Social Collaboration Technologies in Organisations: A Qualitative Approach

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Abstract

This thesis aims to explain why employees utilise social collaborative technologies (SCTs) within organisations. The findings contribute to an understanding of how this type of collaboration technology can be used as a platform to enhance communication, collaboration and streamline dialogue across an organisation. A number of different terms have been used to describe SCTs, such as enterprise 2.0, Facebook for the organisation, microblogging, social enterprise software, and tweeting. This thesis broadly covers three different types of SCT: a social network web-based platform (Yammer), an instant messaging collaborative platform (Microsoft Lync), and user forums.

The research is informed by information sharing theory, self-determination theory, and the concepts of affordances of SCTs and social connectedness. Semi-structured interviews were undertaken with managers and users of SCTs. Data was collected and analysed via thematic analysis revealing emergent themes that framed the discussion of this thesis.

Overall, four emergent themes were discovered. They were: *design of SCT that encourages certain practices, expected SCT practices, risks to utilising SCTs,* and *motivations that drive SCT behaviours.*

A key finding revealed there is a strong influence on employees' approach to SCTs when looking at the affordances they offer. Yammer was found to offer similar affordances to Facebook, leading to the risk that organisational SCTs were being used for socialising rather than getting work done. The type of SCT used was found to influence how employees engage with it, changing the way they communicated and solved problems within their organisation.

This research contributes to the field of information systems by providing insight into how SCTs are governed and managed by organisations. In practice, organisations could gain insight into how employees view SCTs and why employees choose to utilise them.

Opportunities for future research were discovered, in areas such as how trust can play a role in the nature of communication and information sharing along with how the lack of internal organisational training on SCT use can impact an employee's decision to utilise it effectively.

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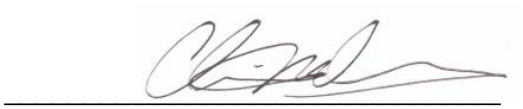
Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.



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1 Research Problem

Social collaboration technologies (SCTs) enable users to post meaningful messages, form information sharing groups and collaborate via social web-based platforms such as Twitter, Yammer, and microblogs (Jarvenpaa & Staples, 2000; Kim, Jeong, & Lee, 2010). SCTs can be utilised in a public realm for sharing personal information, such as social status or dialogue, or within an organisation to encourage employees to share information and knowledge to enhance productivity, generate ideas, and solve problems (Kugler & Smolnik, 2013).

SCTs are a new tool that organisations are increasingly adopting. International Data Corporation (IDC), a premier market intelligence firm, has predicted that the worldwide enterprise social software market will grow from a revenue of $1.0 billion in 2012 to $2.7 billion in 2017 (Thompson, 2013). Organisations are adopting SCTs expecting they will enhance collaboration and efficiency in communication and problem solving. According to Forrester's report, companies that implemented collaboration technologies have become more agile and responsive to the needs of the organisation (Keitt, 2012). Further benefits include the ability to have a remote workforce and gain a more global reach in sharing and obtaining information. Gartner, a world-leading technology research company, found that the key benefits organisations are looking for when implementing social collaboration software included: improving general communication and information sharing, enhancing team productivity and effectiveness within processes and projects, along with supporting learning, innovation and peer-to-peer networking (Drakos, Mann, & Gotta, 2013).

Feldman, Gale, Hunt & Walker (2012), in their study of 168 companies, reported the top three reasons companies have been hesitant to fully invest in online social engagement.

These are:

1) No discernible economic value in social engagement
2) Legal and regulatory concerns with sharing company information online, and
3) No organisational plan for online engagement (Feldman et al., 2012)

While there are benefits to adopting this type of technology, there is also uncertainty as to how the technology will be used once implemented within organisations. This study aims to explain why employees utilise SCTs within organisations. Gaining an understanding of SCT use may aid in developing an overarching approach to how well suited the design of an SCT is to an organisational environment. To aid this understanding, theories and previous research on information sharing, social connectedness, affordances and practices, and self-determination theory offer preliminary understanding of employees' motivations to share information and collaborate with others.

The findings contribute to an understanding of how this type of technology can enhance communication and streamline organisational dialogue across an organisation. It is likely that employees have different motivations for using SCTs. These research findings can help organisations develop guidelines when adopting these types of technologies. The findings can also give organisations insight on the benefits and challenges associated with SCT use.

The research methodology for this study is qualitative in nature. Data was collected from semi-structured interviews with employees from organisations located in Auckland, New Zealand. Due to confidentiality reasons and sensitivity of organisational information, the names of the participants, nature of employment, and any other details that may identify the participants have been removed. The data collection process continued until theoretical saturation was achieved (Eisenhardt, 1989, as cited in Paré,

2001). Data was analysed thematically (Walsham, 2006). Interview transcripts were initially coded and later classified into themes (Braun & Clarke, 2006; Walsham, 2006). Together, the themes explain employees' motivation to use and interact with SCTs.

This thesis is organised in the following structure. Chapter 2 provides a background on the types of SCTs explored in this research. Chapter 3 provides a review of the relevant literature to understand the motivations to use social and collaborative technologies. Chapter 4 presents the research methodology, providing justification for the interpretivist paradigm. The chosen thematic analysis approach will also be discussed, outlining the research approach, data collection, and data analysis methods. Chapter 5 provides a detailed analysis of the findings, outlining the categories and subcategories that resulted from the thematic analysis. Chapter 6 discusses the findings and integrates them into relevant theories and concepts from the literature, along with the practical and theoretical implications of this study.

2 Background

There are various definitions of an SCT. A definition found in an older article by Munkvold (1998) sums it up as "any type of information technology (IT) used for supporting collaboration among individuals, groups and organizations working on common tasks" (p. 424). Many different phrases have been used to describe SCTs, such as enterprise 2.0, Facebook for organisations, microblogging, social enterprise software, and tweeting. This list is not exhaustive and is evidence that SCTs are an evolutionary offshoot of technology that already existed. In research the following attributes were considered when describing an SCT (Bock & Kim, 2002; Kugler & Smolnik, 2013; Munkvold, 1998):

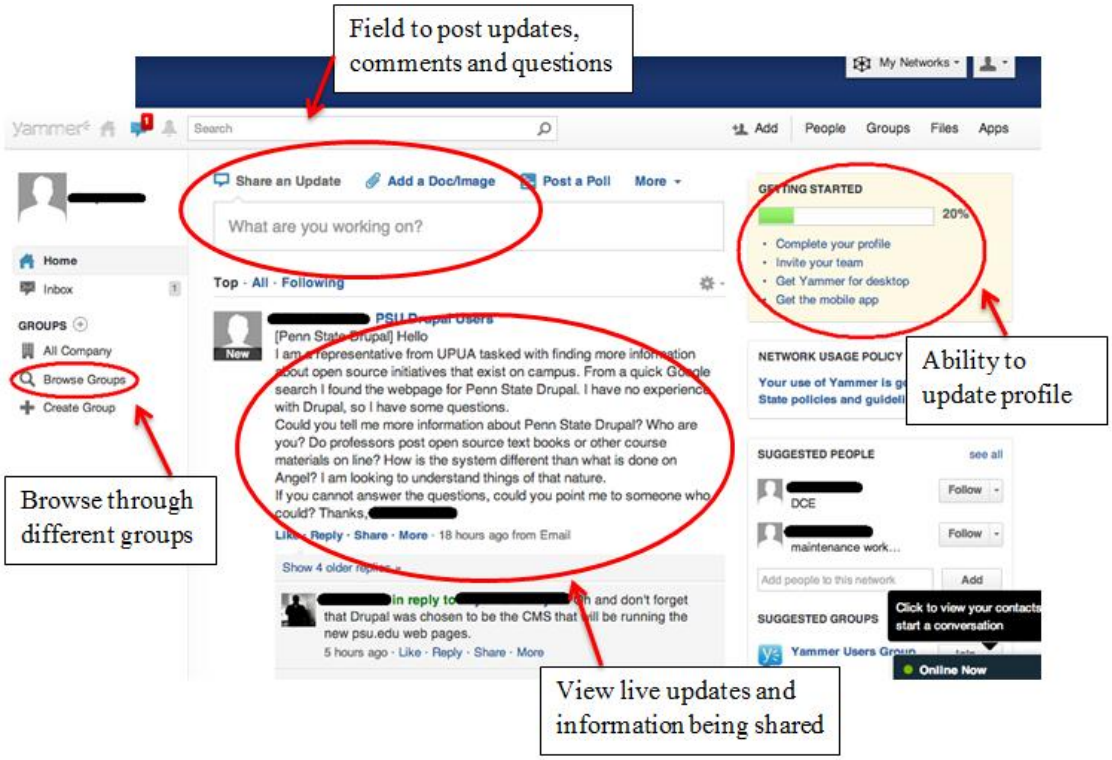
- Ability for participants to communicate on an open central platform
- Web based, allowing participants to have access anywhere
- Same-time live updates – real time responses to posts
- Extra options: ability to create secure and unsecure "rooms" for topics and knowledge sharing – group leaders have the right to determine who has access to secure rooms.

The above attributes encompass the definition of SCTs covered in this research. The three types of SCTs are Yammer, Microsoft Lync, and user forums. Some attributes are more dominant in one type of SCT than another. For example, Lync does not offer the ability for users to engage on a central platform, whereas Yammer has this attribute as one of its primary functionalities.

Yammer is a web-based SCT platform that offers a Facebook-type interface. Instant messaging collaboration software is another category, of which Microsoft Lync is an example. The third type of SCT is user forums. The following discussion provides a background of these different SCTs along with their functionality and design.

Yammer is a web-based, social network software, founded in 2008, that connects employees internally within an organisation (Riemer & Scifleet, 2012). Recent statistics in 2013 stated that Yammer is the largest provider of social software with 85% market penetration among the Fortune 500 companies and eight million users across the globe (Pennington, 2013). Yammer offers a Facebook-type interface, allowing employees to create groups, post messages, comment on and respond to messages, and enhance their own profiles (Yammer, 2014). Figure 1.1 illustrates the interface of Yammer and the different functionalities it offers.

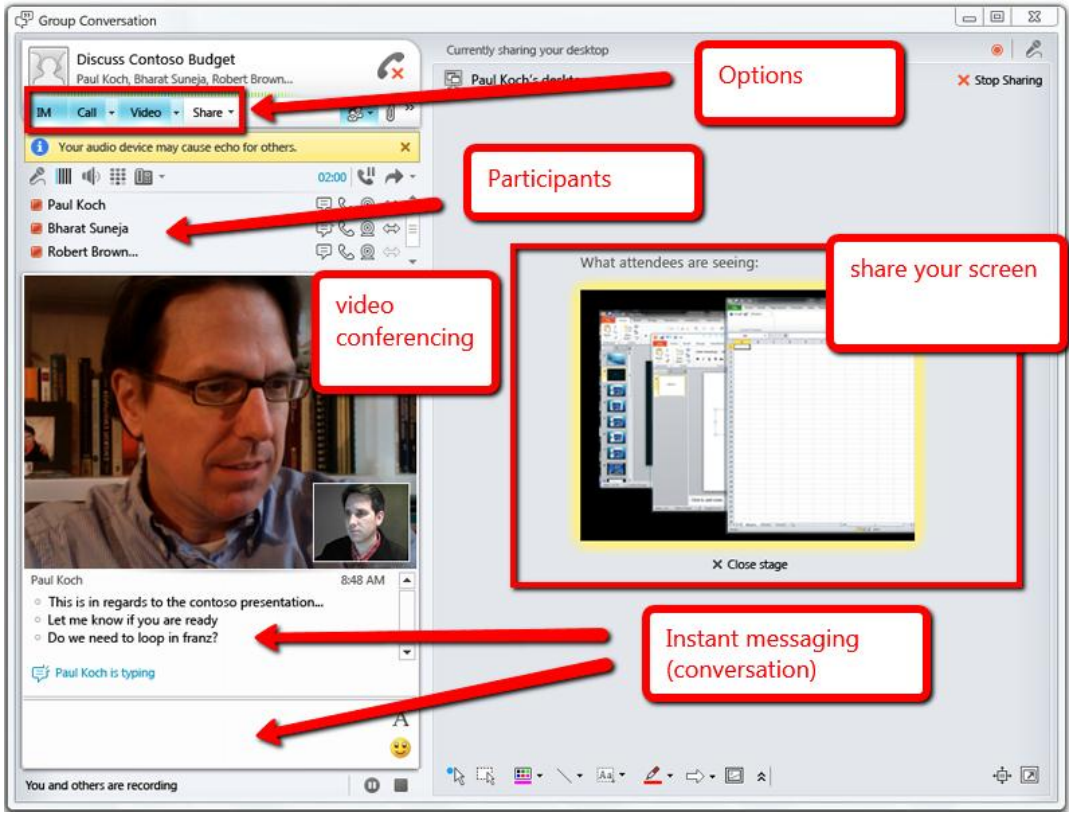
Figure 1.1 Example of Yammer interface



The second type of SCT is an instant messaging collaborative platform, called Lync. Lync is a commercial enterprise communication system that provides a user with an integrated communication experience, including instant messaging, screen sharing, email, and voice and video conferencing (Teevan & Hehmeyer, 2013). Lync was originally released in 2007 as Microsoft Communicator but evolved into MS Lync in

2010, and now Lync in 2013 (Microsoft, 2014). Attributes of Lync include the ability to communicate with a contact in real time, the ability to see if a contact is sitting at his or her computer or if he or she is available. Lync also offers a seamless integration into MS Office applications and email (Microsoft, 2014). Figure 1.2 illustrates the functionality and design of Lync's interface.

Figure 1.2 Example of Microsoft Lync interface



User forums, which are the third type of SCT, have been around since 1994 and have been evolving ever since (Tiem Forum, 2014). User forums are utilised for various purposes, including education, technology troubleshooting, training, sharing solutions to common problems, and social networking (Moore, Shaw-Kokot, & Garrison, 2002). Forums began as bulletin boards but as the web developed, the boards evolved into user forums (Tiem Forum, 2014). Ease of communication has been cited as the primary reason forums remain a popular method of communication on the web and, not

surprisingly, in organisations as well (Moore et al., 2002; Tiem Forum, 2014). Figure 1.3 illustrates the typical interface of user forums.

Figure 1.3 Example of a user forum interface

3 Literature Review

3.1 Introduction

This chapter discusses the research landscape that is relevant to SCT use in general and its application in organisations in particular. Section 3.2 investigates representative studies around the three types of SCTs within the scope of this research. Section 3.3 introduces relevant concepts and theories to develop a preliminary understanding of SCT use in organisations. The following perspectives and theories will be discussed: research on SCT-use in organisations, social connectedness, affordances and practices, information sharing theory, and self-determination theory.

