 and 2012 “filled” Yammer with content relevant for the therapists’ profession, which signaled to the growing group of lurkers that Yammer was a place where (a) knowledge and (b) experts could be found. Besides locating relevant knowledge, one of the most important things our informants reported, as expressed by one of the therapists, was: “Being able to connect directly with the people who have the expertise that you need at that moment, right, those people who have the subject matter knowledge.” Questions that were posted were for example about “where can I find documents on sign language”, “who knows someone who can translate Polish”, or “any others who are also using this new app?”. An example to illustrate how therapists used Yammer to locate other experts was provided by one of the therapists who
struggled with using the right methodology to treat one of her clients:

[Post by Speech therapist on day 1 @ 14PM:]
Hello, is there, within CareInstitute, a team or person who can give tailored advice for a ‘little client’, about whether or not employing a supportive communication-tool, and in the case of a “yes”, can say what aid-device could be suitable?”

[Comment 1 by Speech language therapist on day 2 @ 9AM:]
“The communication-studio. Try Alice, Christine.”

[Comment 2 by Pedagogical therapist on day 2 @ 22PM:]
“Very knowledgeable coworkers at ambulatory care in [location Z]. Try Anne and.”

[Comment 3 by Autism therapist on day 3 @ 8AM:]
“I would also say the communication-studio.”

[Comment 4 by Speech therapist on day 5 @ 10AM:]
“We here at [location X] have a similar question for a little client. We are planning to include the [specialized school]”.

[Comment 5 by Speech therapist on day 5 @ 11AM]
“Thank you all for your reactions! This is something I can work with.”

[Comment 6 by Sign language teacher on day 5 @ 20PM]
“The communication-studios in region X and the communication-care-teams in region Y have a lot of expertise on this topic! Bring on the questions!”

This example illustrates that questions about locating therapists with a certain expertise were generally responded to quickly and also evoked multiple responses from therapists with different disciplines. Our interviews substantiated these findings as we noticed that therapists saw Yammer as one of the most appropriate ways to locate other therapists.

Yammer allows the therapists to locate people with the right expertise not only because of the visibility of communication, but also because users filled in their personal profile, which contains information about their types of expertise, experience, and contact information. During an interview in 2014, one of the linguists explained how she noticed that Yammer made her more aware of who-knows-what and who-knows-whom:

So I think part of the goal of the network is that we’re able to find each other, that we know “oh that person has that knowledge”, that’s so much easier with Yammer. […] And I start to notice the names that are important, right, and I know them and I know how to find them.

One senior therapist that we interviewed in 2015 was fairly critical about Yammer: she had used it for a few months but did not think it provided her with any benefit at first. During the interview, when we asked her about what she thought about Yammer, she explained that she did realize that Yammer afforded the therapists to get in touch with each other much easier:
Well I think it did have, for a while, the function to bring people together a little easier. I think that’s also the reason that it seems a bit quieter now\(^6\), because people…well the connections have been made. And it has been a connection facilitator here, between people, from the different departments to become one organization.”

The comment provided by this therapist illustrates that Yammer provides the therapists with an online space where they could “access” relevant therapists from different disciplines. And because so much of the care practices of the therapists depend on receiving and discussing experiences from other experts, the therapists often explained to be eager to use Yammer, because: “You can reach so many CareInstitute therapists, without having to ask someone!”

**Critical mass**

Our data in Figure 3.1 show that the researchers and a number of enthusiastic therapists posted a large amount of content between 2012 and 2015. These users “filled” Yammer with content related to the overall profession of the therapists. They for example posted about newly published research, developments regarding the use of Google Glass, or about upcoming conferences related to language development challenges. One of the senior researchers explained that she felt inclined to share the knowledge that she encounters in her work as a researcher at CareInstitute:

> You want to share new developments with others. And the one time it can be as a speech therapist…because things I share are not always, but often, about [my field of research], because I do want to have it focused a little bit. But when I see something of which I think that not so many other people have seen that yet, that’s available online, then I just pass it through on Yammer.

Our interviews show that the amount of relevant content provides an incentive for the other therapists to keep track of what was posted on Yammer. When we asked others about their reasons for using Yammer, one linguist explained:

> Well like [researcher Jane], within R&I she is responsible for multilingualism and we regularly collaborate with them, but she also regularly posts interesting stuff about lectures, or about articles, or about something, right, like a piece from a newspaper.

