

**THE ROLE OF ONLINE SOCIAL NETWORKS IN INTER-FIRM COLLABORATIVE
INNOVATION AND PROBLEM SOLVING**

by

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Abstract:

This study examined how online social networking (OSN) leads to increased communication and collaboration across inter-firm boundaries. This online social networking behaviour represents significant opportunities to firms in the form of improved problem-solving, increased collaborative innovation and enhanced engagement with stakeholders. There are also risks inherent in the widespread use of OSNs, such as the loss of control over information flows to individuals outside the organization, potential damage to the reputation of brands and organizations, and loss of productivity due to excessive usage of OSNs during work hours. In particular, this study sought to test four research propositions, specifically, that usage of one particular OSN, LinkedIn (LI), results in: 1) an increased number of inter-firm connections; 2) an improved ability to communicate across inter-firm boundaries; 3) greater access to problem solving or innovation collaborators; 4) increased organizational problem solving or innovation ability. The study methodology involved both quantitative and qualitative research. The quantitative portion of the study involved survey research among over 500 LinkedIn (LI) users to determine changes they reported in various dimensions related to inter-firm relationship-forming, information-sharing and collaborative problem solving since using LI. The sampling approach was purposive and the sample frame consisted of the researcher's own extended LI network, and an effort was also made to make the survey link available to all LI members through public posting in the site's Q&A section. Though no individual or group was systematically excluded from the opportunity to take the survey, some limitations are inherent in the approach taken. The survey respondents were self-selecting, which makes it difficult to confirm that the sample is reflective of all LI users. Also, the use of the researcher's own LI network as a key source of survey respondents may have biased the study toward more open networkers, since the researcher's network was built up over time by practicing open networking behaviours. As a result, the sample may tend to under-represent more

closed or restrictive networkers. Notwithstanding these limitations, no one particular group of respondents was excluded from the opportunity to take the survey, and the resulting data suggests that there were significant numbers of respondents who considered themselves closed networkers. Also, the spread of respondents by geographic area, occupation and age was found to resemble published statistics from LI on its user base, so it appears that the data is reasonably reflective of the LI user base, though this would be difficult to verify or measure. Qualitative research was also undertaken among senior managers at companies that have embraced the use of OSNs by staff to determine their experiences along similar dimensions. The findings from the quantitative survey showed that users of LI have experienced an increased number of social connections with individuals as a result of using LI, and that these connections are often with people in other organizations, including competitors and customers. Survey respondents also reported that they have been able to draw upon their LI networks in order to solve problems and be more innovative in their work. Analysis of the qualitative research yielded a list of suggested best practices that could be adopted by firms wishing to harness the collaborative power of OSNs. These suggested best practices have been grouped under the areas of strategy, listening, communication, guidelines, training, diffusion and measurement. Some suggested areas for future research included: the role of performance measurement and reward systems in managing OSN usage behaviour; the organizational risks of centralized versus decentralized control of messaging via OSNs; the role of training in the effective deployment of OSNs in an organizational context; and the organizational risk of increased connectedness with competitors resulting from OSN relationships.

Key terms:

Online social networks;
Collaborative innovation;
Inter-firm collaboration;
Social networks;
Social media;
Innovation;
Communities of practice (CoPs);
LinkedIn;
Facebook;
Twitter

List of abbreviations used commonly in the text:

Community(ies) of practice	CoP(s)
Knowledge Management	KM
LinkedIn	LI
Online social network(s)	OSN(s)

Declaration:

I, Robert Duncan, declare that THE ROLE OF ONLINE SOCIAL NETWORKS IN INTER-FIRM COLLABORATIVE INNOVATION AND PROBLEM SOLVING is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Signed:

Date:

We make a living by what we get, we make a life by what we give.

~ Sir Winston Churchill

No kind action ever stops with itself. One kind action leads to another. Good example is followed.

A single act of kindness throws out roots in all directions, and the roots spring up and make new trees. The greatest work that kindness does to others is that it makes them kind themselves.

~ Amelia Earhart

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Chapter 1 - Orientation

1.1 Introduction and background

Online Social Networks (OSNs) are a relatively recent phenomenon, and one that is only beginning to be embraced by business users for communication, collaboration and other business purposes. This study was designed to explore whether or not business users of a particular OSN, LinkedIn (LI), were using the network for inter-firm collaboration. The study also examined the ways in users used LI, as well as what benefits they felt they derived from using the network. In addition, organization leaders were interviewed to explore their experiences with implementing OSNs in their organizations. One of the outcomes of this study is a beginning of a framework for developing a set of best practices for organizations that are considering the usage of OSNs in their organizations.

The rapid proliferation of online social networks (OSNs) such as LinkedIn (LI), Facebook and Twitter presents both a challenge and opportunity for company leaders. Through OSNs, individuals from different regions, cultures, companies and professions are forming into self-selecting groups, much like electronic communities of practice (CoPs). These communities blend social and professional interests and relationships together. Information is shared that crosses traditional inter-firm boundaries as well as the boundaries between customers and the firms that market to them. This group-forming behaviour is difficult for companies to control due to the fact that the enabling software is freely available and can be used during personal time or coffee and lunch breaks. Indeed, many users are using their personal cell phones to update their presences on Facebook, LI and Twitter. Traditional senior management control of what information is shared with whom may be eroding as employees, and particularly knowledge workers, form increasingly engaged relationships outside the firm, aided by OSNs. This creates a challenge to company leaders in that strategic and competitively-sensitive information is at risk of being shared in the absence of tight policy and

technology controls. The risks of increased information sharing across organizational boundaries facilitated through OSNs include leakage of sensitive information to competitors, damage to a firm's or a brand's reputation, and decreased productivity due to too much time being spent by employees on personal OSNs during work hours. On the other hand, this online social networking behaviour may represent a significant opportunity to firms in the form of improved problem solving, increased collaborative innovation and enhanced engagement with customers. If, indeed, the locus of control of information sharing is shifting from the management level to the individual level, then companies might best seek ways to harness this shift to their organization's advantage. Firms that wish to gain the benefits from OSN usage will need to have strategies, policies and procedures in place to mitigate the risks that also come with increased usage of OSNs within organizations.

In practice, information is rarely formally shared between different organizations, even when the potential for mutual benefit exists. A famous example of this is the failure of numerous intelligence agencies to thwart the 9/11 attacks, even though sufficient pieces of intelligence likely existed across several different agencies. The fact that the information each agency held was guarded rather than shared has been cited as a contributing factor to the disaster. A more recent example of poor communication between stakeholder companies is the BP oil spill disaster in the US Gulf, where BP, Halliburton and Transocean are seen to have had extreme deficiencies in communicating with one another as the crisis developed.

In recent years, membership in OSN communities has risen dramatically. In June, 2010, Nielsen published stats showing that "three of the world's most popular brands online are social-media related (Facebook, YouTube and Wikipedia) and the world now spends over 110 billion minutes per year on social networks and blog sites. This equates to 22 percent of all time online or one in every four and half minutes." In February 2010, Facebook reported that its user base had grown to 400 million users. In

the same month, LI indicated that its member base had grown to 60 million users worldwide, with 5 million of those having joined in the previous 2 months. Web-based services such as LI allow people to join and create profiles of themselves, including their employment history, schools attended, hobbies and interests. These profiles, which are very similar to extensive resumes, are then posted on the site for others to search. The site allows people to connect voluntarily with others, if mutually agreed-upon by both parties. When two people have connected, they gain access to each other's networks, as well as to increased information about each other. Connections are made based on trust, and the system is self-policing in that violations of norms can be quickly made public for the network to see. Thus, not only are quality networks formed, there is also an expectation that members of these networks will make positive contributions to the well-being of the network overall - perhaps by way of a job referral, or a suggested answer to a challenging problem.

OSNs such as LI help create vast, dispersed clusters of people who "know" one another. For example, a cluster may be built around Person A, who works with inventors to commercialize technologies. Person A has sought-out and connected to an array of people around the world who do the same kind of work – a useful resource base to share ideas and opportunities with. But Person A is also connected to Person B, a development economist in another country who is a friend. Person B has in turn connected with other development professionals she has met and connected to through her shared connections with Person A. The effect is one of a web of clusters and sub-clusters of familiarity that cross boundaries of companies, interests, countries and other traditional dividers of the brick and mortar world.

1.2 Problem statement

This study examines the effect that the active use of a professionally oriented OSN (LI) has had on communication across inter-firm boundaries. OSNs by design are non-vertical communications media that cross organizational boundaries. An OSN user may

be connected to others through common interests, hobbies, CoPs, or other weak social ties. The research examines a selected population of LI users, through a quantitative survey to determine the degree to which users perceive that they have increased their inter-firm communications, and the impact this has had on their ability to collaboratively solve problems. This study also employed qualitative in-depth interviews of selected corporate leaders who have consciously encouraged OSN usage in their firms to gauge the impact these efforts have had on meeting the leader's stated objectives. In brief, the problem statement is: Are OSNs being used by people in organizations for inter-firm collaboration, and if so, what benefits are being realized by this usage?

1.3 Research objectives

As noted above, this study explores changes that have come about in inter-firm communications as a result of using LI. In particular, the research was designed to accomplish the following:

1. To determine whether or not users of LI report experiencing increased numbers of inter-firm social connections as a result of having used LI. In this context, a social connection refers to an individual with whom the respondent is now connected with directly as a result of participating in LI.
2. To determine whether or not users of LI report experiencing improved ability to communicate across inter-firm boundaries. In this context, improved ability to communicate across inter-firm boundaries will be defined by a reported increase in communication with people from other organizations via LI.
3. To determine whether or not users of LI report increased access to problem solving or innovation collaborators in other organizations. In this context, the term innovation collaborator is defined as a person who is able to add value to a particular problem, challenge or dilemma being faced by the respondent.

4. To determine whether or not executives in organizations report a greater amount of organizational problem solving or innovation ability from a conscious use of OSNs in their organizations.

The following research propositions are derived from the above research objectives:

P₁: Usage of LI results in an increased number of inter-firm connections.

P₂: Usage of LI results in an improved ability to communicate across inter-firm boundaries.

P₃: Usage of LI results in greater access to problem solving or innovation collaborators.

P₄: Usage of LI results in increased organizational problem solving or innovation ability.

1.4 Importance of the research

This study is important in that it helps to develop data and methodological approaches to a relatively new phenomenon (OSNs) that is currently understudied, especially in terms of its organizational impacts (Mesgari and Bassellier, 2011).

At the point when the research was undertaken, there was mostly only anecdotal evidence that people were using OSNs in a business context. The rationale for this study in broad terms was to begin to develop some data on how business people are using OSNs and what their experience has been with them in terms of the outcomes and benefits, if any, they have realized from using OSNs in a business context.

If it can be shown that OSNs like LI facilitate the formation of communicative relationships with other individuals across inter-firm boundaries, this may represent a significant opportunity for firms to make use of OSNs in a conscious effort to improve problem solving and increase collaborative innovation. The ultimate aim of this research

would be to suggest an initial set of best practices or guidelines that could be used by managers in a conscious effort to use OSNs to improve aspects of their organization's performance. If the research propositions in this study can be proven in whole or in part, then organizations can be equipped with a set of recommendations on how they could consciously employ OSNs as a tool to foster improved communication across inter-firm boundaries, as well as improved collaborative innovation.

One consideration in this effort is the fact that the typical OSN user is likely an early adopter of technologies, and thus some thought will need to be given to how technologies such as OSNs become diffused throughout organizations. An early adopter has been defined as someone who is between 1 and 2 standard deviations faster than average to adopt a technology, representing approximately 13% of individuals (Berwick, 2003). An informal qualitative poll on LinkedIn conducted in September 2009 confirmed that the vast majority of users considered themselves early adopters of the OSN. Accordingly, any set of best practices that is developed will need to take into account the need to involve early and late majority adopters, and possibly laggards, in the efforts to roll out the usage of OSNs in an organization.

1.5 Delineation of field and scope of the study

This study was limited to the use of OSNs in a business context. Specifically, a population of LinkedIn (LI) users was studied in a mixed method blend of a survey and in-depth interviews. This study was not intended to be generalized to a broader membership of other OSNs. Also, the focus of this study was not to explore people's use of OSNs for specifically social non-business reasons.

1.6 Limitations

The limitations of the study are discussed in greater detail in section 3.6 of this paper. Briefly, the broad limitations of the study relate to the fact that the interview respondents were self-selecting for both the qualitative and quantitative portions of the research, although efforts were made to share the opportunity to participate with as broad a population of LI users as possible. Another broad limitation is that the study focussed on LI users specifically, rather than users of other OSNs. This was due in part to LI's perceptions as being the most business-oriented OSN, which suited the purposes of the study. Another important limitation of this study is the use of a purposive sampling approach. The starting point for the quantitative research was the researcher's own LI network, which is large and broadly spread across the spectrum of LI users as evidenced by comparing such demographic variables as occupation and industry with the overall user statistics published by LI. Nevertheless, the reader is cautioned that the resultant sample of survey respondents cannot be extrapolated with any known degree of accuracy to the entire population of LI, or indeed to any other population of OSN users. Further, the fact that the researcher's networks were built up organically over time partly through belonging to a group that encourages open networking, may have resulted in a larger proportion of open networkers, which may have made the proposition P₁ (Usage of LI results in an increased number of inter-firm connections) somewhat self-evident.

1.7 Overview of online social networks

Online social networks, in their current form, emerged around 2002 and 2003 with the creation of Friendster and LI. Originally conceived as a way for college students to keep in touch with one another, the OSN industry has struggled to find a coherent business model (O'Murchu, Breslin & Decker 2004). Also, businesses are becoming increasingly interested in OSNs for their collaborative potential, and their use as a prospecting tool. A 2007 survey by Information Week found that 48% of businesses were using OSNs for

such activities as viral marketing (a technique in which users of a social network are encouraged to pass along a marketing message to others), recruiting, peer networking and emergency coordination. The rapid proliferation of OSNs such as LI and Facebook presents an interesting opportunity for company leaders. By amalgamating individuals from across different regions, culture, companies and professions into self-selecting communities, it is possible that OSNs might contribute to an increase in collaborative problem solving and innovation through inter-firm relationships.

1.8 Plan of the study

This research involved a blend of quantitative and qualitative research. The purpose of this approach was to gather different data from two distinct populations: OSN users, and senior managers in organizations that have made use of OSNs. Having these two distinct populations allows us to gain different data from different sources. For example, the users of OSNs are best able to report on the perceived outcomes from having used OSNs as individuals, whereas the senior manager group is best-equipped to judge the overall effect that the use of OSNs has had on their organizations. Rather than include a sample of non-users in the study, care was taken to elicit data about respondents' behaviour before they began using OSNs.

Chapter 2 - Theoretical Foundation and Literature Review

2.1 Introduction

This area of research draws upon many current areas of business and management literature. In particular, it draws upon areas such as social networks, weak ties, OSNs, Web 2.0, collaborative innovation, information silos, communities of practice and knowledge management. This chapter examines the literature most relevant to this area of study. It should be noted that academic research on OSNs, specifically in the context of their organizational level impacts is still relatively understudied (Mesgari and Bassellier, 2011).

2.2 Social networks and weak ties

Huczynski (1992) expressed the notion that business managers prefer to understand human behaviour from a psychological, individual perspective. While this may have been the case in the past, there appears to be increased interest in understanding the sociology of consumers and employees. The growth of interest in notions such as social capital as applied to business relationships appears to be paralleling the rise in the use of OSNs and other forms of distributed communities and networks. Cone (2007: 2) describes this shift in management thinking: "The rise of enterprise networks reflects current thinking about the ways companies function beyond the traditional organization chart and the nature of interactions outside management hierarchies... talent and expertise are often more widely distributed across groups than previously understood."

As economists and scholars continue to explore and model the decision making behaviours of the firm, it is clear that the role of managers and leaders within firms is changing and coming under significant pressures. Schneider (2002: 218) suggests that firms are evolving from a bureaucratic form into a stakeholder-driven or "radix" form.

This form of organizations stresses the organization's need to "meet the challenges of fluctuating vertical, lateral and external demands." In this form, the role of the leader is one of managing alliances: the leader becomes more of a facilitator and broker of relationships among the firm's different stakeholders along the value chain. As Schneider states, the leader may need to "encourage the development of networks across multiple members from disparate parts of the organization, or encourage inter-organizational networks, which are then independent of the leader." Clearly networks and collaboration are becoming increasingly important to managers as they deal with more complex, interconnected employees. Cross and Parker (2004) point out some of the challenges posed by the growth of employee networks. In particular, they suggest that the difficulties inherent in managing these networks have led executives to do little more than offer nominal support for these networks: "Managers may tout external networks established through alliances and strategic partnerships, and they're sure to acknowledge the importance of internal employee networks. But aside from developing a community of practice or implementing a collaborative technology, most of them don't take any concrete actions to support these networks" (Cross and Parker, 2004: 4).

The benefits of being more connected are derived in large part due to the presence of a network of people who are able to act as sensors, alerting the company to changes in its environment. Another benefit of these networks is the presence of positive social capital, or the incentive that these networks create for people to help each other. Gumpert (2005: 41) describes the relationship between social capital and social networks as one in which numerous benefits flow, including reciprocity (mutual aid), connections between similar individuals, and bridging networks that "connect people who are similar, and bridging and linking networks that connect individuals and groups diverse in geography, interests, and other characteristics"

Social network ties are especially important to mid-level managers, as they attempt to influence senior management. Bowler, Droege & Anderson (2003) point out that mid-

level managers are in a uniquely advantageous position to formulate sound business strategies. This is due to their vantage point of seeing both the day-to-day front-line activities of the business, as well as their proximity to senior management and seeing the strategic issues dealt with at that level. Yet, the authors argue, it is the structure of the mid-level manager's informal social connections that will in large measure determine whether their plans can successfully be promoted to senior management.

Senior managers also need to understand the importance of social networks, both formal and informal. Singh (2005) points out that firms could learn a great deal more about their environments by encouraging staff to build external collaborative links due to the fact that interpersonal networks are important to the management of complex knowledge and tend to be geographically regional in nature. As a result, there is an advantage to be gained by understanding the degree to which employees are participating in interpersonal networks that cross regional and organizational boundaries.

Cross and Parker (2004) found two aspects of relationships that identify the people whom others seek out when faced with new opportunities and challenges: "First knowing and valuing what another person knows dictates whether and why you will seek out that individual for information or help. Even if all aspects of organizational design support collaboration, people won't connect on new projects if they are unaware of each other skills and expertise. The second predictor is the seeker's ability to gain timely access to that person. Knowing that someone has relevant expertise does little good if you cannot get access to his or her thinking in a timely fashion" (Cross and Parker, 2004: 35-6). OSNs like LI offer an advantage in accomplishing this, as it is possible to put a question out to a vast network of potential experts without needing to know in advance who they are; the experts self-select in order to answer the question and provide expertise. As Cross and Parker (2004) also note: "Ideally networks can *surge*: sense opportunities or problems and rapidly tap into the right expertise for an

effective response. You can't accomplish this by pushing information onto employees. Rather, as new challenges and opportunities arise, employees need to know who has relevant expertise - who knows what in the network" (Cross and Parker, 2004: 31-2).

As Granovetter (2005) suggests there are four core principles that are important in understanding social networks and their economic outcomes:

1. Norms and network density: The denser a network is, the easier it is to communicate a set of behavioural norms. If a network is very dense, there are more information conduits between people, and any expression relating to group norms will travel much more efficiently. This helps increase both trust and social capital as behaviours will be policed much more efficiently.
2. The strength of weak ties: Weak connections between people result in more novel information flowing to each individual. This is due in part to the fact that people with whom we are less strongly acquainted will tend to be less like ourselves, and will have connections to other people that we would normally not be connected with. As a result, these weak connections will be privy to information that normally wouldn't flow through our closer networks.
3. The importance of structural holes: the intersection where clusters or networks join is of key importance. Often, there may be only one person who connects two otherwise separate clusters. These connective people are in a uniquely advantaged position as critical information may flow through them between clusters. These people who are conduits between different clusters can be thought of as exploiting what would otherwise be "structural holes" between clusters.
4. The interpenetration of economic and non-economic action: In social networks, there is often an intermingling of economic motives with other social motives. For example, a company recruiting an employee through a social network is in a position to gain economically through the social goodwill of people in the network, who will act in ways that would help a qualified acquaintance.

These arguments would seem to translate particularly well to the world of OSNs, since the conditions are present to support each of the above principles. On LI for example, networks tend to be both dense and redundant in that they are composed of overlapping clusters. The communication of group norms works very quickly to monitor and discourage undesirable behaviour. Not only are the policies around appropriate behaviour well-communicated on the site, each member can “flag” particular messages as being inappropriate. This makes reputation management a key priority for users, which reinforces the norms of the network. The presence of weak ties is also abundantly evident, as many people have never met face-to-face with their network members, and may in fact never do so. People form clusters based on mutual interests, but many of these ties are quite distant.

Cross and Parker (2004:13) state: “In today's flatter organizations, worth of significance demands effective collaboration within and across functional, physical, and hierarchical boundaries. Now more than ever this work occurs through informal networks of people, providing managers a distinct challenge.” This emphasis on the importance of building networks is reinforced by Gumpert (2005: 40) who states that companies survive by being connected, through “strong internal connections and trusted relationships with customers, suppliers, business allies, and people in the broader community.” Gumpert classifies the benefits derived by these connected companies into four categories. First, companies can benefit from an earlier identification of challenges. By having a broader network of information sources, firms gain better early-warning of developments in their environment. Second, firms benefit from having broader bases for making and implementing decisions. More efficient decision-making can result from having an extended range of opinions to draw upon, and a larger network to communicate decisions through. Third, there is enhanced capacity for innovation, made possible through the combining of talented people across organizational boundaries, as well as enhanced connectedness to the market. Last, Gumpert suggests that companies also benefit from more timely availability of resources, through having greater connections to those in a position to provide those resources.

According to Baker (2003: 12), social capital in a business refers to: “all the resources available in and through an organization’s personal and business networks, including such things as ideas, business opportunities, power, trust, information....” This definition of social capital echoes Handy’s (2002) assertion that a business is a community of people, whose purpose is to accomplish more together than any one individual would be capable of. Going further back, Miller & Vaughan (2001) paraphrase Mary Parker Follett as indicating that “power-with”, or jointly developed power was the most desirable form for a manager to encourage; that it was important to bring all the parts of the organization together into a working unit. Mintzberg (2004) also argues that leadership needs to be diffused throughout the organization; that “anyone with an idea and initiative can be a leader.” Reinforcing these ideas is Drucker (1986: 18) who states that “management is a ‘culture’ in itself, and as such, transcends national boundaries.” These views are well-summarized by Russell Ackoff who suggests that management should treat the corporation as a social system that has several different levels and purposes, some of which are incompatible with one another. This requires that managers learn how to manage the complexity of these systems and treat the organization as a community (Allio, 2003: 22).

Burt (2006) draws a distinction between human capital and social capital. Human capital refers to innate and acquired attributes of the individual (e.g. intelligence, education), whereas social capital refers to advantages that an individual gains by virtue of their place within a social network. Burt’s research indicates that managers with greater social capital are able to get higher returns on their human capital by being exposed to more opportunities. Burt also argues that social capital is a much stronger determinant of success than human capital. Social capital that extends beyond one company’s boundaries, according to Baker (2003), provides five different benefits to organizations. First, this type of social capital enhances the levels and quality of innovation. This is because – with greater social capital – it is possible to pull together the talents of a more diverse group of people that would normally be possible. Innovation is often the product of a diverse group of talents working together to solve a problem, and the organization

can benefit from creating an environment where this is likely to occur. Second, Baker states that social capital across boundaries can enhance the potential for beneficial strategic alliances. By encouraging employees to have relationships that cross company boundaries, the organization is in an advantaged position to see the potential for strategic alliances with other firms. Third, firms can gain improved access to intelligence and organizational learning. This is due to the fact that much learning and intelligence is shared informally, peer-to-peer, across organizational boundaries. By encouraging staff to invest effort in such networks, the company may gain access to intelligence that it would not otherwise have gained. Fourth, Baker suggests that firms that encourage cross-enterprise social networks can benefit from improved access to capital, due to the fact that many financing opportunities are obtained through informal social contact. By encouraging investment in these types of informal networks, the firm is more likely to learn of financing opportunities. Finally, companies benefit through word-of-mouth marketing, since many consumers will make purchases based on recommendations from social contacts, however casual. In summary, an extended network high in social capital can greatly benefit the companies that invest in these networks.

As noted by McKenzie and van Winkelen (2006) companies are increasingly collaborating in order to gain access to a broader base of knowledge in an efficient manner, creating partnering relationships that are intended to add value and flexibility to each organization. It is important that the knowledge flow mechanisms are well thought-out and effectively managed; otherwise time and money can be wasted, and the value of the partnership diminished.

Clearly, the study of social capital and social networks is not new. The recent resurgence of interest in these areas in business may have to do with enabling technologies, such as OSNs that make the creation, support and measurement of informal social networks possible. One particularly interesting area of potential scholarship is in the area of measuring the social capital of, and benefits from, online

social networks. Through further research and the development of measurement models, it may become possible for a firm to justify encouraging its staff to be active participants in OSNs due to a tangible return on social capital that results from these activities.

2.3 Online social networks

OSNs, in their current form, emerged around 2002 and 2003 with the creation of Friendster and LI. Originally conceived as a way for college students to keep in touch with one another, the OSN industry has struggled to find a coherent business model (O'Murchu, Breslin & Decker, 2004). Nevertheless, businesses are becoming increasingly interested in OSNs for their collaborative potential, and their use as a prospecting tool. A 2007 survey by Information Week found that 48% of businesses were using OSNs for such activities as viral marketing, recruiting, peer networking and emergency coordination. The rapid proliferation of OSNs such as LI, MySpace, and Facebook presents an interesting opportunity for company leaders. By amalgamating individuals from across different regions, culture, companies and professions into self-selecting communities, it is possible that OSNs might contribute to a lessening of the effect of silos or stovepipes in organizations.

OSNs are not without their risks and negative impacts as well, including such activities as the automated gathering of profile information on individuals in order to misuse the information gathered for targeted attacks (Balduzzi, Platzer, Holz, Kirda, Balzarotti & Kruegel, 2010). Other potential negative impacts of the use of OSNs include organizational loss of control over messaging about the organization, confusing and contradictory messages coming from different departments through OSNs and counter-productive habits such as 'Facebook addiction' in which too much time is spent on OSNs at the expense of other tasks (Kaplan and Haenlein, 2010). A study by Deloitte LLP (2009) also identified damage to an organization's reputation as another risk of

OSN usage. According to Chaudhary, Frisby-Czerwinski & Del Giudice (2011) the risks associated with OSN usage can be mitigated to some extent through the creation of a multidisciplinary team to set OSN strategy, the undertaking of a risk assessment, the development of OSN policy guidelines on appropriate usage, and the provision of training to staff. According to Deloitte LLP (2009) the efforts to encourage appropriate usage of OSNs also should be reinforced by senior management as part of the organization's overall culture and values. Becker and Chen (2009) also discuss the role of automated software solutions to highlight sources of privacy risk in the usage of OSNs in order to raise awareness of the issue and to allow organizations to formulate appropriate responses.

In recent years, membership in OSN communities has risen dramatically. These Web-based services allow people to join, and to create profiles of themselves, including their employment history, schools attended, hobbies and interests. Using the example of LI, these profiles are very similar to summary biographies which are then posted on the site for others to search. The site allows people to voluntarily connect with others, if mutually agreed-upon by both parties. When two people have connected, they gain access to each other's networks, as well as to increased information about each other. Connections are made based on trust, and the system is self-policing in that violations of norms can be quickly made public for the network to see. Thus, not only are quality networks formed, there is also an expectation that members of these networks will make positive contributions to the overall well-being of the network – perhaps by way of a job referral, or a suggested answer to a challenging problem.

Online social networks like LI help create vast, dispersed clusters of people who “know” one another. For example, a cluster may be built around Person A, who works with inventors to commercialize technologies. Person A has sought-out and connected to an array of people around the world who do the same kind of work – a useful resource base for the sharing of ideas and opportunities. However, Person A is also connected to

Person B, a development economist in another country. Person B has in turn connected with other development professionals she has met and connected to through her shared connections with Person A. The effect is one of a web of clusters and sub-clusters of familiarity that cross boundaries of companies, interests, countries and other traditional dividers and silos of the brick and mortar world.

OSNs have evolved very rapidly in recent years. The antecedents of current OSNs can be found in Usenet, the original bulletin board structure that was part of the earliest, pre-Web Internet. This network linked primarily scientists, engineers and government workers in support of defence initiatives. Essentially, Usenet was a private club in the early days, but later broadened out to be accessible to all Internet users (Reid and Gray 2007). The current versions of OSNs began appearing in 2002, and became popular in 2003 with the release of Friendster and LI. LI is particularly relevant to the planned research because it is a business-oriented site that tends to attract knowledge workers – a good universe for researching the effects of OSNs on companies and employees. LI uses a common protocol, called “friend-of-a-friend” or FOAF. The process by which this works is that an initial core group of users sends out invitations to connect to people they know, who in turn invite people they know to connect. The result is that each user in the network is connected to somebody else. LI allows users complete access to the profiles and email addresses of first-degree contacts - those people one knows directly - but also lets users see the profiles of friends-of-friends, as well as friends-of-friends-of-friends. For example, a network of 400 first-degree friends can permit access to 100,000 second-degree friends, and over 1,000,000 third-degree friends. This platform permits a huge amount of clusters and sub-clusters to form, which greatly enhances the degree of connectedness among members, across both company and geographic boundaries.

Paxhia (2008) suggests several emerging trends developing alongside the increased usage of social media in companies. Among these are an increased appetite for

innovative technologies that assist workers in finding newer and deeper solutions to challenging problems, as well as a growing emphasis on building communities geared toward innovation. Paxhia (2008: 10) notes: "...organizations are seeking solutions that link their customers and partners with key suppliers and producers, and that smooth the flow of essential information across their value chain. The rapid growth in the social media marketplace promises many opportunities to reduce information management costs, improve the efficiency of specific operations and increase the quantity and richness of customer interactions."

There are many reasons why people participate in OSNs, and there is a good opportunity for more scholarly research into this issue. For example, people may choose to participate in OSNs for reasons such as: access to greater social capital; a greater return on an investment in social capital; a greater return on their own human capital; a desire to get around social or other barriers to career mobility or advancement; a desire to enhance a particular job function such as sales, marketing or recruitment of talent; or to socialize and otherwise broaden their horizons. As Schlack, Jennings and Austin (2007: 2) note: "The technologies that have fuelled this culture of connection have also provided new ways for individuals, groups, organizations and whole communities to actively and iteratively construct identity, obtain higher status and generate relationships with countless others."

One clear motivation for individuals to participate in OSNs is to gain access to enhanced social capital. Social capital is defined by Robison, Schmid & Siles (2002: 6) as "a person's sympathy toward another person or group that may produce a potential benefit, advantage, and preferential treatment for another person or group of persons beyond that expected in an exchange relationship." This definition is a useful one for considering the social capital of OSNs, as the typical OSN connection is a weak one, often someone who has not been met in-person. Yet social capital is one of the main attractions for people who get involved with OSNs. With the growth noted previously in these forms of online social networking it may be useful to consider the diminished role

that face-to-face networking plays in these purely online forms of relationships. It might be the case that other factors, such as the availability of a complete profile and recommendations by peers may help to build trust and lessen the need for face-to-face interactions.

The social networking phenomenon relies extensively on mutual trust (Boulos and Wheeler, 2007). This trust allows weakly tied connections to do more to help one another. Trust is reinforced by rules of engagement that force people to be invited into the network by someone who, in effect “vouches” for them by offering to join networks. In the case of LI, online behaviour is carefully policed both by users and the site’s management, and there are punitive measures for “anti-social” behaviour. For example, invitation privileges can be taken away if a person sends too many unwelcome connection invitations. These collective norms help build social capital, and create an atmosphere where helpful relationships and clusters can be built. As Levine and Kurzban (2006) note, when everyone in an OSN has a stake in each other’s well-being, then there is a concrete incentive for members to do good for one another, creating a “cascading” set of benefits.

Goold and Quinn (1990) suggest that mutual trust is an important ingredient in organizations, and there is the potential for trust to be damaged by overly rigid strategic controls. Paraphrasing Ouichi, the authors also discuss the role of what Ouichi calls “clan control.” Clan control results when a group has a strong sense of shared values and traditions. Also, members are carefully selected to join the clan and then are carefully socialized into the shared values of the clan. The result of this clan structure is that members can be trusted to act in the interests of the shared values of the clan without the need for senior management control. It may even be the case that the clan’s shared values might not necessarily align with those of senior management, which could result in a shift of the locus of control toward the clan if the bonds become stronger than those between the clan members and senior management. The

importance of mutual trust and clan control is also evident in today's OSNs. The existence of self-policing behaviour in an OSN like LI echoes Ouichi's notions of clan controls.

Snowden (2005) discusses the importance of "trust tagging" in knowledge transfer. The concept of trust tagging is that someone who vouches for a third party can create a more trusting relationship between that third party and another acquaintance: "Now imagine that everyone in an organization is within no more than 3° of separation of everyone else, based on a similar trusted relationship. In those circumstances knowledge will flow freely, customer problems can be resolved by personal contact and new ideas will become visible quickly to senior management. Such a program would connect organization in such a way as to create a learning ecology both within the organization and also (potentially) across the boundaries of the organization" (p. 8).