3.2 Research on SCT Use in Organisations

In recent years, organisations have utilised SCTs to publish news about their groups and business units, creating social connections, and building communities around specific interests and topics within organisations (Hoong, Tong-Ming, Soo-Kar, & Aun, 2012; Zhang, Qu, Cody, & Wu, 2010). For example, an individual within an organisation may utilise an SCT platform, such as Yammer, to post a question with the goal of getting a quick, accurate response from subject matter experts. The question may generate different types of reactions and responses, such as a single, quick accurate response or multiple responses (which could result in the creation of an information sharing group or lead to more formal face-to-face meetings with the appropriate people involved).

Yammer has attracted researchers' interest as a promising technology for organisations to enhance communication and boost efficiency (Richter, Richter, Hamann, Riemer, & Vehring, 2013; Riemer & Scifleet, 2012; Zhang et al., 2010; Zhao, Rosson, Matthews, & Moran, 2011). For example, Riemer & Scifleet (2012) looked at the motivation for sharing and type of information shared on Yammer. They

found that, from a professional services perspective, Yammer has become an information-sharing channel and a place to find expertise and solve problems (Riemer & Scifleet, 2012). Their findings also demonstrated Yammer's ability to stimulate an organisation to generate new ideas and solve problems (Riemer & Scifleet, 2012).

Instant messaging is another form of collaboration technology where users within the organisation can contact other individuals instantly, as long as they are at their computer. This type of technology can also be used to create online conferences, connecting employees across the globe for an instant online meeting (Lehner & Fteimi, 2013). Lync is a collaborative technology that is integrated with many applications, providing instant messaging, voice calling, and online video conferences (Kaewkitipong, 2012). Kaewkitipong (2012) found that the video functionality of Lync can be used to replicate a physical classroom learning environment in the digital world. Lync allows users to see if another user is available or busy when they try to communicate. Teevan & Hehmeyer (2013) found that the employees who place calls to employees who are broadcasting the 'do not disturb' or 'busy' state are more likely to be answered. Their finding implies that employees act differently when they have the ability to view the presence of others or know that their own presence is being broadcasted to others in the organisation (Teevan & Hehmeyer, 2013). Nardi, Whittaker & Bradner's (2000) study focused on how instant messaging was used and at what specific stages information was actually exchanged. They stated that this technology relied upon the users' presence being visible to the rest of the organisation, broadcasting their availability to all (Nardi et al., 2000). They found that instant messaging platforms enhanced connectedness across the organisation and encouraged employees to leverage personal connections throughout a work day.

SCTs are also utilised as online forums or communities where information is posted by employees, then shared and utilised throughout the organisation (Guy et al., 2013; Rowe et al., 2012). A forum allows users to open threads about different topics and enables others across the organisation to search and comment on or add to topics that are relevant (Guy et al., 2013). User forums function as a platform where users can contribute by commenting on a posted message, replying to a thread or posting their own message on the central board (Kaewkitipong, 2012; Rowe et al., 2012). Rowe et al. (2012) found that an employee group that had a common interest in the content contributed the most to user forums.

In addition to Yammer, Lync, and user forums – various other types of SCTs have been studied. For example, Zhao & Rosson (2009) focused on the microblogging tool Twitter and the role it played in the workforce. They found that micro-blogging helped colleagues get to know each other better, leveraging their professional relationships, and learning more intimate details that benefited their communications (Zhao & Rosson, 2009).

Other studies focused on the types of users. For example, Samarah, Paul & Tadisina (2007) presented a theoretical framework of how knowledge is shared through virtual teams. Their framework explained how collaboration technology brought virtual teams together and identified the impact a willingness to share knowledge had on the process of knowledge conversion.

Enterprise communities have also been addressed. For example, Rowe et al. (2012) studied communities and behaviour traits across different types of online communities. They found that people behaved differently depending on whether they were at a user level (individual) or a group level within an online community (Rowe et

al., 2012). Table 3.1 contains a summary of different types of SCTs examined in previous studies.

Table 3.1 Representative studies that examine different types of SCT

Illustrative Studies	SCT Studied	Findings
Nardi et al. (2000)	Instant messaging (IM)	IM is highly versatile; it can support employee presence, negotiate availability, and enable intermittent conversations and flexible informal communications.
Richter et al. (2013)	Social network-based software	Management cannot prescribe usage practices for open tools, like enterprise microblogging. Management can shape the organisational context in which they adopted.
Riemer & Scifleet (2012)	Social network-based software	Yammer is a place for information-sharing, crowdsourcing ideas, finding expertise, and solving problems. It also provides a conversation medium for context and relationship building.
Rowe et al. (2012)	User forums	Users exhibit different behaviours when interacting in online communities depending on the community types and how those are related to the needs of community users.

3.3 Theoretical Background of SCT Use

Social connectedness (Chelmis & Prasanna, 2012; Kugler & Smolnik, 2013), affordances and practices (Leonardi, Huysman, & Steinfield, 2013; Zammuto, Griffith, Majchrzak, Dougherty, & Faraj, 2007), information sharing theory (Constant, Kiesler, & Sproull, 1994; Jarvenpaa & Staples, 2000), and self-determination theory (Deci & Ryan, 2000) provide useful perspectives to develop a preliminary understanding of the use of information systems that involve information sharing, collaboration, and learning. SCTs and their uses have been identified in the literature through various avenues, such as virtual communities, e-learning channels, and online communities in the workplace. The following sections discuss each perspective and its associated literature.

3.3.1 Social connectedness

Social connectedness is defined as the feeling of being in touch with another person (IJsselsteijn, Baren, & Lanen, 2003; Lam, 2013). From a psychological perspective, social connectedness is "an aspect of the self that reflects subjective awareness of

interpersonal closeness with the social world" (Lee & Robbins, 2000, p. 484). A recent study, which examined the role of social connectedness in SCTs, found that individuals were motivated to be socially connected to colleagues within an organisation (Kugler & Smolnik, 2013). To further support this, research by DiMicco et al. (2008) has shown that motivations to utilise SCTs at work include the personal drive to advance at the company, campaign for projects, and connect on a personal level with fellow employees. It was also found that employees utilised SCTs to reach out beyond their own network, seeking to connect outside their own immediate teams to meet new people rather than those that they already know (DiMicco et al., 2008).

Köbler et al. (2010) looked at the concept of feeling connected with regard to microblogging on Facebook. It was found that the more a person used the status message function; the more connected the person felt (Köbler et al., 2010). However, Slagter van Tryon & Bishop (2009) suggested that there are difficulties in maintaining social connectedness in online learning environments. As a result, a framework was proposed to develop instructional materials and best practice to help students understand what they needed in order to interact with others more extensively in an online learning environment (Slagter van Tryon & Bishop, 2009).

SCT can enable users to use 'real time' updates, enhancing their ability to gain knowledge and rapid solutions to organisational problems (Chelmis & Prasanna, 2012). Chelmis & Prasanna (2012) focused their study on the social connectedness of an extracted corporate social network. They found that, within the corporate micro-blogging service, there is a strong connected core of high-degree nodes, suggesting stronger alignment of group co-membership and vocabulary than in online social networks. Additionally, the use of organisational social software leveraged social connectedness during offline exchanges, by providing a common ground to engage with

co-workers (Kugler & Smolnik, 2013). Table 3.2 summarises previous studies that used social connectedness to understand information systems use.

Table 3.2 Representative studies that used social connectedness to understand technology use

Theory	Illustrative Studies	Information System Studied	Findings
Social Connectedness	Chelmis & Prasanna (2012)	Corporate microblogging service (similar to Twitter)	Strong correlations existed between user activities and users' alignment in terms of their hashtag vocabulary and group co-membership. High-degree nodes were critical for connectivity and flow of information in the corporate environment.
	Ehrlich & Shami (2010)	BlueTwit (Internal microblogging) and Twitter	Mobile workforce attained a greater sense of connectedness using and reading posted updates on microblogs.
	Kugler & Smolnik (2013)	Enterprise social software platforms	Organisational social software usage supported the creation of ties to co-workers, thus supporting connectedness.
	Zhao & Rosson (2009)	Twitter, computer-mediated communication	Relational consequence from the effects of informal communication between two people led to a sustained feeling of connectedness to the other person.

3.3.2 Affordances and practices

The concept of affordances was developed by Gibson (as cited in Zammuto et al., 2007), who stated that affordances "explain how people and other animals orient to the objects in their world in terms of the possibilities the objects afford for action, and that the particular affordances of an object may be different for different species" (p. 752). For example, an object such as a door knob has the affordance that it allows the possibility for the door to be opened (action) (Gibson, 1986). Later, Norman (2002) developed the concept further to relate affordances to knowledge and past experience, "affordances result from the mental interpretation of things, based on our past knowledge and experience applied to our perception of the things around us" (p. 219). For example, a panel of identical looking switches would be difficult for a user to

comprehend. Based on the users' past knowledge and experience they understand that the affordance for a switch is to turn something on or off; however, what they actually turn on is undetermined (Norman, 2002). It is evident that the affordance to turn on the switch exists. However, without a sign or clue, the design is inadequate.

Research by Zammuto et al. (2007) suggested that affordance recognises how the materiality of an object favours, shapes, or invites, and at the same time constrains a set of specific uses. Their research suggested that information technology (IT) and organisational features have their own potentials and constraints; however, affordances arise when they are woven together (Zammuto et al., 2007). For example, some information technology within organisations invites the action of virtual collaboration, referring to the ability to share and integrate others' knowledge online (Zammuto et al., 2007).

A study by Leonardi, Huysman, & Steinfield (2013) examined how affordances provided by enterprise social media influenced the way people carried out organisational processes. They emphasised two affordances offered by enterprise social media: "… provid[ing] people visibility into the communicative actions of others and the visible traces of those communicative actions persist[ing] over time" (Leonardi et al., 2013, p. 3). For example, enterprise social software affords the possibility for employees to make the work they undertake visible to others, where before this was not an option (Leonardi et al., 2013). An example of persistence is how a user may post a message on an enterprise social platform, but when the user logs out the message is still available for other users to view for an extended period of time.

The qualitative study by Parmaxi & Zaphiris (2014) found that different types of social technologies in classroom settings offer affordances that influence both the activity of the teacher and the learner. This finding suggests that affordances of a particular

technology are perceived differently, depending on the role of the user. It was also revealed in the research that a well-structured social microworld, such as a blog or a wiki, must also consider the affordances of the technology being used (Parmaxi & Zaphiris, 2014). They concluded that the affordances of social technologies can transform a learning activity. For example, a student preferred the use of blogs because they offered a platform for their peers and fellow students to evaluate their problem (Parmaxi & Zaphiris, 2014).

Fragoso, Rebs & Barth (2012) identified three broad categories of affordances, namely representational, technical, and social affordances. Representational affordances represent the interpretation of sensory inputs, such as sounds, images, and texts. For example, representative affordances for the communication software, Skype, are in the form of the images and sounds offered within the software that make up the experience and how the user interprets them. Technical affordances refer to functional affordances with high-level system definitions, such as the character limit that exists in Twitter, which enables certain actions but not others (Fragoso et al., 2012). Another example of a technical affordance is how a mobile phone application may offer the ability to use Twitter; however, the device has limitations and there are still some actions that can only be performed on higher functioning desktops or notebooks. Social affordances relate to how a platform can facilitate the event of communication (Fragoso et al., 2012). An example of a social affordance is how a technology, such as Facebook, can offer a user the possibility to engage with other users who are members on the same software platform.

Gaver's study (1991) investigated the perception of affordances and defined the term as "properties of the world defined with respect to people's interaction with it" (p. 80). Gaver's (1991) exploratory research investigated how affordances were influenced by

the design of an artefact. Gaver (1991) gave an example of how a vertical door handle would signal to the user that it is for pulling, however the door may be locked. This affordance for pulling therefore is inaccurate and may result in different actions than those of which the object was designed for (Gaver, 1991). Table 3.3 contains representative studies that use affordances to understand technology use.

Table 3.3 Representative studies that use affordances to understand technology use

Theory	Illustrative Studies	Information System Studied	Findings
Affordances	Fragoso, Rebs, & Barth (2012)	Plurk, Twitter, and instant messaging	The authors created a framework that facilitated the identification of affordances and their relation to social interaction practices.
	Leonardi et al. (2013)	Enterprise social media	Through an affordance view, both positive and negative outcomes can result from the use of social media in the enterprise.
	Parmaxi & Zaphiris (2014)	Blogs and wikis	The design of well-structured social microworlds must accommodate the needs and expectations of both learners and instructors, as well as the affordances of technology.
	Zammuto et al. (2007)	N/A	Affordances are the result of the confluence of IT and organisational features.

3.3.3 Information sharing theory

Information sharing theory argues that organisational culture and policies, as well as personal factors, influence people's attitudes about information sharing (Jarvenpaa & Staples, 2000). Constant et al. (1994) found that the more the person believed "that information sharing is usual, correct, and socially expected workplace behaviour", the more willing they were to share (p. 404). Self-interest and reciprocity also influenced an individual's willingness to share information (Constant et al., 1994; Jarvenpaa & Staples, 2000). The information sharing theory explained why employees utilised SCTs and why they were willing to share information (Constant et al., 1994). Pertaining to SCT, Riemer & Scifleet (2012) have shown that users of Yammer utilise

it as an information-sharing tool to build relationships and as a repository and knowledge base. Constant et al. (1994) found that experts in a particular field will share information with those that need it. As a result, a common respect formed toward the individual who they were exchanging information with.

Empirical research has shown that task characteristics, perceived usefulness, and how comfortable the user was with the technology all influenced a person's use of collaborative technology (Jarvenpaa & Staples, 2000). Furthermore, intrinsic and extrinsic motivations influence a users' propensity to share information with their colleagues (Bock & Kim, 2002). They also found that employees who believed they were contributing to improvements in the organisation and its performance, had a more positive attitude and greater propensity to share information (Bock & Kim, 2002). Table 3.4 summarises previous studies using information sharing theory to understand information systems use.