\(^6\) This therapist had the impression that there was less activity on Yammer for a while. Our quantitative data supports this and shows that during 2015 there had been a reduction in the number of messages compared to 2014.
Chapter 3 – Taming Technology

The previous examples illustrate that the therapists are happy to have access to developments relevant to their field of work. Over time we also heard comments that therapists developed a fear of missing out: because there is such a continuous flow of relevant content on the platform, combined with the ability to stay in touch with the entire community at CareInstitute, the therapists feel a normative pressure to visit Yammer more often. This is illustrated by one of the speech therapists: it is a major source of knowledge for her as a therapist and she feels that missing updates would damage her professionalism:

It’s also really used for exchanging knowledge, or at least passing it on, so if you’re not active on there, or you’re not following [posts], then you miss out on that information. And that does not benefit your professionalism. If you miss that, and colleagues on this or on other locations do notice those developments on Yammer, right, then as a location you’re one step behind in terms of being knowledgeable, those kinds of things. That you don’t know when or where there’s a symposium.

Our data analyses discussed in the methodology indicate that there is an almost constant flow of relevant content, initially predominantly posted by the researchers: each year hundreds of profession and practice related messages are posted. And because the researchers posted so much knowledge (e.g., articles), the therapists feel inclined to make sure they do not miss out on any important new developments. Data from our interviews confirms what the therapist said as others indicated that they wanted to regularly visit Yammer to stay up to date. The interviews make it clear that the strong sense of community and the large amount of relevant knowledge on the platform have the consequence that therapists feel the urge to sign up and stay informed through Yammer. As one therapist illustrates:

If I didn’t visit Yammer, then I never knew about that conference, or never bought this book, or missed this training module, or I missed the e-learning course. It gives me so much! It’s not just one thing. And that’s why I keep using it.

*Psychological safety*

Most therapists used Yammer to lurk during the early years (between 2011 and 2014). Especially in the beginning most of the content was produced by the researchers. And this initially made others reluctant because they felt a bit intimidated by the status of those researchers, as explained by one of the therapists.
Maybe [the researchers] also feel a bit more inclined to share their knowledge. Because it’s from ‘The Research Institute’ [with a posh accent]. That they think like ‘well we’re from education, and we have a different position, so we really should share our knowledge and expertise’. While I think, the person around the corner also has lots to add, that person can have great experiences to share, or maybe a question to ask, but they feel a bit awkward, a bit easily criticized.

The therapist explains that people were hesitant to join discussions. At some point however, the data show that the therapists felt a certain level of psychological safety that they felt comfortable joining conversations and engaging in discussions on Yammer. Several informants explain that they realize that Yammer is a safe place for CareInstitute therapists to engage in conversations and learn from each other. One therapist explains that she and others increasingly feel at ease with discussing things:

I really think that more and more people are using it, in the sense of asking questions, sharing something, or like 'did you know about this? or 'are there people who have experience with this test or methodology?' That kind of stuff.

Data from Yammer (see Figure 3.1) confirm that conversations were more related to the therapists’ practice: besides conversations about sharing new information or knowledge, people asked questions and therapists started to interact. We reason that they experienced a sufficient level of psychological safety at some point in 2016, because they were openly asking others for their thoughts, experiences, and expertise: 145 messages in 2011 compared to 795 in 2016. Figure 3.1 also shows that there is a clear increase in the number of comments per thread, indicating that more discussions were held. The example below is a shortened example of a discussion that happened on Yammer, illustrating that the therapists trust each other to provide valuable input and are not criticizing each other’s interpretations:

[Speech therapist]: Help needed. Case: Pupil 3-7 years, average IQ. Doesn’t speak, vocalizes (unconsciously). Doesn’t imitate sounds, does try mouth visualization. Communicates by: pointing, taking, making eye contact, and sometimes a sign. Who has experience with this? Or any ideas how this pupil could start talking? I’m using (among others) ‘Starting Communication’, Hodson & Paden, and some of the articulation therapy exercises.
[Speech language therapist]: I guess this is about a pupil with language development issues? Or is it about deaf / hard of hearing?
[Speech therapist]: That’s right! There isn’t anything specific regarding the hearing. There are autism spectrum disorder-signs, but it hasn’t been possible to make a diagnosis yet.
Chapter 3 – Taming Technology

[Ambulatory care]: This raises a lot of questions. Is there verbal dyspraxia (not being able to mimic sounds)? Phonological problematics? I do have experience with different children that were able to talk later on. A combination of learning to read globally by making use of reading-requirements, not to learn how to read but to learn to talk. Using sound-signs, etc. You can mail me your number then we can discuss this over the phone. Oh some small advice: have a whole lot of patience ;-).

[Senior researcher]: You could also think with the parents about the option to do deepening diagnostics within department [Care]: with a multidisciplinary research team they make a treatment oriented diagnosis. More insight into the origin, severity, and cause will give a better grasp for next steps.

[Speech therapist]: We already assigned him at department [Y]. The pupil will most likely be able to go there this spring. I think it is really helpful, but we have to wait a little now.

[Teacher]: [Erin] and [Joseph] also might have some advice for you from their expertise on communication-limitation multiplexity.