Another feature of OSNs is that they permit experimentation with ideas in a low-risk environment. By asking a social network a question like: "should I do A or B?" a wide variety of responses can be received, many of which will be unfiltered due to the weak nature of the connections between network members. This behaviour allows for what Pascale and Mintzberg (in Goold, 1996) advocated: testing new ideas and approaches in the market, and seeking to learn from the experience.

McKenzie (2006) describes the knowledge shared in business-to-business situations and communities in that business partnerships require that participants have the ability to work outside of their usual organizational frameworks, being able to know when it is appropriate to take risks, be open with information and new learning. The individuals possessing these characteristics can be thought of as boundary spanners, people who can communicate very efficiently across organizational boundaries, as well as build trust and mutual understanding between the partner organizations. In communities, parties are brought together to generate new ideas and learning, and the return to each partner is unknown at the outset. This requires participants to take a risk and be open with

information, while at the same time being effective at communication and listening to the experiences and learning of other organizations.

Social networking software is also useful within the boundaries of an individual firm. As Avram (2006) points out, a system of social networking software was set up for the National Institute of Mental Health in England, which was designed to facilitate knowledge sharing between the main stakeholders in the mental health area. The intention of this software was to encourage differing viewpoints, as opposed to attempting to come up with a single viewpoint. By making use of shared vocabularies, the network was able to stimulate the sharing of knowledge in ways that were both top-down and bottom-up.

Online social networking permits the reshaping of the concept of community, which traditionally had a geographic, neighbourhood basis. Community is increasingly becoming defined socially rather than spatially (Wellman, 2005). Because of the ease of use of social networking software, people are able to create and maintain vastly larger networks of acquaintances than was previously possible. As Wellman (2002: 96) points out, these “networks of networks” can bring together large numbers of people in an atmosphere of trust and shared interests. This is due in part to the Internet’s structure that permits communication and friendship between people who are dispersed in terms of both time and geography, as well as the formation of communities based on shared interests. The Internet is also able to facilitate relationships that may be based on weak ties, specialized or broad ties, as well as relationships between people from different levels of society and organizations.

Nebus (2006) describes some of the mechanisms by which people choose to seek out advice in a network. If the cost of making a contact is high (e.g. contacting a very senior person who might only make time once in a career), then the likelihood of making a contact is diminished, unless the value of the information sought is extremely high, and there is no other possible source of the information. This implies that people in a social

network are constantly making trade-offs between the cost of acquiring information versus the worth of the information being sought. The emergence of OSNs, to a certain extent, may make these trade-offs less dramatic, as widely distributed networks and “networks of networks” allow for a great many more paths to any given source of information. For example, a person may be socially connected to a peer, who happens in turn to be socially connected to a very high-level person with whom the information-seeker has no direct ties. The cost of contacting the peer is minimal, and likewise, the cost to the peer of contacting the high-level person is also minimal. This way, the information can flow from the high-level contact to the information-seeker in a low cost way. OSNs make this possible on a huge scale, by facilitating the accumulation of vast numbers of connections through friends-of-friends-of-friends. This “self-organizing structure” (Kolbitsch and Maurer, 2006: 188) is one of the most powerful features of OSNs, as it allows for increased levels of shared social capital, while minimizing the cost to any one member of the social network.

Wellman (2002: 92) refers to the Internet as having transformed work and community, resulting in what he calls “networked individualism,” a broadened sense of community that greatly enhances overall social capital. This is echoed by O’Murchu, Breslin & Decker (2004) who describe a variety of ways that people make use of OSNs, including personal and professional networking, business development, dating and making new contacts. The OSNs make it easier for people to manage their relationships and networks online, and to form communities and become more engaged with each other.

The importance of structural holes is evident on a site like LI. For example, a scientist who is also a jazz musician may be the link between two otherwise unconnected clusters and it may be a fusion of these two clusters that results in an important insight, or a novel solution to a problem. Finally, there is clearly a mixture of economic and non-economic motivations for being part of an OSN. An individual may join without a specific agenda, yet over time, they may wish to use the network to get a better job. Similarly,

they may help out a weak acquaintance simply as a favour, without expecting or anticipating any economic gain, and yet their enhanced reputation as a result of doing such a favour may indirectly produce an economic gain for them in the future.

In terms of measuring people's levels of connectedness to one another, Gumpert (2005) proposes the following framework to measure the "connective bandwidth" between two people. First, there must be ample evidence of two-way communication between two individuals for them to be considered to have high "bandwidth" in their connection. This two-way communication can take the form of emails or phone calls that contain useful information (as opposed, for example, to "broadcast" emails that are mostly unidirectional in intent). Second, there must be availability and use of face-to-face communications between the two participants. Third, there needs to be a history of knowledge transfer between the two parties, consisting of truthful and unguarded exchanges. Fourth, there has to be evidence of the willingness to persuade each other, and consider conflicting viewpoints. Fifth, there must be a demonstrated willingness to problem-solve together and provide support to each other. Finally, each person must perceive a high value in being connected with the other.

Given the above framework, it appears as though OSNs are not likely capable of fostering extremely "high bandwidth" connectedness, given the distributed and relatively casual connections that many users create on networks like LI. The main strength of OSNs appear to be in the creation of a forum for unguarded information sharing – since stakes are relatively low, people are willing to offer opinions and suggestions very freely. On LI, for example, there is a very active "question and answer" (Q&A) section on the site that features hundreds of questions on a variety of mostly business-oriented topics, and there are typically many answers offered from the user's network of connections.

2.4 Web 2.0 and collaboration

OSNs have evolved concurrently with the phenomenon popularly known as “Web 2.0.” The World Wide Web was originally used as primarily a broadcast medium (Berthon, Pitt & Watson, 1996). Information tended to travel one-way from someone who placed content on a website, to someone who came across that website. More recent developments have emphasized the creation of content by the users themselves. Examples of this include blogs, wikis, and more recently, online social networking sites. Collectively, these developments are often referred to as “Web 2.0.”

As Paxhia (2008: 10) notes, Web 2.0 represents a significant advance in Internet-based communication: “The improvements in Internet infrastructure often associated with Web 2.0 are enabling a new generation of collaboration and content-sharing solutions. Technologies such as blogs, wikis, tag clouds, social networks and podcasts blend user-generated content with ad hoc information-sharing capabilities on one hand and with data about the people involved and the tasks they are doing on the other.”

Dearstyne (2007) describes Web 2.0 as having three distinct traits. First, the Web 2.0 environment is characterized by a collaborative approach to work. Rather than having content dictated by a central source, as was previously the case with website “owners,” participants are now able to contribute their own material to a site. As well, contributors can build upon previous contributions by others, to create an evolving body of content. Second, Web 2.0 has several distinct traits. The first is a collaborative work style along with a collaborative mind-set that encourages participants to contribute their own material and build upon the work of others. The second is that Web.2.0 has several very versatile tools that allow for easy collaboration and interaction between users. Finally, Web 2.0 benefits from software that makes these types of collaborations possible. Software tools such as wikis and blogs make it simple for even novice users to be involved in the gathering and presentation of shared information. These features, due to

their participatory nature, may contribute to breaking down organizational silos. OSNs for example, might benefit from the ability to share in the creation and organization of content.

Typaldos (2000) cites 12 principles which are needed to have an effective online community. The first of these relates to having a shared or collaborative purpose in being members of the community. Without this, the community cannot succeed. Second, there needs to be a clear sense of identity for each person involved in the network – members need to know with whom they are dealing. A third important aspect is that members' reputations must be able to be tracked and enhanced through member actions. Fourth, shared governance or self-regulation is a further precursor to success in an online community. Fifth, having the means to communicate and share ideas in different and easily-accessible ways is also crucial. These means of communication may include both synchronous (such as live chat, phone, in-person) as well as asynchronous (email, message boards, newsletters) means. Blends of synchronous and asynchronous communications methods are important in ensuring that network members can communicate freely at whatever time happens to suit them. The sixth principle of success is that members of the network also need to be able to segment themselves into smaller groups, by interests or other affiliations. A seventh feature of successful networks is that they have an environment that encourages participation. The characteristics of such an environment can include an easy to navigate site and easy access to relevant content. The eighth principle is a set of boundaries, where all members know who is inside the network and who is outside. This can be reinforced by rules that restrict privileged content to members only. There also need to be boundaries on subgroups; for example if members of a subgroup in the network who are collaborating on a particular project need to be able to both include and exclude particular members from the group. The importance of these boundaries is that they serve as an incentive for members to join the group or subgroup. Trust is the ninth principle, and members need to be able to build trust over time. There are two forms of trust that are important: the trust between each member and the operator of the community; and trust between individual members. The latter form of trust must be able

to be manifested and documented through behaviours that can be observed by others. The tenth principle is that there must be an exchange between members that is of value to each participant. This value can be in the form of information, making connections, or other forms of social capital. The eleventh principle is expression, or the ability for each member to show to the group what is unique about themselves, and for others in the community to see what other members are doing or choosing to express. The twelfth and final condition for an effective online community is history, or an ability for the community to keep track of the past and remember what has transpired previously. In the methodology chapter which follows, LI is used as an example of an online community that exemplifies all of these 12 principles, thus making LI an appropriate choice of population for study.

2.5 Collaborative innovation

Leucke and Katz (2003:2) define innovation as the “embodiment, combination or synthesis of knowledge in original, relevant, valued new products, processes or services.” Innovation is the life-blood of modern business. In a globally competitive marketplace where ideas and information flow freely, it is more difficult than ever to get even slightly ahead of the competition. Consumers are better informed than at any point in history and have multiple options when purchasing products and services. This results in increased pressures on firms to innovate in order to gain an advantage. With Web 2.0, many companies are engaging in a much more intense dialogue with their customers, which effectively brings the customer into the product design and innovation function within the company.

The ability to remain secretive in the innovation realm is getting beyond the grasp of many companies. After all, the same customers who are demanding a particular improvement in a product may be likely making the same demands or suggestions to other companies in the same industry. It thus becomes less and less sustainable for

companies to keep secret their plans for innovation, since the source of these innovations is increasingly democratized, and may include customer ideas that are not trade secrets of the firm itself. Similarly, employees are increasingly making cross-company linkages with each through online communities, CoPs, and OSNs. Greatly aided by Web 2.0 technologies such as online social networks, blogs and wikis, these relationships permit sharing of knowledge across organizational boundaries, creating so-called “small worlds” of innovation that foster creativity (Fleming and Marx, 2006: 6). The authors point out that management needs to focus on people described as gatekeepers, who are experts that span across organizational boundaries and stimulate the intentional sharing of technical information between organizations. These so-called small worlds are resulting in a shift from a proprietary, siloed approach to a firm’s information, to a more open, porous approach to information sharing. These small worlds are typified by dense and overlapping clusters that greatly enhance trust through the reduction of unwanted behaviour and the communication of group norms. Clearly, OSNs are enablers of small world behaviour. By having an easy-to-use platform that supports these types of dense, interconnected linkages, online collaborative networks offer the potential for much greater innovation and creativity by making it possible to share ideas across a vast network of weak ties, with the necessary level of trust built-in through the social capital inherent in the network. As Chesbrough (2006: 37) notes “Companies’ solid boundaries are being transformed into a semi-permeable membrane that enables innovation to move more easily between the external environment and the companies’ internal innovation process.”

The increased interconnectedness that is made possible through new technologies permits the growth of vast collaboration networks. There is nothing new about collaborative networks, as they have been the basis of society throughout history. Groups of experts, ranging from guilds, CoPs and online communities such as Usenet have been in existence for a long time. These have tended to be constructed of one-to-one, or one-to-many, relationships. The difference is that Web 2.0 and related technologies facilitate the amassing of a large number of many-to-many relationships. Reed’s third law (Reed, 2001) points out that many-to-many networks have far greater

total value than one-to-one or one-to-many networks. As an example, a network of 40 people organized in a many-to-many fashion, would have a value that is 680 million times more valuable than the same network of 40 people who are organized in one-to-one relationships. The reason behind this is the number of possible groups (of 2, 3, 4 members and so on) equals 2^n , where n equals the number of participants in the network. The value of the network to each individual member increases exponentially in the proportion of 2^n . A current illustration of this is that a person can post a question on a many-to-many Web-based network, and can receive helpful answers from people they have not been connected with before.

Firms have begun tapping into the power of these networks in order to increase innovation and problem-solving. Typaldos (2000) notes that OSNs permit the formation of CoPs that are unrestrained by time zones or geography, and can result increased sharing of the intellectual capital that is housed in different organizations, leading to improved product development, cost-saving initiatives and similar improvements. The more people partake in such networks, the value of the network as a whole increases, approaching Reed's 2^n value.

Firms are also increasingly collaborating in order to extend the reach of their collective knowledge. Yannakou (2006) indicates that research organizations are evolving from "managing people as resources/assets in a top-down and silo manner, to a more collegial knowledge worker approach..." In order for collaborative networks to be effective at encouraging innovation, there must be a high level of trust (McKenzie and van Winkelen, 2006) in order to permit the sharing of tacit information, a key ingredient in innovation. Adler (2002) indicates that there are three key components to building this type of trust, including direct interpersonal contact, reputation and institutional context. It should be noted that this type of shift from a top-down management model toward a more collegial one is not without risks. If lateral, distributed networks become more important over time than vertical ones, certain risks to an organization can emerge. In the case of the widespread use of OSNs, some key risks have been identified. These risks include the leakage of sensitive information to competitors or other negatively-

intentioned individuals or groups, the risk of damage to an organization's or a brand's reputation, and the loss of productivity due to time being spent on personal OSNs during work hours (Chaudhary, Frisby-Czerwinski & Del Giudice, 2011). Clearly, organizations that wish to encourage wider usage of OSNs by their employees will need to set guidelines that will mitigate these and other related risks.

Innovation is also essential to new product development and marketing. Marketing is being transformed significantly through technology (McKenna, 1991). One of the effects of technology has been to radically change the nature of consumer choice. All businesses are now required to contribute to the information economy, even those that might have been considered "non-technology" businesses in the past. The amount of information now available to consumers means that the marketing function must evolve. Marketing now involves obtaining and making sense of information. McKenna (1991) suggests that this knowledge-based approach to marketing can be used to involve the firm's customers in the product design process so as to better tailor products to the customer, and to better identify niche market segments and improve the infrastructure of suppliers and other business partners.

Clearly the requirements of knowledge-based marketing are facilitated by the Internet, and by OSNs in particular. OSNs provide an excellent means of integrating the customer into the company, and forming information-sharing networks with other stakeholders such as suppliers and vendors. The importance of constant adaptation to the customer's needs (Rust and Oliver, 1994) is also facilitated by OSNs. The ability of OSNs to create social networks across company boundaries has the potential to be a major facilitator of knowledge-based marketing.

The importance of segmentation of markets is discussed by Clancy (1990), who points out that new technologies will permit more extensive and fruitful segmentation of customers. Although written in the pre-worldwide web era, this paper does a good job of

accurately presaging the ease with which new data technologies now permit almost a one-to-one interaction with each customer. This is taken to an even more intense degree through OSNs, which effectively allow for the seamless sensing and processing of opinions across the company/customer barrier. It should be noted though, that a large number of finely segmented markets is not necessarily to a firm's benefit (Quelch and Kenny, 1994). By producing a very wide array of products for a large number of small segments, firms risk spreading their marketing efforts and messages far too thinly to be effective. This may prove to be a shortcoming of any marketing effort that strives to harness the sensing power of OSNs. If one listens to too many voices, how much useful and actionable information can actually be gathered?

Cone (2007: 1) describes OSNs as a “nervous system for the enterprise.” This is an important concept, as the role that OSNs can play in organizations may be akin to that of a brain – a web of interconnected linkages that serves as a knowledge transfer and sensing organ. The potential for OSNs to permit behaviours that result in early sensing and sharing of market signals can be an important asset to a firm. This notion of information sharing across boundaries being a source of competitive advantage appears to be somewhat contrary to the resource-based view of the firm (Barney, 2001), which suggests that the source of competitive advantage to a firm lies in protecting, not sharing, those attributes that give the firm a competitive advantage. On the other hand, it may be that the cross-boundary sharing that OSNs permits simply becomes another asset for the firm to protect and exploit. In this way, the most effectively-networked organization is the one that gains an advantage.

Prahalad and Hamel (1994) also point out the need to focus on “clusters” as the unit of analysis for assessing competitiveness. These include clusters of business units, clusters of suppliers, collaborators and governments. Levitt (1960: 143) also argued for seeing marketing as needing to “satisfy the needs of the customer by means of the product and the whole cluster of things associated with creating, delivering, and finally,

consuming it.” This implies a need for information sharing between all the agents that are involved in satisfying customer needs. Hulbert and Pitt (1996) also suggest that a more holistic approach to marketing is needed.

Gouillart and Sturdivant (1994) point out the importance of gaining information from customers, and involving all levels of the organization in the marketing effort of the company. This implies a need to cross organizational boundaries, both internally within the company, and also externally between customers and the firm. The importance of a true dialogue with customers is also highlighted by Berthon, Hulbert & Pitt (1999) as an important factor in successful innovation and customer orientation. In many ways, all of these authors may have presaged the mass Internet and OSNs, since the potential of cross-cluster networks, and information sharing between companies and customers is realized through OSNs. OSNs can function as very effective, low-cost listening and communication devices, capable of detecting what Ansoff (1980: 136) called “weak signals.”

The ability to pick up market signals and intelligence is important for managers. Awaza (2004) identified three separate functions that are involved in the management of intelligence. First, intelligence must be collected and aggregated, from a wide variety of sources. Next, intelligence must be transferred from one person to another, across business units and over time. Finally, sense-making must occur. This process involves understanding the context of the information that has been assembled using various models or metaphors.

It appears that OSNs may have a role to play in this gathering, sharing and transferring of intelligence. By virtue of the connections among network members, the gathering of intelligence, and the transfer of that intelligence, is enhanced through the network, especially via weak connections which tend to provide less filtered information. As

Mintzberg and Westley (2001) indicated, there is a role to be played by “seeing first” or being able to gain sudden insights from having been steeped in information over time, while the brain works unconsciously to solve a problem. The use of an extended social network online might facilitate this process by making it possible to gain access to a vaster pool of intelligence, which in turn, may help foster the occurrence of a “eureka” moment. In other words, the act of people sharing what they know explicitly can result in the serendipitous unearthing of tacit, or hidden, knowledge. The greater the size of professional networks, and the greater influx of ideas from different sources, the much more likely it is that significant innovations will be produced.

Mintzberg (1987) also described a process where emergent strategies end up reshaping an organization’s intended strategy, resulting in a reshaped strategy that was different than was originally intended. These emergent strategies can be the result of ongoing signals from the organization’s environment. Again, it would seem that OSNs could have a role in making emergent strategies more apparent and plentiful, due to the many sources of information contained in the social network.

Ansoff (1987) argued that several features should be included in an emerging paradigm of strategic behaviour. Though dated, it is interesting to note how many of these features appear to be facilitated by OSNs. First, Ansoff suggests that the viewpoint of the organization should include multiple influences, including political, sociological and psychological viewpoints. OSNs facilitate this through the clustering of multiple networks across a wide variety of common interests. Next, Ansoff suggests that the problem space of the paradigm should focus on the interaction of strategic behaviour with the configuration and dynamics of the organization. By allowing for information flow beyond the boundaries of the organization, perhaps OSNs allow for a particular form of strategic behaviour: that of distributed decision-making. The facility with which OSNs can support continuous learning and communication on an instantaneous basis also fits with

Ansoff's assertion that a new paradigm should focus on sensing, deciding and executing in a holistic manner.

2.6 Information silos as a hindrance to collaboration and innovation

Snowden (2005: 7-8) points out that "The type of problems addressed by (OSNs) include the perennial issues of cross-silo collaboration within and across the boundaries or organizations; the production of locally situated solutions that can utilize local cultures and capabilities, rather than attempting to impose a homogenous solution developed in one culture and learning environment; and to provide an alternative mechanism for the distribution of constrained resources." This suggests that a conscious attempt to promote and harness the use of OSNs might allow for more beneficial exchanges and collaborative innovation by subverting cultural and organizational boundaries and hierarchies. Part of the reason for this might be an OSN's ability to facilitate the interaction of people who don't know one another directly to communicate and share problems and ideas. A corollary of this might be that the inability to have this type of communication and idea sharing is that information and expertise can remain bottled up in organizational silos.

Organizational silos in organizations exist when people are isolated in individual compartments within an organization. The effects of silos are that information and communication tend only to travel vertically within a particular department or business unit. The result of this is that there is minimal lateral, system-wide communication. Silos in organizations are believed to limit creativity, hamper innovation and diminish overall organizational effectiveness. Information that remains bottled-up in on organizational solo cannot be shared effectively or used in a synergistic way with talented people who remain outside the silo. Cote (2007: 1) describes the effects of organizational silos as being a detriment to efficiency and value-creation in organizations. This is due to a lack of cooperation, internal competition and poor communication. In effect, different

divisions of the firm become competitive with one another which has the effect of reducing overall efficiency. In order to increase efficiency, Cone argues that it is necessary to remove silos in order to enhance value creation by increasing the level of sharing of information and skills across the various units of an organization

There are many reasons why silos have taken hold in organizations. These include the presence of hierarchies and reporting relationships that encourage secretiveness and protectiveness among senior managers. It is common for the different functional areas in a company not to share information with one another, despite the fact that this type of communication would enhance the overall effectiveness of the company.

Goman (2007) points out two recent surveys that show that silos are an important issue for organizations. A study by the American Management Association cited survey results showing that 83 percent of executives say that silos exist in their company, and 97 percent indicated that silos have a negative effect on their organizations. Another study by Industry Week showed that silos were the single greatest hindrance to organizational growth.

In defining silos, Lencioni (2006) focuses on the negative effects of departments working against each other. Silos are defined as the barriers that exist between departments or business units, which cause people to work against each other. Lencioni also asserts that a failure of leadership can lead to the persistence of silo mentalities in organizations because leaders fail to provide a compelling context to work together: "This notion of context is critical. Without it, employees at all levels - especially executives - easily get lost, moving in different directions often at cross-purposes (Lencioni, 2006: 177)." Gumpert (2005) suggest that silos or stovepipes in organizations can form due to a desire for improved functional efficiency, resulting in an individual department focussing almost exclusively on their group's own tasks, and minimizing

communication with other parts of the organization. One possible motivation for this behaviour is the desire on the part of individual managers to enhance their own reputations, which can lead to a lack of willingness to share problems that are being encountered by an individual department with other parts of the organization.

Similarly, information is rarely formally shared between different organizations, even when the potential for mutual benefit exists. A clear example of this is the failure of numerous intelligence agencies to thwart the 9/11 attacks, even though sufficient pieces of intelligence likely existed across several different agencies. The fact that the information each agency held was guarded rather than shared has been cited as a contributing factor to the disaster. It is perhaps telling that the US intelligence community has plans to launch an online, cross-agency, network in December 2007 (Cone, 2007). In the case of the US intelligence community, though, Popp and Poindexter (2006) argue that is not necessary to destroy silos, but rather to provide mechanisms to allow information to flow between them when it makes sense to do so.

Why do organizational silos persist? One reason may be that cultural norms within companies and departments are such that people tend to hire like-minded people, who bond more closely within their own departments and have many of their social needs met in their internal tribes or clusters (Cross and Parker, 2004). Cross and Parker (2004: 18) also suggest the following factors may play a role the development of clusters that lead to the persistence of silos: relative tenure in an organization, gender, age, ethnicity, education, employee status, and task interdependence. Another reason silos persist may be that management may encourage an “us versus them” outlook, both with respect to other departments as well as other companies. Another contributing factor might be that longer hours being worked, as well as geographical distance, makes professional or social interaction with one’s peers in other companies difficult to achieve (Wellman, 2005).

There is evidence that increased connectedness is an essential part of successfully functioning in an increasingly complex business environment. Yet the persistence of silos appears to be a significant roadblock to becoming more connected. Silos appear to inhibit optimal performance in several ways. According to Dell (2005), the root of the problem is that silos encourage too much focus on fulfilling a function rather than process outcome. Dell sees four main ways in which silos inhibit performance. First, Dell argues that silos create duplicated effort because many departments maintain their own systems and data, which results in redundancies and increases errors, while making it difficult to obtain an enterprise-wide view of operations. Second, there are limits to overall organizational efficiency improvements. This is because when any given department is asked to improve efficiency, it does so in its own way, rather than considering how the firm overall can improve results. Third, decision-making is hampered, because the information required for making decisions often resides in different departments or silos. This makes it difficult to assemble organization-wide intelligence that would lead to better decisions. Finally, Dell states that performance measurement and improvement are hampered by silos, again because the necessary performance measures are kept in separate silos.

The creation of a mechanism where relatively unfiltered advice can be shared in a low-risk manner would seem to be a key strength of OSNs. In discussing the challenges of new CEOs, Porter, Lorsch & Nohria (2004) mention that it is very difficult for a CEO to receive unfiltered information, as information flowing upward to the CEO is always filtered. This makes it difficult for the CEO to obtain candid information, and also makes it unlikely that the CEO will hear dissenting opinions. It may be that OSNs could play a role in allowing managers the ability to test out ideas with an extended network who will feel more free to dissent and offer candid, unfiltered advice.

Formal scholarly work on the problem of organizational silos in business is sparse, and clearly in its infancy. There is, however, non-peer-reviewed material available on the

Web which relates to the issue. This suggests that this may be a fruitful area for further exploration.

2.7 Communities of practice

Collaboration for the purposes of sharing knowledge is not a new concept. Guilds have existed since pre-industrial times. The growing complexity of the manager's role has led in recent years to several trends in collaborative efforts, including CoPs, harnessing social networks and knowledge management. Enabled by Web 2.0 and OSNs, CoPs are able to become massive, rapidly-responsive and multifaceted, with multiple points of shared interests and connections.

Wenger and Snyder (2000) describe CoPs as being comprised of individuals who are drawn together by shared expertise and a passion for a shared enterprise. These CoPs are voluntary in nature, and often come into being spontaneously. The authors note several positive benefits that organizations gain from communities of practice. These include driving strategy, generating new lines of business, problem solving, promoting the spread of best practices and recruiting and retaining talent.

Online social networks are in many ways technology-enhanced CoPs. Cross, Laseter, Parker & Velasques (2006) argue for the application of social networking principles to improve CoPs. The authors begin by pointing out the failure of many company "intranets" as vehicles for sharing information throughout a company or community of practice. One of the reasons for this failure is that intranets focused on providing answers, whereas the authors argue that the real essence of modern knowledge work lies in the asking of the right questions, not in seeking pre-packaged answers. Using the example of several CoPs in companies, the importance of lateral networks is established as an important precursor to achieving five distinct sets of benefits. First, the authors observed that participation in lateral networks resulted in improved flow of information and more re-use (as opposed to re-invention) of knowledge. Second, there

was an improved ability to sense problem and opportunity areas. Third, innovation capability was substantially enhanced through the connections between bright people eager to solve the same problem. Fourth, the networks were successful at encouraging and nurturing interactions that resulted in mutual value for all participants. Finally, employee engagement was enhanced through participation in community activities and behaviours.

When CoPs began to be popularized around fifteen years ago, they were seen as a way to share learning with peers or people facing similar challenges. Participation in the community was typically voluntary, and the requirement to actively participate in the community was largely unenforceable. In studying an example at the firm Halliburton, Cross, Laseter, Parker & Velasques (2006) found that the creation of a global CoP, across several areas of the firm, had the following results: customer dissatisfaction was lowered by 24 percent; the cost of poor quality was reduced by 66 percent; new product revenue increased by 22 percent; and operational productivity improved by 10 percent. These improvements were not just the result of creating the CoP; they were in fact also the result of selected network interventions that improved the efficiency of the network. In particular, the company focused on identifying over- and under-connected areas of the network. The resulting improvements to the network had four specific effects.

First, overly-connected people were identified. When analyzing the network, the company found that it was over-relying on three particular Global Technology Advisors. By creating their CoP, Halliburton was able to foster more direct interactions between people with technical problems, and other people across the company who had solutions to those problems. This had the effect of lessening the stress on the overworked Advisors, as well as reducing the bottle-neck effect that had existed due to these overly-connected resources. Second, invisible network silos were discovered and were able to be bridged. Analysis of the network showed that there were unseen silos of information, both geographically and across different functions in the firm. One

operating region of the company had found a way to achieve significant cost-savings, but there was no mechanism in-place to transmit this information to other parts of the company. Third, the interventions and analysis led to an understanding of how expertise was distributed in the network. The presence of the bottleneck created by the three over-taxed technical advisors contributed to a poor knowledge throughout the organization of who had what forms of expertise. The CoP was able to spread this knowledge more effectively throughout the organization. Finally, it was possible for the firm to identify and draw in peripheral network members. The analysis of the network was able to uncover the presence of highly expert people in various parts of the organization, whose expertise had not been accessible to anyone outside their immediate business area. By identifying these people and their skill sets, the company was able to better mobilize these skills through the CoP.

The previous insights from the Halliburton case point to the importance of specific roles within networks. Several key roles in OSNs are evident. Perhaps most important are the roles of “central connectors” and “brokers” (Cross, *et. al.*, 2006). Central connectors are those individuals who are at the centre of clusters and have the greatest number of direct connections to others. These people are disproportionately influential in the functioning of the network. They play a critical role in the diffusion and dissemination of information throughout the network. The loss of a central connector can be very damaging to the network. Also important are “brokers”, who are the connection points between different clusters and sub-clusters in the network. These people are critical in holding the larger network together, and often do so in ways that break down silos or organizational boundaries. Clearly organizations that wish to profit from social networks will need to pay particular attention to identifying and nurturing central connectors and brokers within their networks.

Baker (2003) recommends three tactics for building collaborative relationships and social capital, based on reciprocity. First among these is determining what is motivating

each person to take part in the collaborative network. Being interested in giving to someone without expecting something in return will generate much more social capital overall, and the ultimate return will be even higher than anticipated. Second, Baker advocates that contributions should be focused on specific people. For example, a participant should make a list of several specific people that they should try to assist or people who deserve their help. Finally, Baker recommends that each participant should query the other people in the network to see what assistance they need, rather than speculating.

2.8 Knowledge management

According to Quintas, Jones & Demaid (2002), it is critical for organizations to make managing knowledge a priority because it is in this activity that a sustainable competitive advantage can be enjoyed. There have been a number of attempts at building support systems for the management of knowledge in firms, including intranets, electronic bulletin boards, and other software solutions. It is currently believed that most of these attempts at collecting, storing, sharing and deploying an organization's knowledge assets have underperformed. One of the criticisms of knowledge management (KM) systems is that they focused too heavily on the technical issues related to the storage of information, and not enough on the role of knowledge workers in the design of the KM systems (Malhotra, 2004). This emphasis on storing information, as opposed to understanding how knowledge is formed and used, has led to many KM systems underperforming, and in some cases, being abandoned. One flaw in many KM systems is the inability to capture tacit knowledge, a critical ingredient in innovation. In addition, KM systems have done a poor job of capturing the emotions and contexts related to knowledge (Nonaka and Takeuchi, 1995). Another flaw in KM systems is that they focus on answers rather than questions. The stockpiling of answers in a database does not address the important role that the formulation of questions plays in advancing knowledge, particularly in the area of innovation which is greatly enhanced by the sharing of tacit knowledge among multiple collaborators.

A lack of collaboration is also a drawback that can be present in KM systems. As Malhotra (2004) demonstrates, knowledge is often bottled-up in silos and not shared adequately. This is true in spite of the availability of enabling technologies. Part of the reason for this is a lack of trust as well as a lack of motivation for sharing information. In order to counteract this, a greater emphasis on information sharing cultures on both an intra-organizational and inter-organizational level. The tendency of KM systems to not promote cross-silo sharing of knowledge is an important limitation of these systems. It is important that emerging new solutions to enable collaborative innovation and knowledge sharing address this issue.

As an enhancement to more traditional KM, OSNs have the potential to enhance knowledge transfer by being less static, more living and evolving, which can help innovation through more dynamic sharing of ideas and best practices. As Snowden (2005: 3) points out, OSNs offer an opportunity to “switch from seeing communities as an aggregation of function to the more adaptive concept of coalescences of purpose, and from a primary focus on individuals to one on identity.”

2.9 Summary of findings

This chapter has explored a sampling of the scholarly literature in the subjects most relevant to the study area. A number of conclusions can be drawn from an analysis of these readings. These include the following:

2.9.1 Companies are becoming more interconnected

The increased globalization of business, coupled with electronic communications technologies, has made each firm in the global community much more interconnected.

This trend is also encouraged by the dispersed social and business networks that are enabled through technologies such as Web 2.0, including blogs, wikis and social media such as online OSNs. Companies with greater degrees of connectedness realize several benefits, including an improved ability to sense changes in the environment, broader decision-making bases upon which to draw, enhanced innovativeness and more timely availability of resources.

2.9.2 Social networks are becoming more extended and important

Enabling technologies like OSNs have made it possible for people to form extended networks that cross geographic and organizational boundaries. These networks can be formed based on shared interests in both the professional and personal arenas. The strength of weak ties, and the presence of trust, means that these networks can be disproportionately helpful to people, despite the fact that the relationships in them are often very distant. Individuals who participate in OSNs can realize benefits such as increased return on their own human capital, enhanced innovativeness, improved access to professional opportunities, access to less-filtered advice and a sense of contributing to a community.