Table 3.4 Representative studies that use information sharing theory to understand technology use

Theory	Illustrative Studies	Information System Studied	Findings
Information sharing theory	Bock & Kim (2002)	Collaboration technology	Incentives (extrinsic motivators) did not alter the attitude that underlay knowledge sharing behaviour, suggesting that the reward system for knowledge management needed to be re-examined.
	Constant et al. (1994)	N/A	Sharing different forms of information entailed different social costs and benefits. People's beliefs about organisational ownership were a key predictor of their attitudes about information sharing.
	Hatala & Lutta (2009)	Social technologies	Organisational social structures helped shape the way individuals sought and shared information in work groups.
	Jarvenpaa & Staples (2000)	Collaborative electronic media (electronic mail, World Wide Web, listservs, other	Motivators for information sharing included social exchange and reciprocity. This study found that extrinsic motivators did not alter the attitude that underlay knowledge sharing behaviour.

		collaborative systems)	

3.3.4 Self-determination theory

Self-determination theory emphasises that psychological needs of competence, relatedness, and autonomy are the underlying motivations for human behaviours (Deci & Ryan, 2000). From the self-determination theory, intrinsic and extrinsic motivations explain employees' contribution via an SCT (Deci & Ryan, 2000; Sørebø, Halvari, Gulli, & Kristiansen, 2009; Yoon & Rolland, 2012). Intrinsic motivation refers to an individual performing an activity because he or she enjoys the process whereas extrinsic motivation refers to performing a task with the motivation to achieve a reward or avoid a punishment (Deci & Ryan, 2000; Roca & Gagné, 2008). An employee who utilises technology to finalise and polish a report is doing so to be seen as a good employee by his manager is an example of extrinsic motivation. In contrast, some employees are intrinsically motivated to utilise information technology to complete their work because they personally enjoy the experience.

Results have shown that the inclination to share and contribute via an SCT may be influenced by users' levels of perceived competence, relatedness, and autonomy (Sørebø et al., 2009; Yoon & Rolland, 2012). Perceived competence is defined as an individual's self-belief in their own ability to perform an activity well (Yoon & Rolland, 2012). Perceived relatedness refers to the need to seek connection and the propensity to make strong emotional bonds to others (Deci & Ryan, 2000). Perceived autonomy is defined as when an individual can freely choose to partake in an activity. An example of perceived autonomy is when individuals are performing an activity

(such as sharing information across their organisation) because they feel that they have the freedom to choose to do so without enforcement from others.

Drawing on self-determination theory, Roca & Gagné (2008) found that individuals who participated in an activity when it was more enjoyable and interesting, showed more engagement. It was suggested that technology should be designed to increase individuals' intrinsic motivation (Roca & Gagné, 2008). Furthermore, Malhotra & Galletta (2003) developed a theoretical framework to explain how employees' commitment and motivation affect the use of Knowledge Management Systems (KMS). Their study discussed how self-determined behaviours are intentional and involve a true sense of choice, giving the employee a sense of feeling free in performing what the employee has chosen to do.Table 3.5 summarises previous studies using self-determination theory to understand technology use.

Table 3.5 Representative studies that use self-determination theory to understand technology use

Theory	Illustrative Studies	Information System Studied	Findings
Self-determination theory	Davis, Bagozzi, & Warshaw (1992)	N/A	Enjoyment had a greater positive effect on intention when the computer system is perceived to be more useful
	Malhotra & Galletta (2003)	Knowledge management systems (KMS)	Developed a theoretical framework for understanding how knowledge workers' commitment and motivation affect the use of KMS and resulting organisational performance of the KMS
	Sørebø et al. (2009)	e-learning	Intrinsic motivation and perceived usefulness influenced the teacher's intentions to continue use of e-learning
	Yoon & Rolland (2012)	Virtual communities	Perceived competence and perceived relatedness influenced knowledge-sharing activities in virtual communities whereas perceived autonomy did not

The influence of concepts such as intrinsic motivation on technology use can help explain why employees utilise SCTs. The importance of affordances in regards to

information systems and how the design of the SCT can influence certain practices also contribute to understanding why employees utilise SCTs. These concepts can provide a strong background understanding of SCTs, painting a picture of how collaboration technologies have been previously studied. This background knowledge will contribute to my initial understanding of a plausible explanation for employees' SCT use. However, I am also open to discover new insights from the field study.

4 Research Design

4.1 Introduction

This chapter describes the methodology used to conduct this research. The methodology chosen for this research was qualitative in nature. The goal of this qualitative research was to answer the question: *Why do employees utilise social collaboration technologies in organisations?*

Section 4.2 begins by explaining my ontological view through which this qualitative research has been undertaken. This account explores my view on the interpretivist paradigm with support from relevant scholarly researchers on this philosophical perspective.

Section 4.3 describes the data collection process. Details include a description of the participants, how they were chosen, the questions asked via semi-structured interviews along with details of data collection process.

Section 4.4 presents the data analysis and the related findings. This encompasses the thematic analysis process and the steps involved in gaining an understanding of the data collected.

4.2 Ontological and epistemological assumptions

My belief of reality is that each and every person is different, with different views, thus there exists multiple different realities (Guba & Lincoln, 1994). Walsham (1995) also supported this notion as he believed "that our knowledge of reality is a social construction of human actors" (p. 376). This construction, from an information systems perspective, will be applied to this research through participant interviews and data analysis. Social construction of world views is valued in this research by paying attention to how the perspectives of the participants are considered, taking in a more inclusive view of how SCTs are used.

The interpretivist approach involves more insight and thinking about the multiple different viewpoints, characters, personalities, and experiences that participants have (Grant & Giddings, 2002). Acknowledging the multiple realities that exist helps to humanise the research, taking a more subjective approach to analysing and interpreting data (Grant & Giddings, 2002). An interpretivist tries to understand human behaviour and states that "human action is meaningful" (Bryman & Bell, 2011, p. 18). From this perspective, human meaning is based on the many different individual constructions of reality with separate and overlapping textures that can be analysed and evaluated (Guba & Lincoln, 1994).

Conducting research from the interpretivist philosophical perspective gives the ability to gain further insight into the research. For example, Walsham (1993) describes the aim of interpretive methods of research in information systems to "produce an understanding of the context of the information system, and the process whereby the information system influences and is influenced by the context" (p. 4). The aim of this research is to understand the different points of view from the participants in the context of SCT use, gaining a perspective from the participants along with my own

interpretation. In particular, the interpretivist paradigm takes both the researchers' and participants' perspectives into account when attaining knowledge (Grant & Giddings, 2002; Guba & Lincoln, 1994).

A theory that relates to SCT use can be produced by utilising the interpretivist philosophy as a lens when collecting and interpreting the data. Having minimal distance between the researcher and the research topic also enables the researcher to discover the meaning the participants place on their experiences (Grant & Giddings, 2002). The interpretivist paradigm puts a more human influence on the research, typically following the inductive method to produce rich theory from the data. Obtaining knowledge through data collection through participation within the research gives the researcher a voice as the "passionate-participant" (Guba & Lincoln, 1994, p. 78). By passionately participating, the researcher can gain a greater understanding as to how the participants' experiences have manifested. This reflects the ontology where the data is deciphered in conjunction with underlying values from the participants to reveal the existence of multiple realities (Bryman & Bell, 2011).

During this research, I was able to get closer to the participants by probing and exploring the responses during our correspondence (Guba & Lincoln, 1994). This exemplifies how human nature and behaviour are not defined by an objective science, but through a subjective reasoning (Grant & Giddings, 2002). Gaining an understanding of human behaviour in terms of how participants utilise the relevant SCT can contribute to a more rounded picture of the participants' motivations to use SCTs.

My view is that the existence of the human essence – the multiple different perspectives, cultures, languages, and experiences – is what has helped shape our social realities (Guba & Lincoln, 1994). These perspectives underpin this research, which uses participants' views, experiences, and culture to explain information system use.

4.3 Data Collection

Data was obtained from semi-structured interviews with employees from organisations located in Auckland, New Zealand. A purposive sampling strategy was used to recruit employees who were either at management level or were users of SCTs. Users needed a minimum exposure to an SCT of at least 6 months and to be from an organisation with 500 or more employees. Participants employed at large organisations were chosen because of the greater complexities that potentially exist in regards to communications across offices. Large organisations may need to communicate to overseas offices, presenting greater communication challenges. SCT can encourage broader participation of employees in collaborative problem solving and idea generation. The goal of the interviews was to examine the reasons underlying why employees used SCT to solve organisational problems. Table 4.1 summarises the participants, the type of SCT they used, what they used it for, and the approximate level of use. The participants' level of SCT use can be defined as follows:

- Low – Utilising the SCT 1-2 times per month
- Medium – Utilising the SCT 1-2 times per week
- High – Utilising the SCT multiple times daily

The number of participants was not predetermined as the data collection and analysis occurred in parallel. The data collection process and analysis continued until theoretical saturation was achieved (Eisenhardt, 1989, as cited in Paré, 2001). Glaser and Straus (as cited in Paré, 2001) state that "theoretical saturation is the point at which incremental learning is minimal because the researchers are observing phenomena seen before" (p. 14). The data collection ended once there were repeated occurrences of the same themes and concepts that will be explored in detail in the following chapter.

Eight participants were included in the research from eight different organisations (refer to Table 4.1). The participants were approached to get their consent. The recruitment

process was by email to managers asking them for access to their organisations. A request within the body of the email explained the nature of the research and the type of participants required. Once a reply was received, the relevant information (including interview questions (Appendix 1), the participant information sheet (Appendix 2), and consent form (Appendix 3) was emailed to provide background and the opportunity for the participant to ask any questions. Face-to-face interviews were then arranged according to the participants' schedules and preferences.

The semi-structured interviews ranged from 45 minutes to 1 hour in length. As the interviews were semi-structured in nature, a set of questions (Appendix 1) was utilised as a guide for the interview, however the questions deviated from the guide depending on the nature and flow of the conversation.

The interviews were recorded and then transcribed to complete the data set. Table 4.1 contains a summary of the participants.

Table 4.1 Summary of participants

Participant #	Manager or Employee	Type of Technology	Predominately Used For	Level of Use
1	Employee	Yammer	Problem solving, socialising	Moderate
2	Employee	Yammer and Microsoft Lync	Yammer: Q&A, receive news/updates Lync: Q&A, problem solving	Low
3	Manager	Yammer	Share information and achievements	Moderate
4	Employee	Yammer	Q&A, group collaboration around problems	Moderate
5	Employee	User forum and Yammer	Forum: Problem solving Yammer: Receive news/updates	Forum: High Yammer: Low
6	Manager	Yammer	Updates/news	Low
7	Employee	Microsoft Lync	Problem solving, online meetings, collaboration, file sharing	High
8	Manager	Yammer	Group collaboration, problem solving, information sharing	Moderate

4.4 Data Analysis

Interview data was analysed using thematic analysis. Thematic analysis can uncover valuable insights from the data. Braun & Clarke (2006) suggested that "thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data" (p. 79). This study follows the six-phases of thematic analysis suggested by Braun & Clarke (2006). These phases will be referenced throughout this section to provide a structure and accurate description of the thematic analysis that ensued. The first phase involves getting familiar with the data. In performing this phase, the data from the interviews was transcribed then read and re-read to generate ideas. Phase 2 involved the generation of initial codes, then utilising Nvivo software to collate data into each relevant code. The third phase of the thematic analysis involved collating the codes into potential themes and sub-themes. This initial coding is summarised in Table 4.2 below.

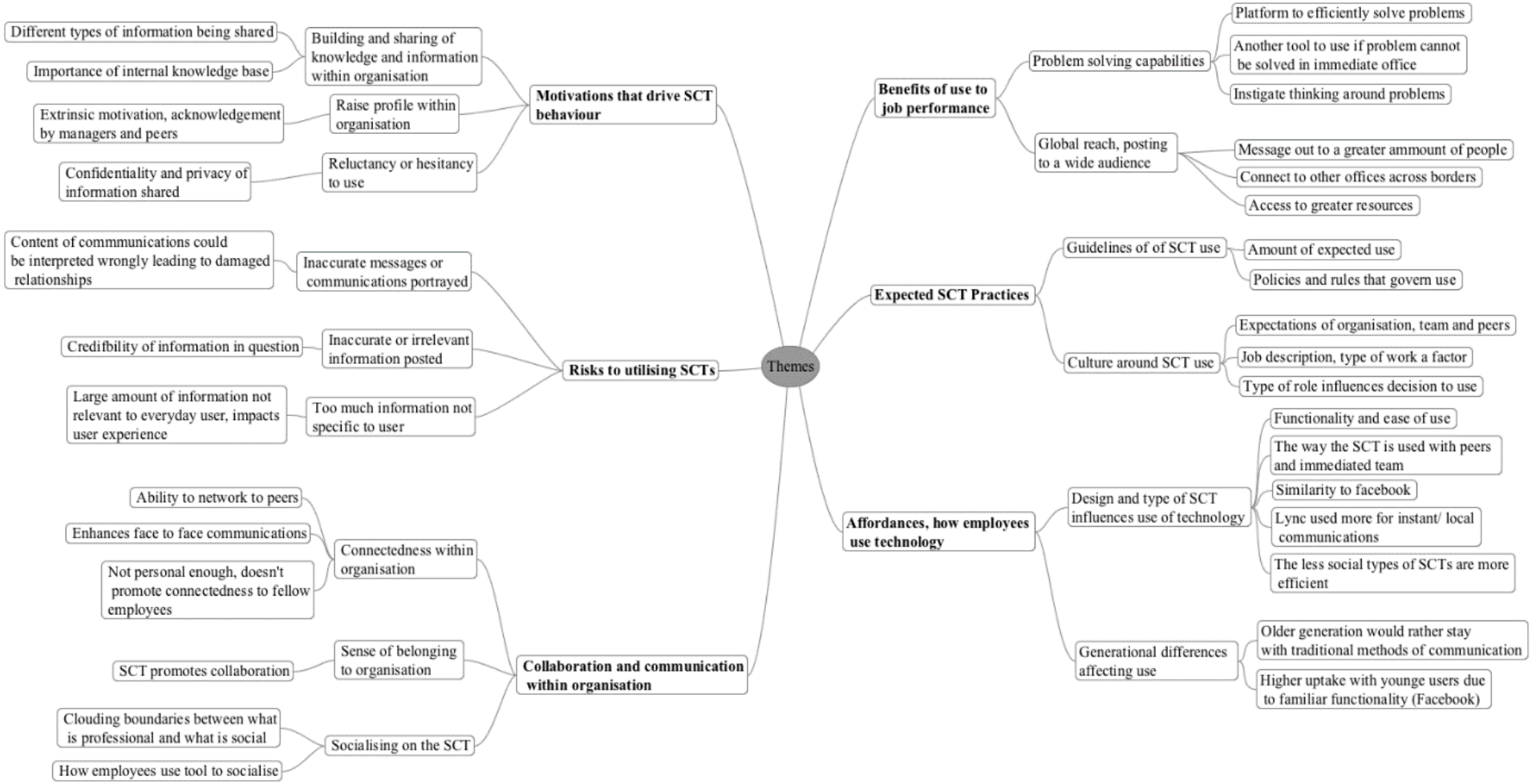
Table 4.2 Summary of themes and sub-themes from initial coding

Themes	Sub-themes
Technology and the organisation	Type of technology
	Design of technology
	Organisational appetite
	Culture around the SCT
Employee drive	Motivating factors
	Design
	Generational factors
	Role dependencies
	Personality factors
Efficiency and effectiveness	SCT and productivity
	The value and benefits of the SCT
	Ability to solve problems
Collaboration	Connectedness
	Global reach
	Information and knowledge sharing
	Socialising on the tool

Phase 4 of the process involves reviewing the themes and checking to see if they work in relation to the coded extracts. For example, the original theme of *employee drive*

evolved into a more specific theme of *motivations that drive SCT behaviour*. Also, the sub-theme *design* within *employee drive* was moved into a newly created *affordances* theme as it was evident that the interaction between the technology and users influences SCT use. During this phase of the analysis, a thematic map, Figure 4.1 below, was produced reflecting iterations to the themes and subthemes from Phase 3.