These are examples of psychological safety because they do not contain any negativity (e.g., “why didn’t you just Google that”, or “didn’t you learn that in college?”). One therapist explains: “giving criticism on Yammer is not-done in my opinion”. Besides a lack of negative comments the therapists indicated that they felt safe to ask questions to collectively discuss potential challenges they faced. Our analysis shows that even though the therapists regularly disagreed in their perspectives (e.g., because of their different disciplines) they will argue by indicating their expertise and oftentimes provide examples from their own experience. Discussions thereby provide valuable input for the different therapists involved because they are able to learn from others’ experiences.

After several years the therapists tamed the technology: they use Yammer as an online workspace where they conduct parts of their work of providing care for their clients. Yammer has become institutionalized as it has become integrated in the daily work of the therapists, or as they themselves explain: it is now "part of working at CareInstitute".

3.5. Discussion

This study expands our understanding of the introduction of ESM as a cumbersome process enforced by managers, to an emergent process of domestication wherein workers themselves introduce and use the technology as they see fit. Scholars have recently indicated that research is needed because new technologies are more often emergently introduced in organizations and affect how work is done (e.g., by digital natives) (Kane, 2017; Colbert et al., 2016;
Arnaboldi & Coget, 2016). Thus far however, studies have almost exclusively reported on the benefits and struggles that accompany the top-down introduction and use of ESM (Kane, 2017; Van Osch & Steinfield, 2016; Oostervink et al., 2016; Huang, Baptista, & Newell, 2015; Leonardi, 2014; Wu, 2013). By contrast, our study highlights that committed workers who want to experiment with new ways of working, are able to engage in the process of domestication through which ESM can become integrated into actors’ daily practice – without managerial intervention.

In this paper we showed how an ESM platform is initially adopted by a small group of therapists, is then used for sharing information and knowledge, and in the end becomes domesticated into the actual work-practices of the therapists. Our data reveal that the practices that characterize the work of the therapists served as a fruitful ground for Yammer to emerge. While management did support Yammer, it were the therapists themselves who decided to introduce, use, and domesticate it into their work of providing care for their clients. Their need to interact with peers, continuously learn, and engage with their community were essential elements for the therapists to remain interested in using Yammer. These characteristics made them realize that Yammer could be a place to improve the level of care they provided and connect with their entire community.

Figure 3.3 visualizes our findings. The left box indicates the elements that characterize work at CareInstitute. The center box then shows the conditions for domestication that are based on these work-characteristics. And the right box then shows how the therapists domesticated Yammer into their daily work as it matches the elements typical for their work. The arrows between the left and center box indicate that the context of work at CareInstitute influences what conditions are necessary for domestication to happen. The arrow between the center

**Figure 3.3: Visual explanation why Yammer became domesticated at CareInstitute.**
Chapter 3 – Taming Technology

and right box indicate that the conditions necessary for domestication influence how domestication will actually look like in practice.

Our study shows how and why workers start to use ESM and how, over time, such a technology may become domesticated into the daily practices. Without considering how ESM may emerge and become domesticated by workers themselves, we would neglect the processes through which workers such as digital natives decide how to use ESM (or other technologies) that is not introduced by managers, and we would continue to focus on the issues, persuasion strategies, and frustrating results that characterize top-down introductions of such tools.

We respond to calls that raise attention to the emergent introduction of new technologies that change work in organizations (Colbert et al., 2016; Aral et al., 2016; Forman et al., 2014). More research into the consequences of such technologies for work is necessary, and our study provides a scaffold for future research to understand what domestication may look like in different types of organizations and institutional environments.

3.5.1. Three conditions that support the process of domestication

An important implication of our study is that we introduce three conditions that are essential for domestication to progress: meta-knowledge, critical mass, and psychological safety. The three conditions we identified are also discussed separately in prior research different studies as important consequences of the use of ESM in organizations.

Regarding meta-knowledge, Leonardi (2014) for example discussed that after the introduction of an ESM platform at a large financial organization, workers from different departments became much more aware of who-knows-what and who-knows-whom.

Regarding the perceived critical mass of relevant content, studies have emphasized before that online technologies need to “reach” a critical mass in order to become a self-sustaining system (e.g., Riemer et al., 2012). Interestingly, the therapists in our study reported a fear of missing out because they felt a pressure to continue visiting Yammer to make sure they remained up-to-date. And while research shows that actors can develop such compulsive behaviors with regards to using social media in their private lives (Dossey, 2014) existing research has so far neglected this in the context of organizations.

Regarding psychological safety, Edmondson (1999: 354) has discussed the importance for psychological safety to support learning among people who feel safe to engage in
“interpersonal risk taking”. In other words, actors must feel free to ask questions, engage in discussions, and have the confidence that their input will be taken seriously. In the context of ESM it is perhaps related the concept of “sociality”: the willingness to assemble with likeminded peers. It is an essential element to assure knowledge sharing in online communities (Faraj et al., 2016; Preece, 2001) and in the context of ESM aligns with the idea that actors want to assemble with peers to engage in discussions, which is only possible if they experience a sufficient level of psychological safety.