2.9.3 Lack of information sharing leads to diminished problem solving capacity

The tendency for firms and business units to isolate themselves into silos remains a persistent problem. The information in these organizational silos tends to travel only vertically rather than horizontally. The result of this is that there is minimal sharing of information and knowledge across the entire organization. This has a number of negative consequences for companies, including duplication of effort, lower efficiency, poorer decision-making, and lessened ability for improvement. Another negative

consequence of organizational silos is a tendency to only look inward, at one's own department, rather than thinking about the greater good of the entire organization, community or industry.

2.9.4 Online social networks facilitate enhanced social capital

Enhanced social capital provides many benefits to members of a network. These benefits include mutually beneficial exchanges of assistance, knowledge, insights and opportunities. The sum benefit of participating in a network that is rich in social capital significantly outweighs what any individual would be able to achieve acting on their own. Individuals make decisions to seek assistance from others based on a cost-benefit trade-off of what the assistance is worth versus what the assistance will cost the asker. The distributed nature of OSNs reduces the cost of seeking assistance to minimal levels, due to the ease with which an individual can both seek and provide assistance. Thus, OSNs are able to enhance the social capital of the clusters of people that are connected through them.

2.9.5 Online social networks can play a role in the management of collaborative innovation

There are a number of key abilities that enhance both the marketing and management functions. Among these are the ability to communicate with customers, the ability to tap into larger pools of expertise, the ability to perceive weak signals in the environment and the ability to receive unfiltered advice. OSNs can help facilitate the above abilities due to the pervasiveness of the networks that can be achieved. These pervasive networks are able to function as vast pools of talent that can be queried for assistance and advice. The fact that these networks cross both organizational and geographic boundaries

means that it is possible to have both competitors and customers in an individual's extended network. These connections can serve as a good source of signals about what is happening in the business environment, and in the minds of customers. The weak connections inherent in these networks also mean that it is possible to get relatively unfiltered advice, since the cost of being very honest is minimal for a weak connection.

Chapter 3 - Research Design

3.1 Introduction

This chapter begins by summarizing the research problem, research objectives and propositions. Following this, the research design and methodology is presented in detail.

3.2 Problem statement

This study examined the effect that the active use of a professionally oriented OSN (LI) has had on communication across inter-firm boundaries. The research examined a selected population of LI users, through a quantitative survey to determine the degree to which users perceive that they have increased their inter-firm communications, and the impact this has had on their ability to collaboratively solve problems. This study also employed qualitative in-depth interviews of selected corporate leaders who have consciously encouraged OSN usage in their firms, in order to gauge the impact these efforts have had on meeting each leader's stated objectives.

3.3 Research objectives

More specifically, the research was designed to address the following research objectives:

1. To determine whether or not users of LI report experiencing increased numbers of inter-firm social connections as a result of having used LI. In this context, a

social connection refers to an individual with whom the respondent is now connected with directly as a result of participating in LI.

2. To determine whether or not users of LI report experiencing improved ability to communicate across inter-firm boundaries. In this context, improved ability to communicate across inter-firm boundaries will be defined by a reported increase in communication with people from other organizations via LI.
3. To determine whether or not users of LI report increased access to problem solving or innovation collaborators in other organizations. In this context, the term innovation collaborator is defined as a person who is able to add value to a particular problem, challenge or dilemma being faced by the respondent.
4. To determine whether or not executives in organizations report a greater amount of organizational problem solving or innovation ability from a conscious use of OSNs in their organizations.

3.4 Research propositions

The following research propositions are derived from the research objectives presented above:

P₁: Usage of LI results in an increased number of inter-firm connections.

P₂: Usage of LI results in an improved ability to communicate across inter-firm boundaries.

P₃: Usage of LI results in greater access to problem solving or innovation collaborators.

P₄: Usage of LI results in increased organizational problem solving or innovation ability.

3.5 Research methodology

This research consists of a review of existing secondary data, as well as mixed method primary data gathered through a series of qualitative interviews and a quantitative survey (Teddlie and Tashakkori, 2009). The review of existing secondary data has been completed and is presented in the previous chapter. The methodology for the qualitative interviews and quantitative survey is presented in the following sections.

3.5.1 Nature of the study

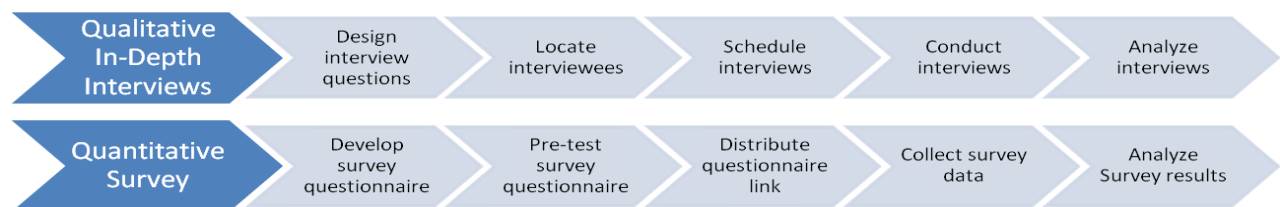
The research gathered in this study is descriptive in nature, rather than causal. Although the study attempts to attribute possible effects of OSN use to organizations, more controlled research would be required to demonstrate a causal link between people's perceptions of how OSN use has changed aspects of their organizations' functioning, and the actual changes observed in the organizations' functioning.

In order to examine the respondents' current social networking situations versus the past, a time dimension was included. Specifically, the questions in the survey instruments were designed so as to include questions about behaviours before using OSNs as well as current behaviours since adopting the use of OSNs. The phenomenon of actively using OSNs for professional purposes is considered recent enough (LI has only been in existence since 2003, and became popularized much more recently) to allow respondents to recall their situations before actively using LI, and to make meaningful comparisons between their pre-OSN and post-OSN behaviours.

3.5.2 Approach and data collection

This research involved a blend of qualitative and quantitative research, also known as a “mixed method” (Teddle and Tashakkori, 2009). The purpose of this approach was to gather different data from two distinct populations: OSN users, and senior executives in organizations that have expressly and consciously embraced the use of OSNs. Having these two distinct populations allowed the gathering of different data from different sources. For example, the users of OSNs are best able to report on the perceived outcomes from having used OSNs as individuals, whereas the senior executive group is best-equipped to judge the overall effect that the use of OSNs has had on their organizations. Rather than include a sample of non-users in the study, care was taken to elicit data about respondents’ behaviour before they began using OSNs. The flow of the research tasks is outlined in figure 3.1, below.

Figure 3.1 Workflow diagram of data-gathering tasks



3.5.3 Qualitative interview methodology

The purpose of the qualitative portion of the research was to determine what the history and experience has been for executives who have consciously embraced the use of OSNs to achieve particular corporate aims. It was envisioned that these aims might include enhancing inter-group communication and idea-sharing, creating greater team cohesion, involving customers and designers in joint innovation, and enhancing innovation in general. Using a semi-structured questionnaire (Cooper and Schindler, 1988), included in Appendix One, respondents were asked about what they were attempting to accomplish by employing OSNs, how well the experiment worked, what the benefits and drawbacks were, and any unintended consequences or benefits that may have emerged. Finally each respondent was queried for recommendations on what questions to ask individual users in the quantitative survey. These latter recommendations were used to inform the final design of the quantitative survey questionnaire.

The profile of the desired interview respondent is shown in the following table.

Table 3.1: Desired respondent profile for in-depth interviews

Attribute	Desired Profile
Rank in company	Mid-to senior level manager or executive
Managerial profile	Has numerous direct reports and is responsible for team engagement and performance
Knowledge of OSNs and related collaborative technologies	Medium to high
Experience with OSNs in company	Has experimented with and/or implemented the use of OSNs for a specific purpose

In order to locate these executive interview respondents, a blend of convenience sampling methods was used, including snowball (Cooper and Schindler, 1998; Bailey, 1994) or referral sampling. Convenience sampling was chosen as an approach because it was estimated that the total universe of respondents with this profile would be very small, given the novelty of OSNs and the fact that they have been slow to be adopted by corporations. A variety of networking activities was undertaken to locate appropriate respondents, including posting a question on the LI Q&A section soliciting people who were willing share their experiences. Each respondent was also asked to recommend others they may know who fit the desired profile. In interviewing this executive group, a semi-structured questionnaire was used. A total of 12 interviews with senior executives was conducted, over the telephone in all but one case, in which email was used.

3.5.4 Quantitative survey methodology

A quantitative survey was also undertaken of OSN users. The universe of study was active users of a professionally-oriented OSN. To be considered robust enough for fruitful analysis, this population needed to have several features:

1. The OSN needed to be focused on professionals and professional networking, as opposed to networks that are more exclusively social in intent such as Facebook or MySpace.
2. The population needed to be large enough to permit a significant number of users to be surveyed.
3. The population needed to be sufficiently dispersed across a range of geography, industry and other professional demographics in order to allow results to be generalized to the overall population of professional OSN users.

4. The population of study also needed to meet Typaldos' (2000) 12 principles of an effective online community. This was to ensure that the online network chosen for analysis had the characteristics of a highly-functioning online community.

LI was chosen as the universe for this study because it exemplified all of the above characteristics. LI is exclusively focused on professionals and professional networking. It is also a large network, with over 60 million members. The membership is spread broadly across a number of regions and countries (over 200 countries and territories). Similarly, the profile of the members spans a wide range of industries (over 170), professions and job ranks, ranging from interns to CEOs. In terms of the Typaldos classification the following table illustrates how LI meets the conditions of an effective online community, thus making LI an appropriate choice of population for study:

Table 3.2: Suitability of LI as a study universe

Typaldos Dimension	LinkedIn Attributes	Suitability for Study Universe
Shared or collaborative purpose for being part of the community	Rules expressly state that professional networking is purpose	Yes
Clear sense of identity for each participant in the network	Each member has a profile that is unique	Yes
Member reputations can be tracked and enhanced through member actions	Members earn recognition for good answers, receive recommendations, can lose privileges through bad behaviour	Yes
Shared governance or self regulation	Members can flag other members' behaviour as bad, sanctions can result	Yes
Ability to communicate and share ideas in different and easily accessible ways	Q&A area; external email; internal LI email; links to member blogs	Yes
Ability for members to segment themselves into smaller groups, by interests or other affiliations	Over 100,000 LI Groups, such as "University of South Africa" and "Dell Alumni"	Yes
Environment that encourages participation	Visible reputation can be enhanced through recognition for expertise & volume of contribution to Q&A	Yes
Members must be able to understand boundaries	Clear indication of who is connected to whom & membership in sub-groups is clear	Yes
Ability for members to build trust over time	Members connect to each other based on mutual trust; members can sever connections in cases of broken trust	Yes
Must be an exchange among members that has value to each member	Members exchange information of value, such as solutions to problems, job opportunities, business referrals	Yes
Ability for each member to express what is unique about themselves	Member profiles can be tailored, including a photo and detailed information about experiences, background and interests	Yes
Ability for the community to keep track of its history	Q&A and other correspondence is maintained in an accessible archive.	Yes

To describe the effects that OSN use has had on individual users, a structured survey questionnaire was used. This questionnaire, which appears in Appendix Two is made up primarily of closed-ended questions, including Likert scales, nominal (lists) and dyadic yes/no type questions. The individual users of OSNs were chosen from the population of LI users. Using LI's Q&A function, a question was posed to an extended network of over fifteen million users to see if people would be willing to participate in a web-based research survey.

3.5.4.1 Sampling

The sampling approach used for the quantitative survey was purposive or judgement sampling (Cooper and Schindler, 1998; Bailey, 1994). In this type of sampling the researcher uses their professional judgement to determine how best to select the respondents. This sampling method has both advantages and disadvantages. The advantage of this sampling method is that it provides a simple means of reaching narrow populations (for example, users of OSNs) by targeting the research efforts toward areas where these individuals collect (for example, LI). The main disadvantage of this sampling method is that it is non-random, which means that the resulting data cannot be projected reliably to a larger population.

The sample for this study was accessed by way of the researcher's own LI network. This network is one of the larger networks on LI, and spans numerous countries, industries and job titles. This network was built up organically over time by belonging to a group that encourages new connections, and there were no efforts to exclude any particular type of individual as a connection. As such, this network was considered to be a suitable sampling frame, as it mirrors the overall LI population well. The table below presents statistics from the researcher Robert Duncan's LI network as at May 12, 2010.

Table 3.3: LI network statistics (May 12, 2010)

Dimension	LinkedIn Network
Number of 1 st level connections	6,167
Number of 2 nd level connections	1,876,900
Number of 3 rd level connections	14,871,800
Total number of connections	16,754,900
Number of industries	137
Number of geographic locations	498

As noted, the sampling method used was a purposive, or judgement sample. The survey questionnaire was made available on a website with a unique web address. The survey address was made available in an email invitation sent out to all 1st level connections (N=6,167). Also, the survey link invitation was posted in a question in the Q&A section of LI. This allowed the question to potentially be seen by an additional 16,000,000+ users at the 2nd and 3rd level of connection, as well as potentially the entire LI user base (N=60 million+).

Predicting the response to the survey was difficult, but it was hoped that at least 200 questionnaires would be completed in order to allow for meaningful analysis, including cross-tabulations. A sample size of at least 50 was desirable for each subgroup to be analysed through cross-tabulations. It was difficult to predict the exact number of completed surveys given the amount of competing electronic information that potential respondents are regularly being flooded with, as well as the relatively high professional status of the respondents. The number of completed surveys was checked on a daily basis, and the decision was made to close off access to the survey when the number of completed questionnaires had greatly exceed the desired minimum number of completed questionnaires, and responses had slowed to one or two per day.

3.5.4.2 The argument against social network analysis (SNA) as a method

One of the methods considered in this research was social network analysis (SNA). This method involves mapping the relationships among members of a network, and surveying the members about their relationships with one another. As noted by Snowdon, this methodology suffers on a number of counts. Snowdon (2005) points out several important weaknesses of SNA as a method, particularly with regard to LI, the chosen study universe. The questionable degree of honesty in answering survey questions about people with whom there may be a power relationship, is an important limitation. Also, the lack of what Snowdon calls “trust tagging” inherent in LI can lead to a distortion of peoples’ public online reputations, since network members will tend to recommend others when their estimation of each other is equally positive, which leaves gaps in the network data. For these reasons, SNA was rejected as a method for this study.

3.6 Limitations

The first limitation of the study has to do with the self-selected nature of the quantitative survey participants. While an attempt was made to mail the survey link out to a representative cross-section of OSN users, it was impossible to control who responded to the survey. Another important limitation of the quantitative portion of the study is the use of a purposive sampling approach. The starting point for the quantitative research was the researcher’s own LI network, which is large and broadly spread across the spectrum of LI users as evidenced by comparing such demographic variables as occupation and industry with the overall user statistics published by LI. Nevertheless, the reader is cautioned that the resultant sample of survey respondents cannot be extrapolated with any known degree of accuracy to the entire population of LI, or indeed to any other population of OSN users. Further, the fact that the researcher’s network

was built up organically over time partly though belonging to a group that encourages open networking, may have resulted in a larger proportion of open networkers, which may have made the proposition P_1 (Usage of LI results in an increased number of inter-firm connections) somewhat self-evident.

Another limitation relates to the manner in which the pool of executives was chosen for interviewing in the qualitative study. These latter were chosen using a convenience method. Evidence (from online searching and other anecdotal sources) that the individual had consciously used OSNs in an attempt to improve business processes was the main criterion for being selected. Further, it was necessary that the executive be highly-placed enough within their organization that they would be capable of reflecting on the impact that OSNs had on their organizations at a holistic-enough level. Judgement was used on this last characteristic, in that individuals were recruited who ideally had a job title at the Director level and above, to CEO.

3.7 Criteria by which exploration is to be judged successful

Parallel mixed data analysis (Teddlie and Tashakkori, 2009) was used to analyze both the qualitative and quantitative data gathered. The qualitative analysis primarily involved thematic analysis of narrative data, while the quantitative analysis focussed on descriptive statistical analysis. The research can be deemed successful if it can demonstrate the perception, on the part of users, of a linkage between the use of OSNs and improved communication across inter-firm boundaries, as well as enhanced communication and greater access to innovative collaboration. The validity of the quantitative research was improved through the use of a standardized questionnaire that was administered to all respondents in exactly the same fashion. In terms of reliability, the quantitative survey method did not intend to survey a random, representative sample of the study universe, and was self-selecting. As such, it would be difficult to impute a high degree of reliability. Further study in this area by other

researchers may help to assess how reliable the survey was, through triangulation of similar findings. Some reliability was, however, suggested by the similarity between the resultant demographic profile of the respondents, and LI's own published statistics. The reliability of the qualitative research was improved through the use of pre-screening criteria that ensured respondents met the desired study profile, and these desired attributes were confirmed at the outset of each interview. A semi-structured questionnaire was used that allowed for each question to be administered to each respondent in the same fashion, but which also allowed respondents to elaborate and offer additional information not specifically asked for in the semi-structured questionnaire. This flexibility should help improve the validity of the qualitative research, since respondents, though guided by the semi-structured questionnaire, had the opportunity to contribute additional information that could have gone beyond the limits of the researcher's precepts. The qualitative research was an important input to the development of the suggested set of best practices, and the reliability of this research was enhanced through triangulation with the separate LI question that was administered, in the LI Q&A section, as well as with the presentation of the proposed best practices framework for further feedback and input from the LI community. The primary ethical concern in this research was the preservation of respondent confidentiality. Confidentiality of responses was promised to the respondents of the quantitative survey and to the respondents of the qualitative in-depth interviews. This confidentiality has been carefully maintained throughout the entire study.

3.8 Toward a suggested set of best practices on using OSNs in organizations

A by-product goal of this research study was to begin to develop a suggested framework for a set of best practices that can be used by managers in a conscious effort to use OSNs to improve aspects of their organization's performance. If the research propositions in this study could be supported in whole or in part, then organizations could be equipped with a set of recommendations on how they could

consciously employ OSNs as a tool to foster improved communication across organizational boundaries, as well as improved collaborative innovation. One consideration in this effort is the fact that the typical OSN user is likely an early adopter of technologies, and thus some thought will need to be given to how technologies such as OSNs become diffused throughout organizations. An informal qualitative poll on LI conducted in September 2009 confirmed that the vast majority of users considered themselves early adopters of the OSN. Accordingly, any set of best practices that is developed will need to take into account the need to involve early and late majority adopters, and possibly laggards, in the efforts to roll out the usage of OSNs in an organization.

Once a draft of a suggested set of best practices was developed, this draft was made available in August, 2011 to the LI user community by way of a question posted in the Q&A section. The feedback received was positive overall, and was used to make slight adjustments and clarification to the suggested set of best practices.

Chapter 4 – Research Results and Interpretation

The following chapter presents the results of the quantitative and qualitative research that was conducted in this study. The quantitative survey results are presented first, followed by the results for the qualitative in-depth interviews and supplementary qualitative research that was undertaken.

4.1 Research results and analysis from quantitative survey

The quantitative portion of the research involved a questionnaire that was administered online using SurveyMonkey software. Working from the research objectives outlined in the previous chapter a series of questions was developed and pre-tested. The survey was in field between May 12th and May 16th, 2010. The target number of completed questionnaires was achieved quickly, and as a result, the survey was closed shortly after more than 400 respondents had completed the survey and responses had decayed to a trickle per day. In all, 513 respondents started the survey, and approximately 90% of these respondents completed the full questionnaire. Individual response counts for many of the questions are somewhat less than 513, as some respondents did not answer every question. In the pre-testing phase, it was observed that using programming logic to force respondents to answer each question was resulting in high degrees of frustration and abandonment, so the decision was made to not force responses to every question, so as to maximize the likelihood that each respondent would complete the questionnaire from beginning to end, even if they skipped some questions. An incentive for completion was used by making the final question the one where respondents could enter a draw to win a prize. On a day to day basis, completion levels were monitored, and after an excess of 400 people had answered each question, the survey was closed, given that the target number of completes had been achieved and more than doubled.

A copy of the questionnaire is included in Appendix Two, and the following sections present the summary findings for each question, along with relevant cross-tabulations and an analysis of the responses. The order of the questions analyzed below is different than the order of the original questionnaire so as to group the questions into a logical sequence of groupings that reflects each major research objective. Cross-tabulations were run for all major demographic variables against all other questions; however comment has only been made where there were meaningful findings. Most of the questions did not show any appreciable variation by demographic group. Selected cross-tabulation tables are included in Appendix Three.

As described in the methodology chapter, the key statistics that were chosen to analyze the data were descriptive in nature. Frequencies and cross-tabulations were the predominant method used to summarize the results of Likert scale questions. In order to more clearly present the results of the Likert scale questions, the middle neutral value was suppressed in order to highlight the levels of agreement and disagreement with the question statements. The reason for choosing this approach was that a substantial number of respondents had picked the middle or neutral point in the scale for many of the questions. While there may be many different reasons for this, including a genuine opinion that was neutral, it was decided that a more useful presentation of this data would be to knock out the neutral responses. This serves to better highlight the areas of agreement and disagreement. Data tables with the neutral value included and with the neutral value knocked out have been included in Appendix Four for further reference. Since the study involved a non-random purposive or judgement sample (Cooper and Schindler, 1998; Bailey, 1994) that was self-selecting, care was taken to avoid imputing false precision through the use of other statistics that rely on normal distributions. Also, the nature of the questions and scales used did not lend themselves to very helpful interpretations using means, medians or modes (Reinard, 2006); the frequency distributions were sufficient to tell the story of the data in a clear and meaningful manner.

Some assessment of representativeness was possible by comparing certain results of the survey (such as age, country of residence and occupation) with statistical data available from LI, and there was sufficient similarity in the distribution of the answers to give confidence that the sample was not unrepresentative of the LI population overall. Another means of encouraging representativeness was the fact that the survey announcement was posted in public locations on LI that should not have systematically excluded any groups or individuals. Validity was enhanced through the use of a standard set of questions that were administered consistently to all respondents. Future research can help to determine the repeatability of these study results, and it would be a helpful addition to the body of knowledge for future research to consider more random samples, possibility among the general population, as incidence rates of OSN usage become high enough to make this approach more feasible.

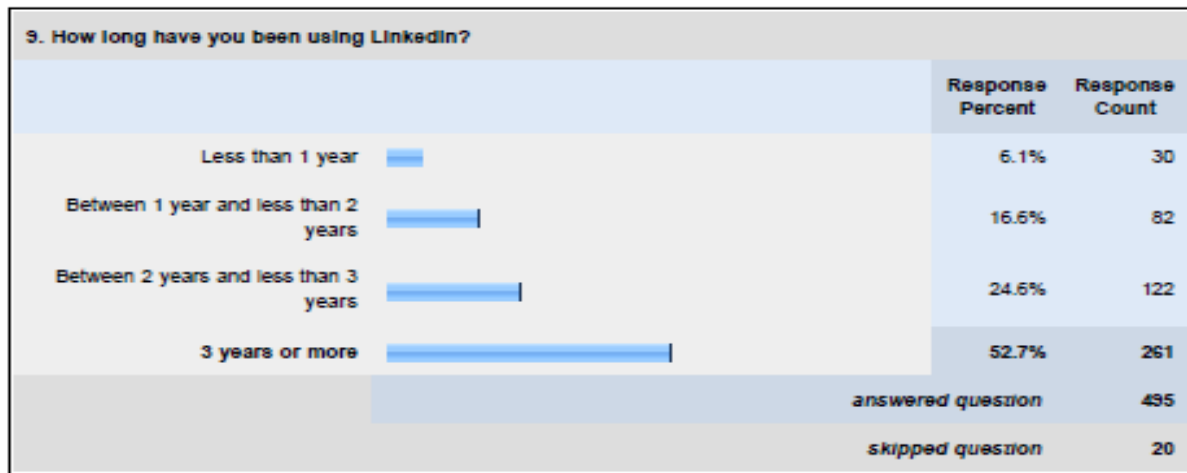
Profile of respondents

The following set of responses relate to profiling the respondents in terms of their usage of LI and other online social networks, their organization type and size, and their personal demographic information.

Individual usage of LinkedIn

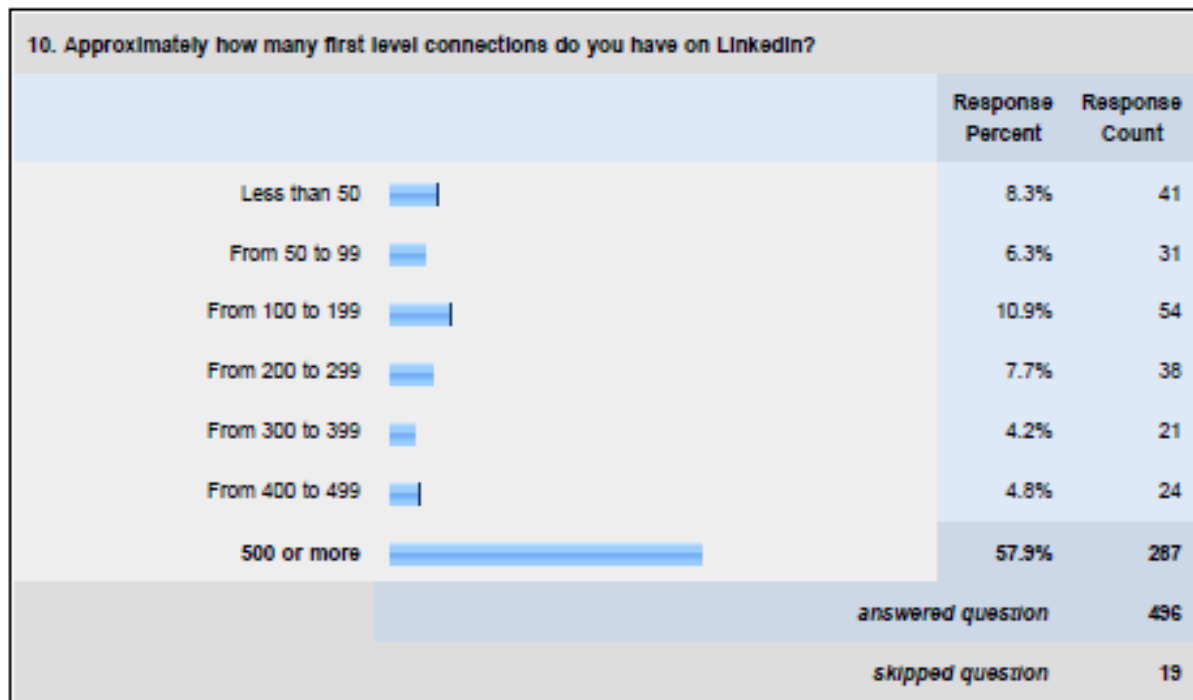
A question was included in order to confirm that each respondent was a user of LI, which was a requirement to take part in the survey. In all, over 99% of the respondents confirmed that they were LI users. Three individual respondents answered no to this question, but given the negligible number, and the fact that many of the later questions deal with general issues beyond LI itself, it was decided to leave these three respondents in the overall dataset. The main purpose of the question was to prevent large numbers of unqualified respondents from taking the survey only to enter the prize draw, but this behaviour was not observed.

Chart 4.1: Length of time using LI



In order to profile respondents in terms of the length of time they had been using LI, a question was included to measure the number of years that people had been using LI. Just over half of the respondents (52.7%) have been using LI for 3 years or longer, while 24.6% have been using it for between 2 and 3 years, 16.6% have been using it for between 1 and 2 years, and 6.1% have used LI for less than 1 year. This finding suggests that the profile of the respondents is that of long-time experienced users of LI, the vast majority having over 2 years of experience with LI.

Chart 4.2: Number of first level connections on LI

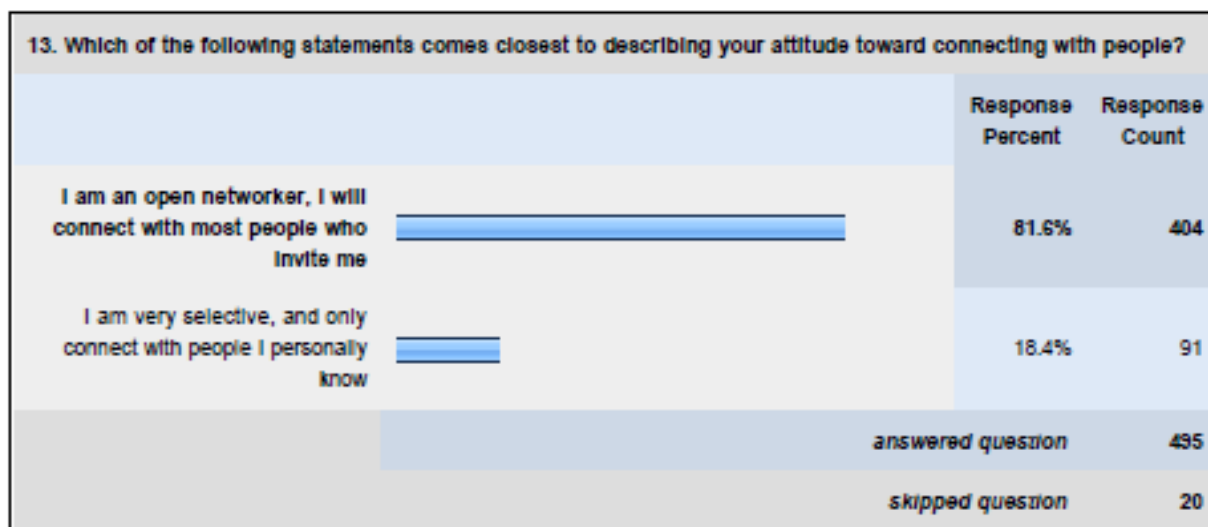


In order to profile respondents in terms of their degree of connectedness with other LI users, a question was asked about the number of members each person has in their own LI network. The results indicate that a significant majority (57.9%) have more than 500 connections, indicating that the respondent base is highly connected. The decision to have the final break at 500 or more was based on LI's use of this (500+) as the highest number that is reported on an individual user's profile; no detail of the exact number of connections above 500 is shown on individual profile pages. Nonetheless, the data suggests that it might be fruitful to put additional breaks into similar questions in future research, perhaps 500-999, 1,000-1499 and 1,500 and above, in order to gain more insight into the network sizes of highly connected LI users.

Open versus closed networkers

There has been ongoing debate in LI Q&A discussions about whether it is better to be an “open networker,” who is willing to connect with just about anybody, or whether LI should only be used for close personal contacts that the user has actually met in person (“closed networker”). This is one of the more heated debates on LI, and there is no apparent consensus on which is better. In order to gauge the relative numbers of open versus closed networkers in the population of study, respondents were asked to choose which of two statements best described their approach to networking.

Chart 4.3: Open versus closed networking preference

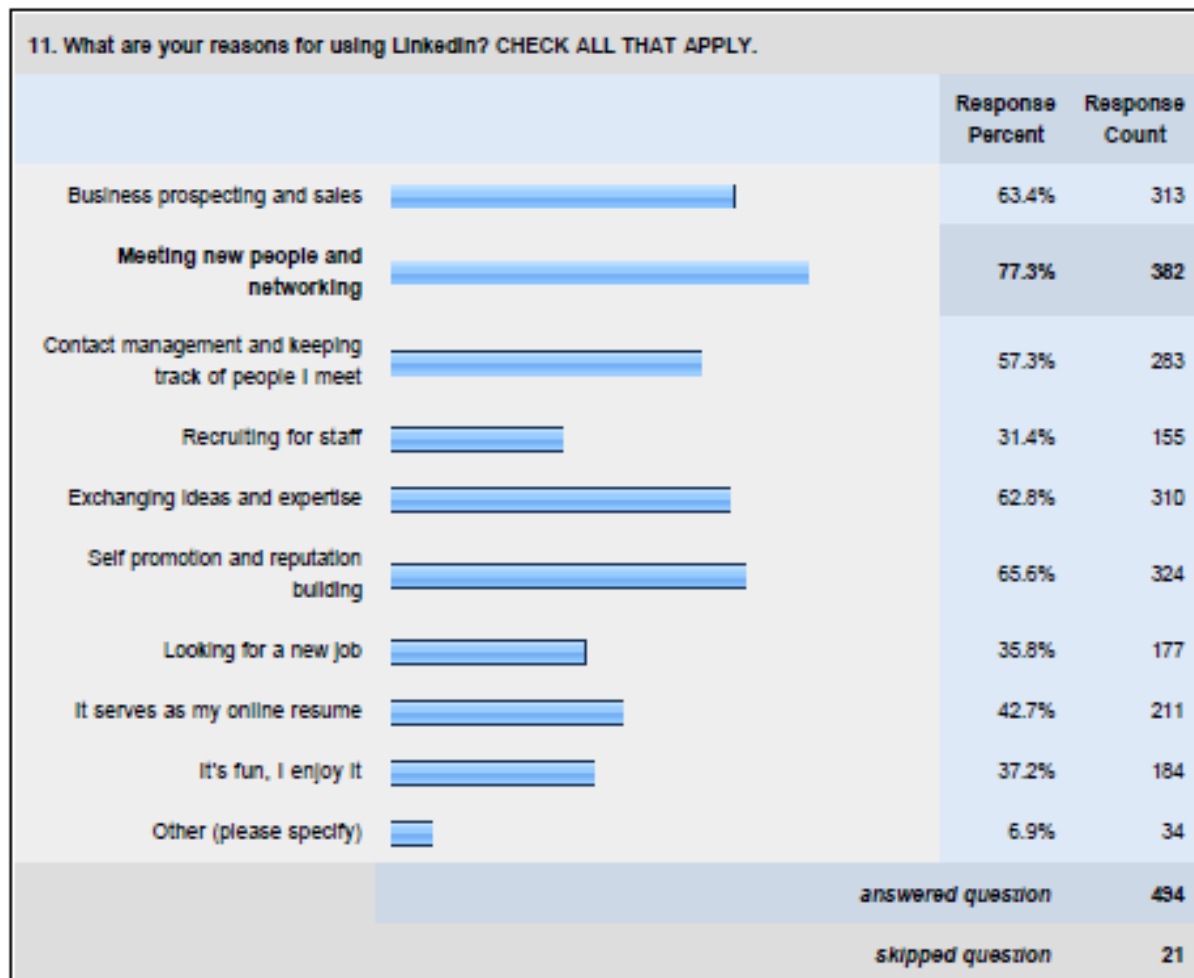


As the data shows, there is a preponderance of open networkers in the sample (81.6%) versus closed networkers (18.4%). This question proved useful in subsequent cross tabulations, as it appears that open and closed networkers have differing viewpoints on a number of issues.