Figure 4.1 Thematic map as a result of Phase 4 of thematic analysis



Phase 5 involved refining each theme, fine tuning them to ensure they told a coherent story. One key change was the integration of the *collaboration and communication within organisation* theme into a more specific theme around expected SCT practices. This refinement helped shape the theorising around the practices when utilising SCTs. Another key refinement was removing the *benefits of use to job performance* theme and moving the sub-themes into the *motivations that drive SCT behaviours* theme. This refinement came from the conclusion that job performance was a motivator and could easily be assimilated into the motivations theme without losing the intended meaning. The final themes, sub-themes, and concepts are shown in Table 4.3 below.

Table 4.3 Summary of themes and sub-themes from phase 5 of thematic analysis

Themes	Sub-themes	Concepts
Design of SCT that encourages certain practices	Sociability	• The less social types of SCTs are more efficient • Different levels of sociability depending on SCT
	Look and feel of Facebook	• Higher uptake with younger users due to familiar functionality and interface (Facebook) • Influences professional vs social communication
	Immediacy	• Instant messenger type of SCT utilised more for instant/local communications • Enhances productivity
	Local connections and global reach	• Message out to a greater audience • Connect to other offices • Access to greater resources
Expected SCT practices	Guidelines of SCT use	• Amount of expected use • Policies and rules that govern use
	Culture around SCT use	• Expectations of organisation, team, peers • Job description, role, and type of work influence use • Clouded boundaries between what is professional and what is social
Risks to utilising SCTs	Inaccurate messages or communications portrayed	• Content of communications could be interpreted wrongly, leading to damaged relationships
	Irrelevant and non-specific information posted	• Credibility of information in question • Large amount of information not relevant to the everyday user, impacts user experience
	Confidentiality and privacy	• Security concerns around sharing information on an open platform
Motivations that drive SCT behaviours	Building and sharing of knowledge and information within organisation	• Different types of information being shared • Importance of internal knowledge base
	Raising profile/ visibility within organisation	• Extrinsic motivation, acknowledgement by managers and peers
	Improving problem solving process	• Another tool to use if problems cannot be solved in immediate office • Instigate thinking around problems
	Socialising beyond group with physical contacts	• Ability to network with peers • Enhances face-to-face communications • Not personal enough, lacks connectedness
	Increasing sense of belonging	• Employees feel more connected with the organisation when sharing on the SCT

Phase 6, as summarised by Braun & Clarke (2006), is a "final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis" (p. 87). Phase 6 will be the main focus of chapter 6, titled *Discussion and Conclusion*. The following chapter looks more deeply into the themes and sub-themes found, to answer the research question of why employees utilise SCTs.

5 Findings

5.1 Introduction

This chapter presents the findings from the thematic analysis of the semi-structured interviews with participants 1–8, as referred to in Table 4.1 in Chapter 4. The analysis followed an inductive approach to identify meaningful themes to explain why employees utilise SCTs. Appendix 4 contains the full analysis and supporting evidence from the interviews. Four emergent themes were discovered. The themes were: *design of SCT encourages certain practices, expected SCT practices, risks to utilising SCTs,* and *motivations that drive SCT behaviours.* These emerging themes also have underpinning sub-themes and concepts supported by evidence from the interview data.

5.2 Design of SCT Encourages Certain Practices

This emergent theme, *design of SCT encourages certain practices,* as seen in Table 5.1, has four interrelated sub-themes. This theme relates to the fact that design of the SCT makes it possible or encourages employees to engage in certain practices. Four sub-themes will be analysed to support the emergent theme: *sociability, look and feel of Facebook, immediacy,* and *local connections and global reach.* The analysis of the sub-themes examines participants' views on how the design encourages certain practices with SCTs.

Table 5.1 Design of SCT encourages certain practices with sub-themes and concepts

Theme	Sub-themes	Concepts
Design of SCT encourages certain practices	Sociability	• The less social types of SCTs are more efficient • Different levels of sociability depending on SCT
	Look and feel of Facebook	• Higher uptake with younger users due to familiar functionality and interface (Facebook) • Influences professional vs social communication
	Immediacy	• Instant messenger type of SCT is utilised more for instant/local communications • Enhances productivity
	Local connections and global reach	• Message out to a greater audience • Connect to other offices • Access to greater resources

5.2.1 Sociability

An SCT's functionality offers employees the ability to be social across the organisation, thus promoting virtual and physical togetherness. Sociability is a capability of an SCT, enabling employees to easily connect with fellow employees throughout an organisation. For Yammer, the ability to socialise is evident when observing the interface of the initial start page of the platform. These functionalities are the creation and formation of groups, the ability to create a profile, the ability to follow other users, and the ability to comment on other users' posts. Participant 1 discussed the functionality of Yammer: *"In Yammer, one you only see what your friends are posting on it…well kind of…you can post publicly…but you can choose within groups…in Yammer you can have secure rooms."* Participant 8 also explained the functionality of Yammer in terms of how to create groups, "*You can create groups and make them either public and/or private, and you can also choose who or what groups you want to follow."* The 'group' functionality of the SCT can be utilised for socialising. With Yammer, participant 5 gave an example of what type of social interaction may occur on the SCT, *"I also know there was a football fans group. I don't think those things are so much an issue and they are contained as well."* Participant 4 also offered a view on

what types of socialising occurs, *"For example if the group is about my year group…then the postings around some events from our year group is there."* It is evident SCTs offer the ability to post messages and create groups when socialising on the technology.

The design of the SCT, as discussed, can enhance sociability. Participant 5, when asked about the ease of understanding how to socialise on Yammer, stated, *"The first time you login to Yammer and you look at what's there you work out pretty quickly what you could use it for."* This statement supports the finding that the interface of Yammer offers the affordance to employees to interact on a social level. An example of interacting on a social level is when employees engage with other employees to discuss personal topics in their lives beyond work-related matters.

Lync, on the other hand, offers different functionalities in terms of how to be social, as it is more focused on individual contacts. Participant 5 identified the difference between Lync and Yammer:

> *The fundamental difference between Lync and Yammer…because it is a personal message…you have to know specifically who you are talking to whereas for Yammer it is just a blah to the team…this is what we are looking at.*

The functionality of instant communication is what makes Lync different from Yammer. Lync technology relies on the ability to see if another user is currently at his or her desk and available to communicate or not. Participant 2 explained the Lync functionality from his perspective:

> *From a Lync/Communicator perspective you can get it out to a smaller group, you can actually see if they are online, if they are there, if you can expect an answer, from a messaging perspective, you are looking for a quick answer [from] a specific person.*

As evident, the Yammer and Lync collaboration technologies offer different ways to socialise via their relevant platforms. The ability to socialise on user forums is much less. Participant 5 explained the functionality of user forums in terms of sociability:

> *With a forum there is a lot more focus around specific questions. Where you go in there looking for a solution more so than just a general 'this is the problem we have'…basically because the forum is a lot less sociable.*

The user forum offers a more direct method to post a problem and wait for answers, lessening the ability to create public social groups and discuss social topics rather than the problem at hand.

5.2.2 Look and feel of Facebook

The design of SCTs, specifically Yammer, has been compared to that of Facebook by the participants. The likeness to Facebook, as revealed in the data, influenced employees to engage in certain practices. Typical social behaviour on Facebook involves activities such as "liking" topics or people, updating profile status, commenting on posts, uploading pictures, and discussing current events in users' lives. Employees' practices on Yammer are analysed in relation to the similarity of design to Facebook. The perception of practices on Yammer by employees of different generations will also be considered.

When asked about the design of Yammer, participant 6 discussed the way Yammer operates, touching on the similarities to Facebook, *"Posting short messages or questions in a Facebook-style post, you can get daily alerts around the posts or groups/topics you follow of which were in your email each morning."* Participant 2 mentioned how employees are attracted by the familiar design of Facebook, *"I think that is part of the attraction as well, as it looks like Facebook."* Participant 2 also discussed the functionality of Yammer, *"I mean realistically it is like an extended instant messenger and a bit like a Facebook."* To further support the similarity to Facebook, participant 8 provided comments when discussing Yammer, *"It is like a Facebook, where you can post short or longer questions/messages about a problem or news or whatever you may have."*

Yammer's functionality was also described as being similar to Facebook. Participant 1 explained, *"You have that social aspect…just like Facebook, you can post something to share – some idea – and make it aware to everyone."* There was also the functionality to post photos of work events or whatever the employee desired to share, participant 3 explained*, "You can upload photos, not that it was used that much for uploading social photos and stuff, just the ability to like things and it was very similar to Facebook."*

Participants alluded to Facebook readily because they and their peers were already using it before they used the SCT. It was evident that there was a need to ensure employees were keeping in line with the professional expectations of the workplace. Participant 1 explained the difference, *"It would be different as opposed to posting on Facebook, because you are communicating with other professionals. I would definitely be shaping what I post and read it over before I posted it."* Participant 2 also touched on keeping it professional when engaging with the SCT, *"I guess it is shaped more towards professionalism so you know my response would be in line with the community I am in."* The fact that the SCT was restricted to communications within the organisation and not to the public was discussed with respect to how the employees were able to socialise and connect with fellow employees. The data suggests that it was sometimes difficult to separate Facebook from Yammer as they were both designed similarly. Participant 3 summarised the point around the different lines between professional and social:

> *Using a tool like Yammer, you definitely have to treat it like a professional forum…it is so similar to Facebook but it is so different…it is not a social networking tool, well, arguably it is but you can't be social, I think when you are using it.*

The familiarity of Facebook contributed to the ease of use of Yammer. The data also showed that a range of generations were utilising Yammer. Participant 3 offered a view on the different generational influences*, "because it was designed so similar to Facebook, it was pretty easy for those that were familiar to that sort of social media,*

quick uptake of young people who could just log on and know what they're doing". To further support this generational view, participant 3 discussed the use by younger users, *"it is being used more and more by the younger generation who were used to Facebook, used to social media".* Participant 1 summarised the stronger uptake by younger users compared to the older users:

> *I guess one of the reasons for that is that our team was sort of older and it was sort of like Facebook, the younger generation tend to utilise it more rather than all of the managers. Definitely utilised by the younger members but not so much the older group.*

There is potential risk with younger employees utilising the internal SCT and engaging with it like a public Facebook. Participant 1 expands on the risk of becoming too social on an internal SCT:

> *There will be a lot more younger people who have been growing up with the Facebook generation and they think it is alright to post anything online and they don't see the difference between this is a professional environment compared to you are just posting something for your friends.*

The analysis has shown that ongoing use of Facebook will influence the utilisation of the SCT and the likelihood and level of use for younger employees compared with older employees.

5.2.3 Immediacy

SCTs provide the ability to have direct and instant involvement when collaborating or sharing information and solving problems. In regards to Yammer, participant 3 explained the usefulness of real time communication:

> *You would sit at the computer and see a real time update come up with someone posting a win on that client or what's happening with them, you know it instantaneously, you would see it straight away rather than sort of when you log in and scroll down.*

The advantages of real time communication also extended to the MS Lync technology. Participant 7, when discussing the speed of Lync, explained:

> *…definitely easier and faster, make faster decisions because you can share a screen and files in real time and have a discussion and you can add more people.*

The speed of the communication was not the only aspect addressed in terms of immediacy, the ability to communicate when away from the office was also discussed. Participant 8 summarised this in terms of the use of Yammer, *"It gives the ability to collaborate remotely rather than ensuring I am in the office the whole time."* The ability to engage with employees across the whole organisation directly and immediately enhanced productivity. The instant messenger type of SCT was viewed more favourably by the participants who utilised this technology. For example, when participant 4 was asked about the productivity of MS Lync the reply was: *"At the local level, if we want to communicate within NZ, email is more useful and we have Lync and it is a lot more useful now because we can chat instant[ly] now".* The instant messaging functionality of Lync was viewed as a productivity gain, due to the real time, quick message capability. This was further supported by a comment from participant 3*, "I mean instant messaging in itself has been incorporated a lot more for business purposes, which is quite useful."*

Immediacy benefits an organisation because employees can engage on an SCT to achieve instant access to fellow employees and obtain answers to problems raised in real time. Participant 5 shared his view on Yammer's ability to enhance productivity, *"Yammer is about getting immediate access to resources…I have got this issue let's post it out to Yammer to solve the problem."* Participant 2, who utilised MS Lync, compared the two technologies, "*You have to be there at the time for instant message… where at least with Yammer the message is there, it's on the board so people can answer."*

Although MS Lync does not share the same functionality as Yammer, in regards to having a Facebook-type design, advantages were evident around its synchronous communication ability and efficiency.

5.2.4 Local connections and global reach

The benefit of SCTs, and Yammer in particular, is to reach out, ask questions, and share knowledge and information with people globally rather than just employees in the immediate office. This was seen as a great benefit and a primary reason the participants utilised SCTs. Participants perceived that there was a distinct advantage to having the ability to get their message out to a greater audience. Participant 1 expanded on this, *"You have people located differently all around the world but they all are doing quite similar sort of work…so it can be relevant for anywhere."* This benefit depends on whether the organisation carries similar job roles across borders. Participant 3 also provided a summary of Yammer in relation to global reach:

> *So it was an effective means of reaching out to people you didn't know, so posting something up and discovering someone you never met is interested in it…so it was really effective in that respect.*

A technology like Yammer enables employees to reach out across the entire organisation, helping to enhance relationships. Participant 2 referred to its functionality that extended someone's reach, *"From a Yammer perspective it allows you to get it out there to a wider audience, looking for an answer."* Participant 3 agreed that the greater reach was an advantage, "*It's a tool where you can just post a problem and reach out to the widest audience possible."* This was in contrast to the instant messenger type of SCT, which was predominantly for one-on-one communication, without the capability of posting the problem on a common board for people to comment on or answer.

It was evident that the ability to reach out globally was a way to boost efficiency as the posted question was reaching many more people. This greater reach increased the chance of an instant response. When employees were stuck on a problem and could not

find a solution within their immediate vicinity, the SCT was the next tool that could be utilised to solve the problem by reaching other employees from the wider organisation. The statement by participant 5 supported this benefit, *"Getting in contact with the overseas people, didn't really have expertise locally that I could just chuck something on Yammer and it would go to this person."* Participant 8 also shared this view, *"To use as another resource to find information from my peers not only locally but globally."* One risk was identified in regards to using Yammer to post in this manner, *"If you want a wider audience and you have a longer timeframe for a response it allows for that…it takes longer but it does sort of give you a wider audience."* In terms of problem solving, the question may reach a wider audience; however, a quick, accurate answer might not be received. This potential time delay could be viewed as a risk to utilising Yammer as a global-reach platform.