Putting the discussion here together, while parts of our findings have been reported in some ways before, our study shows that these conditions are, together, important for the process of domestication to happen. Without considering the importance of the three conditions we would continue to perceive the introduction of ESM as “successful” when actors use it for information and knowledge sharing in their community, without realizing that it is also possible that the technology becomes integrated into the actual work practices. So far, research has focused on cases where the technology is used to share knowledge relevant to the work of the professionals. Our study adds the caveat that over time, an ESM platform can become more than “just” a tool for knowledge sharing, but can be a tool that is part of the work of the professionals, and thereby adds value to the work being done. Although the therapists can still do their job without Yammer, with Yammer they are able to get input from more therapists, often from a more diverse range of specialties. Though our informants gave the impression that they felt that having more (diverse) input allowed them to make better decisions, we urge future research to study more systematically whether more (diverse) input actually results in better care, or in unnecessary complexity.

We realize that there might be additional conditions at play. As we noticed during our analysis, there were several therapists that started to experiment with Yammer by having an email-less week, and throughout our study there were also therapists who had been lurking for several years but at some point decided to ‘join the conversation’. So, there could be learning effects in the long run as users had several years to slowly become acquainted with Yammer. Our data do not show strong support for this proposition, but we suggest future research to unravel additional conditions that support the process of domestication. Moreover, since our conclusions are drawn from one organization we suggest future research to study the extent to which different constellations of conditions may be necessary for the process of domestication in different organizations.
3.5.2. Making the quantitative more qualitative in studying online technologies

Our study also provides methodological insights. Others have explained that with the emergence of new online technologies there are various methodological challenges to overcome (e.g., Vaast et al., 2013; Kane et al., 2014). By combining qualitative data with a large set of Yammer-data we show the importance of complementing data from both offline and online sources when studying communication technologies. How actors perceive and utilize a technology, and hence how a new technology becomes integrated into their daily work, cannot be understood by only looking at the numbers or by only asking for users’ experiences. In our methodology we have outlined in detail how we iterated between the qualitative interpretations from our interviews and the quantitative findings from Yammer. By coding the large data set according to our emerging insights that we derived from our interviews, observations and quantitative analyses, we were able to construct a detailed account of how and why Yammer became domesticated. So in line with other scholars (e.g., Fayard, Stigliani, & Bechky, 2016) we suggest future research to continue to utilize the richness provided by both offline and online data sources.

If we were to focus only on quantitative data, we would not be able to understand exactly why usage of Yammer changed over time. While we would be able to code the data, we would for example not understand the extent to which the content related to their profession was different from content related to their actual practice: such nuance requires a thorough understanding of the actual work of the actors under study. Likewise, if we were to focus only on qualitative data, we would rely on retrospective accounts, which are potentially limited, and so we would have an incomplete understanding of the use of Yammer in the early years. Also, we would not see what the conversations on Yammer were about, so we would not be able to know if those conversations were part of the therapists’ daily practice.

By analyzing Yammer-content from over five years both quantitatively and qualitatively, we are able to see more abstract and nuanced changes over time. We distilled that the first years were necessary to “fill” Yammer with relevant content by a relatively small group of actors, and we could see that, later on, the discussions were about their actual work because messages were more about practice and threads received more comments. By attending meetings and getting a real sense of what work as a CareInstitute-therapist looks like, we were able to understand how Yammer became domesticated into their daily work as
it provided tangible social and professional benefits for them to provide better care for their clients. So by using these different data we were able to provide a rich description on the process through which Yammer became domesticated into the practices of the therapists.

3.5.3. Boundary conditions

While in our findings we talked about a quasi-endpoint (i.e., that the technology had become domesticated), we cannot foresee to what extent Yammer reaches closure in terms of both the technical and the social (Pinch & Bijker, 1984). Technically, an online platform such as Yammer can be modified indefinitely and so can transform in numerous unforeseeable ways. Socially, we cannot predict what the therapists will do with Yammer in the subsequent years; they might decide to change its role completely by ignoring it or by for example including it in even more work-related practices such as integrating it into parent-therapist discussions. Basically, the study of domestication of any technology in an organization remains a temporal snap-shot and we suggest scholars to continue to develop longitudinal studies in which the process of domestication can become studied for even longer periods of time.

We realize that CareInstitute is perhaps a fairly “typical” organization because the therapists were so intrinsically motivated to engage with others to expand their community and knowledge. And because the therapists worked distributed across the Netherlands, it seems intuitive to expect that a tool that affords therapists the ability to interact with each other would find support from those therapists. We suggest future research to study the boundary conditions of successful implementations of ESM in different organizations and in different institutional contexts.