Motivations for using LI

In order to get a sense of what motivates people to use LI, two questions were included, one which explored all the reasons that people report for using LI, as well as a follow-up question which asked people to state what the main reason is that they use LI.

Chart 4.4: Reasons for using LI (all)



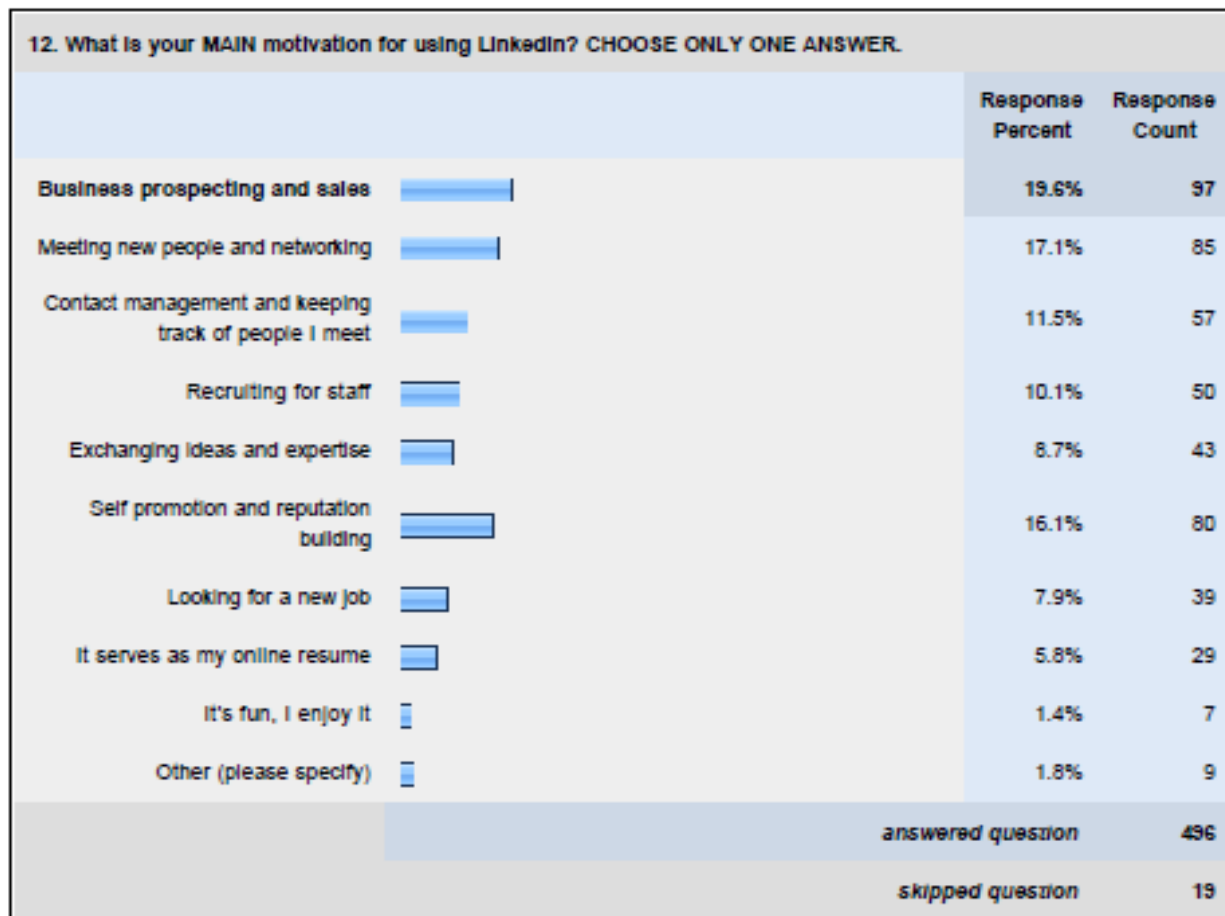
In the first question, a number of reasons for using LI were given. The most frequent response was meeting new people and networking, cited by 77.3% of the respondents, followed by self promotion and reputation building (65.6%), business prospecting and sales (63.4%), exchanging ideas and expertise (62.8%), contact management and

keeping track of people I meet (57.3%), it serves as my online resume (42.7%), it's fun, I enjoy it (37.2%), looking for a new job (35.8%), recruiting for staff (31.4%), and other mentions (6.9%). The small number of other mentions suggests that the response categories were soundly chosen. There were no consistent patterns in the other responses that would suggest another category should be coded. The high number of people stating that they use LI for exchanging ideas and expertise is a useful finding in that it confirms that the network is used for collaborating and sharing of ideas.

A cross-tabulation was run between this question and the question that asks whether respondents are open networkers, or whether they are very selective in deciding who to connect with on LI. Perhaps not surprisingly, the cross-tab shows that open networkers are more likely to cite meeting new people and networking as a reason for using LI (80.1%) than are more selective networkers (64.4%). Very selective networkers are also more likely (72.2%) to cite contact management and keeping track of people I meet as a reason for using LI than are open networkers (54.2%). These results suggest that there are differing motivations between networkers that are more open versus those who are more selective or closed in their networking.

The follow-up question asked respondents to choose their main motivation for using LI from the same list of choices.

Chart 4.5: Reason for using LI (main)



Interestingly, the results for main motivation are quite different than the most popular choices in the previous question. Business prospecting and sales (19.6%) was the most frequently given main reason for using LI, followed by meeting new people and networking (17.1%), self promotion and reputation building (16.1%), contact management and keeping track of people I meet (11.5%), recruiting for staff (10.1%), exchanging ideas and expertise (8.7%), looking for a new job (7.9%), it serves as my online resume (5.8%) and its fun, I enjoy it (1.4%). Clearly nobody is using LI primarily for fun, which further suggests it was an appropriate choice to study as a business-related OSN.

A cross-tabulation of this question by open versus closed networkers indicates that open networkers are much more motivated by business prospecting and selling (22.6%)

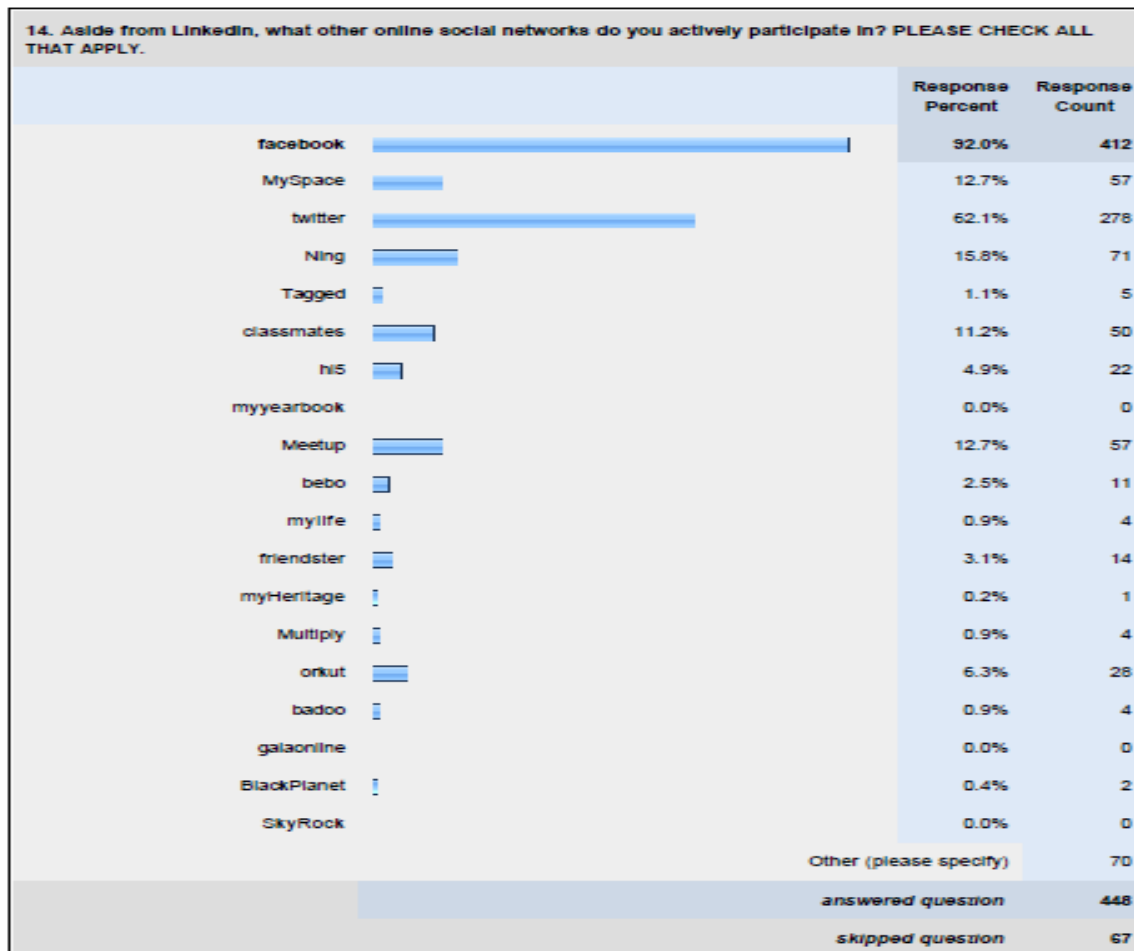
than are closed networkers (6.6%). Also, closed networkers are more likely to cite contact management and keeping track of people I meet (33.0%) as their main reason for using LI than are open networkers (6.7%). Though these differences are not surprising, it does suggest that segmenting users by open and closed networking styles might be a useful technique for future research into online social network users.

Another cross tabulation was run for this question against another question which asked respondents which OSN was their main one. The three leading choices were LI (57.7%), Facebook (34.8%) and Twitter (6.3%). When these three main choices were cross-tabulated against the main motivation for using OSNs, the results for each of the three major OSN choices were different. LI users cited business prospecting and sales as their main motivation for using an OSN (23.2%), whereas Facebook users cited meeting new people and networking as their main reason (18.8%) and Twitter users cited self promotion and reputation building as their main motivation (29%). The sample sizes for this cross-tabulation are too small to be reliable, however this result is supportive of the anecdotal view that LI is for business, Facebook is for socializing and Twitter is primarily a promotional tool.

Usage of other online social networks

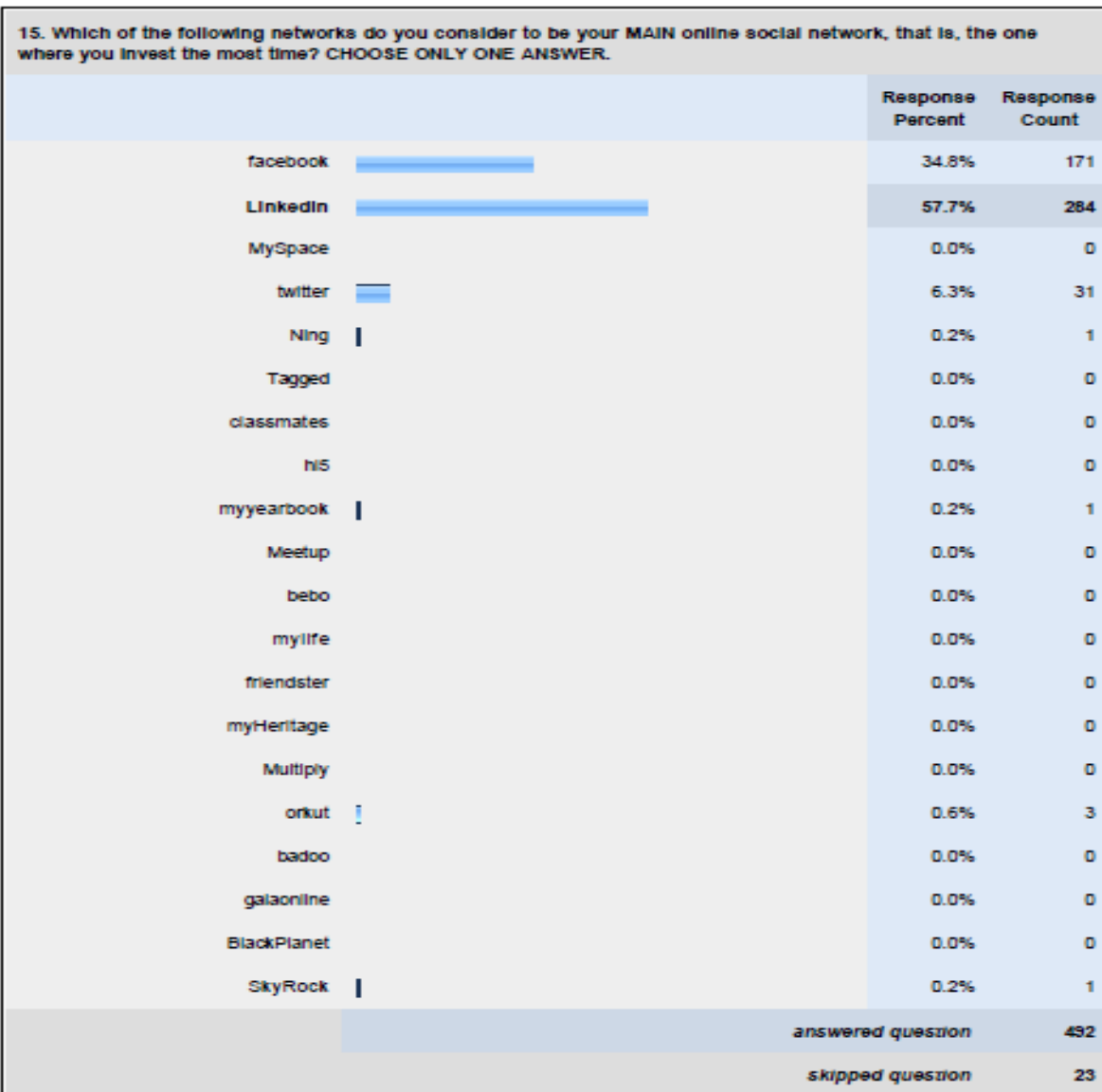
Respondents were profiled in terms of the other OSNs they belong to in addition to LI. The response list was developed from a listing of the most popular OSNs in 2010. Virtually all the respondents also belonged to Facebook (92.0%), with other popular choices being Twitter (62.1%), Ning (15.8%), MySpace (12.7%), Meetup (12.7%) classmates (11.2%) and orkut (6.3%). It should be noted that Ning is an online tool used to create special interest social network communities around specific topics related to business, hobbies and the like, so the 15.8% choosing Ning is likely more reflective of people who belong to a number of smaller social networks that are provided by the Ning online service.

Chart 4.6: Usage of OSNs aside from LI



Next, respondents were asked to indicate their main online social network, from among the same choices, including LinkedIn. LI was the most popular choice, cited by 57.7%, followed by Facebook (34.8%) and Twitter (6.3%). There were no other choices of any significance, which lends some credence to the anecdotal suggestion that LI, Facebook and Twitter constitute the “big 3” as they are referred to in the popular press.

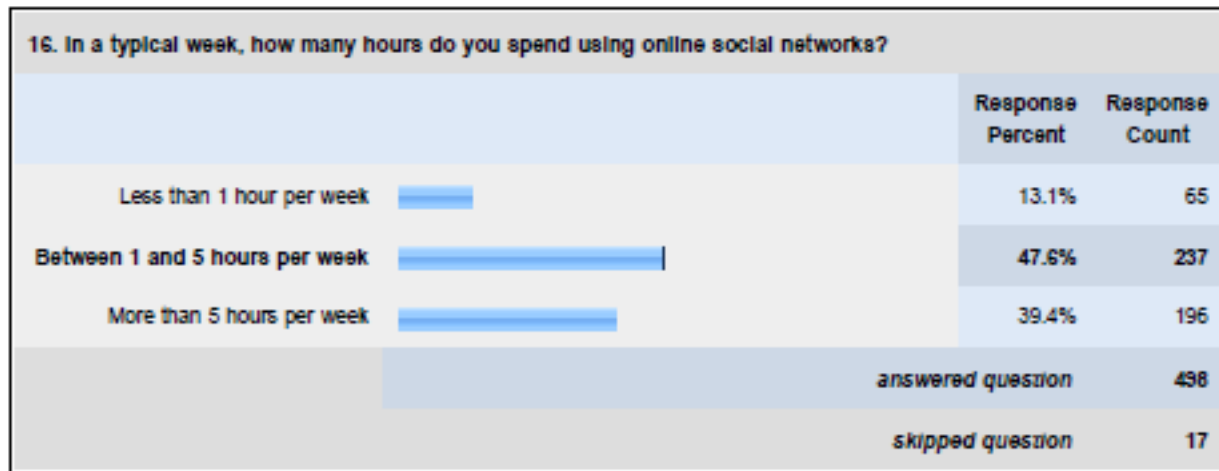
Chart 4.7: Main OSN used



Light, medium and heavy usage of OSNs

In order to segment users into light, medium and heavy weekly involvement with online social networks, a question was included that asked users to state the amount of time per week they spend on OSNs.

Chart 4.8: Number of hours spent per week using OSNs

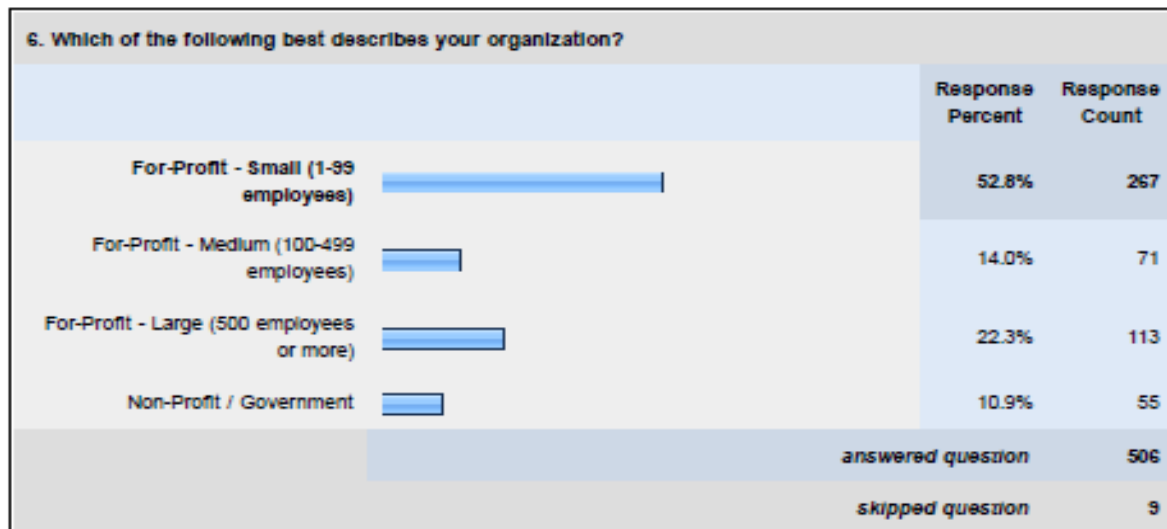


Judgement was used to assign breaks at less than 1 hour per week to signify light users, between 1 and 5 hours per week to signify medium usage, and more than 5 hours per week to signify heavy users. Interestingly, the bulk of the respondents are heavier users of OSNs, with 47.6% indicating they spend 1 to 5 hours per week using OSNs, while 39.4% spend more than 5 hours per week. Light users only accounted for 13.1% of the respondents. Given the relatively heavy time being invested in OSNs, it might be interesting to explore in future research what proportion of this time is spent on the job versus off.

Organization type

In order to profile respondents by their organization type and size, a question was included to gauge whether the respondents worked in small, medium or large for-profit companies or whether they worked in the non-profit or government sectors.

Chart 4.9: Organization type



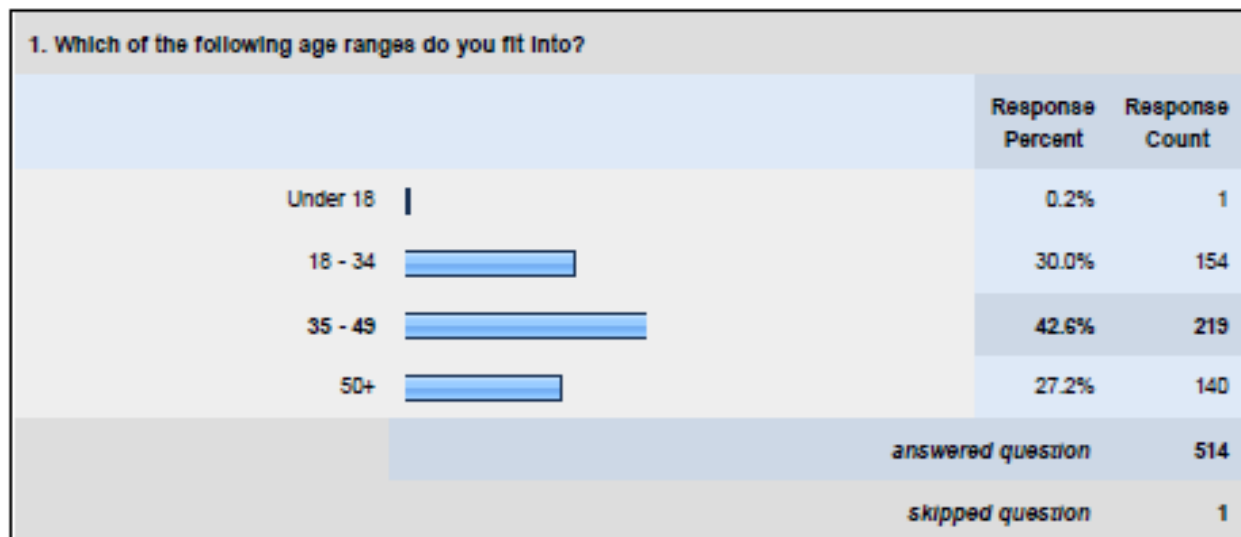
The results show that small for-profit organizations of between 1-99 employees predominate (52.8%), though there is representation among medium (14.0%). large (22.3%) and non-profit/government (10.9%).

Another question was included to get a clearer indication of what industry the respondent's organization was in. It was decided to use the same list as LI uses to categorize industries, although this list is somewhat unwieldy in that it contains some 146 categories. As a result of using such a broad list of industry categories, the results are spread across a broad range of answers. The largest categories mentioned include management consulting (7.7%), staffing and recruiting (7.5%), computer software (6.9%), information technology and services (6.0%), education management (6.0%), marketing and advertising (4.5%), human resources (4.3%) and financial services (3.6%). Other mentions are spread across a range of industries, and the fact that 91 of 146 industry categories have at least 1 mention suggests that a good cross section of industries was obtained.

Personal demographics

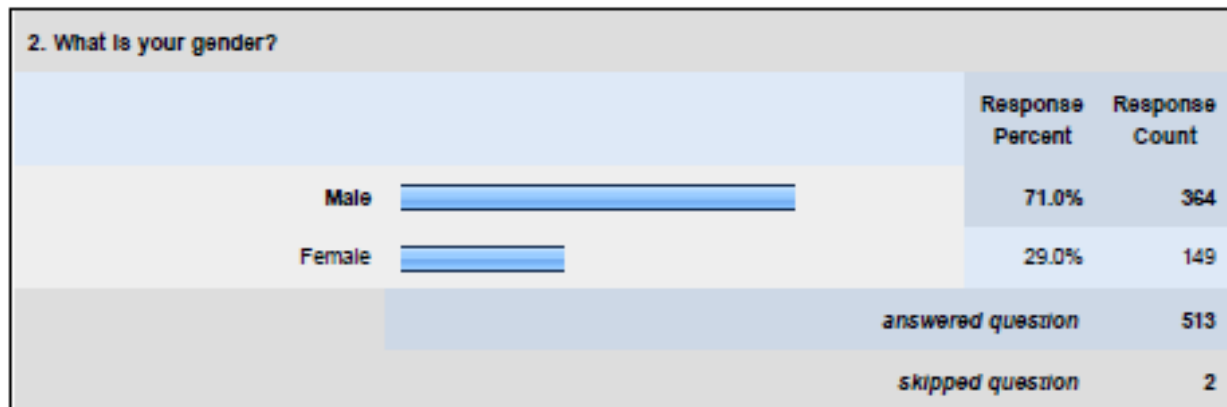
A number of personal demographic characteristics were sought. The age of the respondents was tested using the same age breaks that were used in LI's own studies. The largest age group is the 35-49 range (42.6%) followed by the 18-34 range (30.0%) and the 50+ group. One single person indicated they were less than 18 years of age. These findings are indicative of the fact that LI is very much an adult medium, with a tendency toward middle aged groups and above.

Chart 4.10: Age of respondent



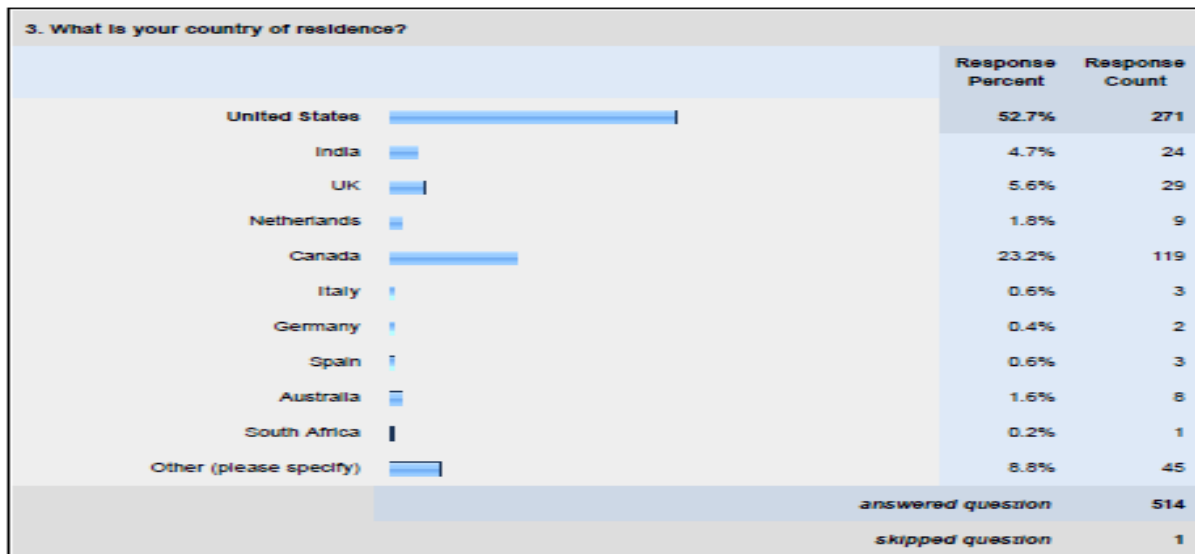
In terms of gender, there is a preponderance of male users in the sample (71%) versus female (29%). LI's own statistics suggest the split is more in the order of 55% male to 45% female, but since both genders were given equal opportunity to undertake the survey, there does not appear to have been any systematic bias favouring male respondents.

Chart 4.11: Gender of respondent



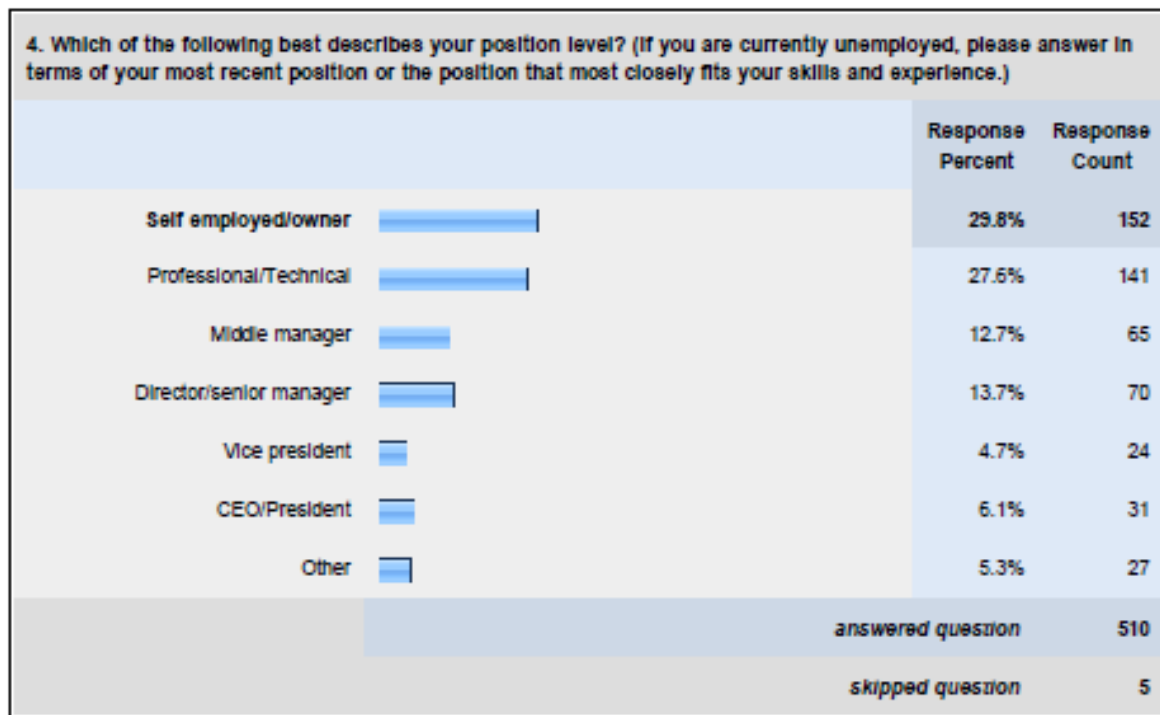
In terms of the country of residence, the results show a preponderance of respondents from the United States, which is in line with other statistics on the LI population. The proportions of other countries are similar to the Quantcast study (2010), with the exception that there is a larger population of Canadian respondents, and this is due almost certainly to the fact that this researcher's personal LI network would contain a high number of fellow Canadian users. As the sample is non-random to begin with, this finding is not troublesome. It can be seen for the Quantcast data as well as the survey results that the population of LI users is based primarily in the developed world. There are relatively few participants from the developing world. There may be several reasons for this, including the cost and limited availability of Internet usage in certain developing countries, as well as language barriers, and lower awareness of LI. One notable exception to this is India, which represents approximately 6% of the user base according to Quantcast, and approximately 5% of the survey sample, providing some insights from the developing world.

Chart 4.12: Country of residence



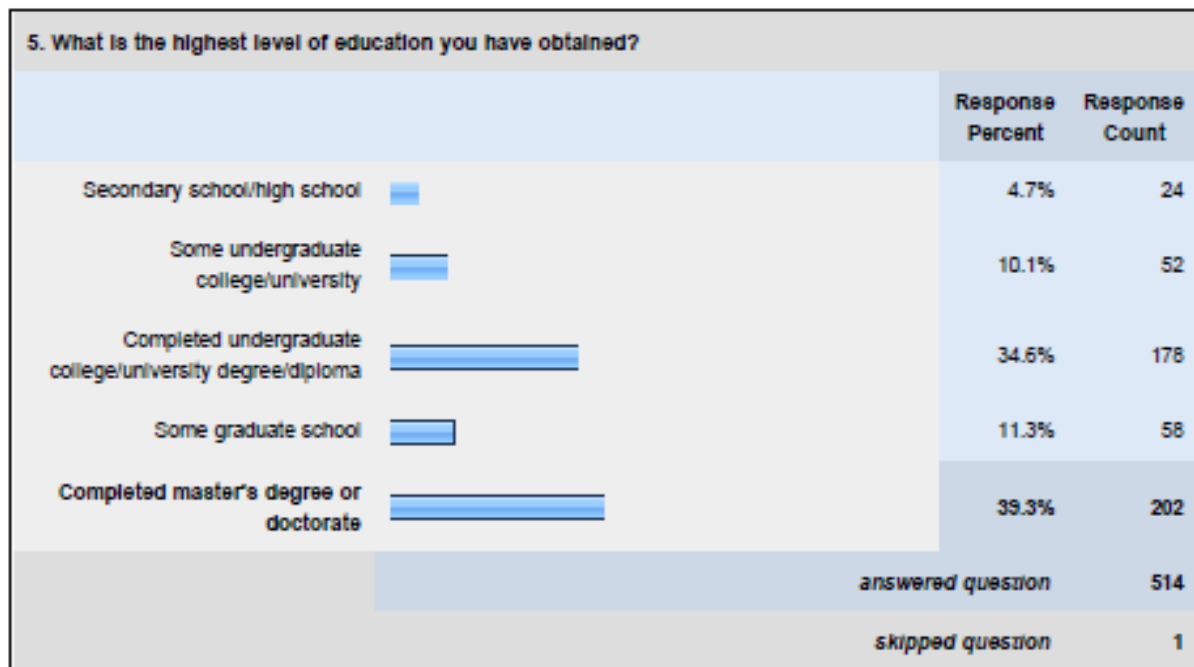
The respondents' position title profile indicates that the LI users are in fairly senior or professional job categories. One interesting finding is that 29.8% of the respondents indicated that they are self-employed owners of their businesses, which is in line with the earlier finding showing a preponderance of smaller firms reflected in the sample. There also are a large number of respondents describing themselves as professional/technical (27.6%), as well as a spread of management roles ranging from middle manager (12.7%) through director/senior manager (13.7%), vice president (4.7%) to CEO/President (6.1%). The presence of a substantial number of very senior managers is helpful to this study as their level and scope of responsibility may help provide useful insights into the policies and practices of their firms in terms of social network usage.