It was found that employees would use different methods to post on Yammer, either limiting the information to a group or reaching out to the wider organisation. Participant 2 described this, *"It goes to people within a specific group and it can either go globally [or not], depending on how you post it. There is access to a global reach".* This option is entirely up to the employee to decide whether they want to reach out to the entire organisation or just post to a group that is involved in solving that problem. Participant 2 stated this*, "for a group, if there is a group that is using it as a platform…at the same time I think it is useful because of that group reach rather than say a Lync message".* This comment also illustrates how Yammer can be utilised for a more global approach, rather than a Lync message, which is more restricted in terms of who an employee can reach in a one-to-one instant message communication.

5.3 Expected SCT practices

Employees' perspectives of how the guidelines and culture influence their SCT use will be explored. Within the organisation, how the employees' immediate team utilised

SCTs along with the tone from the top in terms of SCT use influenced employees' SCT practices. To provide a better perspective of the expected practice, the participants' views were categorised (as shown in Table 5.2) into two sub-themes: *guidelines of SCT use* and *culture around SCT use.*

Table 5.2 Expected SCT practices with sub-themes and concepts

Theme	Sub-themes	Concepts
Expected SCT practices	Guidelines of SCT use	• Amount of expected use • Policies and rules that govern use
	Culture around SCT use	• Expectations of organisation, team, peers • Job description, role, and type of work influence use • Clouded boundaries between what is professional and what is social

5.3.1 Guidelines of SCT use

The organisation's expectation of SCT use related to an organisation's commitment to ensure that the SCT they adopted was utilised effectively by their employees. Organisational commitment is manifested in its policies, guidelines, or contractual obligations when a person starts working for the organisation. The choice on what type of SCT the organisation deemed worthy and how efficiently it could be used in everyday organisational tasks influenced employees' level of utilisation. The data suggested that upper management set the expectations around how employees used SCTs. For example, participant 7 was employed by an organisation where Lync use was mandatory for all employees. When asked if there was a choice for any employee to use it, participant 7 replied, *"Everyone had to use it, it was expected, it got bigger over time, giving headsets to everyone and making people do online meetings."* This included the use of the main functionalities, such as online meetings, desktop sharing, and video conferencing. The users from this organisation did not get a choice as it was determined from the top that MS Lync was the platform they were to use for day-to-day activities. On the other hand, analysis of the data from other participants revealed that participants

who were exposed to Yammer and the user forum-type of collaboration technologies were not obligated to use their SCTs. They could choose to utilise their SCTs more as another option or tool to call upon when the employee felt the need to do so. In other words, the expectations set by the organisation around SCT use had a direct influence on the extent of employees' SCT utilisation.

Organisational expectations of SCT use can also be interpreted in another way, as once an SCT is established, how it is used and what type of organisational content that can be shared must also be considered. This point was commented on by participant 3 when discussing the type of content shared, *"It depends on the organisation's appetite for what's actually allowed to go on there."* Participant 3 expanded on the expectations of the organisation, *"No pressure, just a tool that was there, use it if you want, very simple guidelines for using it…we weren't trained on it…it is sort of common sense, here it is, nothing more than that really."* As the SCT was internal facing, this seemed to cloud the boundaries of what should be shared or how far an employee could go when socialising on it. This view was shared by participant 3:

> *You have people updating the wider audience on what they did on the weekend. If it was accepted, whether we are allowed to do that, I am not sure…but why not…it's internal...it's not going out to external clients…it is a social tool.*

There were examples of mixed signals in regards to expectations. For example, when asked if there was any pressure by the organisation to utilise the technology, the reply was:

> *No, there isn't pressure to use Yammer, it is actually the opposite. After I began, except for inductions, utilising Yammer was a choice by the employees. There wasn't any organisational push for us to use.*

This also created confusion as to whether it was a good thing or not to utilise the technology, as organisations did not implement a clear policy on utilisation. Participant 4 pointed out how there was a lack of training around Yammer, *"If the organisation*

wants to promote the use of Yammer, then they should train people more on how to use Yammer, I think."

From the findings, it is apparent that the expectations for SCT use vary across different organisations and types of SCTs. This has created a level of uncertainty in regards to what to share on an SCT and the extent of use expected by the organisation. Stricter guidelines around the use of forum-style SCTs removed the possibility of information being clouded by the noise of social interactions taking place, like on Yammer-type SCTs. The noise that exists will be further explored in Section 5.5.2.

5.3.2 Culture around SCT use

The culture around the SCT in each participant's organisation was discussed. Culture, as a sub-theme of the main theme "*expected SCT practices"*, was found to be an influencing factor in the use of the SCTs. Culture can be described as the norms and behaviours an employee is influenced by when utilising the SCT within the team and within the wider organisation.

The presence of the SCT within the organisation, in terms of expectations of use, was discussed. Participant 5 commented on how it worked in his organisation: *"People I directly worked with in my team, it wasn't utilised that much, you definitely had, I guess the more eccentric teams using it a lot more."* There was also the view that if the SCT was not utilised by the team, then the employees wouldn't feel as if they were missing out on anything. Participant 8 also expanded on this point, *"From my experience within the team, I would say the uptake has been limited and you wouldn't be missing out on anything if you chose not to use Yammer."* It was found that the culture from within the immediate team was an influencing factor when employees were trying to incorporate SCT-use in their daily work.

Different types of teams and roles were also a factor in the expected use of SCTs. This was described by participant 4, *"It depends on the discipline, so if we were working in a discipline that is more inclined to use Yammer, because there is a lot of knowledge sharing going on."*

Stemming from the previous analysis around generational factors, participant 3 expanded on the view that SCT-use could be seen as a time waster: *"They are just wasting time like Facebook, communicating on there just socially instead of being productive."* Expanding on this, participant 3 also discussed the generational impact on overall use, *"Utilisation was poor overall and again I think that comes down to the age demographic actually, they didn't know how to use it beyond anything else."* It is evident from the findings that the culture of an organisation and an employee's immediate team influenced SCT utilisation.

5.4 Motivations that drive SCT behaviours

The theme to emerge relates to *the motivations that drive SCT behaviours.* This theme focuses on what motivates employees when deciding to utilise SCTs and when they actually use them to communicate within their organisations. Referring to Table 5.3, the sub-themes that support this emergent theme are: *Building and sharing of knowledge and information within an organisation, raising profile/visibility within an organisation, improving problem-solving process, socialising beyond group with physical contacts,* and *increasing a sense of belonging.* An in-depth analysis of the sub-themes will follow.

Table 5.3 Motivations that drive behaviour when utilising SCTs with sub-themes and concepts

Theme	Sub-themes	Concepts
Motivations that drive SCT behaviours	Building and sharing of knowledge and information within organisation	• Different types of information being shared • Importance of internal knowledge base
	Raising profile/visibility within organisation	• Extrinsic motivation, acknowledgement by managers and peers
	Improving problem-solving process	• Another tool to use if problems cannot be solved in an immediate office • Instigate thinking around problems
	Socialising beyond group with physical contacts	• Ability to network with peers • Enhance face-to-face communications • Not personal enough, lacking connectedness
	Increasing a sense of belonging	• Employees feel more connected with the organisation when sharing on the SCT

5.4.1 Building and sharing of knowledge and information within organisation

The utilisation of SCTs in terms of *building and sharing knowledge and information within the organisation* is analysed. The analysis is from the perspective that employees share information for the greater good of the organisation.

When participant 2 was asked why he utilises the SCT, he responded, *"Used for brainstorming, getting ideas out there, getting it out there…I think that would be the key."* Posting information on an SCT for other employees to view and comment on was identified as a motivator to share information. In terms of motivations to utilise SCTs, participant 8 shared his view, *"To solve a problem, gain knowledge, connect with others and also to be seen as a contributor to the organisation.*" These motivations are relevant in an organisation using Yammer, because information shared can be viewed by others as helping the greater good of the organisation. Participant 5 discussed the use of user forums to contribute knowledge to the organisation for future use:

> *It's a case of if I continue to submit to this community, if I can get the community going then it turns out six months down the track I have an issue and instead of having to post a question I can go back to old forums and whether I was involved in that forum or not there is a solution there and if everyone stops posting on this forum things like that are gonna die, it's sort like building up a database of knowledge.*

Participant 5 explained that if there was a lack of contribution to a forum, then there would not be sufficient information available to provide any value.

The motivation to share information was also captured by participant 3, *"If people are posting on there, they are signalling they're willing to share information, or share content on one of the jobs you have done with them and all that sort of thing."* Being online and contributing within the platform can be seen as a willingness to share information on the SCT. Participant 4 also described her perspective on motivations to share information across the organisation*: "Mostly knowledge sharing because with a new tool or a new government policy, if we are not sure how to address it, we can ask the questions…we can share the knowledge across border."* It is evident that building and sharing knowledge within the organisation is a motivation when choosing to utilise SCTs.

5.4.2 Raising profile/visibility within organisation

The data also suggests that users acknowledged the value of utilising the SCT in terms of personal gain. When participant 3 was asked why employees utilise the SCT, the reply was: *"To try and raise your profile within the business, so they would recognise you and update people on what you are doing…that is definitely one motivator and probably the primary one."* This is in respect to how an individual will be viewed by fellow employees and their superiors when they are observing employees' behaviour on the SCT. Offering knowledge and helping to answer questions that are posted on Yammer are ways of raising one's profile. This view was also supported by participant 1, *"You are trying to show you are aware of what is going on in the industry…you are*

trying to boost yourself up compared to everyone else…look I know what I am talking about…I read up about stuff." It is evident in this comment that the participant is extrinsically motivated when utilising the SCT. Also, when discussing Yammer, some users were motivated to boost their profile within the organisation. Participant 3 held the view that Yammer was used as follows, *"To enhance profile internally within the business…to share knowledge and ideas…to ask for help…to gain knowledge from others."* Analysis of the data showed that users shared information because they were motivated by the exposure they could get by sharing new tools or ideas. This was motivated by the idea of gaining credibility as a professional within an organisation along with accolades that may enhance one's career. Participant 2 expanded on this professional appeal, *"I think from a professional perspective it does upgrade your profile to be seen communicating with people you might never see face-to-face."* It is evident that employees are extrinsically motivated to contribute on an SCT, as the expected outcome is to enhance their own profile and boost their career.

5.4.3 Improving the problem-solving process

When investigating how employees utilised SCTs as a problem solving platform, participant 5 shared his view from a Yammer user's perspective, *"Yammer is about getting immediate access to resources…I have got this issue let's post it out to Yammer to solve the problem."* Participant 8 also had a similar view on Yammer as a problem solving tool, *"From my perspective the SCT has enhanced problem solving, as I have been able to use this tool to achieve a good outcome."*

As shown, the participants' views on Yammer as a capable problem-solving tool are mostly positive. There are, however, differences that exist due to the fact that each participant was in a different role, different industry, and had different motivations to complete their daily tasks. These role dependencies influenced their view on whether SCT could enhance problem solving or not.

From the perspective of a Lync user, participant 7's view of the SCT as a problem solving tool is exemplified here: *"You can share a screen, and if they have a problem…they can give control and you can work on the other person's computer and make changes as well."* Expanding on the efficiency of Lync as an effective problem solving tool, participant 7 explained, *"If you can't solve the problem you can just connect another person into the conversation."* One hindrance described by participant 7 was that Lync is too broadly available and too easily accessible for fellow employees to contact: *"Yes, they say everything is urgent, but people call all the time because they can see you at your desk…so you get too many at once."*

Both the Yammer-type and Lync-type SCTs were effective at knowledge sharing and gaining a quick answer to a simple question. They were both, as revealed in the data, utilised as efficient tools to solve problems. Determining if the SCT was better at solving problems than the employees' own immediate resources was still uncertain. Participant 1 expressed this point, *"It makes it easier, but in terms of better, it is hard, it depends on what the problem is…if you can do it yourself, it might be quicker."* If the problem cannot be solved at the immediate local level then the employee can choose to post it on an SCT. Participant 4 discussed the motivation to post if she ran into difficulties at the local level, *"Problem solving at the local level and if it can't be solved, post it to Yammer because it is at a higher level, greater reach."*

Exposure to the SCT and having access alone can improve the problem solving process. Participant 4 pointed out, *"I think it gives people a chance to think about a problem…even if you are just getting a notification, that notification makes you think about that problem."* Participant 4 stated that the simple act of logging in and viewing others' posts helped employees to begin thinking about a problem. Meaning employees were exposed to different parts of the organisation just by logging in to an SCT. This

added awareness was another aspect SCTs contributing to improving the problem-solving process.

5.4.4 Socialising beyond group with physical contacts

Another sub-theme of the motivations that drive SCT behaviour is the ability for employees to socialise beyond the group with whom they are in physical contact. It was found that employees communicating on SCTs enhanced face-to-face physical contacts. Participant 8 summarised this:

> *Connecting on the SCT definitely enhances my face-to-face relationships as I have connected and done some work with employees from the Christchurch and Wellington offices – then meeting them after the fact helped the relationship and gave us a common ground to build off of.*

The functionality within the SCT also aids to ensure the exchange is more personal. Having the visual aid of at least seeing the employee's face helps to make the exchange more familiar and this can help to enhance face-to-face encounters when they occur. MS Lync enabled users to arrange video conferences so employees could also pick up on visual cues and body language. Participant 7 expressed the sense of connectedness felt when utilising MS Lync, *"Yes, definitely you make a lot of friends with people from other departments; yes, linked me across, gave a greater sense of community."*

Participant 1 provided a view from the Yammer perspective:

> *If you were talking to someone on a different floor just on Yammer and then you saw them; you could bring up that topic and that would help you engage on that face-to-face conversation instead of sitting in the lift and not saying anything.*

It is evident that employees utilise SCTs to feel a greater sense of connectedness. Participant 1 provided an explanation around how personal Yammer can be:

> *When you do a message on Yammer, go to their profile you can actually see who they are, who you are talking to, their experience, other type of work, other people they are helping, other queries they are getting, so it did make it a lot more personal.*

It was found that Yammer gives the employees a greater sense of connectedness. It helped them "network" as identified by participant 3 and *"helps employees to feel more confident in communication with other peers because it is publishing a post to a greater group."* Participant 3 expanded on this point around networking and connecting with other employees from different areas of the organisation, *"If you didn't know them, hadn't met them before, or weren't part of your immediate team…It was pretty good in terms of networking in that respect."*

Other participants expressed a conflicting view when using Yammer, they indicated it wasn't very personal because they were posting to a large group of people they did not know and anyone could respond. Participant 4 expanded on this view, *"It is posting to a greater group, I don't feel I am connecting to my peers or managers. It is more open, not very personal."* There is a view that Yammer lacks the personal interaction that an instant messenger-type SCT can offer. Participant 5 also shared this view of the lack of connection when utilising Yammer, *"I would have to say no, I think if anything you get less connected…if I am posting a question out to the masses…it is almost like a hit and hope scenario."* This suggests that the employee feels connected when the actual communication exchange on Yammer leads to a physical connection. Participant 8 summarises this, *"Only when a post leads to a face-to-face meeting or a conversation do I feel more connected.*" It is evident from the data that the use of SCTs enhanced face-to-face physical contacts, after a communication exchange had occurred.