Chart 4.13: Position level of respondent



In terms of education, the reported results are in line with LI's own statistics, which show that the user base is very highly educated. Almost three-quarters of the respondents report that they have completed undergraduate (34.6%) or graduate studies at the masters or doctoral level (39.3%).

Chart 4.14: Education level of respondent



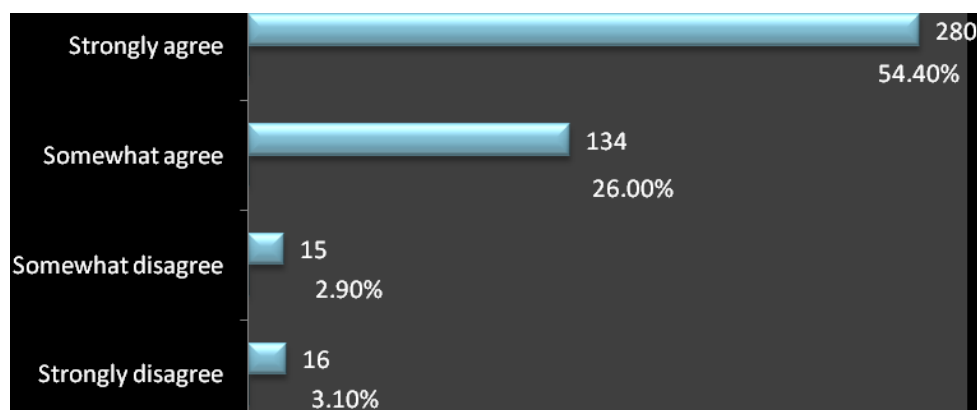
Reported social connections across organizational boundaries

One of the key objectives for this study was to attempt to confirm whether respondents report an increase in the number of connections they have that span inter-firm boundaries than they did before using LI. Another set of objectives was to determine whether or not these inter-firm connections have resulted in deeper connections, more frequent communications, and improved access to problem solving and innovative collaborators. The following series of questions addressed these objectives.

A general question was asked to determine whether respondents reported an increase in professional connections overall since using LI. There is strong agreement with this statement, with 54.4% strongly agreeing with the statement, and 26.0% agreeing somewhat with the statement. Clearly, LI users have increased their number of professional contacts since beginning to use LI. One notable cross-tabulation for this question was to run the results against the question about open versus closed networking styles. Those who described themselves as open networkers had higher

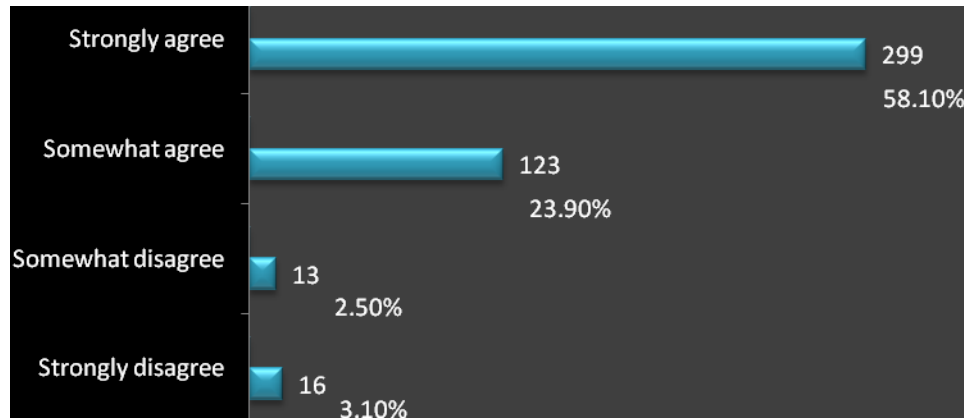
levels of agreement with the statement than did closed networkers. It is not surprising that closed networkers might tend to make fewer new professional connections due to their preference for connecting with people they personally have met. Open networkers will likely have more professional connections given the fact that they will connect with people they have not previously met, and this is supported by these findings.

Chart 4.15: Since using LI, I have more professional connections than I did previously



The next question tested whether the respondents reported having more professional connections with people outside their organization. The purpose behind this question was to determine whether people had increased their level of inter-firm connectedness since using LI.

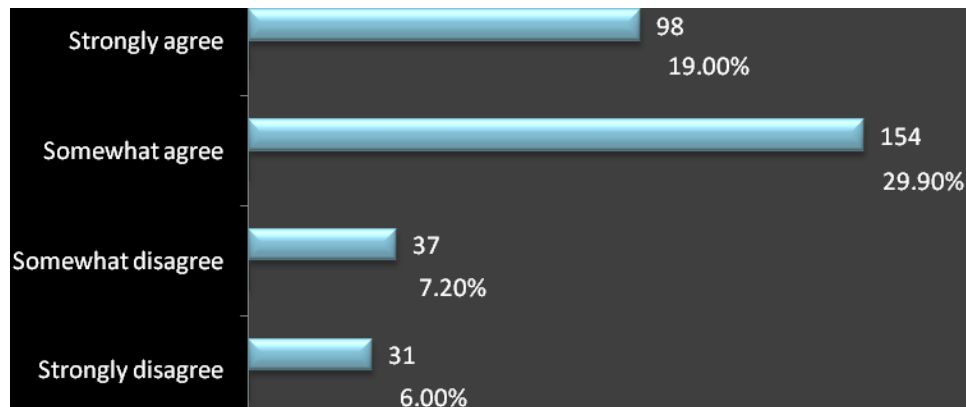
Chart 4.16: Since using LI, I have more professional connections outside my organization than I did previously



The results indicate a strong level of agreement with the statement, with 58.1% of respondents indicating they strongly agree and 23.9% somewhat agreeing. It is clear from the results that the use of LI has resulted in a greater number of professional connections that span inter-firm boundaries, which was one of the hypotheses of this study. When cross tabulated with open versus closed networkers, open networkers showed higher levels of agreement with the statement. Again this is not surprising, given that open networkers are more willing to connect with people they have not met previously.

In order to explore the composition of these new inter-firm connections, a series of questions was included in order to see if respondents reported more connections with customers and with people in competitor organizations.

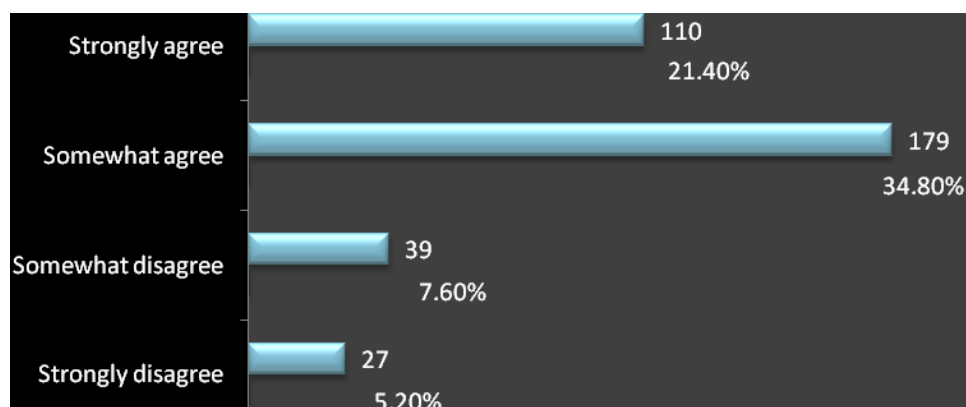
Chart 4.17: I have more connections with customers as a result of using LI



Approximately one half of respondents agreed either strongly (19.0%) or somewhat (29.9%) that they had more connections with customers as a result of using LI. A cross-tabulation between this question and the question about how much time per week is spent on OSNs yielded the finding that there is a tendency for heavier users to agree more strongly with this statement, which makes sense given that an increased amount of time invested in the network should result in greater rewards. Though beyond the scope of this study, this points to a potential area of future research, linking the efforts invested in OSNs to the results obtained from them.

Respondents were also asked if they had more connections with people in competitor organizations as a result of using LI.

Chart 4.18: I have more connections with people in competitor organizations as a result of using LI



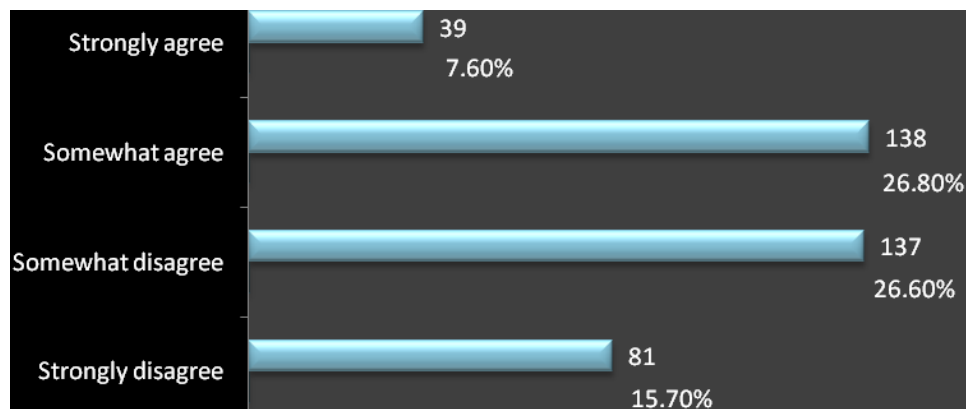
The results show that the majority of respondents somewhat (34.8%) or strongly agree (21.4%) with this statement. This finding is interesting in that it supports the finding that people have more connections outside their organizations as a result of using LI, but also that they are forming more connections with people in the competition. This may have management impacts in that this behaviour might lead to a need to more consciously educate staff on the appropriate sharing of information with competitors. Also, increased connections with competitors might lead to greater ease of staff changing organizations, which may point to a risk inherent in employee's use of OSNs. Whether that risk is indeed present and whether it can be managed would be an interesting area for future research.

Connective bandwidth with LI connections

One anecdotal opinion expressed in LI's Q&A forums is that it becomes impossible to form substantial relationships with connections on LI if one has too many connections. In order to test this assertion, a question was included which asked how much respondents agree with the statement that LI has only given me surface connections

with other people, nothing of substance.

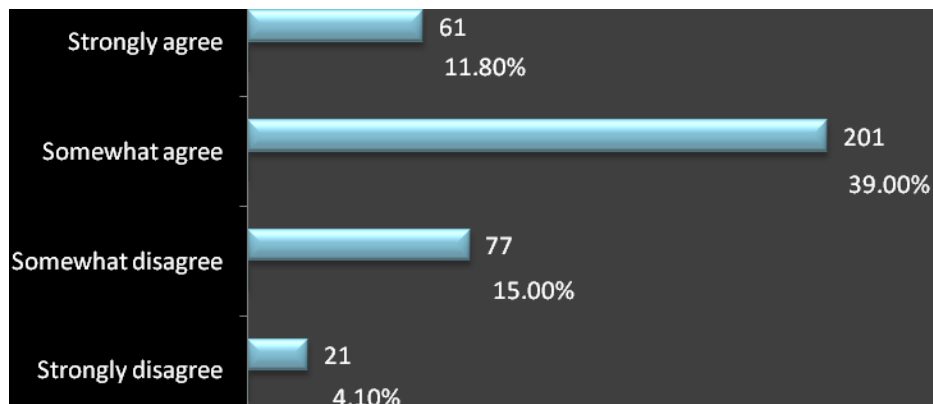
Chart 4.19: LI has only given me surface connections to other people, nothing of substance



The opinions on this subject are mixed, with 15.7% strongly disagreeing with the statement, 26.6% somewhat disagreeing, 26.8% somewhat agreeing and 7.6% strongly agreeing.

Respondents were asked whether they agreed that they had been able to deepen relationships with people through LI. The purpose of the question was to test for “connective bandwidth” (Gumpert, 2005), or the ability to go beyond surface connectedness with deeper or more frequent communications.

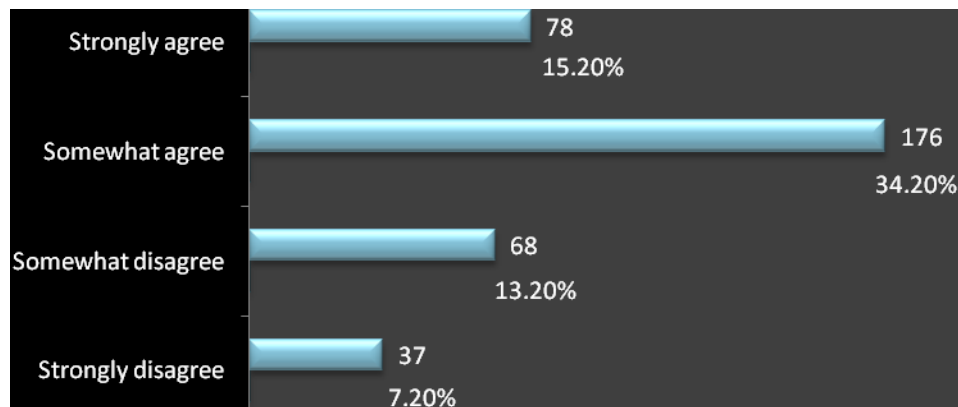
Chart 4.20: I have been able to deepen my relationships with people through LI



The results show a tendency toward agreement with this statement, with 39.0% agreeing somewhat, 11.8% agreeing strongly, 15.0% disagreeing somewhat and 4.1% disagreeing strongly. A cross-tabulation of this question by open versus closed networkers showed a greater tendency to agree with the statement on the part of open networkers versus closed networkers. This again points to the possibility of fruitful future research into open versus closed networkers. It may be that closed networkers do not feel a need to deepen their relationships with connections due to the fact that they only connect with people they already know, but additional research would be needed to test this. In another cross-tabulation by light, medium and heavy users, it can be seen that light users are less likely to report an ability to deepen connections than are medium and heavy users. This finding supports the notion that the more effort people put into networking, the greater are the results they will achieve.

In order to further support the testing of whether people are achieving greater connective bandwidth, a question was asked about whether respondents agree that the frequency of electronic communications with LI connections has increased.

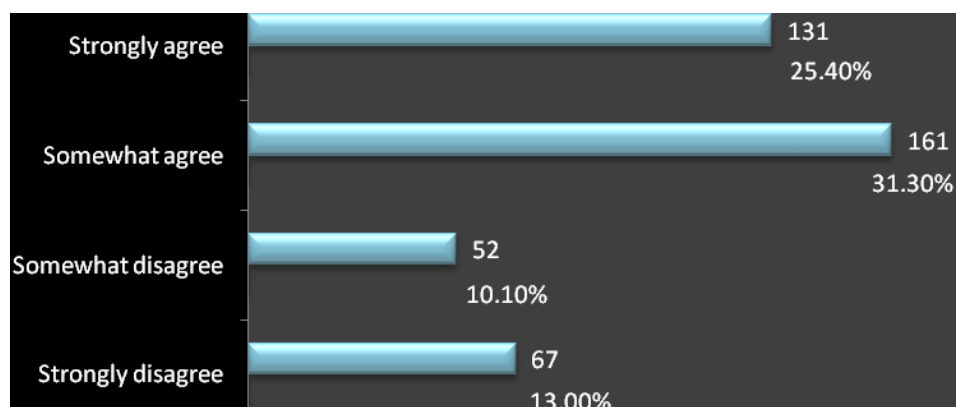
Chart 4.21: I now communicate more frequently by text, email or other electronic means with my LI connections than I did previously



The results show overall agreement with the statement, with 15.2% strongly agreeing, 34.2% somewhat agreeing, 13.2% somewhat disagreeing and 7.2% strongly disagreeing. This finding is important because it adds weight to the assertion that people are experiencing greater connective bandwidth with their LI connections.

A final question in this series asked respondents whether they have had phone conversations or face-to-face meetings with people they had met through LI. The intent of this question was to further probe the depth of connective bandwidth that LI users are experiencing with their connections. Evidence of phone or face-to-face contact would further suggest that connective bandwidth was being achieved in a significant measure beyond that of just being surface connections.

Chart 4.22: I have had phone conversations or face-to-face meet-ups with people I met through LI

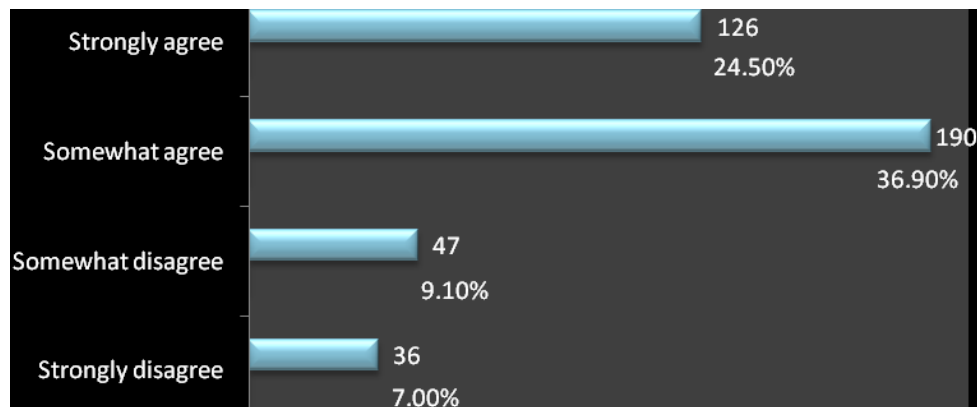


There was quite strong agreement with this statement, with 25.4% strongly agreeing, 31.3% somewhat agreeing, 10.1% somewhat disagreeing and 13.0% strongly disagreeing. One cross-tabulation of note was this question by light, medium and heavy usage of OSNs. Light users were in much less agreement about this statement than were medium and heavy users. Again this is not surprising given that one would expect to require a greater investment of time in an OSN to deepen relationships to this extent.

Access to innovation collaborators

Another key objective of this study was to determine whether LI users reported that they had increased access to innovation collaborators, and whether they were able to solve problems more quickly as a result. The following series of questions was developed in order to test various aspects of this objective. The first question asked whether respondents had been able to draw upon the expertise of their LI network to answer questions or help solve problems.

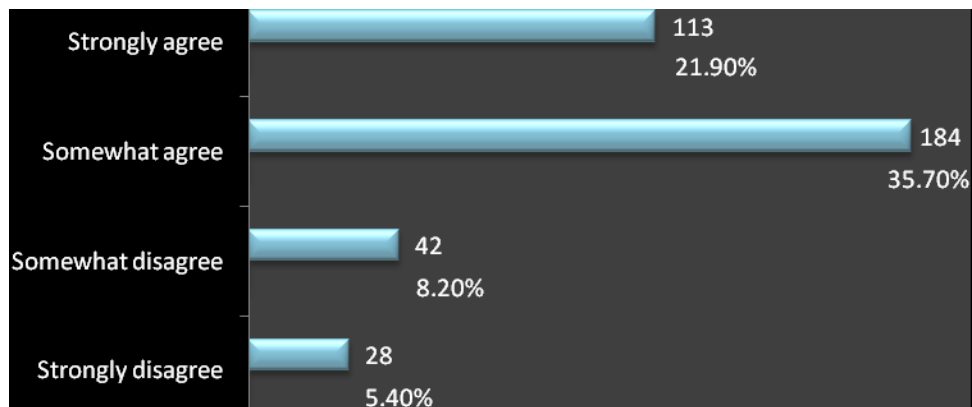
Chart 4.23: I have been able to draw upon the expertise of my LI network to answer questions or help solve problems



There was strong agreement with this statement, with 24.5% strongly agreeing, 36.9% somewhat agreeing, 9.1% somewhat disagreeing and 7.0% strongly disagreeing. Cross tabulation revealed that light users of OSNs had less agreement with the statement than did medium and heavy users. This is again supportive of similar cross tabulations that suggest that lighter users may get (and/or seek) fewer benefits from their usage of OSNs.

The next question dealt with whether respondents felt that interacting with their LI network had allowed them to be more innovative in their work.

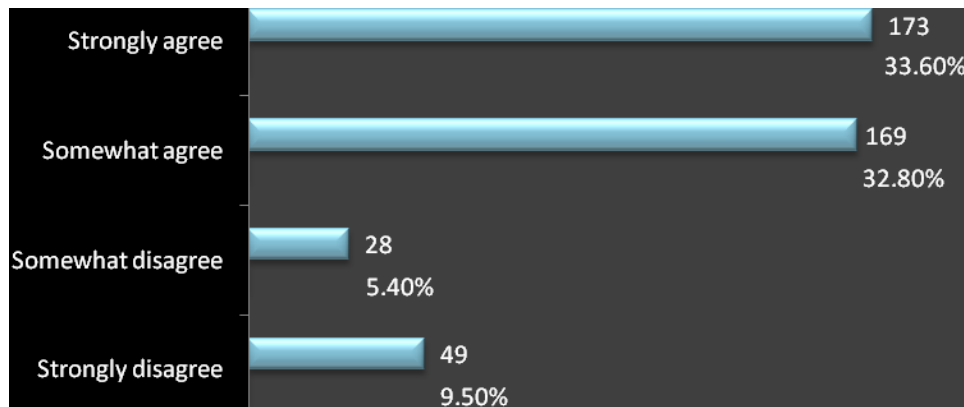
Chart 4.24: Interacting with my LI network has allowed me to be more innovative in my work



There was strong agreement with this statement, with 21.9% strongly agreeing, 35.7% somewhat agreeing, 8.2% somewhat disagreeing and 5.4% strongly disagreeing. This is an important finding as it tends to prove that LI users are able to be more innovative in their work as a result of using LinkedIn. Once again, a cross-tabulation against light, medium and heavy usage show that light users are less likely to be in agreement with the statement than are medium and heavy users.

The next series of questions were designed to measure the degree to which users report having sought, received or offered help to their LI networks.

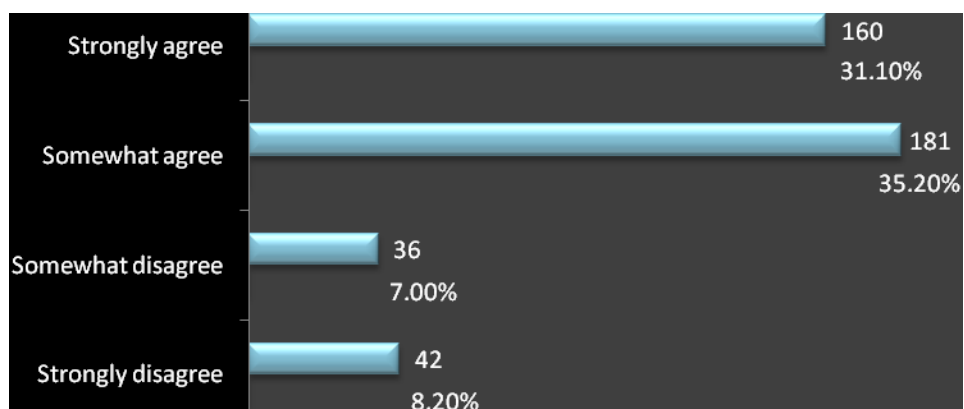
Chart 4.25: I have asked for help, advice, referrals or other assistance from my LI network



A large majority of users (33.6% strongly agree; 32.8% somewhat agree) indicate that they have asked for help, advice, referrals or other assistance from their LI network. As in previous results, a cross-tabulation shows that light users are the least likely to agree with this statement as compared with medium and heavy users.

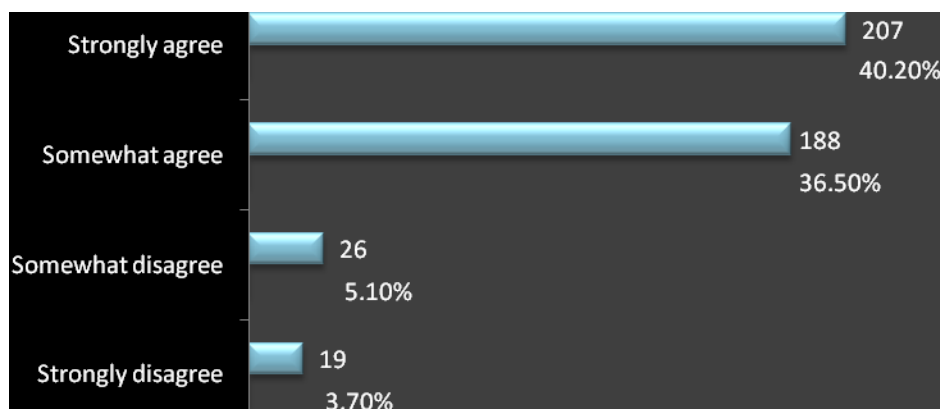
Another question was asked to determine whether respondents had received help, advice, referrals or other assistance from their LI network. The results were similar to the previous question in that 31.1% strongly agree and 35.2% somewhat agree with the statement. The cross-tabulation of this question showed a similar pattern to the other related cross tabulations, with light users agreeing less with the statement than medium and heavy users.

Chart 4.26: I have received help, advice, referrals or other assistance from my LI network



The next question asked respondents about their providing help, advice, referrals or other assistance to their LI networks. As in the previous related questions, there was strong agreement with the statement.

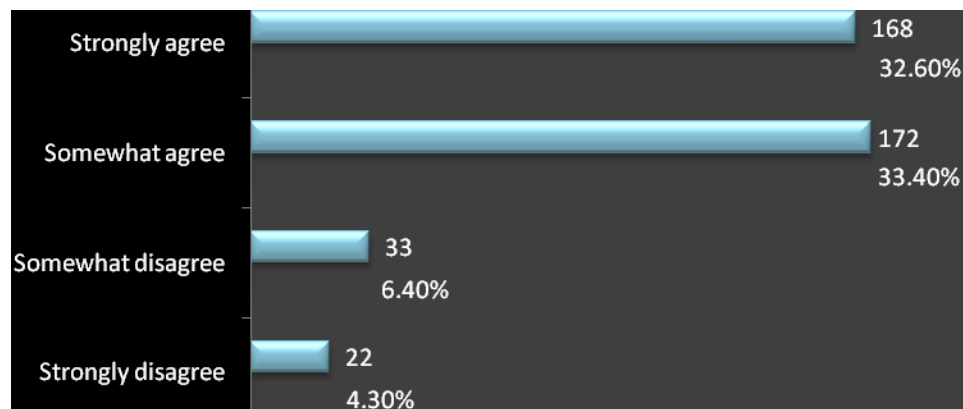
Chart 4.27: I have provided help, advice, referrals or other assistance to my LI network



Respondents mostly agreed strongly (40.2%) or somewhat (36.5%) with the statement, and disagreement was minimal. The finding is interesting in that it suggests LI users may have a slight bias for giving rather than asking for assistance. Light users showed a lower tendency to agree with this question statement than medium and heavy users.

The next question was aimed at determining the degree to which respondents felt that they had improved access to collaborators they can work together with on opportunities and problem solving since using LI.

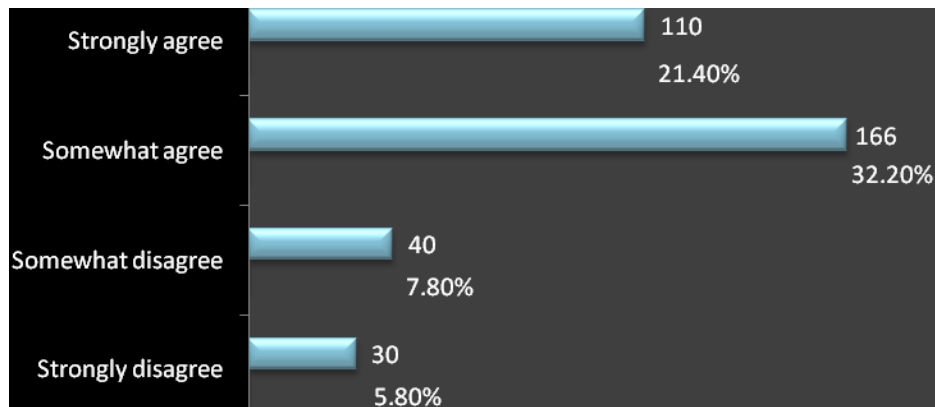
Chart 4.28: Since using LI, I have more people that I can collaborate with on business opportunities or problem solving



There was strong agreement with this statement, with 32.6% strongly agreeing and 33.4% somewhat agreeing; there was minimal disagreement. A similar pattern to previous cross tabulations was found in that light users were less likely to agree with the statement than were medium and heavy users.

The final question in this series attempted to determine whether respondents agreed that they were able to solve problems faster than they could before using LI.

Chart 4.29: My LI network helps me solve problems faster than I could before using LI



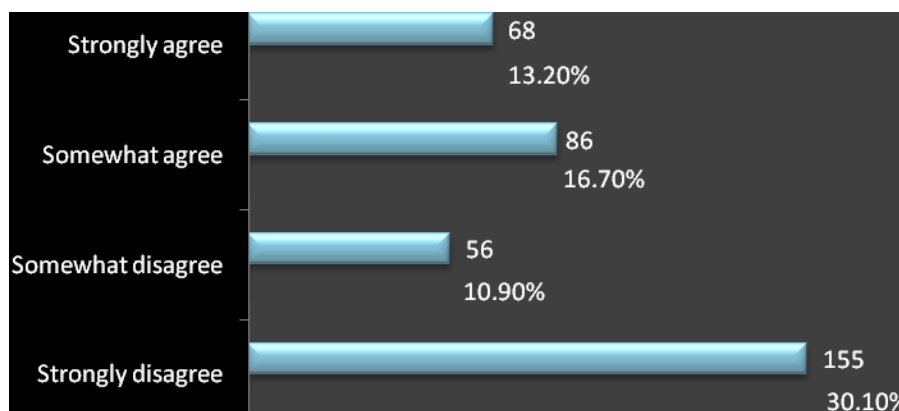
The results of the questions show that 21.4% strongly agree with the statement, 32.2% somewhat agree, 7.8% somewhat disagree and 5.8% strongly disagree. There is a similar pattern to related questions where light users are less likely to agree with the statement than medium and heavy users.

Taken together, the results of the questions in this section confirm the research propositions about greater numbers of inter-firm connections, greater connective bandwidth, improved access to innovation collaborators, and improved speed in solving problems as a result of using LI.

Perceptions about organizational policy around OSNs

The section which follows was designed to gain insights into the current policy and practice landscape in the respondents' organizations. It was hoped that some useful insights could be gained in order to contribute to a suggested list of best practices for the management of OSNs in the organization. The first question in this series attempted to gauge the level of formality of the policies and guidelines in the respondent's organization surrounding the appropriate usage of OSNs.

Chart 4.30: My organization has formal policies or guidelines on the appropriate usage of OSNs

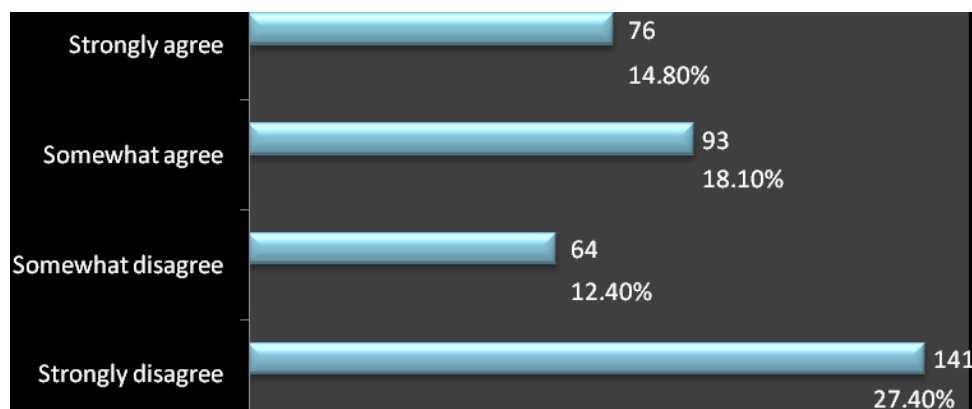


Though opinions were mixed, there was overall disagreement with the statement that there are formal policies and guidelines present to govern the appropriate usage of OSNs in the respondent's organization. Overall, 30.1% strongly disagree with the statement, 10.9% somewhat disagree, 16.7% somewhat agree and 13.2% strongly agree. A cross tabulation of this question against organization type and size reveals more meaningful data. Perhaps not surprisingly, large for-profits showed the highest level of agreement with the statement, followed by non-profit/government, medium for-

profits and small for-profits. This pattern is likely due to the fact that larger firms and government organizations generally have more mature policy and procedure frameworks in place.

In order to determine the level of formality of the rules around sharing information via OSNs a question was asked whether respondents agreed that their organization had formal policies or guidelines around what information can and cannot be shared via OSNs.

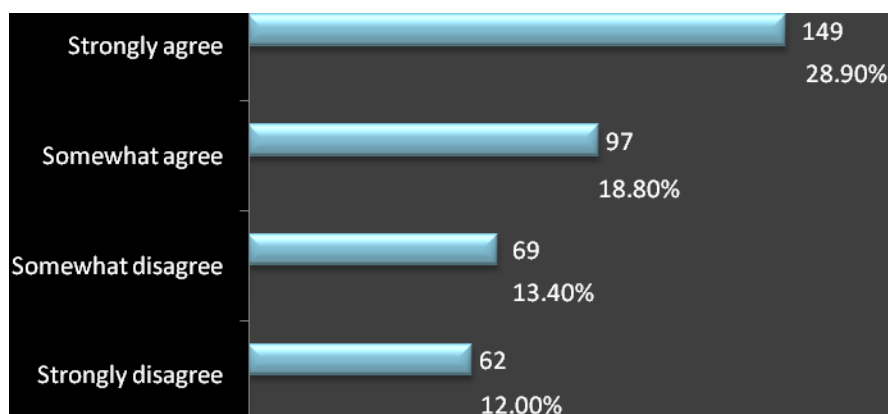
Chart 4.31: My organization has formal policies or guidelines about what kinds of information can and cannot be distributed via OSNs



Opinions on this statement were mixed, with 27.4% strongly disagreeing, 12.4% somewhat disagreeing, 18.1% somewhat agreeing and 14.8% strongly agreeing. This finding and the previous finding may point to an opportunity for organizations to revisit their policies, guidelines and training around the use of OSNs and the sharing of information via OSNs.

In order to gauge the degree of restrictions that respondents' organizations place on their personal use of OSNs on the workplace, respondents were asked if they agreed with the statement that their organizations did not place restrictions on the use of OSNs during work hours.

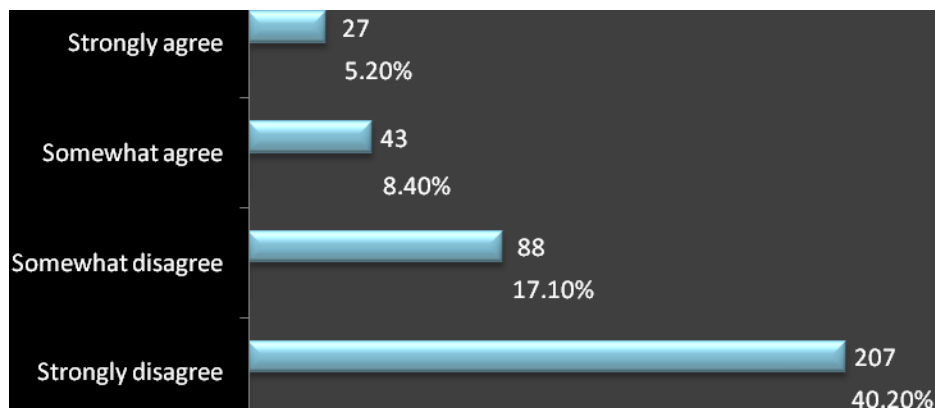
Chart 4.32: My organization does not place restrictions on the personal use of OSNs during work hours



Overall, there is strong agreement with this statement, with 28.9% strongly agreeing, 18.8% somewhat agreeing, 13.4% somewhat disagreeing and 12.0% strongly disagreeing. It is apparent that the respondents' organizations do not place restrictions on their employee's use of OSNs during work hours. More insight can be found in a cross tabulation of this question by organization type and size. Small for-profits are the most likely to agree that their work environments are not restricted followed by medium for-profits non-profit/government and large for-profits. Again, this may be indicative of more formal policies and guidelines overall in larger, for-profit firms.

In order to gain an understanding of the degree of centralized control of outbound messages via OSNs, respondents were asked whether they agree that their organizations keep strong central control of outbound messaging on OSNs.

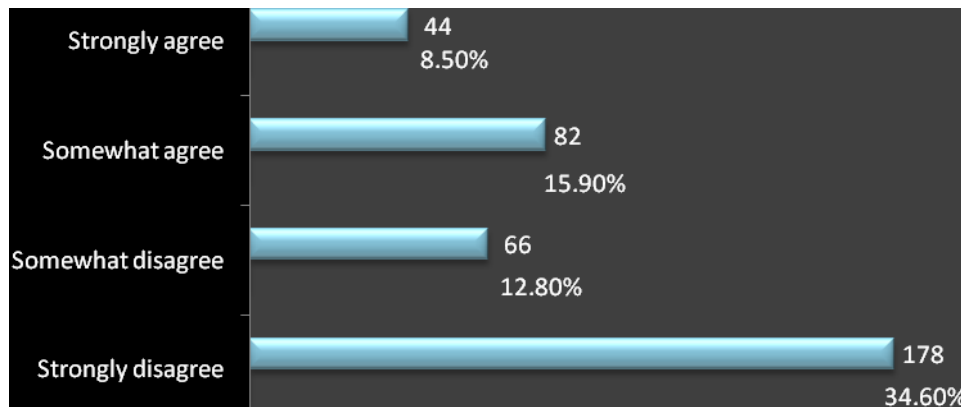
Chart 4.33: My organization keeps strong centralized control of outbound messaging on OSNs



Respondents strongly disagreed with this statement overall, with 40.2% strongly disagreeing, 17.1% somewhat disagreeing, 8.4% somewhat agreeing and 5.2% strongly agreeing. Clearly there is very little centralized control of outbound messaging via OSNs, and to the extent this might pose risks to the organization, this may be a useful area to consider building policies, guidelines and training around.

In order to determine the prevalence of training in organizations around the appropriate use of OSNs, respondents were asked whether their organizations provide such training.

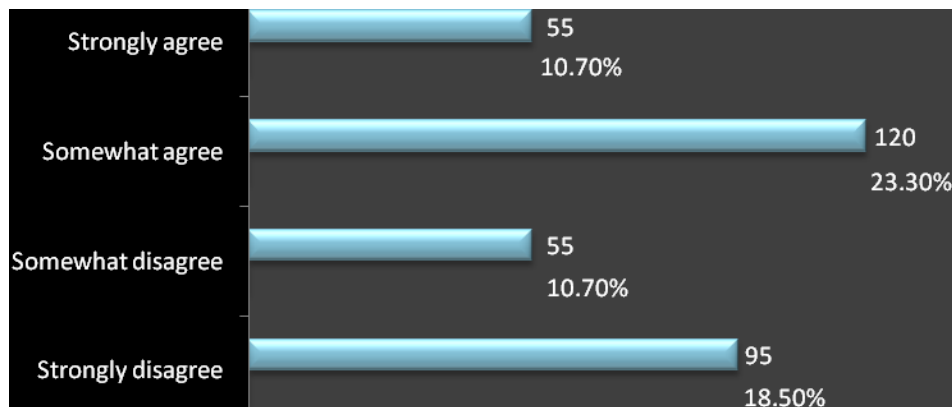
Chart 4.34: My organization provides training on the appropriate usage of OSNs



There is overall disagreement with this statement, with 34.6% of respondents strongly disagreeing, 12.8% somewhat disagreeing, 15.9% somewhat agreeing and 8.5% strongly agreeing. It is clear from these results that there is a general lack of training in organizations on the appropriate usage of OSNs. This may be a fruitful area for organizations to consider as a best practice, given the potential risks of improper or inappropriate use of OSNs.

In order to further explore this concept of risks to organizations from the usage of OSNs, respondents were asked whether they felt their organizations were vulnerable to accidents or negative consequences due to the inappropriate usage of OSNs.

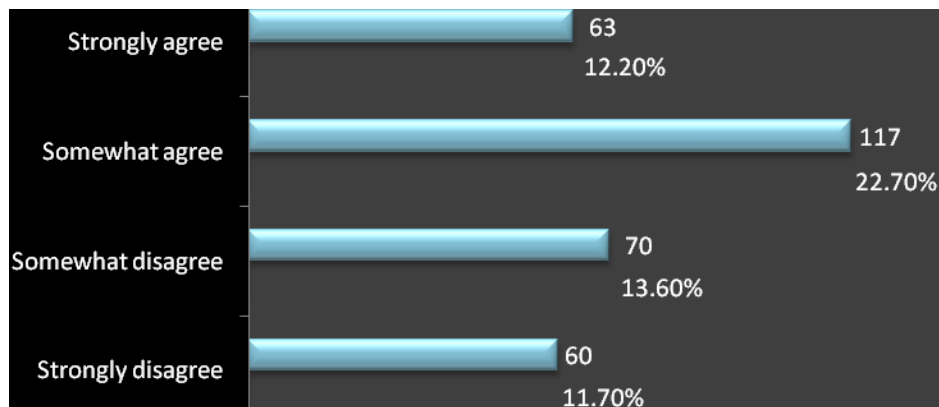
Chart 4.35: My organization is vulnerable to accidents or negative consequences of inappropriate usage of OSNs



Opinions on this statement were mixed, with 18.5% strongly disagreeing, 10.7% somewhat disagreeing, 23.3% somewhat agreeing and 10.7% strongly agreeing. Perceptions around the risks of OSNs to the organization may be a fruitful area for additional research in the future. For this study, the spread of opinions on this issue may point to another area where training, policies and guidelines should be considered as possible best practices.

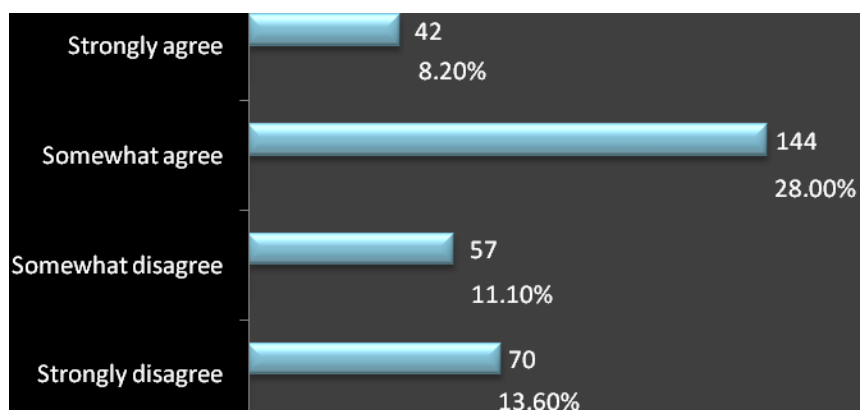
Exploring this further, respondents were asked whether they felt that their organizations were adequately prepared to deal with negative consequences resulting from the inappropriate use of OSNs. Again, the opinions on this statement were mixed; there were a similar number of respondents who agreed strongly (12.2%) and disagreed strongly (11.7%), while 22.7% agreed somewhat and 13.6% disagreed somewhat.

Chart 4.36: My organization is adequately prepared to deal with negative consequences that could occur due to inappropriate usage of OSNs



Respondents were asked to consider whether they felt their organizations needed more formalized policies and guidelines around the usage of OSNs.

Chart 4.37: My organization needs more formalized policies and guidelines around the usage of OSNs

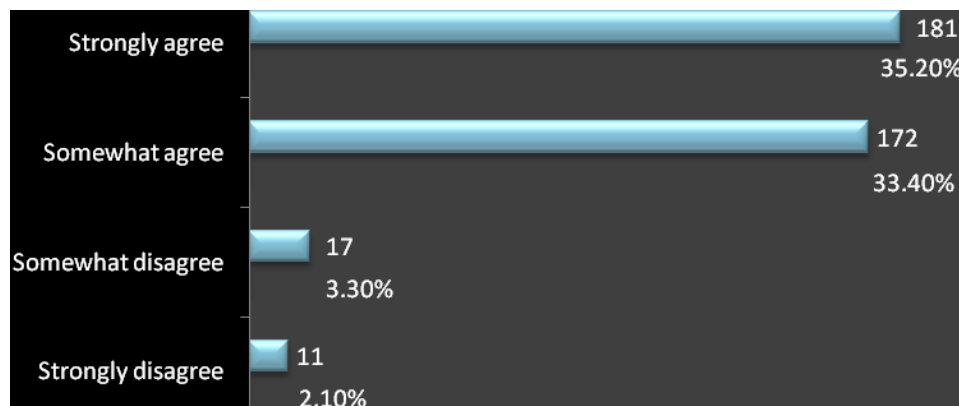


There is some agreement with this statement with 28.0% somewhat agreeing and 8.2% strongly agreeing while 11.1% somewhat disagreed and 13.6% strongly disagreed.

Perceptions about management attitudes around OSNs

The following series of question was aimed at exploring the current management and operating environment with respect to OSNs in the respondents' organizations. The first question asked respondents to consider whether OSNs would play a more important role in the future strategies of their organization.

Chart 4.38: OSNs will play a more important role in the future strategies of my organization

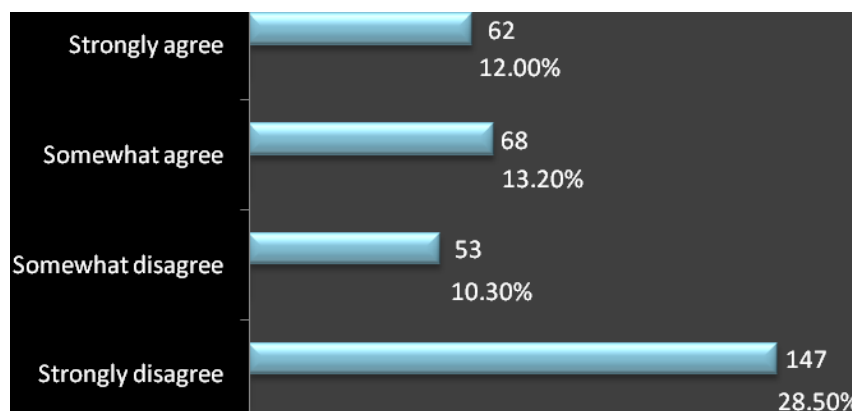


The vast majority of respondents either agreed strongly (35.2%) or somewhat (33.4%) with this statement, while 3.3% somewhat disagreed, and only 2.1% strongly disagreed. The response to this question suggests that there is a strong expectation that OSNs will continue to have a role to play in the future development of organizations, which implies

that it is well worthwhile for organizations to be considering what best practices they should adopt going forward.

In practice, it seems that employee engagement in OSNs, even for work purposes, has evolved as an “off the side of the desk” activity. This tendency was supported by anecdotal discussions, as well as the qualitative interview portion of this study. The next question probed whether organizations had, or were planning to hire, a full-time dedicated resource to deal exclusively with OSNs and other social media.

Chart 4.39: My organization has hired or will be hiring a full-time employee or the equivalent whose primary job is related to OSNs and social media

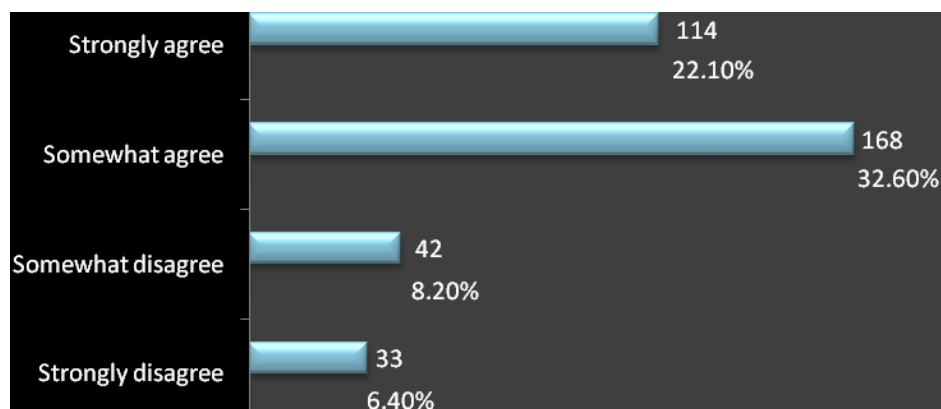


The responses suggest that we have not yet reached the point where OSNs and social media will be someone’s full time job. Overall, respondents either strongly disagreed (28.5%) or somewhat disagreed (10.3%) with this statement, while 13.2% somewhat agreed and 12.0% strongly agreed. Though there are several people who agree with the statement, the findings suggest that hiring a full-time dedicated resource solely to manage OSNs and social media need not be an immediate priority for management. The usage of OSNs is by nature distributed among many people rather than centralized,

so a full-time person might actually be counter to the nature and strengths of OSNs and social media. This last issue could be an interesting area for future research.

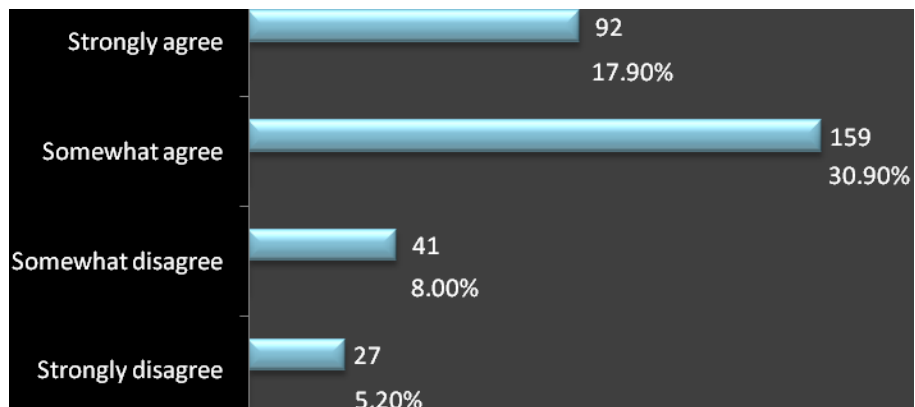
In order to get a sense of the level of interest and engagement on the part of senior management in OSNs and social media, respondents were asked whether senior management were becoming more engaged in OSNs and social media.

Chart 4.40: Senior management in my organization are becoming more engaged in OSNs and social media in general



The results show a strong level of agreement with the statement, with 22.1% strongly agreeing, 32.6% somewhat agreeing, 8.2% somewhat disagreeing and 6.4% strongly disagreeing. This finding counters anecdotal comments frequently heard in LI Q&A to the effect that “my boss just doesn’t get it.” Clearly, the results point to a growing level of engagement on the part of senior management. The second aspect of this was a question aimed at testing whether respondents felt that their senior management needed to become more engaged in OSNs and social media.

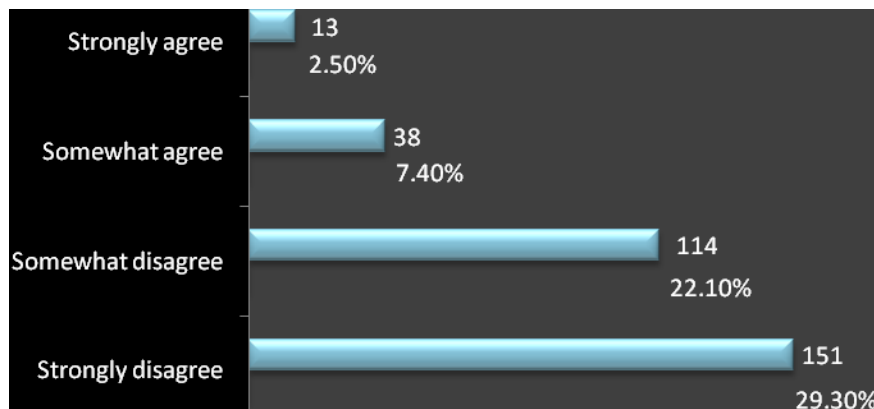
Chart 4.41: Senior management in my organization should be more engaged in OSNs and social media than they currently are



Again there is fairly strong agreement with this statement, notwithstanding the earlier opinion that senior management is already becoming more engaged. Overall, 17.9% agree strongly with the statement, 30.9% somewhat agree, 8.0% somewhat disagree and 5.2% strongly disagree. The message is clear that although senior management is seen to be getting more engaged in OSNs and social media, that there is an expectation on the part of the respondents that they should become even more engaged.

An earlier question asked respondents whether they felt that OSNs would be becoming more important in their organization's strategies, and to test for the opposite perception, a question was included to see whether respondents consider OSNs to be a fad that will fade in importance over time.

Chart 4.42: OSNs and social media are seen as “fads” in my organization, ones that will fade in importance over time



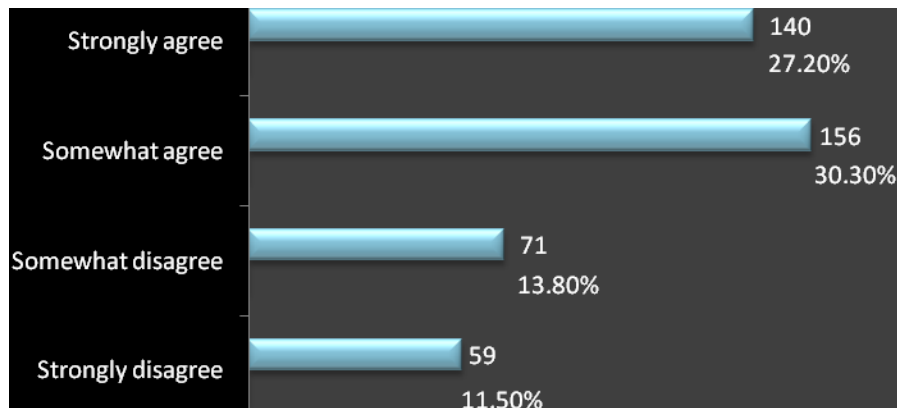
The low level of agreement with this statement, with only 2.5% strongly agreeing and 7.4% somewhat agreeing, suggests that OSNs are not seen as a fad or something that will fade in importance over time. In all, 29.3% disagreed strongly with the statement and 22.1% disagreed somewhat.

Perceptions about the role and expected evolution of OSNs in job role

The next series of questions were included in order to examine some general perceptions regarding OSNs, both currently and in the future. Several of the questions that follow relate more indirectly to the research objectives of the study, but were included to give a broader understanding of the relationship between the respondent and OSNs, and also to help inform the recommended best practices to follow in Chapter 5.

In order to confirm that the respondents were not only using LI in their work, a question was included that asked whether they also used other OSNs in their work. Though we know from earlier profiling questions that respondents also use Facebook and Twitter among others, it was not clear that these other OSNs were used for work purposes.

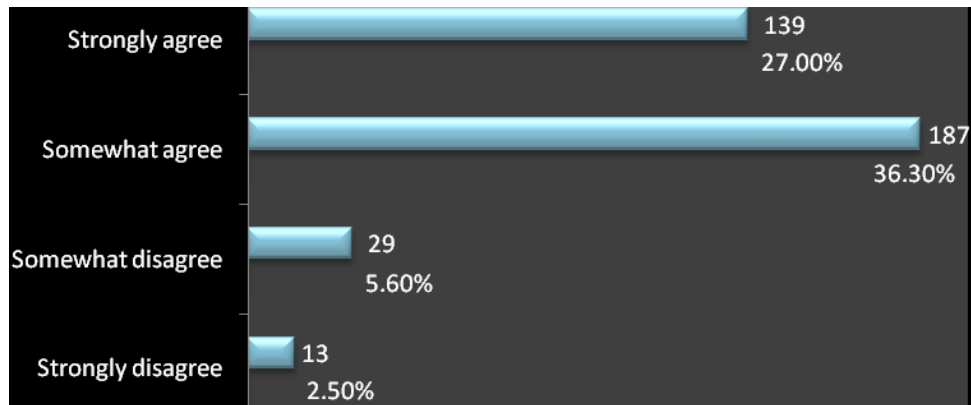
Chart 4.43: I use a variety of different OSNs in my work, not just LI



The results show that respondents are in fact using a variety of OSNs in their work. A large majority of the respondents strongly agree (27.2%) or somewhat agree (30.3%) with the statement, 13.8% somewhat disagree and 11.5% strongly disagree. Though there is a small group of respondents who appear to use only LI at work, this is the exception, since most use multiple OSNs.

In order to measure the expectations respondents had regarding the role of OSNs in their jobs going forward, the question was asked whether they felt OSNs would become a bigger part of their jobs in the future.

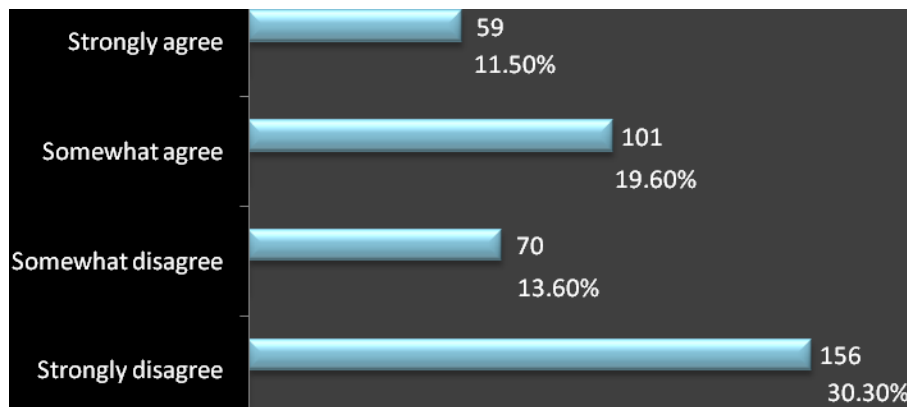
Chart 4.44: OSNs will become a bigger part of my job in the future



A large majority of respondents indicated that they felt OSNs would become a bigger part of their jobs in the future. Overall, 27.0% strongly agreed, 36.3% somewhat agreed, 5.6% somewhat disagreed and 2.5% strongly disagreed. The very small numbers disagreeing with the statement suggests that expectations are high that OSNs will become a larger part of most respondents' jobs in the future.

In order to explore the role of OSNs in how performance is measured and rewarded, two questions were asked about this aspect of the respondent's work. The first question asked respondents whether their performance was measured, at least in part, by their ability to use OSNs effectively.

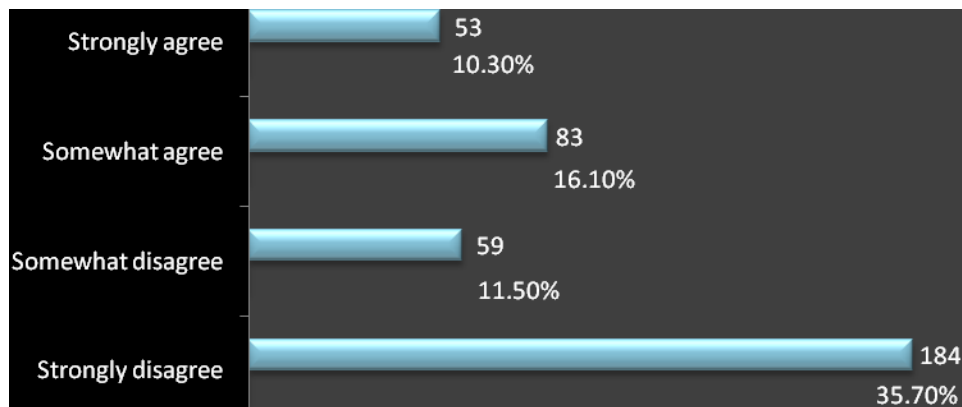
Chart 4.45: My performance is measured, at least in part, by my ability to use OSNs effectively



The results suggest a mixed set of experiences in the workplace. There is a sizeable number of respondents (30.3%) who disagree strongly with the statement, while 13.6% disagree somewhat, 19.6% somewhat agree and 11.5% strongly agree. The range of responses suggests that there is a core group whose performance is definitely not measured on their ability to use OSNs effectively, yet the number of people who agree at least somewhat with the statement suggests that there are a number of people who may be indirectly measured on this ability. For example, it may be that a salesperson uses OSNs among other tools to meet and exceed performance targets, and is rewarded on the overall result. Examining this role of OSNs as a tool in a set of tools might be an interesting area for future research.

The second question asked respondents whether they received financial or other rewards for their effective use of OSNs. There was clearer disagreement with this statement than the previous one.

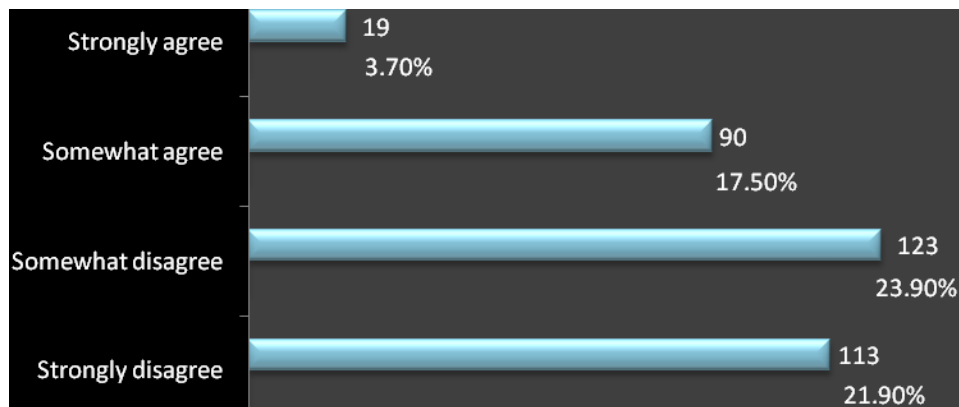
Chart 4.46: I receive financial or other rewards as a result of my ability to use OSNs effectively



Overall, 35.7% strongly disagreed with the statement, while 11.5% somewhat disagreed, 16.1% somewhat agreed and 10.3% strongly agreed. Taken together, the results of the last two questions suggest that there may be room for organizations to explore performance measure and rewards, especially in the context of competing for and retaining talented employees.

Anecdotally, the researcher had been hearing an increasing number of people express a frustration and fatigue with OSNs at speaking events and in other conversations, so it was decided to insert a question to see if this was a general perception, and to provide a benchmark measure for future research on the topic.

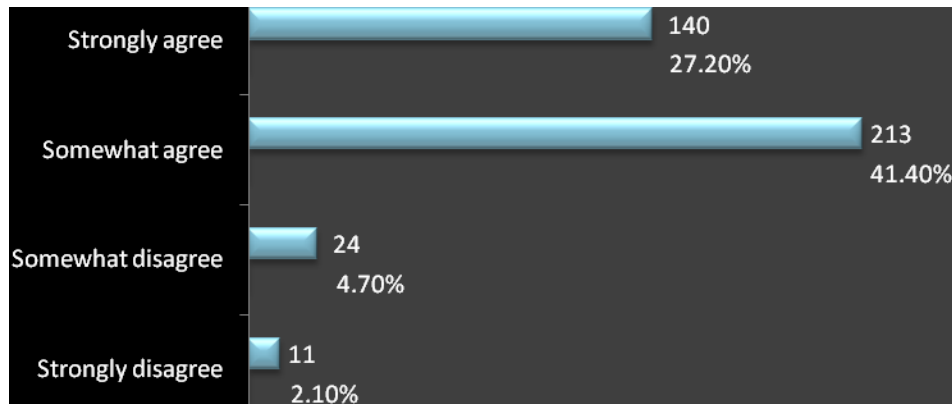
Chart 4.47: I am getting tired of OSNs and social media, and can foresee reducing my activity level or the number of networks I participate in



The spread of answers was interesting in that, though there were only a small group of respondents who strongly agreed with the statement, there is a range of opinions on the statement. In all, almost one in five respondents at least somewhat agree (17.5%) or strongly agree (3.7%) with the statement while 23.9% somewhat disagree and 21.9% strongly disagree. Though these findings are not especially striking, they merit monitoring, and this set of results could assist future researchers by providing a benchmark.

Respondents were asked if they would be becoming more focussed and strategic in their use of OSNs in the future.

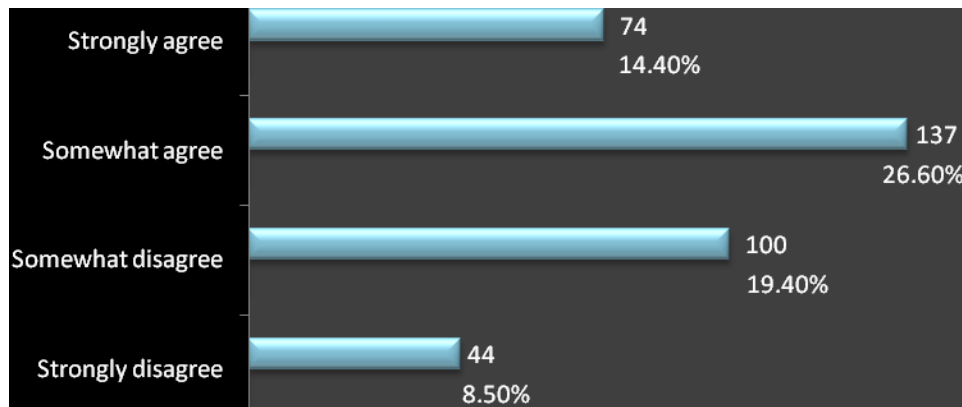
Chart 4.48: I will be becoming more focussed and strategic in my use of OSNs



There was strong agreement on this statement, with 27.2% strongly agreeing, 41.4% somewhat agreeing, 4.7% somewhat disagreeing and 2.1% strongly disagreeing. This is a strong finding and may pave the way for managers to tie this dimension into future performance measurement and reward systems. An interesting area for future research might be to explore this sentiment more deeply and try to uncover whether it is the result of people feeling they are not currently focussed or strategic enough, or whether there are other dimensions involved.