5.4.5 Increasing sense of belonging

The ability to reach out enhanced employees' feeling of being more connected to others, giving them a greater sense of belonging to the organisation. Participant 6 summarised this view, *"I can see how one may feel more connected with other staff if they are working on a problem across different business units or if they had to reach out globally to answer a question."* This sense of being connected to fellow staff across the

organisation was linked to employees wanting to contribute and be a part of a larger community. This sense of collaboration was stated by participant 1, *"There is that instant that everyone wants to be part of something else, then they make the decision to share their material."*

It was found that being part of the organisation brings employees a sense of belonging. Participant 8 explained, *"Connecting with and reaching out to fellow employees who are in other jurisdictions gives me a greater sense of belonging."* This sense of belonging can also come with being able to communicate with higher level employees, such as managers and directors. When participant 7 was asked if the SCT promoted a greater sense of belonging, the response was: *"Yes,…even directors came and spoke to me about pricing and export things and different simulations and if they can be more proactive."* The use of the SCT, as revealed in the data, increased employees' sense of belonging to the organisation.

5.5 Risks to Utilising SCTs

Analysis revealed the theme of *risks to utilising SCTs* from the participants' perspective. The sub-themes (as illustrated in Table 5.4), which support the main theme, are as follows: *inaccurate messages or communications portrayed, irrelevant and non-specific information posted,* and *confidentiality and privacy of the information shared.* The responses from the participants will be explored in this section, considering the view of different SCT experiences to support the analysis.

Table 5.4 Risks to utilising SCTs with sub-themes and concepts

Theme	Sub-themes	Concepts
Risks to utilising SCTs	Inaccurate messages or communications portrayed	• Content of communications could be interpreted wrongly, leading to damaged relationships
	Irrelevant and non-specific information posted	• Credibility of information in question • Large amount of information not relevant to the everyday user, impacts user experience
	Confidentiality and privacy	• Security concerns around sharing information on an open platform

5.5.1 Inaccurate messages or communications portrayed

One of the risks of utilising SCTs was the potential for inaccurate messages or communications to be conveyed. This refers to the manner information is posted online leading to different interpretations and subsequent misinterpretation of the message. The fact that body language cannot always be conveyed over an SCT adds to the risk. Participant 2, a Yammer user, explained a risk of damaging the connection if the lack of body language was not considered.

> *It comes with the same disclaimer, like email, there is no body language, no visual cues, it is always one of those things that if you type it wrong you could damage that relationship just as easy.*

The lack of visual cues points to how important it is to ensure the words that are shared are accurate and complete. Participant 2 expanded on how employees should post, *"The people who are answering to the post, they should be thinking about what they are writing…about who's going to read the post."* With Yammer, the access to a large audience must also be considered when communicating. Participant 2 explained, *"When your audience is everything from grads to [those] with vast experience it can be a bit daunting."* As the members of the audience were largely unknown, the risk of a post being misinterpreted by many was high.

5.5.2 Irrelevant and non-specific information posted

Within Yammer, joining a social group meant people could follow and receive notifications every time members updated the group. There was a risk that these updates could get mixed with actual problems that were being worked on, lessening the credibility of the tool to solve work-related problems.

An issue about the credibility of the person replying to a question or commenting on a post also emerged from the data. Participant 6 expanded on this, *"Credibility was another issue as random questions to the masses appeared on Yammer and it was questionable whether the answers and who was answering was providing any value.*" Although Yammer can identify users' names and their positions, it could, at times, be difficult to be certain that the information provided was credible. For strict professionals, sifting through the tangled web of information could prove too daunting and inefficient, giving users a valid reason not to use Yammer in their daily job.

When employees utilised the SCT, it was found that there was too much information being shared without being specifically targeted to an employee. Participant 2 discussed how Yammer wasn't specific enough, *"I think what it needs (not so much an interface) it needs targeting, it needs to be more specific to filter out that noise."* The noise being referred to was the large amount of information being posted without a filter to make it meaningful to the user. Participant 4 also shared this view, *"I found that sometimes it is quite annoying when different people post the same thing…posting something like a week ago but it has already been answered."* Participant 2 summarised the difficulty associated with the lack of relevance of the large amount of information being posted, "*If there are messages coming through that aren't relevant then I actually don't want to know about them, but the problem is determining what is relevant; you got to invest time to determining what is relevant."*

The difficulty of finding relevant information was a predominant risk discovered within the data. Participant 6 shared, *"In regards to the content it was difficult to find anything that was relevant and that related to me."* The lack of relevant information can deter an employee from choosing to utilise an SCT.

Yammer was described as lacking in functionality for finding specific information. Participant 8 explained, "*Some challenges, include the poor search functionality, sifting through the knowledge, along with the lack of specific alerts. Yammer is difficult to navigate."* This view, that it was difficult to follow the flow of information and to find something relevant on Yammer, was also shared by participant 2, *"It can be a little distracting. When I say distracting it can be hard to follow, unless there is something specific you want to find there."*

As discussed earlier, it was found that the increasing use of Facebook by the younger generation aligned with the higher adoption rates among the same generation when it came to sharing and socialising on internal SCTs. The similarity between the Facebook and Yammer interfaces meant there was a risk of communications becoming less formal. Participant 5 confirmed this, *"Now over time, posts could become more informal, changing the boundaries of how communications are delivered on an SCT."* The blurring of the formal boundaries could lead to the SCT losing credibility with regard to work-related problem solving and knowledge sharing. Participant 2 also stated that the quality of what was shared could decline depending on who the users were, *"I think generally we try to push professionalism on them, so there is a risk if it is only the new people using it the information shared may lack."*

5.5.3 Confidentiality and privacy

The confidentiality and privacy of the information being shared was revealed as another risk. Employees stated that they were hesitant to share information because they did not know who would be reading it at the other end. This was summarised by participant 8:

> *There are times where confidentiality is a factor and I may not provide information. I also hesitate at times because I don't always know who on the other end will be reading my information and if they distribute it after that.*

Although Yammer can promote collaboration, there is also the risk that a user from the other side of the globe could post an answer to a problem but has not considered the view or perspective of the one who posted. Participant 6 explained that he is hesitant to share information, *"Yes, I am hesitant if unsecured, there is the potential of unintended readers to view the material. Privacy is paramount and would mean more monitoring for IT."* This risk potentially influenced employees' ability to utilise the SCT to its utmost capability. Participant 3 summarised how it impacted problem solving:

> *I don't think it has enhanced problem solving because people were reluctant to post…because of the organisation, the problems that we faced were quite confidential sometimes, and so you couldn't just post really specific problems on that forum.*

Working with confidential information and sharing it on an SCT was revealed as a risk to utilising the technology. Participant 5 expanded on the challenges they had:

> *Quite often you were dealing with specific client problems. So there is the confidentiality…so yes, you are posting within the company…but there is still that element of trying to balance being specific enough to get your answer to being so specific they can work out who the client is or what the issue is.*

The risk of revealing too much information about a client and breaching confidentiality on an SCT was high in the view of the participants. It was evident that the confidentiality and privacy of information shared was an emergent risk for some users.

6 Discussion and Conclusion

The aim of this chapter is to relate the findings to relevant theories in the literature and discuss the implications of this study. As described in Chapter 4, Section 4.4, this analysis represents phase 6 of Braun & Clarke's (2006) thematic analysis technique with the goal to tell the story of the data in a way that convinces the reader of the merit and validity of the analysis. It involves relating the findings that emerged from the research question to the literature and contrasting them with the literature.

The key findings that emerged include: how SCTs give employees the ability to reach out to a greater audience, that SCTs offer affordances that influence employee practices, how organisational guidelines and culture influence SCT expected use, and risks associated with SCTs (such as privacy and confidentiality along with inaccurate and irrelevant information shared within an SCT). These findings will be further analysed and integrated with the literature to explain: *Why employees utilise social collaboration technologies in organisations.*

6.1 Organisational Guidelines and Culture Related to Expected Use

Expected SCT practices were identified as an emergent theme within this research. For example, the executive team of an organisation may mandate the use of a particular SCT. Another example was how an employee's immediate team influenced the use of an SCT. If there is a lower uptake of SCT within the team, there is a greater likelihood that the SCT would not be utilised among team members. It was evident in the findings that there were different guidelines between organisations regarding the extent of expected SCT use. This is consistent with a study by Jarrahi & Sawyer (2014) where they found that the policies governing social technologies within organisations are defensive and not strategic and lead to missing out on opportunities and areas of interest. A lack of prescribed practices for SCTs has led to confusion and hesitation

among employees as to what level of use they are expected to make of the tool. The implication of this finding is that if an organisation is willing to invest money in adopting an enterprise-wide social tool, how much use is enough to determine that it has met its desired effect?

It was found that the design of Yammer offered similar affordances to those of Facebook. With Facebook being a primarily social channel, this similarity created confusion for employees when they were presented with a similar interface to that of Facebook, leading to more informal communication practices. Relating this to the concept of affordances, participants tended to see the same possibilities in Yammer as they did in Facebook. As a result, there was a risk that some may use the SCT primarily as a social tool rather than as a way to solve work-related problems collaboratively. This could also lead to communications shifting from professional to more informal. Additionally, Facebook offers the affordances to communicate and enhance a user's social profile. Yammer's similar interface gave employees the sense that Yammer could be used in the same way. This runs the risk of an increased amount of informal communication being shared on the platform resulting in an overload of irrelevant information being stored within the SCT. Leonardi et al. (2013) supported this view. They found that SCTs afford the possibility of information overload. This could result in employees becoming overwhelmed when searching for information within the SCT.

Enhancing organisational guidelines around expected employee use of SCTs would help employees understand the parameters in which they are expected to communicate and share information. This is particularly important with SCTs that have interfaces similar to Facebook. This notion, however, is not an easy one to develop.

Richter et al. (2013) found that management cannot prescribe usage practices for open tools, such as Yammer. Instead, management should focus more on the organisational

context for usage. For example, if a technology such as Yammer has been adopted, management needs to understand how the employees undertake work practices and how the technology should be integrated into their daily activities. It is evident that leaving the choice up to the employee to utilise SCTs gives them the ability to interpret and utilise the technology however they deem fit, with minimal influence from the organisation. Additionally, if employees have an unproductive experience on an SCT, it may lead to a decline in utilisation.

Without guidelines on how to post information, the Facebook-type interface potentially promotes an unintended amount of informal communication rather than being used for work practices. Therefore, organisations need to consider the impact of promoting a social tool, such as Yammer, due to its similarity to Facebook and the social affordances it offers.

6.2 Affordances Related to Information Sharing and Problem Solving

A consistent theme discovered in the analysis was participants indicating that the design of the SCT influenced its use. One specific affordance of SCTs recognised in the findings was the possibility for employees to reach out to a greater audience to connect with and share information. This is consistent with DiMicco et al.'s (2008) findings on how employees recognised the opportunities SCTs presented and they primarily used SCTs for reaching out to other employees.

The perception of what the SCT can do or accomplish for users influences their decision to use it. From the perspective of affordances, there is a parallel between the perception of an object and the influence of past experience on the object's use (Norman, 2002). For employees to understand the role of SCTs, they need to be able to perceive what possibilities they offer. The SCT can act as an extended pool of resources for employees to extend their knowledge base when confronted by a problem. From an organisational

context, SCTs offer employees a greater ability to solve problems, rather than relying on limited resources – the traditional tools, such as email and phone.

Applying this concept of affordances to Yammer, Lync, and user forums, these tools offer the user the possibility to engage and share information with contacts across the organisation. Fragoso et al. (2012) describe this ability as a social affordance because the platform facilitates communication. Similarly, research by Parmaxi & Zaphiris (2014), in the context of learning, found that students posted information online to attain feedback from peers. Making platforms like these available to employees to share information and attain feedback is advantageous. It allows employees to extend beyond their immediate office contacts, reaching people they may not be familiar with but who may have a better perspective on a problem to be solved.

Leonardi et al. (2013) found that affordances of SCTs create the capacity to ease connections and communications across organisations to get work done more quickly. This intertwining of the organisation and the SCT resonates with the arguments in Zammuto et al. (2007) in terms of virtual collaboration. They found that "virtual collaboration enhances the potential for organizations to extend their boundaries temporarily, experimentally, or permanently" (p. 756). The affordance to reach out globally can enhance business practices and work practices, integrating knowledge to promote a more uniform, consistent organisational information sharing strategy.

It was found that the culture around SCT use influenced information sharing practices. Constant et al. (1994) found that a culture of information sharing within the organisation had a strong influence on a user's willingness to share information. A similar view was shared by the participants regarding how the culture of the organisation and the immediate team influenced the tendency to utilise and share on SCTs. Employees are led by their peers along with the norms and behaviours within the

organisation when they make the decision to share information. Jarrahi & Sawyer (2014) discuss in their study how habits and practices in social communication are organic in nature and change as technology develops. In this study, the participants gave a sense that the culture of sharing information on an SCT was dependent on the levels of utilisation by their immediate team. This suggests that no matter what type of SCT is adopted, the uptake and utilisation benchmark set by an individual's team has a bearing on how much the SCT will be utilised. As newer technology, such as SCTs, is adopted; the culture around sharing information is likely to change with it.

From the information sharing perspective, it was found that participants were sharing information because they perceived it a useful activity to undertake. For example, participants made the decision to share information because it was easy to do so and it helped them accomplish and deliver an aspect of their job. Research by Jarvenpaa & Staples (2000) supports this finding, they suggested that SCT use is affected by task characteristics, perceived usefulness, and how comfortable people are with the technology.

The research indicated that tension existed for employees between having a strong information-sharing culture and a hesitancy about sharing on an SCT. Areas such as privacy and confidentiality along with irrelevant information being shared, were revealed as risks of SCT use. The implication of this finding is that the risks need to be understood and acknowledged by organisations before they could expect a stronger employee uptake for SCTs.