The final questions involved respondents' perceptions of the more distant future, and were included both for personal interest and to possibly help inform a set of recommended best practices. The first asked respondents if they could envision a future in which they communicated more via OSNs than via other electronic communications tools like email and texting.

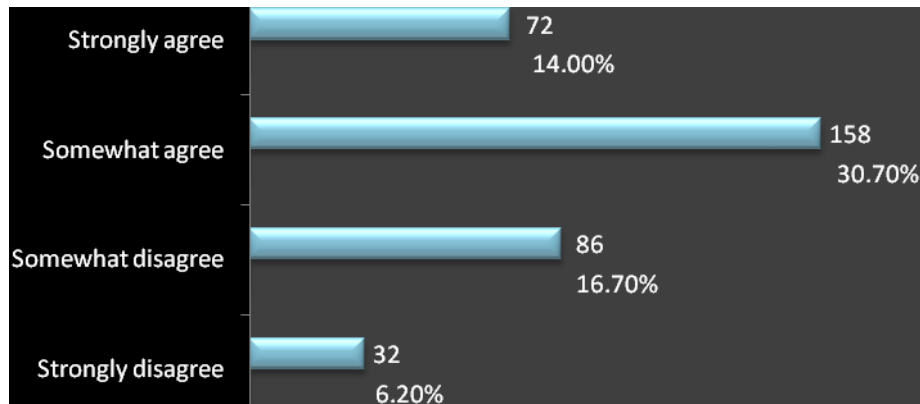
Chart 4.49: I can envision a future in which I communicate more via OSNs than by email or texting



There was a broad mix of opinions on this, with 14.4% strongly agreeing with the statement, 26.6% somewhat agreeing, 19.4% somewhat disagreeing and 8.5% strongly disagreeing. This is another variable that might bear monitoring over time, because if more people were to migrate toward OSNs as their primary communication tool, it could have an impact on management decisions regarding enterprise communications tools, in the sense that corporate email systems may decline in both usage and importance, and there might need to be stronger policies, guidelines and training around the use of OSNs for organizational communication.

The final question was more speculative and asked respondents whether they felt that social media would become the dominant form of media in the future.

Chart 4.50: Social media will become the dominant form of media in the future



The results are interesting in that over half of the respondents agreed at least somewhat with the statement. Overall, 14.0% strongly agreed, 30.7% somewhat agreed, 16.7% somewhat disagreed and 6.2% strongly disagreed. This finding may be worth tracking over time, since the respondents are also consumers, and managers may want to reassess where they place their resources in the media mix and make sure it evolves in line with their consumers' expectations and media consumption habits.

4.2 Research results and analysis from qualitative enquiry

Qualitative research was undertaken in order gain an in-depth perspective from senior level managers on their experiences with implementing OSNs in their organizations. Another motivation for the qualitative enquiry was to gain insights toward a suggested set of best practices for organizations implementing the use of OSNs. Two broad approaches were used: in-depth interviews with senior managers and executives, and a supplementary qualitative enquiry about suggested best practices implemented via LI's Q&A feature.

4.2.1 In-depth interviews

A total of 12 interviews were conducted using a semi-structured discussion guide which appears in Appendix One. The interviews were conducted over the telephone in 11 of the cases, and one interview was done via email at the respondent's request. It was decided to include the 12th email interview and analyse it along with the others due to the interviewee's senior position (CEO level) and the opportunity to add more geographic spread to the interviews (interviewee was from New Zealand). The 11 telephone interviews lasted from approximately 40 to 60 minutes. Each interview was recorded using an online service (www.freeconferencecall.com), and each interview was transcribed fully from the digital audio files downloaded from the online service. Although handwritten summary notes were also made as a backup, the use of the audio recording service was very helpful in allowing the conversation to flow naturally, and facilitating more active listening and probing. The discussion guide was organized into major sections that sought: to profile the respondent and make sure they qualified under the specifications of the methodology; to explore the respondent's experience with implementing OSNs in their organization; to explore their motivations for doing so; to learn their measures of success; to learn the end results, how their use of OSNs has evolved, and any recommended best practices for organizations considering making use of OSNs.

Table 4.1: Profile of in-depth interview respondents

	Position Level	Employees	Industry Sector	Location	OSN Knowledge	Interview Date
1	Marketing Leader	125	Information Technology	Canada	Med-High	April 21, 2010
2	President & CEO	30	Non-profit Association	Canada/global	High	April 22, 2010
3	VP Marketing	120	Computer Software	USA	High	April 24, 2010
4	COO	300	Industrial Automation	USA	Medium	April 30, 2010
5	Director Marketing	2,000	Higher Education	Canada	Med-High	May 3, 2010
6	VP Marketing	180,000	Electrical Mfg.	Germany/global	High	May 4, 2010
7	Director Bus. Dev.	7	Consumer Services	USA	High	May 4, 2010
8	Director	75,000	Defence & Aerospace	USA/global	High	May 5, 2010
9	Dir. Mktg & Bus Dev	19	Financial Services	USA	High	May 5, 2010
10	CEO & Chair	40	Public Safety	New Zealand	High	May 5, 2010
11	Director IT, Ldr. Comm.	50,000	Telecom	USA/global	High	May 11, 2010
12	CEO	27	Software	Canada	High	May 11, 2010

Each interview was transcribed in detail, yielding over 180 pages (68,000+ words) of transcripts overall. In addition to these transcripts, each interview was audio recorded, and available for playback.

To analyze the results from the in-depth interviews, the transcripts were read at length, and recurring themes and ideas were noted. Where necessary, the audiotapes were revisited for clarity. After developing an initial list of recurring themes, the transcripts were reviewed again in detail with different coloured sticky notes used to flag passages in the transcripts related to each theme. The following were the early themes or cluster groupings that were identified:

1. Innovation as a motivation for using OSNs
2. Collaboration as a motivation for using OSNs
3. Results of using OSNs
4. Organizational policies and practices around information sharing via OSNs
5. Organizational policies and practices around the use of personal OSNs at work
6. Suggested best practices for using OSNs in organizations

Each of these themes is discussed in greater detail in the following sections of this chapter. After this initial codification of the data, a period of reflection was taken in order to consider what the other important messages or teachings were from the interviews. This reflection resulted in several dimensions being identified which tended to differ between the respondents. Among these, the following were noted:

1. Larger and older organizations tended to have longstanding and extensive policy and procedures frameworks governing areas such as employee conduct, the use

of technology and other behaviours related to OSNs. For these organizations, the use of OSNs was seen as evolutionary rather than revolutionary, and in most cases the use of OSNs fit under existing policies and procedures. Smaller firms, by contrast, tended to have less policy structure in place and were cognizant of the risks inherent in OSNs as an unbounded activity within the organization, though at the same time they were not in favour of very restrictive policies.

2. There were notable differences in the degree of control desired over the use of OSNs. Approximately two-thirds of the respondents did not wish to have policies in place that were overly restrictive of OSN usage at work. The attitude of these respondents was that restrictive policies would diminish creativity and collaboration, and that it was better to try and harness the employees' use of OSNs to the company's benefit. This viewpoint was held despite an awareness that uncontrolled usage of OSNs could result in risks to the organization's reputation through employee mistakes or misdeeds. It was suggested that these risks would be best handled through training and group norms. The countervailing viewpoint, held by respondents from larger, intellectual property oriented and heavily-regulated organizations was that there needed to be a fairly tight degree of control over OSN usage.
3. The role of planning versus experimentalism in approaching the use of OSNs within the respondent organizations was notably different. While few of the respondents went into their experience of OSNs with preconceived notions of specific outcomes, there were two distinct camps in terms of approach. The first stressed the role of careful planning through listening, observing the actions of others and having well-developed plans before proceeding. The other set of opinions argued for a "play with it and see what happens" approach to using OSNs, adopting a more experimental and iterative approach to trying things, seeing what did and didn't work, and adjusting their approach continually.
4. A difference between inward versus outward focus in the use of OSNs was evident among the respondents. The opinions ranged across the spectrum from firms focussing almost exclusively on OSNs as a collaborative tool within the

organization, to organizations more focussed on external stakeholders such as customers and collaborators. The majority of the respondents had both an inward and outward focus, though the relative emphasis differed.

5. There was a difference in the use of hard versus soft success metrics regarding OSNs. On one end of the spectrum, there were organizations that focussed exclusively on harder metrics, such as number of subscribers, number of click-throughs to a website, sales conversions and so forth. On the other end of the spectrum were those who made little attempt to measure success, but rather felt they knew they were doing the right things by just being active and experimental in the OSN space. The majority of the opinions were somewhere in the middle of the spectrum, with respondents using a blend of harder metrics and softer ones such as stories and anecdotes about positive customer experiences.
6. Differences in approaches between business-to-consumer (B2C) and business-to-business (B2B) oriented firms were also noted. Approximately one third of the respondents were from firms that were almost exclusively B2B oriented. These respondents emphasized that there was less urgency to “follow the pack” and rush into OSNs as there would be in B2C firms, since – in their opinion – it was end consumers who have been quickest to adopt OSNs, not the intermediary firms that these B2B firms typically dealt with. Despite this lack of urgency to adopt OSNs, the B2B respondents acknowledged that OSNs could be powerful tools to improve collaboration with, and service to, their customers.

Innovation as a motivation for using OSNs

Though innovation was occasionally cited as an original motivator on the part of the senior managers interviewed, it was much more frequently cited as an unexpected result or outcome of using OSNs. In other words, though few of the respondents embraced the use of OSNs with a specific goal of become more innovative, the results

of using OSNs have led the organizations to becoming more innovative. Now that they know what to expect, many of the respondents indicated that they would expect innovation to be an outcome, and would have it as a prime motivator in the future.

This response was typical of the managers interviewed. Relatively few of them had a concrete set of goals or motivations in mind as their organizations began to make increasing use of OSNs. In several cases, the adoption of OSNs began with staff using them on their own initiative, and “selling it upward” to senior management as a potentially valuable tool. The role of these passionate early adopters in diffusing awareness of OSNs is important. In some cases the senior executive was the passionate early adopter, and used their influence to promulgate the usage of OSNs throughout the organization. In some organizations, there was a sense of something exciting (social media) happening in the market space, and there was an urgency to learn about it and find ways to exploit it to remain on the leading edge. One leader expressed that he was able to harness and promote staff-led adoption of OSNs by creating a culture that supports and encourages this type of innovative communication:

“As far as staff innovating, we’re starting to see staff using social media on their own initiative. And so that is a good sign and when we see that, we tend to reward it by making comments, online, in the public domain in supporting them in their efforts to do that. So whether they’re going ahead and posting an event on Facebook or putting something in a LinkedIn group, or whether they’re going and commenting on a member’s online discussions or giving them feedback online, those are all ways that staff are innovating, and that’s a positive sign.”
(Respondent comment.)

One respondent described how an experiment in social media led to enduring, though unexpected, innovations. The organization, a large educational institution, wished to raise its profile, and attempted a three-day-long, around the clock blogging event as an experiment. Students and staff were recruited to sign up for sections of time throughout the event in which they would live blog what was happening around them, including

video recordings, interviews and their own impressions. The live blogging was made available to anyone in the public who wanted to tune in via the organization's website. The event was a success in generating interest and attention for the institution both inside and outside the organization and has been re-enacted each year since. The unintended innovative consequences of the event, though, were found in breaking down organizational barriers to creativity. In staging the event the organizers found several instances where legacy policies and procedures would have prevented them from enacting the event (for example, videos could only be produced by a single department, not by anyone at large). By identifying and eliminating some of these legacy policy and procedural barriers, the organization was able to be more innovative and nimble in its use of new media. This is another example of how innovation was an outcome, rather than a conscious goal in the mind of the senior manager.

In another case, efficiency was used as the word to describe innovation. The goal of the senior manager was to drive efficiency gains for the firm's B2B customers. In this case, the unique selling proposition for the customer was to be found in the firm's ability to cross-sell products and services so that its customers could get everything they need through one supplier. In order to enhance their ability to deliver this capability to their customers, the company created an in-house business social network. Access to this proprietary system has been distributed to all the customers and affiliated companies around the world. The system acts as a clearinghouse for customer needs and company/affiliate capabilities and expertise. The effect of this system has been to deliver substantial efficiencies to the customers while unifying the company's brand in the minds of the consumer:

"The customer gains massive efficiency because they can get an expert in Paris, France to be on the team in Dallas, Texas and they can pull in their end-user customer in Shanghai, China and we're all on this project at once ... and we have a calendar and we schedule meetings and do videos and it's fantastic. But why we did it was to simplify the brand or to unify the brand ... we have moved from

products and applications to a solutions-based selling organization.”
(Respondent comment.)

Another motivation around innovation was to enhance the state of practice in a particular profession or product category. In these cases, firms that had leading edge knowledge and practices used forms of OSNs to share that knowledge. In one instance the company was very active in creating an online forum for a particular functional expertise, internal auditing. The online forum allowed the firm to use its in-house experts to share their knowledge, enhancing and influencing the state of practice in internal auditing, while being able to feature their in-house experts as potential high-profile speakers. In this instance, the motivation was innovation outside rather than inside the company. Another firm used a similar approach, but the motivation to innovate was inwardly rather than outwardly focussed. In this latter case, an “ideas market” was created via an in-house OSN in which people from all over the worldwide firm can share ideas, as well as post follow-up status updates on ideas and projects. The network also reports on trending topics, so people are able to gravitate toward ideas that are gaining attention. The firm reports a great deal of improvement in the development of new products as a result of leveraging its internal brainpower.

One respondent saw an opportunity to innovate the way their organization communicated with its stakeholders by using OSNs. A world-wide professional association with volunteer chapters in many cities, the organization was struggling with meeting the demands of trying to ensure that member chapters were receiving information efficiently from head office. The CEO saw an opportunity to enhance the service to members by sending information through a number of different platforms:

“Customer service, definitely, we saw it as an opportunity. We weren’t sure really how it was going to work, but we thought that there might be some ways to communicate with people in their preferred manner of communication. As I mentioned earlier, about people contacting us through Facebook and some

people now give us direct messages through Twitter, rather than using email. Those obviously are ways that, if that's their preferred method of communication, it does improve service by responding to them in kind. So those were some of the goals and really, one of the main goals though, that when we started was, really trying to create real-time access to information for our members and for our volunteer leaders, so that they would be able to find information and make us more productive. So it really stops the phone ringing for redundant questions because they can find that information quicker, probably faster, 24/7, when our phones aren't being answered and it really helps us all to be more productive.” (Respondent comment.)

Collaboration as a motivation for using OSNs

Although overall, few respondents were able to ascribe concrete intentions and motivations to their decision to use OSNs, collaboration was a common thread among most of the respondents. The respondents expressing this opinion appeared to have sensed that OSNs could provide a means of enabling greater collaboration in work teams, project teams and in company-client relations.

One company was struggling with a way to communicate effectively on projects with dispersed staff and customers spread around the globe. The situation was exacerbated by differing technology levels in different parts of the world. Certain countries had poorly developed telephone infrastructures, yet had very good Internet capability through wireless networks. By creating a dedicated in-house online social network, the firm was able to host meetings and virtual workspaces that could make use of text, video and voice communications. Another firm was able to achieve similar gains in collaborative ability by hosting their own OSN which it describes as working like a hybrid of Facebook and Microsoft Project. This tool allows complex projects to be managed and provides a collaborative space for both the client representatives, but also company professionals including architects, engineers, systems integrators and salespeople.

“We’ve created a project management platform completely surrounded by social media. So you log in, you create an account just like you would on Facebook. You can have private groups. I’m a facility manager in China and I found a facility manager in Sweden, let’s create a facility managers group and we’ll all share stories about ... being a facility manager. So they can do that and make connections in a business environment which makes sense or is in the context of what they’re doing which is electrical facility management. We would have the same for contractors, for distributors, electricians, general contractors. So that’s the social part... The salesperson manages everybody. We assign a project manager. We do phases, milestones, tasks. We do discussions, we have document libraries.” (Respondent comment.)

Approximately one-third of the respondents had implemented a variation on an in-house OSN similar to the ones described above. It appears that an in-house OSN solution made more sense to larger firms, especially those with high data security, confidentiality and regulatory concerns. The balance of the organizations interviewed opted to use open source, freely available tools like LI, Facebook and Twitter. Whether in-house or open source, the motivations around collaboration were common to all the respondents, specifically a desire to create or encourage convenient spaces for staff, and in some cases staff and external partners, to be able to solve problems together.

Results of using OSNs

As noted previously, there were relatively few preconceived motivations for using OSNs on the part of the managers interviewed. This is likely due to the fact that the use of OSNs is so new that there were relatively few case studies or documented experiences to allow managers to draw conclusions from or base expectations on. One outcome of this is that any results from using OSNs tended to be a surprise, rather than a consciously hoped-for result. These results, though somewhat a surprise, were described overwhelmingly as being positive. There were almost no mentions of negative consequences from using OSNs. Some of the results reported are discussed below.

One key result for many companies was greater reach in their marketplaces. One firm had been historically averaging around 60 participants in each of its seminars, and through promoting the seminars via participating in LI discussion groups, average attendance increased to between 200 to 300 attendees. Tracking showed that approximately 40% of the total attendees are now sourced through LI. This in turn fed the organization's sales pipeline and resulted in increased sales.

Another positive outcome mentioned was the savings realized through lessening reliance on traditional media as a form of promotion. One respondent pointed out that he was constantly being asked to do more with less year after year, and that moving away from print and radio advertising into social media has allowed his institution to save money while using social networking tools to reach a more targeted audience.

Among the unintended benefits also mentioned were a greater sense of camaraderie, collaboration and people enjoying solving problems together. As one respondent noted: "Collaboration wasn't intended as a goal but just happened." Related to this is the ability to leverage the personal networks that employees bring to the organization. Described by one CEO as "edge connections," these personal contacts were able to be encouraged to be brought into service to help the employer. This notion of sharing information and resources was an important theme throughout the interviews. There were multiple mentions of the role of sharing stories, anecdotes, information, connections and ideas as a positive benefit stemming from the organization's use of OSNs. It should be noted that these were not seen as new or revolutionary behaviours, but rather as something that is enabled via OSNs. The ability to share anecdotes within a company has long been possible through newsletters and other media, but the immediacy and participatory nature of using OSNs makes the behaviours more prevalent and enjoyable.

“What we’ve discovered is that the natural evolution of that kind of knowledge sharing, benchmarking, right, so for years and years and years, our employees had been participating in industry forums, all these benchmarking services, sharing knowledge with key customers, cross-functional project teams, all that kind of good quality development stuff. Social networking and the leverage of these external social tools has kind of really ramped up that model and increased the ability for people to do that more fluidly. Similarly, with corporate communication information, one of our great stories here is, we’ve actually recently introduced social sharing of those internal stories, much like other companies have done on their intranets. And that doesn’t displace the need to generate the story, right, but it increases the leverage of the story, the visibility of the story and then creates the tangential conversations around those topics.” (Respondent comment.)

One respondent pointed out that the company’s extensive usage of OSN tools, both in-house designed and open source, has led to the firm becoming an employer of choice. This suggests that a firm can gain a competitive advantage in the talent market by having leading edge tools for staff to use.

Another benefit cited by respondents was faster speed to market for new products. One CEO explained that when a new software product is ready for release, he asks the company’s staff to use all of their personal OSNs to put the word out to their contacts:

“We get faster to market with new products, you know, I almost take it for granted in that respect. So we have a product, we do a release and in the same minute I can send out a tweet, I can post a Facebook status, I can go to LinkedIn and I can ask. We’ve used that in the past to ask the staff to talk about a product to all of their friends and ask them to retweet it. And we’ve had success with that... I just retweet or post a status update or tell their friends, whatever that might be. So, you know, we still would do maybe a traditional press release but most certainly that takes longer... we don’t use radio, TV, print or any of those media.” (Respondent comment.)

Organizational policies and practices around information sharing via OSNs

The majority of the managers interviewed indicated that there were no formal policies in their organizations governing the kinds of company information that staff can share via OSNs. In general, the organizations relied upon existing information sharing and confidentiality policies. Effort was being made to do more training of staff around what is acceptable behaviour on OSNs, though most respondents were comfortable adapting the existing policies and norms of the organization. The exception was in firms that were subject to external regulations, such as financial services, and firms which dealt extensively with confidential information. These companies tended to already have explicit written policy documents that governed employee behaviour and treatment of confidential information. Not surprisingly, the largest firms with thousands of employees appeared to have more formal policy infrastructures. In general, though, there was an overall lack of formal policies specifically about OSNs, and most organizations either used informal guidelines and training to reinforce expected norms of employee behaviour. Most respondents indicated that they place a substantial amount of trust in their employees, and rely on those employees to know how to behave appropriately, whether on an OSN or at a social gathering.

Organizational policies and practices around the use of personal OSNs at work

The vast majority of respondents indicated that they had no policies that governed the use of personal OSNs by staff during work hours. In fact, there was strong opposition to the idea:

“No, because there is no practical way of doing so, and more importantly doing so would be highly counter-productive. Social networks work because they are

spontaneous and organic. Attempts to formalize or limit them damage their effectiveness.” (Respondent comment.)

This may be due in part to the fact that OSNs are still a relatively new phenomenon, and the organizations interviewed are among the early adopters. This may also point to a more experimental and less control-oriented approach to these new technologies. Several of the managers interviewed in fact relied to a great extent on the personal OSNs of their staff to communicate with customers, spread information to the marketplace and make connections in support of sales and staff recruiting. The prevalent viewpoint among the interviewees was that it would be impractical, and even wrong-minded to attempt to control staff usage of OSNs; it made more sense to try to harness that usage to the benefit of the company. This finding echoes CoPs which, as noted previously, are usually both voluntary and spontaneous in their formation; they can be harnessed by management without being controlled by them. For those companies who indicated that they did have a policy in place, it was not a policy directed specifically at OSNs, but rather an overall acceptable use policy governing all computer and related office equipment.

“The core policy is what we call our “appropriate use” policy ... we respect our employees, we put great value in our employees. We trust them to do the right thing. We realize that that’s not always the case, but we take a very proactive and what I would say is a positive view of it. On that note, we inform our employees what’s appropriate, right. So we have expectations of our employees that they understand, in everything that we issue them, this is not just an issue of social media. But from their corporate cell phone, to their corporate telephone, to their computer.” (Respondent comment.)

Although there was a distinct lack of appetite for very explicit, restrictive policies governing the use of personal OSNs, several respondents conceded that the lack of existing policies did create some vulnerability for their organizations. Since social media are so immediate in their impacts, the risk of a mistake or error in judgement was seen as very real, and most respondents acknowledged that negative consequences had

largely been avoided through luck thus far. With the exception of very large firms with well-developed policy infrastructures, most respondents indicated that they should be developing and disseminating some form of guidelines around the appropriate usage of OSNs, and several noted that this was already in progress.

Suggested best practices for using OSNs in organizations

Respondents were asked if they had any recommendations that they would make to other organizations who were considering making greater use of OSNs. Given that the respondents were relatively early adopters of OSNs, it was felt that their advice could begin to provide a basis for a set of recommended best practices. A summary of the ideas put forward is below.

1. All OSN activities should have some sort of customer conversion as their ultimate goal. Conversion does not have to mean a sale, but some sort of action that is desired on the part of the audience. It could be clicking through to a website, signing up for a newsletter, asking for more information and so forth. With the desired conversion in mind, a better social networking strategy can be developed.
2. All OSN activity should tie back to corporate strategy, goals and objectives.
3. Organizations should not try to over-plan an approach to using OSNs. The most important thing is to start using the technologies, play with them, and figure out how to use them as the organization goes along. Otherwise organizations can end up paralyzed by over-planning and end up losing valuable time relative to the competition.
4. It is important to develop guidelines that govern the appropriate use of OSNs, confidentiality and disclosure of information. These guidelines should be

supplemented by training of all staff.

5. It is important to research where the intended audience for the organization's OSN activities currently spends time, so that the organization ends up adopting the appropriate tools and platforms to reach that audience most effectively.
6. Listening is a key activity that should be a goal of an OSN strategy. It is critical to be listening to what is being communicated by customers, and by competitors. Having a "designated listener" on staff can be helpful.
7. The role of champions and influencers is very important. The organization needs to identify these people in the organization, and well as in the customer base, and encourage those key people to assist in the organization's efforts with OSNs.
8. Focus on basic success metrics. These need not be too analytical. If the organization is putting out good content, and it is reaching the right people, that can be sufficient. Anecdotal results and good stories are just as important as hard metrics.
9. It can be helpful to understand that there is nothing fundamentally new about OSNs, they are just an enabling technology the same way a telephone and a fax machine were. It can be helpful to look at how the organization has dealt with other technologies and situations so it does not have to start fresh with entirely new strategies, policies or guidelines.
10. There is a real need to be authentic with social media. It is important to have the social media presence for an organization be an accurate representation of the brick and mortar organization.

4.2.2 Supplementary qualitative enquiry

Additional qualitative research was undertaken in the form of a question posted to LI's Q&A section. The question asked LI users to suggest what they felt should be included in a list of recommended set of best practices for using OSNs in organizations.

There were 47 responses in all. The responses tended to echo the opinions that were obtained through the quantitative survey and the qualitative in depth interviews. A summary of the main ideas put forward follows:

1. Organizations should start with a tentative strategy that can be adapted as needed. It is important to keep learning and adapting as OSNs evolve. Adopting an experimental and playful attitude toward the use of OSNs is a good idea. A development plan for the employment of OSN's should focus on starting small and growing over time. It makes sense to launch efforts on different OSNs sequentially, not all at once. Basic rules for using OSNs should be put in place, but not heavy-handed ones. Organizations should align their OSN strategy with their organizational culture – if the culture is open to it, trial and error may be fine; for less experimental cultures, a more planned approach may make sense. OSNs should be part of an overarching and coordinated communications strategy for the organization. In developing an OSN strategy and plan, organizations should define what they wish to achieve, and should not assume that they need to use all of the various OSN sites to accomplish their goals.
2. Organizations should monitor OSNs first, before leaping in, in order to ensure that their target markets use OSNs, and to find out how they use them. This is important to ensuring that the organization's OSN strategy mirrors the behaviours and preferences of the intended audiences. Researching what the competitors are doing and identifying which OSN communications channels they are using

can also help organizations develop appropriate approaches to using OSNs. It should be noted that OSNs offer learning opportunities, as well as promotional opportunities. Organizations should determine what they are interested in learning about (such as: competitors, collaboration opportunities, new strategies, customer feedback, new ideas or other information) and how they will collect and make use of that information.

3. Organizations should be regular and consistent in their communications, and should focus on their goals and on providing engaging, relevant and value-rich content for their audience. The focus should be on quality of communications, not quantity. It is recommended that communications campaign be tracked and measured for success. It is important to place the focus on the experience that is being created for the customer, and on presenting a helpful, human presence. Notifying current customers of the organization's OSN presence is also required. The personalities of the people doing the social media communicating should be in line with the organization's values, vision and mission. It is recommended that organizations have a professional communicator in charge of OSN interactions.
4. Organizations should establish written corporate policies and procedures for OSN usage from both an employee and departmental perspective. A good starting point for this effort is the existing policy frameworks the organization already has for security, computer access and usage and see if these can be adapted for OSNs, rather than coming up with a whole new set of rules. Organizations should also plan for the negative effects that can be encountered through OSNs. It is a good idea to have pre-planned answers and rules for interactions before negative comments and situations are encountered. Having a policy for negative situations and making certain everybody understands the policy is recommended. Organizations need to be clear that social media leaves them open to detractors, and should have a strategy in place for handling this. Consideration should also be given to the legal implications of OSN usage, such as who will add and be responsible for content and what content is acceptable. An assessment of intellectual property risks should also be undertaken so that

the organization can develop guidelines on how to protect intellectual property and avoid unplanned leakage of sensitive information through OSNs.

5. Organizations should provide ongoing and new hire training on best practices for OSN usage, and should not assume that employees know how to use OSNs effectively or appropriately. It is recommended that organizations consider creating a controlled task force for the first 6 months to convey valuable information to employees on how to use the various tools and what employees need to know about their presence representing the company. Employees need to know they are representing the company at all times on OSNs and the same rules apply online as offline. OSNs are a tool to help empower employees as advocates of a brand and/or an organization. Management should also set expectations and measurable goals for employees' usage of OSNs. An example of a measurable goal might be: the percentage of the time the employee will need to utilize social media to meet sales and referrals, against the total actual sales and referrals generated in a specific time period. It was suggested that organizations may also want to consider having audit and compliance measures implemented via neutral third-party vendors who can monitor, evaluate and measure productivity and feedback from a client perspective.

Summary of suggested best practices

The results of the research undertaken above were distilled into a suggested framework for managers to consider when developing best practices for employing the use of OSNs in their organizations. This suggested framework is presented below, and is also reflected in the next chapter. Where it was deemed useful, verbatim quotes from respondents have been included to illustrate ideas in the respondent's own words. Once this framework was developed, it was made available in August, 2011 to the LI community for reactions, feedback and suggested changes. The framework was made available through a posted question in the Q&A section of LI. The feedback was overall

very supportive, and seven considered responses were made in reaction to the framework. Though no major changes were recommended by the respondents, they did suggest strengthening the section on listening to place more emphasis on customer feedback and organizational reputation management, to make mention of the need for coordinated communications across different departments, and make use of a committee of stakeholders to develop and regularly review OSN strategy. These comments have been incorporated into the final suggested framework presented in Chapter 5.

Strategy

Planning for OSN implementation should tie back to the organization's strategy, goals and objectives. To this end, it is helpful to align the level and type of OSN planning to the planning culture of the organization overall.

“Align the strategy with the culture – if the culture is open to it, trial and error may be fine; otherwise it can be a disaster.” (Respondent comment.)

Organizations that are more structured and methodical in their planning will likely benefit from a more structured approach to developing and rolling out an OSN plan. For this type of organization it will make sense to develop a concrete plan with reasons for using OSNs, and expected results. For organizations that favour a more iterative or adaptive approach to planning, starting with a tentative OSN strategy that can be adapted as needed may be the best approach, making adjustments as learning takes place.

“Don't try to over-plan an approach to using OSNs. The most important thing is to start using the technologies, play with them, and figure out how to use them as you go along. Otherwise you can end up paralyzed by over-planning and losing valuable time relative to the competition.” (Respondent comment.)

As noted above, the key is make sure there is an alignment between the planning style and activities that the organization uses overall, and to fit the OSN planning efforts into that style.

Listening

It is important to scan the environment and observe what is being done currently with regard to OSNs. This scan should include looking at what the competition is doing, as well as what is being done in other types of organizations and industries. It is equally important to understand what the behaviour and needs of the organization's customers and stakeholders are. This will be helpful both in terms of not re-inventing the wheel, but also in terms of fitting an appropriate OSN approach to the needs of key stakeholders. It is important to research where the intended audience currently spends time, so that the organization ends up adopting the appropriate tools and platforms to reach that audience most effectively.

“Listening is a key activity that should be a goal of an OSN strategy. It is critical to be listening to what is being communicated by customers, and by competitors.” (Respondent comment.)

Another role for listening is being aware of the fact that OSNs are not merely broadcast media, but are also an important means by which customers and other stakeholders can communicate with an organization. Missed messages represent missed opportunities. One suggestion is to have a “designated listener” on staff, someone whose job it is to monitor developments in the social networking arena, as well as monitoring actual communications from customers, stakeholders, collaborators and competitors.

Communication

A communications strategy for OSNs should be part of an overall coordinated communications strategy for the organization. As OSNs represent a unique medium, they require a unique approach to communications. In particular it is essential to be regular in communicating and to have engaging, relevant and value-rich content that meets the needs and interests of the audience. It is suggested that a professional communicator be used to design the communications strategy.

“Focus on quality not quantity. Focus on the experience you are creating for the customer. Focus on being a real person and being available to help... Ensure that what you promote is what you are.” (Respondent comment.)

The importance of being authentic in OSN communication has also been emphasized in the qualitative interviews. The OSN representation of the organization should be in alignment with the brick and mortar organization.

Guidelines

It is important to develop guidelines that govern the appropriate use of OSNs, confidentiality and disclosure of information. These guidelines should be supplemented by training of all staff. As one respondent noted, it is useful to keep in mind that there is nothing fundamentally new about OSNs; they are just an enabling technology the same way a telephone and a fax machine were. It can be helpful to look at how the organization has dealt with other new technologies in the past, since there may not be a need for entirely new strategies, policies or guidelines. Though policies and guidelines can help mitigate negative consequences of using OSNs it is still necessary to have a

plan for handling negative results, accidents or missteps.

“Need pre-planned answers and rules for interactions before negative comments and situations are encountered. Have a policy for negative situations and make sure everybody understands it. Hope for the best and plan for the worst. Be clear that social media leaves you open to detractors, so have a strategy in place for handling this.” (Respondent comment.)