6.3 Connectedness

It was found that employees utilised SCTs to enhance connectedness with fellow employees across the organisation. This is consistent with the social connectedness theory or the feeling of being in touch with another (IJsselsteijn et al., 2003). There

were conflicting views as to whether SCTs enhance connectedness or not. DiMicco et al. (2008) found that employees utilise SCTs to connect with other employees on a personal level. Enhancing physical relationships promotes greater connectedness across organisations, helping to build a positive, sharing culture. However, some participants stated that they strictly utilised the SCT to seek an answer to an immediate problem, thus not enhancing their connectedness to others. These users would only search for information related to their problem and not engage directly with any individuals within the SCT. Again, this can be related back to the organisational expectations of use on an SCT; as some employees utilise the SCT to collaborate and communicate whereas others use it strictly as a knowledge bank to attain answers to their immediate problems.

Depending on the nature of the communication, there is a risk the communications could be interpreted incorrectly. The way people connect was also found to be a factor influencing the connectedness an employee felt during an online exchange. The absence of body language on an SCT can impact the interpretation of messages that are being delivered. This is similar to the finding by Slagter van Tryon & Bishop (2009) that difficulties existed when trying to connect in an online learning environment due to the lack of physical face-to-face contact. Related to the research by Slagter van Tryon & Bishop (2009), participants within my study considered the ability to connect online enhanced face-to-face meetings outside the virtual environment. Kugler & Smolnik (2013) also supported this as they found that the usage of organisational social software leveraged offline exchanges.

Within this research, the majority of participants in this study utilised SCTs to enhance connectivity. However, there were instances where participants did not feel that SCTs enhanced connectedness. They found the communications being posted were too anonymous, lacked any personal context and did not lead to any enhancement of relationships. This was primarily evident for those participants that utilised Yammer as

an SCT. For Lync, however, the promotion of connectedness was high as participants found the ability to instantly contact someone as an advantage. Nardi et al. (2000) supported the advantages of instant messaging as a useful tool to create impromptu social bonds and engage in unplanned conversations. Chelmis & Prasanna (2012) conducted a qualitative study and examined the social connectedness within an enterprise microblogging service and the structural properties of messages sent between users. They found that trust in the person was a key factor for ongoing exchanges (Chelmis & Prasanna, 2012). Although trust was not mentioned by the participants in this research, it is worthy to note that it plays a key role in enhancing connectedness on SCTs. This represents an opportunity for further research to explore the influence of trust on enhancing connectedness on SCTs.

6.4 Motivations and SCT Use

Motivations for utilising SCTs was another theme that emerged from the findings. For example, participants were extrinsically motivated to enhance their profile when posting information on an SCT. This is similar to the findings by DiMicco et al. (2008) in where it was identified that a prime motivator for social networking at work was career advancement within an employees' own company. Bock & Kim (2002) also found that extrinsic motivation is a precursor to an employee engaging on an SCT. Extrinsic motivation refers to performing a task to achieve an award or avoid a punishment (Deci & Ryan, 2000).

Applying this theory to the findings, participants showed that their motivation to utilise collaboration technology was extrinsic. It was found that participants utilised SCTs to gain benefits, such as enhancing their profile or marketing their accomplishments to the wider organisation. An implication of this finding is that SCTs are not only viewed as portals for information sharing and connecting with fellow employees, they also provide an employee with the opportunity to enhance their own career. Understanding this will

help managers to understand and potentially utilise an SCT to monitor work outputs and behaviours of their employees.

Intrinsic motivation was not part of the findings of the research. This could be due to the many risks identified when participants were asked why they utilised SCTs. Although there was an assumption that people shared information with others because they enjoyed doing so, this was not the case for participants in this research. Similarly, Bock and Kim (2002) found that offering rewards for utilising SCTs or punishments for not utilising them – such as positive feedback or some type of incentive – undermined intrinsic motivation.

Self-determination theory says that the underlying motivation behind human behaviour is to fulfil the psychological needs of competence, relatedness, and autonomy (Deci & Ryan, 2000). Participants stated that enhancing their sense of belonging to the organisation was an overarching motivation when utilising SCTs. The numerous risks identified in the research (such as the privacy, confidentiality and credibility of the messages being shared) all contributed to employees' view that SCTs did not promote an intrinsically enjoyable experience. SCTs may not promote an enjoyable experience because users assess the risks before utilising them.

Organisations need to consider ways to make the experience more enjoyable for users by minimising the risks and improving the design of the SCT to make it more structured and user friendly. Constant et al. (1994) suggested that people may want to share their expertise naturally and an organisation's best policy is to create occasions for people to talk and exchange information openly. They found that employees connected with others to share information and to make others aware of their willingness to share. This is relevant to the underlying expectation in terms of social exchange and reciprocity when one chooses to share information (Constant et al., 1994).

Jarvenpaa & Staples (2000) also discussed the motivation to share as a reciprocal arrangement to gain a benefit from an exchange. If employees were not attaining responses to their questions or not gaining any value through the SCT, there was an increased likelihood that their willingness to share would decline. From an organisational perspective, there is value in producing guidelines that employees must abide by when sharing information. This will help ensure the underlying reciprocal arrangement is met, helping the organisation gain the most value from SCT utilisation. If guidelines are not set and employees treat the SCT as a one-way avenue to collect information and not give back, discontent around the SCT may result, leading to a decline in use and a lack of trust in SCTs as useful tools to share information.

6.5 Invasiveness of SCTs

It was found that SCTs promoted the ability to get in contact with other individuals immediately, dependent on the type of SCT being used. For example, Lync instant messaging technology gave an employee the ability to interrupt any other employee immediately with an instant message to check if the employee on the other end was 'available' to communicate. Yammer and user forums, on the other hand, utilised an alert function which meant employees' email inboxes could get inundated daily with messages around whichever topics or groups they followed.

Teevan & Hehmeyer (2013) found that a recipient's communication decisions were impacted by knowing that their availability state was visible to others. The participants within this thesis saw advantages in the real-time technology, they sometimes viewed the technology as too cumbersome for them to manage. The implication from this finding is that SCTs can impact productivity due to the increase in alerts and messages coming through to an employee. Organisations need to consider the impact SCTs can have on productivity levels of employees as this invasive type of technology could potentially impact the flow of work, thus reducing the quality of outputs.

Nardi et al. (2000) found that the problem of interruptiveness was a major concern when utilising instant messaging as a technology to communicate within organisations. They found the 'availability' function of instant messaging technologies could help to lessen the impact of interruptiveness, thus giving employees an option to choose a more optimal time to engage with others.

Organisations need to understand the impact of SCTs and ensure productivity and work flow are not impacted when utilising these types of technologies. There is a risk employees may feel 'too available' to others in the organisation and simply switch off their SCT, thus limiting the effectiveness of the technology. Incorporating a standard set of guidelines about expected use could contribute to employees' understanding of how to utilise SCTs and how to incorporate them into daily work lives. There is an opportunity to explore the impacts of integrating SCTs into daily use in future research.

6.6 Conclusion

The goal of this research was to understand why employees utilised SCTs in organisations. A background to SCTs was provided, along with a review of relevant theories and empirical evidence to develop a preliminary understanding of SCT use in organisations.

Affordances, social connectedness, self-determination theory, and information sharing theory were discussed. The notion of affordances from Gibson (1986) and Norman (2002) offered a strong grounding of the possibilities an object can afford. Studies by Leonardi et al. (2013) and Zammuto et al. (2007) offered an understanding of how affordances influence technology use. Social connectedness may influence employees' decisions to use SCTs. Research by Chelmis & Prasanna (2012) and Kugler & Smolnik (2013) looked at how social technologies can support social connectedness when utilised within organisations. Information sharing theory offered a useful insight on how

organisational culture and policies, as well as personal factors, influence people's attitudes about information sharing. Studies that drew on the self-determination theory were helpful to understand how intrinsic and extrinsic motivations shape SCT use.

Data were gathered from semi-structured interviews with managers and users of SCTs. Braun & Clarke's (2006) thematic analysis was used to analyse the interview data. Overall, four emergent themes were discovered. The themes were*: design of SCT that encourages certain practices, expected SCT practices, risks to utilising SCTs,* and *motivations that drive SCT behaviours.*

The findings suggest that affordances offered by SCTs influence employees' decision to use the technology in organisations. In regards to particular organisations it emerged there was a lack of consistency in terms of guidelines governing SCT use during the thematic analysis. It emerged that there was uncertainty about what organisations expected from their employees pertaining to SCT use. The expectations set by the organisation were an influencing factor for employees when choosing to utilise SCTs. Risks (such as privacy, confidentiality, and irrelevant information) were found to cause employees to hesitate when choosing whether to use an SCT to collaborate and solve problems. The way SCTs can provide instant, real-time communication was found to be an advantage. However, some users found that SCT use could generate information overload for employees, leading to a reluctance to use it. Users were generally motivated to use SCT to boost their own profile thus helping them advance their career. The way SCTs were designed was also found to influence SCT use. A similarity to Facebook encouraged more social information sharing and may have discouraged older users from using the SCT.

This research has a few limitations, such as the research was undertaken from the context of New Zealand-based large organisations. There is opportunity for future

research to extend the study to different countries and to different sizes of organisation. As adopting SCTs has been a relatively new concept for organisations, many are still going through embedding processes and learning how to work with SCTs. As the technology develops and becomes more commonplace, a further opportunity to broaden research on SCTs within organisations is presented.

This research contributes to the field of information systems by providing insight into how SCTs are governed and managed by organisations and their influence on SCT use. Organisational guidelines and culture are major factors that influence SCT use. The design and affordances an SCT offers were also important factors that influenced the utilisation of SCTs. As SCTs become more commonplace in society, organisations need to understand the influence these social technologies have when they are incorporated into a workplace. Adopting an SCT, such as Yammer, that has a similar interface as Facebook could lead employees into thinking that they can utilise the SCT the same way that they use Facebook. Succinct organisational policies and guidelines on how to communicate and how to mitigate risks will help give employees more structure and confidence when utilising them.

This research offers insights to the unique functionalities offered to users by each of the three different SCTs, Yammer, Lync, and user forums.. The study provides a broad view of the types of SCTs in organisations as well as concrete analysis explaining why employees utilise them. As SCT uptake is on the rise, organisations need to consider the breadth of SCTs in the field and understand the benefits and implications of choosing a particular SCT to suit their organisation. In practice, some organisations may decide not to adopt an SCT like Yammer due to its strong similarity to Facebook. This decision depends on the outcomes an organisation expects to accomplish through SCT. For example, a technology such as Lync offers employees the ability to instantly communicate with one another. However, by adopting this type of technology, work

practices are likely to change due to the increasing amount of interruptions this technology can present.

Extrinsic motivations were found to be a primary motivator for employees to utilise SCTs. This can be viewed as an opportunity for managers to understand why employees post information online. Changing employees' key performance indicators to reflect a certain level of SCT use may promote wider SCT use. It was evident from the data that there was a lack of embedded organisational guidelines for employees to abide by when utilising SCTs. The lack of guidelines resulted in confusion among employees regarding the expectations around informal and formal communications being shared on the SCT. As revealed in this research, there are a multitude of complexities involved when understanding why employees utilise SCTs. Including the intersection of affordances, design of the technology, users themselves, and organisational practices – this study offers a new understanding of these motivations.

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Appendices

Appendix 1 – Indicative Interview Questions

Indicative interview questions

General Questions

1. Can you share some background of the social collaboration technology (SCT) that is used in your organisation?

2. What is the SCT primarily being used for?

3. Do your peers within the workplace utilise this SCT? What do they use it for? Can you give some concrete examples?

4. Do you believe your SCT has enhanced problem solving within your organisation or has become a hindrance? Why?

5. What kinds of problems are solved utilising the SCT?

6. Do you foresee your SCT becoming more relied upon to solve organisational problems/ issues in the future? Why or why not?

7. Are there any plans within your organisation to enhance the use of your current SCT?

8. What is the culture within your organisation around your SCT, for example, how is this type of technology received?

9. How does the SCT you have used operate?

10. Are there plans for improvements/enhancements to your current collaboration technology or is it built well enough in its current state to engage problem solving?

11. In your view, are there any gaps or ways in which problem solving can be better administered within your organisation?

12. Do you foresee social collaboration technology within organisations taking off as the 'next best thing' for problem solving and communication?

13. Why do employees use SCT?

14. What motivates them?

15. What are the benefits to you and to the organisations who use the SCT? What are the challenges?

Specific Questions

1. Do you feel a greater sense of connectedness with fellow employees and managers when utilising your SCT?

2. How about a greater sense of belonging to the organisation?

3. Does using your SCT enhance your face-to-face relationships with fellow employees when interacting within your organisation?

4. Why do you use your SCT?

5. Does utilising your SCT enhance your problem solving approach?

6. What do you feel you can gain from using the SCT?

7. Do you think about the way you share your online responses? Do you try to formulate an online personality (social presence) to reflect the way you operate? Is this important to you?

8. Do you feel pressured by your peers to use your SCT? Why or why not?

9. Is there an underlying expectation to utilise the SCT in your daily work or is it optional?

10. Do you think it is socially accepted to share information (such as expertise on a particular topic, suggestions, advice, etc.) in your organisation? Do you utilise your SCT to share this information?

11. What type of information do you share? Do you find this a useful platform on which to share information?

12. Are there restrictions in place within your organisation in how you utilise the SCT?

13. Are you ever hesitant when sharing information on an SCT? Why?

Appendix 2 - Participant Information Sheet

Date Information Sheet Produced:

14 August 2013

Project Title

Why do employees utilise social collaboration technologies within organisations: A qualitative approach

An Invitation

My name is Chris Melsness and I am an AUT student doing a Master of Business program. I would like to invite you to participate in my research "Why do employees utilise social collaboration technologies (SCTs) within organisations: A qualitative approach". The output of this research will be a thesis and it is part of my course requirements to finish my Master degree. Participation is completely voluntary. You may withdraw at any time prior to the completion of data collection.

What is the purpose of this research?

The purpose of this research is to examine the underlying reasons that explain why employees use these types of social collaboration technologies to communicate and solve problems in organisations.

How was I identified and why am I being invited to participate in this research?

You were identified as potential participants because you:

- have had a minimum exposure/usage of an SCT of 6 months
- are from an organisation with 500 or more employees
- have a managerial position or
- are a user of SCT in your organisation

What will happen in this research?

This research will examine why employees utilise social collaboration technologies within organisations. You will be required to answer questions during a ½–1 hour long interview at a time which is convenient to you. You will be required to provide information around how your social collaborative technology is utilised within your organisation, sharing your experiences and insights from your own and your organisation's perspective.

What are the discomforts and risks?

We do not anticipate any major ethical risks or discomforts due to the voluntary nature of the participation. The interview questions ask about social collaboration technology within your organisation and why it is being used. You have the right not to answer any questions if you prefer not to do so. We will not share participant information and interview responses with anyone else outside of this research team.

What are the benefits?

The research will help me to obtain a Master degree. This research may have possible implications for why social collaborative technologies are utilised and adopts an exploratory qualitative approach to potentially uncover new concepts and integrate them with existing theories to explain why employees utilise social collaborative technologies. Gaining an understanding of the type of SCTs being utilised may aid in developing an overarching approach to how well suited the design of the SCT is. This will potentially contribute to an understanding as to why this type of collaboration technology can be used as a platform to enhance communication and streamline organisational dialogue across an organisation.

How will my privacy be protected?

Given the face-to-face nature of interviews, we cannot guarantee full confidentiality. However, the data you provide will remain confidential. No questions regarding your privacy will be in the interview. Participation is voluntary and you may withdraw at any time you like. No party, other than the research team will have access to the data. Once the research project is completed, all information will be stored in a secure, locked cabinet on AUT premises. All data and consent forms will be securely destroyed after a period of six years.

What are the costs of participating in this research?

The interview will take no longer than 1 hour to complete.

What opportunity do I have to consider this invitation?

You will be given at least two weeks to review this information sheet and either accept or decline this invitation to participate in the research project. If you want to seek further information, to clarify any points you can contact the primary researcher on his details below.

How do I agree to participate in this research?

If you agree to take part in this research you will be required to sign a consent form, which will indicate your willingness to participate in this research and that you will be participating with full knowledge of the aims and purpose of this research

Will I receive feedback on the results of this research?

You will receive copies of the interview transcript to review the accuracy of the interview and amend, if necessary. A copy of the executive summary of this research will be posted on the website of Thesis Link (thesislink.aut.ac.nz) and on the website of Department of Information Systems of AUT (bis.aut.ac.nz). They both have public access.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Dr Angsana Techatassanasoontorn, angsana@aut.ac.nz, (09) 921-9999 ext. 9235.

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEC, Kate O'Conner, ethics@aut.ac.nz, 921 9999 ext 6038.

Whom do I contact for further information about this research?

Researcher Contact Details:

The student researcher: Chris Melsness

kwq2554@aut.ac.nz

Project Supervisor Contact Details:

The supervisor: Dr Angsana Techatassanasoontorn

angsana@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on ___05/09/2013___

AUTEC Reference number __13/236__

Appendix 3 – Participant Consent Form

Project Title: **Why do employees utilise social collaboration technologies within organisations: A qualitative approach**

Researcher: ***Chris Melsness***

- ○ I have read and understood the information provided about this research project in the Information Sheet dated 14 August 2013.
- ○ I have had an opportunity to ask questions and to have them answered.
- ○ I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- ○ I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- ○ If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- ○ I agree to take part in this research by participating in an interview.
- ○ I wish to receive a copy of the report from the research (please tick one): Yes○ No○

Participant's signature:

.....……

Participant's name:

.....……

Participant's Contact Details (if appropriate):

……..

……..

……..

……..

Date:

Approved by the Auckland University of Technology Ethics Committee on 05/09/2013, AUTEC Reference number 13/236

Note: The Participant should retain a copy of this form.

Appendix 4 – Themes, Sub-Themes, Interview Excerpts

Themes	Sub-themes	Interview Excerpts
Design of SCT that encourages certain practices	Sociability	– *"In Yammer, one you only see what your friends are posting on it…well kind of…you can post publicly…but you can choose within groups…in Yammer you can have secure rooms."* – *"I also know there was a football fans group. I don't think those things are so much an issue and they are contained as well."* – *"For example, if the group is about my year group…then the postings around some events from our year group is there."* – *"The first time you login to Yammer and you look at what's there you work out pretty quickly that what you could use it for."* – *"The fundamental difference between Lync and Yammer…because it is a personal message…you have to know specifically who you are talking to, whereas for Yammer it is just a blah to the team…this is what we are looking at."* – *"From a Lync/Communicator perspective you can get it out to a smaller group, you can actually see if they are online, if they are there, if you can expect an answer, from a messaging perspective, you are looking for a quick answer [from] a specific person."* – *"With a forum there is a lot more focus around specific questions where you go in there looking for a solution more so than just a general 'this is the problem we have'…in that respect…basically because the forum is a lot less sociable."*
	Look and feel of Facebook	– *"Posting short messages or questions in a Facebook style post, you can get daily alerts around the posts or groups/topics you follow of which were in your email each morning."* – *"I think that is part of the attraction as well as it looks like Facebook."* – *"I mean realistically it is like an extended instant messenger and a bit like a Facebook."* – *"It is like a Facebook where you can post short or longer questions/messages about a problem or news or whatever you may have."* – *"You have that social aspect in terms of, kind of just like, Facebook. You can post something to share, some idea, and make it aware to everyone."* – *"You can upload photos, not that it was used that much for uploading social photos and stuff, just the ability to like things and it was very similar to Facebook."* – *"It would be different as opposed to posting on Facebook, because you are communicating with other professionals. I would definitely be shaping what I post*

		and read it over before I posted it." – *"I guess it is shaped more towards professionalism so you know my response would be in line with the community I am in."* – *"Using a tool like Yammer, you definitely have to treat it like a professional forum…it is so similar to Facebook but it is so different…it is not a social networking tool, well, arguably it is but you can't be social, I think, when you are using it."* – *"Because it was designed so similar to Facebook, it was pretty easy for those that were familiar to that sort of social media, quick uptake of young people who could just log on and know what they're doing."* – *"I guess one of the reasons for that is that our team was sort of older and it was sort of like Facebook, the younger generation tend to utilise it more rather than all of the managers. Definitely utilised by the younger members but not so much the older group."* – *"There will be a lot more younger people who have been growing up with the Facebook generation and they think it is alright to post anything online and they don't see the difference between this is a professional environment compared to you are just posting something for your friends."*
	Immediacy	– *"You would sit at the computer and see a real time update come up with someone posting a win on that client or what's happening with them, you know it instantaneously, you would see it straight away rather than sort of when you log in and scroll down."* – *"Definitely easier and faster, make faster decisions because you can share a screen, and files in real time and have a discussion and you can add more people."* – *"It gives the ability to collaborate remotely rather than ensuring I am in the office the whole time."* – *"At the local level, if we want to communicate within NZ, email is more useful and we have Lync and it is a lot more useful now because we can chat instant now."* – *"I mean instant messaging in itself it has been incorporated a lot more for business purposes, which is quite useful."* – *"Yammer is about getting immediate access to resources…I have got this issue let's post it out to Yammer to solve the problem."* – *"You have to be there at the time for instant message…where at least with Yammer the message is there, it's on the board so people can answer."*
	Local connections and global reach	– *"You have people located differently all around the world but they all are doing quite similar sort of work…so it can be relevant for anywhere."* – *"It was an effective means of reaching out to people you didn't know, posting something up, and discovering*

		someone you never met is interested in it… so it was really effective in that respect." – *"From a Yammer perspective, it allows you to get it out there to a wider audience, looking for an answer."* – *"It's a tool where you can just post a problem and reach out to the widest audience possible."* – *"Getting in contact with the overseas people, didn't really have expertise locally that I could just chuck something on Yammer and it would go to this person."* – *"To use as another resource to find information from my peers, not only locally, but globally."* – *"If you want a wider audience and you have a longer timeframe for a response it allows for that…it takes longer but it does sort of give you a wider audience."* – *"It goes to people within a specific group and it can either go globally, depending on how you post it. There is access to a global reach."* – *"For a group, if there is a group that is using it as a platform… at the same time I think it is useful because of that group reach, rather than, say, a Lync message."*
Expected SCT practices	Guidelines of SCT use	– *"Everyone had to use it, it was expected, it got bigger over time, giving headsets to everyone and making people do online meetings."* – *"It depends on the organisation's appetite for what's actually allowed to go on there."* – *"No pressure, just a tool that was there, use it if you want, very simple guidelines for using it…we weren't trained on it…it is sort of common sense, here it is, nothing more than that really."* – *"You have people updating the wider audience on what they did on the weekend. If it was accepted whether we are allowed to do that, I am not sure…but why not…it's internal...it's not going out to external clients…it is a social tool."* – *"No, there isn't pressure to use Yammer, it is actually the opposite. After I began, except for inductions, utilising Yammer was a choice by the employees. There wasn't any organisational push for us to use."* – *"If the organisation wants to promote the use of Yammer then they should train people more on how to use Yammer, I think."*
	Culture around SCT use	– *"People I directly worked with in my team, it wasn't utilised that much, you definitely had, I guess, the more eccentric teams using it a lot more."* – *"From my experience within the team, I would say the uptake has been limited and you wouldn't be missing out on anything if you chose not to use Yammer."* – *"It depends on the discipline, so if we were working in a discipline that is more inclined to use Yammer, because there is a lot of knowledge sharing going on."* – *"They are just wasting time like Facebook,*

		communicating on there just socially instead of being productive. But the majority would see some type of productivity out of them, especially in the younger generation." – *"Utilisation was poor overall and again I think that comes down to the age demographic actually, they didn't know how to use it beyond anything else."*
Motivations that drive SCT behaviours	Building and sharing of knowledge and information within organisation	– *"Used for brainstorming, getting ideas out there, getting it out there…I think that would be the key."* – *"To solve a problem, gain knowledge, connect with others and also to be seen as a contributor to the organisation."* – *"It's a case of, if I continue to submit to this community, if I can get the community going then it turns out six months down the track I have an issue and instead of having to post a question I can go back to old forums and whether I was involved in that forum or not there is a solution there. And if everyone stops posting on this forum things like that are gonna die, it's sort like building up a database of knowledge."* – *"If people are posting on there, they are signalling they're willing to share information, or share content on one of the jobs you have done with them and all that sort of thing."* – *"Mostly knowledge sharing because with a new tool or a new government policy, if we are not sure how to address it, we can ask the questions…we can share the knowledge across border."*
	Raising profile/ visibility within organisation	– *"To try and raise your profile within the business, so they would recognise you and update people on what you are a doing…that is definitely one motivator and probably the primary one."* – *"You are trying to show you are aware of what is going on in the industry…you are trying to boost yourself up compared to everyone else…look I know what I am talking about…like I read up about stuff."* – *"To enhance profile internally within the business…to share knowledge and ideas…to ask for help…to gain knowledge from others."* – *"I think from a professional perspective it does upgrade your profile to be seen communicating with people you might never see face-to-face."*
	Improving problem solving process	– *"Yammer is about getting immediate access to resources…I have got this issue, let's post it out to Yammer to solve the problem."* – *"From my perspective the SCT has enhanced problem solving, as I have been able to use this tool to achieve a good outcome."* – *"You can share a screen, and if they have a problem and they can give control and you can work on the other person's computer and make changes as well."*

		– *"If you can't solve the problem you can just connect another person into the conversation."* – *"Yes, they say everything is urgent, but people call all the time because they can see you at your desk…so you get too many at once."* – *"It makes it easier, but in terms of better, it is hard, it depends on what the problem is…if you can do it yourself, it might be quicker."* – *"Problem solving at the local level and if it can't be solved, post it to Yammer because it is at a higher level, greater reach."* – *"I think it gives people a chance to think about a problem… even if you are just getting a notification, that notification makes you think about that problem."*
	Socialising beyond group with physical contacts	– *"Connecting on the SCT definitely enhances my face-to-face relationships as I have connected and done some work with employees from the Christchurch and Wellington offices – then meeting them after the fact helped the relationship and gave us a common ground to build off of."* – *"If you were talking to someone on a different floor just on Yammer and then you saw them, you could bring up that topic and that would help you engage on that face-to-face conversation instead of sitting in the lift and not saying anything."* – *"When you do a message on Yammer, go to their profile you can actually see who they are, who you are talking to, their experience, other type of work, other people they are helping, other queries they are getting, so it did make it a lot more personal in terms of that way."* – *"Helps employees to feel more confident in communication with other peers because it is publishing a post to a greater group."* – *"If you didn't know them, hadn't met them before, or weren't part of your immediate team…It was pretty good in terms of networking in that respect."* – *"It is posting to a greater group, I don't feel I am connecting to my peers or managers. It is more open, not very personal."* – *"I would have to say no, I think if anything you get less connected…if I am posting a question to someone greatly…it is almost like a hit and hope scenario."* – *"Only when a post leads to a face-to-face meeting or a conversation do I feel more connected."*
	Increasing sense of belonging	– *"I can see how one may feel more connected with other staff if they are working on a problem across different business units or if they had to reach out globally to answer a question."* – *"There is that instant that everyone wants to be part of something else, then they make the decision to share*

		their material." – *"Connecting with and reaching out to fellow employees, who are in other jurisdictions, gives me a greater sense of belonging."* – *"Yes, questions. And even directors came and spoke to me about pricing and export things and different simulations and if they can be more proactive."*
Risks to utilising SCTs	Inaccurate messages or communications portrayed	– *"It comes with the same disclaimer, like email, there is no body language, no visual cues, it is always one of those things that if you type it wrong you could damage that relationship just as easy."* – *"The people who are answering to the post, they should be thinking about what they are writing…about who's going to read the post."* – *"When your audience is everything from grads to [those] with vast experience, it can be a bit daunting."*
	Irrelevant and non-specific information posted	– *"Credibility was another issue as random questions to the masses appeared on Yammer and it was questionable whether the answers and who was answering was providing any value."* – *"I think what it needs (not so much an interface), it needs targeting. It needs targeting to be more specific to filter out that noise."* – *"I found that sometimes it is quite annoying when different people posting the same thing…posting something like a week ago but it has already been answered."* – *"If there are messages coming through that aren't relevant then I actually don't want to know about them, but the problem is determining what is relevant. You got to invest time to determining what is relevant."* – *"In regards to the content it was difficult to find anything that was relevant and that related to me."* – *"Some challenges, include the poor search functionality, sifting through the knowledge, along with the lack of specific alerts. Yammer is difficult to navigate."* – *"It can be a little distracting. When I say distracting it can be hard to follow, unless there is something specific you want to find there."* – *"Now, if – over time – posts could become more informal, changing the boundaries of how communication[s] are delivered on an SCT."* – *"I think generally we try to push professionalism on them, so there is a risk if it is only the new people using it the information shared may lack."*
	Confidentiality and privacy	– *"There are times where confidentiality is a factor and I may not provide information. I also hesitate, at times, because I don't always know who on the other end will be reading my information and if they distribute it after that."*

		– *"Yes, I am hesitant if unsecured, there is the potential of unintended readers to view the material. Privacy is paramount and would mean more monitoring for IT."* – *"I don't think it has enhanced problem solving because people were reluctant to post…because of the organisation, the problems that we faced were quite confidential sometimes, and so you couldn't just post really specific problems on that forum."* – *"Quite often you were dealing with specific client problems. So there is the confidentiality… so yes you are posting within the company…but there is still that element of trying to balance to being specific enough to get your answer to being so specific they can work out who the client is or what the issue is."*