Establishing written corporate policies and procedures from both an employee and departmental perspective is recommended. A good starting point for this effort is to look at the existing policy frameworks the organization already has for items such as security, access, usage, confidentiality and see if these can be adapted for OSN usage, rather than coming up with a whole new set of guidelines.

Training

In order to effectively use OSNs, organizations need training on best practices for OSN usage, both for new hires and for existing employees. For example, it can't be assumed that all employees know how to use OSNs or how to use them effectively and in agreement with company policies. It may be worthwhile to create a controlled task force for the first several months to convey valuable information to employees on how to use OSN tools and what employees need to know about representing the company on OSNs. Employees need to know they are representing the company at all times on OSNs and the same rules apply online as offline. OSNs are a tool to help empower employees as advocates of a brand or an organization, but those employees need to be trained to know what the appropriate behaviours are.

Diffusion

Earlier in this study, the role of early adopters in the diffusion of new technologies was discussed. The role of champions and influencers in a roll-out of OSN usage is very important. It is critical to identify these people within the organization - as well as in other stakeholders such as customers or collaborators - and to encourage these key people to assist in rolling out the usage of OSNs. Tying performance measurement and reward systems to the successful championing of OSNs in the organization would be a good way to attract and motivate the appropriate champions inside the organization.

Measurement

Management should set expectations and measurable goals for OSN usage. For example, what percentage of the time will the employee need to utilize social media to meet sales and referrals, against the total actual sales and referrals generated in a specific time period. Consider having audit and compliance measures implemented via neutral third-party vendors who can monitor, evaluate and measure productivity and feedback from a client perspective. Most OSN activities should have some sort of customer conversion as their ultimate goal. Conversion does not have to mean a sale, but some sort of action that is desired on the part of the audience. It could be clicking through to a website, signing up for a newsletter, or simply asking for more information. With the desired conversion in mind, a better social networking strategy can be developed. All marketing campaigns that make use of OSNs should be able to be tracked and measured for success. Not all metrics surrounding the use of OSNs need to be hard and analytical though - a blend of hard and soft metrics, such as anecdotes and success stories, can be very valuable.

“Focus on basic success metrics. These need not be too analytical. If you are putting out good content, and it is reaching the right people, that can be sufficient. Anecdotal results and good stories are just as important as hard metrics.” (Respondent comment.)

Chapter 5 – Recommendations and Conclusions

5.1 The role of online social networks in inter-firm collaborative innovation and problem solving

The research undertaken in this study was intended to address four key research objectives. These objectives, as well as the four related research propositions are summarized below, along with a summary of the research results pertaining to each.

5.1.1 Research objective 1: Is there an increase in the number of connections that cross inter-firm boundaries as a result of using OSNs?

P₁: Usage of LI results in an increased number of inter-firm connections.

The survey questionnaire tested whether or not users of OSNs report experiencing increased inter-firm social connections as a result of having used OSNs. In this context, a social connection refers to an individual with whom the respondent is now connected with directly as a result of participating in an OSN. The research proposition was that users will report an increase in the number of these connections as a result of participating in the OSN.

The results of the quantitative survey, detailed in the previous chapter, have confirmed this research proposition. Users of LI surveyed overwhelmingly reported that they have increased the number of professional connections over the number they had previously. In addition, users indicated strongly that they had increased the number of connections

they had with people outside their organization, confirming the proposition that there has been an increase in the number of connections that span inter-firm boundaries. These increased connections included both customers and competitors.

5.1.2 Research objective 2: Is there an improved ability to communicate across inter-firm boundaries as a result of using OSNs?

P₂: Usage of LI results in an improved ability to communicate across inter-firm boundaries.

The quantitative survey included questions to measure whether users of LI report an improved ability to communicate across inter-firm boundaries as result of using that OSN. In this context, improved ability to communicate across inter-firm boundaries was defined by a reported increase in communication with people from other organizations via the OSN. The research proposition was that LI users would report an improved ability to communicate across inter-firm boundaries.

The results of the quantitative survey have confirmed the research proposition that there is an improved ability to communicate across inter-firm boundaries. Respondents indicated strongly that they have been able to deepen their relationships with people through their use of LI. There was also strong agreement that users have increased the frequency of electronic communication with their LI connections than they did previously. A substantial proportion of the respondents also confirmed that they have had telephone conversations or face-to-face meetings with people they have met through LI, representing an escalation of the relationship beyond simply exchanging electronic communications. Taken together, these findings confirm the existence of

greater connective bandwidth having resulted from inter-firm relationships developed through LI.

5.1.3 Research objective 3: Is there improved access to innovation collaborators as a result of using OSNs?

P₃: Usage of LI results in greater access to problem solving or innovation collaborators.

The survey questionnaire tested whether or not OSN users reported having increased access to problem solving or innovation collaborators in other organizations since using OSNs. In this context, the term innovation collaborator was defined as a person who is able to add value to a particular problem, challenge or dilemma being faced by the respondent. The research proposition was that LI users would report improved access to innovation collaborators.

The results of the quantitative survey have confirmed that LI users indicate that they are able to draw upon the expertise of their connections to answer questions, help solve problems and collaborate with on business opportunities and problems. This confirms the proposition that users are finding greater access to innovation collaborators since using LI. Respondents also indicated that they have made use of this greater access to innovation collaborators by asking for, receiving and in turn offering help to their LI connections. Clearly, the use of OSNs has the potential to enhance access to a greater number of innovation collaborators.

5.1.4 Research objective 4: Is there improved organizational problem solving or innovation ability as a result of using OSNs

P₄: Usage of LI results in increased organizational problem solving or innovation ability.

Both the quantitative survey and the executive interviews examined whether or not users perceive that they and their organizations have a greater amount of problem solving or innovation ability as a result of the use of OSNs. In this context, the term organizational efficiency was defined by two measures: an increase in the speed with which problems, challenges or dilemmas are solved; and an increase in the number of innovation collaborators that are able to be brought to bear on solving a problem, challenge or dilemma. The research proposition was that respondents would report improved organizational problem solving or innovation capacity.

The quantitative survey confirms that this is the case. Respondents indicated strongly that their LI network helps them solve problems faster than they could before using LI. This, coupled with the fact that users have reported that they have access to greater numbers of innovation collaborators confirms this research proposition. The qualitative research also supports this research proposition to some degree, particularly in specific areas of business such as community engagement, speeding products to market and what Gumpert (2005) referred to as more timely availability of resources, through having greater connections to those in a position to provide those resources.

5.2 Toward a suggested set of best practices for using OSNs in organizations

The results of the qualitative inquiry identified a number of suggested best practices for organizations considering the use of OSNs. The elements presented below are intended to help serve as a starting point for organizations. The elements have been grouped under the categories of strategy, listening, communication, guidelines, training, diffusion and measurement. As the usage of OSNs becomes more prevalent, and more history with OSNs is examined in future research, this set of suggested best practices can be extended and clarified over time. As noted in the previous chapter, the framework below has been slightly enhanced in reaction to feedback received in August, 2011 from members of the LI community. Where it was deemed useful, verbatim quotes from respondents have been included to illustrate ideas in the respondents' own words. Below is an initial framework for consideration.

Strategy

Planning for OSN implementation should tie back to the organization's strategy, goals and objectives. To this end, it is helpful to align the level and type of OSN planning to the planning culture of the organization overall.

“Align the strategy with the culture – if the culture is open to it, trial and error may be fine; otherwise it can be a disaster.” (Respondent comment.)

Organizations that are more structured and methodical in their planning will likely benefit from a more structured approach to developing and rolling out an OSN plan. For this type of organization it will make sense to develop a concrete plan with reasons for using OSNs, and expected results. For organizations that favour a more iterative or adaptive

approach to planning, starting with a tentative OSN strategy that can be adapted as needed may be the best approach, making adjustments as learning takes place.

“Don’t try to over-plan an approach to using OSNs. The most important thing is to start using the technologies, play with them, and figure out how to use them as you go along. Otherwise you can end up paralyzed by over-planning and losing valuable time relative to the competition.” (Respondent comment.)

As noted above, the key is to make sure there is an alignment between the planning style and activities that the organization uses overall, and to fit the OSN planning efforts into that style.

Listening

It is important to scan the environment and observe what is being done currently with regard to OSNs. This scan should include looking at what the competition is doing, as well as what is being done in other types of organizations and industries. It is equally important to understand what the behaviour and needs of the organization’s customers and stakeholders are. This will be helpful both in terms of not re-inventing the wheel, but also in terms of fitting an appropriate OSN approach to the needs of key stakeholders. It is important to research where the intended audience currently spends time, so that the organization ends up adopting the appropriate tools and platforms to reach that audience most effectively.

“Listening is a key activity that should be a goal of an OSN strategy. It is critical to be listening to what is being communicated by customers, and by competitors.” (Respondent comment.)

Another role for listening is being aware of the fact that OSNs are not merely broadcast media, but are also an important means by which customers and other stakeholders can communicate with an organization. Missed messages represent missed opportunities. One suggestion is to have a “designated listener” on staff, someone whose job it is to monitor developments in the social networking arena, as well as monitoring actual communications from customers, stakeholders, collaborators and competitors. Customer feedback is an important component of a listening strategy, and care must be taken to ensure that the voice of the customer is heard and responded to in a timely manner.

Communication

A communications strategy for OSNs should be part of an overall coordinated communications strategy for the organization. As OSNs represent a unique medium, they require a unique approach to communications. In particular it is essential to be regular in communicating and to have engaging, relevant and value-rich content that meets the needs and interests of the audience. It is suggested that a professional communicator be used to design the communications strategy.

“Focus on quality not quantity. Focus on the experience you are creating for the customer. Focus on being a real person and being available to help... Ensure that what you promote is what you are.” (Respondent comment.)

The importance of being authentic in OSN communication has also been emphasized in the qualitative interviews. The OSN representation of the organization should be in alignment with the brick and mortar organization. Another consideration that should be kept in mind is that it can be confusing for audience members to be receiving differing messages from different parts of the organization, so there needs to be some attention

given to the coordination of messages from different departments, for example, marketing and human resources, who may have differing reasons for using OSNs.

Guidelines

It is important to develop guidelines that govern the appropriate use of OSNs, confidentiality and disclosure of information. These guidelines should be supplemented by training of all staff. It was suggested that organizations may want to issue employee OSN accounts, so that there is no bleeding between an employee's personal and company OSN messaging. The importance of reputation management for the organization underscores the need for some common controls and guidelines for messaging via OSNs. As one respondent noted, though, it is useful to keep in mind that there is nothing fundamentally new about OSNs; they are just an enabling technology the same way a telephone and a fax machine were. It can be helpful to look at how the organization has dealt with other new technologies in the past, since there may not be a need for entirely new strategies, policies or guidelines. Though policies and guidelines can help mitigate negative consequences of using OSNs it is still necessary to have a plan for handling negative results, accidents or missteps.

“Need pre-planned answers and rules for interactions before negative comments and situations are encountered. Have a policy for negative situations and make sure everybody understands it. Hope for the best and plan for the worst. Be clear that social media leaves you open to detractors, so have a strategy in place for handling this.” (Respondent comment.)

Establishing written corporate policies and procedures from both an employee and departmental perspective is recommended. A good starting point for this effort is to look at the existing policy frameworks the organization already has for items such as

security, access, usage, confidentiality and see if these can be adapted for OSN usage, rather than coming up with a whole new set of guidelines.

Training

In order to effectively use OSNs, organizations need training on best practices for OSN usage, both for new hires and for existing employees. For example, it can't be assumed that all employees know how to use OSNs or how to use them effectively and in agreement with company policies. It may be worthwhile to create a controlled task force for the first several months to convey valuable information to employees on how to use OSN tools and what employees need to know about representing the company on OSNs. Employees need to know they are representing the company at all times on OSNs and the same rules apply online as offline. OSNs are a tool to help empower employees as advocates of a brand or an organization, but those employees need to be trained to know what the appropriate behaviours are.

Diffusion

Earlier in this study, the role of early adopters in the diffusion of new technologies was discussed. The role of champions and influencers in a roll-out of OSN usage is very important. It is critical to identify these people within the organization - as well as in other stakeholders such as customers or collaborators - and to encourage these key people to assist in rolling out the usage of OSNs. A committee of stakeholders should be considered in order to develop the OSN strategy and plans, and to review these on a regular basis. Tying performance measurement and reward systems to the successful championing of OSNs in the organization would be a good way to attract and motivate the appropriate champions inside the organization.

Measurement

Management should set expectations and measurable goals for OSN usage. For example, what percentage of the time will the employee need to utilize social media to meet sales and referrals, against the total actual sales and referrals generated in a specific time period. Consider having audit and compliance measures implemented via neutral third-party vendors who can monitor, evaluate and measure productivity and feedback from a client perspective. Most OSN activities should have some sort of customer conversion as their ultimate goal. Conversion does not have to mean a sale, but some sort of action that is desired on the part of the audience. It could be clicking through to a website, signing up for a newsletter, or simply asking for more information. With the desired conversion in mind, a better social networking strategy can be developed. All marketing campaigns that make use of OSNs should be able to be tracked and measured for success. Not all metrics surrounding the use of OSNs need to be hard and analytical though - a blend of hard and soft metrics, such as anecdotes and success stories, can be very valuable.

“Focus on basic success metrics. These need not be too analytical. If you are putting out good content, and it is reaching the right people, that can be sufficient. Anecdotal results and good stories are just as important as hard metrics.” (Respondent comment.)

5.3 Future research

The research in this study focussed quite extensively on one particular online social network, LinkedIn. There is an opportunity for future research to look at a more general cross-section of OSN users, as well as the general public including both users and non-users of OSNs. In addition to this need for more broad-based, representative sampling

of the OSN user universe, research should also be undertaken in the non-OSN user universe so comparisons and contrasts between these two populations can be drawn.

During the course of this study, a number of other more specific potential research topics emerged that could provide useful insights into OSNs, particularly in a business context. A sampling of these possible research topics is presented below:

1. The role of performance measures and reward systems in managing OSN usage behaviour.
2. The organizational risks of centralized versus decentralized organizational control of messaging via OSNs.
3. The role of training in the effective deployment of OSNs in an organizational context.
4. The relationship between effort invested in OSNs and the rewards obtained from them.
5. The differences between open versus closed networkers on OSNs in terms of expectations, motivations and derived results.
6. The relationship between on the job versus personal time usage of OSNs.
7. The organizational risk of increased connectedness with competitors resulting from OSN relationships.
8. The effect of OSNs on shifting the locus of control in an organization from senior management to distributed OSN members.

5.4 Conclusions and final remarks

This study can be judged a success in that it has demonstrated the existence of a linkage between the use of OSNs and improved communication across inter-firm boundaries, as well as enhanced communication, greater access to innovative collaborators and improved problem solving. The contribution of this thesis to the body of knowledge in a business context lies partly in the fact that it provides new data on a fairly recent phenomenon (OSNs) that has not yet been extensively explored from a business context. By doing original research on a selected population of OSN (LinkedIn) users, one that is strongly business oriented, the results of this study provide a framework for future researchers to consider, both in terms of the data and also the methodology and data gathering tools. For business managers, the results of this study also represent a first step toward defining some of the parameters of potential best practices. Certainly the opinions of both OSN users and managers have outlined some of the key dimensions that will need to be considered in such a set of best practices. Finally, it is hoped that this study will help in some small measure to pave the way for future research into OSNs as a consciously-employed organizational tool that can help stimulate greater collaboration, collaborative innovation and enhanced problem solving.

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Appendix One: Qualitative In-Depth Interview Questions

Introduction:

As part of my doctoral study in the School of Business Leadership at the University of South Africa, I am conducting research into how organizations have used online social networks in support of specific corporate goals. You have been invited to participate because you fit the profile of someone working in a senior level at an organization that has used a form of online social networking to serve corporate goals. Could I please interview you for approximately 45 minutes? For analysis purposes, I will need to make a recording of our conversation, and have this recording transcribed. Please be assured that your responses to the questions below will be kept confidential, and your organization's identity will be disguised in any resulting analysis. I will be pleased to share a synopsis of my findings with you when my research is completed.

1. What is your position title within your organization?
2. How many direct reports do you have?
3. What is the size of your organization (number of employees)?
4. How would you describe your personal level of understanding of online social networking? (medium to high?)
 - a. Which of the following have you done?
 - i. Viewed material posted by others on Facebook, Twitter or similar network. (med)
 - ii. Posted material on Facebook, Twitter or similar network. (med)
 - iii. Set up a LinkedIn profile (med-high)
 - iv. Asked or answered questions on LinkedIn (med-high)
 - v. Added additional applications to your LinkedIn profile such a blog link, slideshare or other application. (high)
 - vi. Recommended the use of a specific social network or networks for your team or organization. (high)

5. Have you been involved directly in experimenting with or implementing online social networking in your organization?
 - a. Have you recommended your staff use social networking tools to communicate with each other?
 - b. Have you encouraged your staff to use social networking tools to build relationships with people outside your organization?
 - c. Does your organization allow the sharing of company information with individuals in other firms via social networks, and if yes, what types of information can be shared?
 - d. Has your organization provided any training or guidelines around the types of information that can and cannot be shared via social networks?
 - e. Does your organization place limits on the use of online social networks by its employees, and if so, what kinds of limitations?
6. What were the reasons you used online social networking in your organization? What were you trying to achieve?
 - a. Were you interested in improving the ability of your staff to solve problems more effectively by collaborating with peers in other organizations?
 - b. Were you interested in improving the ability of your staff to innovate more effectively by collaborating with peers in other organizations?
 - c. Were you trying to improve sales performance through the use of online social networks?
 - d. Were you trying to improve customer service through the use of online social networks?
 - e. What other goals were you trying to achieve?
7. How would you determine or measure success?
 - a. An increase in sales performance?
 - b. A greater ability for your staff to solve problems?
 - c. A greater ability for your staff to innovate?
 - d. An increase in speed to market of new products?
 - e. An increase in customer involvement in the design of new products?
 - f. What other measures do you use to measure success in your social networking initiatives?

8. What were the results of your usage online social networking?
 - a. Were the results what you expected? Why/why not?
 - b. What were some of the unforeseen outcomes?
 - c. On balance, were the overall results positive, neutral or negative?
9. Were there any negative effects that have occurred through your organization's use of OSNs?
 - a. What were the negative effects?
 - b. Did you experience greater time-wasting?
 - c. Did people use the OSNs too much for personal socializing?
 - d. Did staff use of OSNs result in potential embarrassment to your organization?
 - e. Were there any other negative effects?
10. Have you continued to use online social networking in your organization (give examples)?
 - a. Has the usage evolved over time?
 - b. In what ways has your organization's use of OSNs changed or evolved?
11. If you were advising another organization on the value of implementing OSNs, what would your advice be?
12. What additional questions would you recommend I include in the survey questionnaire phase of my research with OSN users?

Appendix Two: Quantitative Survey Questionnaire

1. Introduction

Introduction:

As part of my doctorate in business leadership at Unisa, I am conducting research into how individuals have used online social networks (OSNs) for work purposes, and how the use of OSNs has changed their relationships with people in other organizations.

You have been invited to participate because you are part of my LinkedIn network. I would greatly appreciate your taking the time to answer this brief online questionnaire.

Your information will be kept confidential, and the results will only be reported on an aggregate basis. As a thank you for participating, you will be eligible to be entered in a random draw to win one of three prizes of \$100 US.

2. Questions about you

The following questions are about your demographics, and will be used for data classification and analysis only. No link will be made between your identity and the answers to these questions.

1. Which of the following age ranges do you fit into?

- ☐ Under 18
- ☐ 18 - 34
- ☐ 35 - 49
- ☐ 50+

2. What is your gender?

- ☐ Male
- ☐ Female

3. What is your country of residence?

- ☐ United States
- ☐ India
- ☐ UK
- ☐ Netherlands
- ☐ Canada
- ☐ Italy
- ☐ Germany
- ☐ Spain
- ☐ Australia
- ☐ South Africa
- ☐ Other (please specify)

4. Which of the following best describes your position level? (If you are currently unemployed, please answer in terms of your most recent position or the position that most closely fits your skills and experience.)

- ☐ Self employed/owner
- ☐ Professional/Technical
- ☐ Middle manager
- ☐ Director/senior manager
- ☐ Vice president
- ☐ CEO/President
- ☐ Other

5. What is the highest level of education you have obtained?

- ☐ Secondary school/high school
- ☐ Some undergraduate college/university
- ☐ Completed undergraduate college/university degree/diploma
- ☐ Some graduate school
- ☐ Completed master's degree or doctorate

3. Questions about your organization

1. Which of the following best describes your organization?

- ☐ For-Profit - Small (1-99 employees)
- ☐ For-Profit - Medium (100-499 employees)
- ☐ For-Profit - Large (500 employees or more)
- ☐ Non-Profit / Government

2. What is your organization's main industry? CHOOSE FROM PULL-DOWN LIST BELOW.

4. Questions about your usage of online social networks

Please note that you must be a LinkedIn user to take part in this survey.

1. Are you a LinkedIn user?

- ☐ Yes
- ☐ No

2. How long have you been using LinkedIn?

- ☐ Less than 1 year
- ☐ Between 1 year and less than 2 years
- ☐ Between 2 years and less than 3 years
- ☐ 3 years or more

3. Approximately how many first level connections do you have on LinkedIn?

- ☐ Less than 50
- ☐ From 50 to 99
- ☐ From 100 to 199
- ☐ From 200 to 299
- ☐ From 300 to 399
- ☐ From 400 to 499
- ☐ 500 or more

4. What are your reasons for using LinkedIn? CHECK ALL THAT APPLY.

- ☐ Business prospecting and sales
- ☐ Meeting new people and networking
- ☐ Contact management and keeping track of people I meet
- ☐ Recruiting for staff
- ☐ Exchanging ideas and expertise
- ☐ Self promotion and reputation building
- ☐ Looking for a new job
- ☐ It serves as my online resume
- ☐ It's fun, I enjoy it
- ☐ Other (please specify)

5. What is your MAIN motivation for using LinkedIn? CHOOSE ONLY ONE ANSWER.

- ☐ Business prospecting and sales
- ☐ Meeting new people and networking
- ☐ Contact management and keeping track of people I meet
- ☐ Recruiting for staff
- ☐ Exchanging ideas and expertise
- ☐ Self promotion and reputation building
- ☐ Looking for a new job
- ☐ It serves as my online resume
- ☐ It's fun, I enjoy it
- ☐ Other (please specify)

6. Which of the following statements comes closest to describing your attitude toward connecting with people?

- ☐ I am an open networker, I will connect with most people who invite me
- ☐ I am very selective, and only connect with people I personally know

7. Aside from LinkedIn, what other online social networks do you actively participate in? PLEASE CHECK ALL THAT APPLY.

- ☐ facebook
- ☐ MySpace
- ☐ twitter
- ☐ Ning
- ☐ Tagged
- ☐ classmates
- ☐ hi5
- ☐ myyearbook
- ☐ Meetup
- ☐ bebo
- ☐ mylife
- ☐ friendster
- ☐ myHeritage
- ☐ Multiply
- ☐ orkut
- ☐ badoo
- ☐ galeonline
- ☐ BlackPlanet
- ☐ SkyRock

Other (please specify)

8. Which of the following networks do you consider to be your MAIN online social network, that is, the one where you invest the most time? CHOOSE ONLY ONE ANSWER.

- | | | |
|----------------------------------|----------------------------------|-----------------------------------|
| <input type="radio"/> facebook | <input type="radio"/> hi5 | <input type="radio"/> Multiply |
| <input type="radio"/> LinkedIn | <input type="radio"/> myyearbook | <input type="radio"/> orkut |
| <input type="radio"/> MySpace | <input type="radio"/> Meetup | <input type="radio"/> badoo |
| <input type="radio"/> twitter | <input type="radio"/> bebo | <input type="radio"/> galeonline |
| <input type="radio"/> Ning | <input type="radio"/> mylife | <input type="radio"/> BlackPlanet |
| <input type="radio"/> Tagged | <input type="radio"/> friendster | <input type="radio"/> SkyRock |
| <input type="radio"/> classmates | <input type="radio"/> myHeritage | |

9. In a typical week, how many hours do you spend using online social networks?

- ☐ Less than 1 hour per week
- ☐ Between 1 and 5 hours per week
- ☐ More than 5 hours per week

5. Questions about your connections and communications across organizational b...

For each of the following questions, please indicate your level of agreement with the statement shown. Indicate whether you strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree or strongly agree.

1. Since using LinkedIn, I have more professional connections than I did previously.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

2. Since using LinkedIn, I have more professional connection with people OUTSIDE my organization than I did previously.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

3. I have more connections with customers as a result of using LinkedIn.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

4. I have more connections with people in competitor organizations as a result of using LinkedIn.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

5. LinkedIn has only given me surface connections to other people, nothing of substance.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

6. I have been able to deepen my relationships with people through LinkedIn.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

7. I now communicate more frequently by text, email or other electronic means with my LinkedIn connections than I did previously.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

8. I have had phone conversations or face-to-face meetups with people I met through LinkedIn.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

9. I have been able to draw upon the expertise of my LinkedIn network to answer questions or help solve problems.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

10. Interacting with my LinkedIn network has allowed me to be more innovative in my work.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

11. I have ASKED FOR help, advice, referrals or other assistance from my LinkedIn network.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

12. I have RECEIVED help, advice, referrals or other assistance from my LinkedIn network.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

13. I have PROVIDED help, advice, referrals or other assistance to my LinkedIn network.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

14. Since using LinkedIn, I have more people that I can collaborate with on business opportunities or problem solving.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

15. My LinkedIn network helps me solve problems faster than I could before using LinkedIn.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

6. Questions about your organization's policies and practices regarding online...

The following questions deal with the policies and practices at your organization. If you are a sole proprietor or freelancer, please answer from the perspective of your own practices and opinions. If you are not working at present, please refer to a recent employer with whom you are familiar. If a question is not relevant to your situation, please choose the answer "neither agree or disagree."

1. My organization has formal policies or guidelines on the appropriate usage of online social networks.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

2. My organization has formal policies or guidelines about what kinds of information can and cannot be distributed via online social networks.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

3. My organization does NOT place restrictions on the personal use of online social networks during work hours.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

4. My organization keeps strong centralized control of outbound messaging on online social networks.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

5. My organization provides training on the appropriate use of online social networks.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

6. My organization is vulnerable to "accidents" or negative consequences of inappropriate usage of online social networks.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

7. My organization is adequately prepared to deal with negative consequences that could occur due to inappropriate usage of online social networks.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

8. My organization needs more formalized policies and guidelines around the usage of online social networks.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

9. Online social networks will play a more important role in the future strategies of my organization.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

10. My organization has hired or will be hiring a full-time employee or the equivalent whose primary job is related to online social networks and social media.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

11. Senior management in my organization are becoming more engaged in online social networks and social media in general.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

12. Senior management in my organization should be more engaged in online social networks and social media than they currently are.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

13. Online social networks and social media are seen as "fads" in my organization, ones that will fade in importance over time.

☐ Strongly disagree ☐ Somewhat disagree ☐ Neither agree nor disagree ☐ Somewhat agree ☐ Strongly agree

7. Questions about your personal viewpoints on online social networks

This final section of the questionnaire asks you to consider both your current and future perspectives on your use of online social networks.

1. I use a variety of different online social networks in my work, not just LinkedIn.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

2. Online social networks will become a bigger part of my job in the future.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

3. My performance is measured, at least in part, by my ability to use my online social networks effectively.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

4. I receive financial or other rewards as a result of my ability to use my online social networks effectively.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

5. I am getting tired of online social networks and social media, and can foresee reducing my activity level or the number of networks I participate in.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

6. I will be becoming more focused and strategic in my use of online social networks.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

7. I can envision a future in which I communicate more via online social networks than by email or texting.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

8. Social media will become the dominant form of media in the future.

☐ Strongly disagree

☐ Somewhat disagree

☐ Neither agree nor disagree

☐ Somewhat agree

☐ Strongly agree

8. Conclusion and thanks

Thank you very much for taking the time to complete this survey! Your opinions and insights will be invaluable to my research. Over the course of this survey I will be making 3 random draws from the respondents for a \$100 US prize. To be eligible for the draw, you must have completed the questionnaire and submit a valid email address where indicated below. Your email address will be kept strictly confidential and will not be used for any other purpose.

1. To be entered in the draw for one of 3 \$100 US prizes, please enter a valid email address below.

Appendix Three: Selected Cross-tabulations

Selected cross-tabulations:

My organization has formal policies or guidelines on the appropriate usage of online social networks.					
Which of the following best describes your organization?					
	For-Profit - Small (1-99 employees)	For-Profit - Medium (100-499 employees)	For-Profit - Large (500 employees or more)	Non-Profit / Government	Response Totals
Strongly disagree	47.2% (116)	24.2% (15)	15.4% (16)	17.0% (8)	33.8% (155)
Somewhat disagree	8.9% (22)	16.1% (10)	15.4% (16)	14.9% (7)	12.0% (55)
Neither agree nor disagree	24.0% (59)	16.1% (10)	16.3% (17)	25.5% (12)	21.4% (98)
Somewhat agree	11.8% (29)	32.3% (20)	24.0% (25)	21.3% (10)	18.3% (84)
Strongly agree	8.1% (20)	11.3% (7)	28.8% (30)	21.3% (10)	14.6% (67)
<i>answered question</i>	246	62	104	47	459
<i>skipped question</i>					47

My organization does NOT place restrictions on the personal use of online social networks during work hours.					
	Which of the following best describes your organization?				
	For-Profit - Small (1-99 employees)	For-Profit - Medium (100-499 employees)	For-Profit - Large (500 employees or more)	Non-Profit / Government	Response Totals
Strongly disagree	8.2% (20)	16.1% (10)	22.5% (23)	16.7% (8)	13.3% (61)
Somewhat disagree	8.6% (21)	24.2% (15)	21.6% (22)	18.8% (9)	14.7% (67)
Neither agree nor disagree	21.2% (52)	3.2% (2)	18.6% (19)	22.9% (11)	18.4% (84)
Somewhat agree	19.2% (47)	27.4% (17)	22.5% (23)	20.8% (10)	21.2% (97)
Strongly agree	42.9% (105)	29.0% (18)	14.7% (15)	20.8% (10)	32.4% (148)
<i>answered question</i>	245	62	102	48	457
<i>skipped question</i>					49

What are your reasons for using LinkedIn? CHECK ALL THAT APPLY.			
	Which of the following statements comes closest to describing your attitude toward connecting with people?		
	I am an open networker, I will connect with most people who invite me	I am very selective, and only connect with people I personally know	Response Totals
Business prospecting and sales	68.4% (275)	41.1% (37)	63.4% (312)
Meeting new people and networking	80.1% (322)	64.4% (58)	77.2% (380)
Contact management and keeping track of people I meet	54.2% (218)	72.2% (65)	57.5% (283)
Recruiting for staff	35.1% (141)	15.6% (14)	31.5% (155)
Exchanging Ideas and expertise	63.7% (256)	57.8% (52)	62.6% (308)
Self promotion and reputation building	67.2% (270)	58.9% (53)	65.7% (323)
Looking for a new job	37.1% (149)	31.1% (28)	36.0% (177)
It serves as my online resume	41.5% (167)	47.8% (43)	42.7% (210)
It's fun, I enjoy it	39.6% (159)	26.7% (24)	37.2% (183)
Other (please specify)	23 replies (5.7%)	11 replies (12.2%)	6.9% (34)
<i>answered question</i>	402	90	492
<i>skipped question</i>			3

What is your MAIN motivation for using LinkedIn? CHOOSE ONLY ONE ANSWER.			
	Which of the following statements comes closest to describing your attitude toward connecting with people?		
	I am an open networker, I will connect with most people who invite me	I am very selective, and only connect with people I personally know	Response Totals
Business prospecting and sales	22.6% (91)	6.6% (6)	19.6% (97)
Meeting new people and networking	18.9% (76)	9.9% (9)	17.2% (85)
Contact management and keeping track of people I meet	6.7% (27)	33.0% (30)	11.5% (57)
Recruiting for staff	11.7% (47)	3.3% (3)	10.1% (50)
Exchanging ideas and expertise	8.4% (34)	7.7% (7)	8.3% (41)
Self promotion and reputation building	16.1% (65)	16.5% (15)	16.2% (80)
Looking for a new job	7.7% (31)	8.8% (8)	7.9% (39)
It serves as my online resume	5.0% (20)	9.9% (9)	5.9% (29)
It's fun, I enjoy it	1.5% (6)	1.1% (1)	1.4% (7)
Other (please specify)	6 replies (1.5%)	3 replies (3.3%)	1.8% (9)
<i>answered question</i>	403	91	494
<i>skipped question</i>			1

Since using LinkedIn, I have more professional connections than I did previously.			
	Which of the following statements comes closest to describing your attitude toward connecting with people?		
	I am an open networker, I will connect with most people who invite me	I am very selective, and only connect with people I personally know	Response Totals
Strongly disagree	3.1% (12)	2.3% (2)	2.9% (14)
Somewhat disagree	1.5% (6)	10.2% (9)	3.2% (15)
Neither agree nor disagree	4.1% (16)	20.5% (18)	7.1% (34)
Somewhat agree	25.5% (99)	38.6% (34)	27.9% (133)
Strongly agree	65.7% (255)	28.4% (25)	58.8% (280)
<i>answered question</i>	388	88	476
<i>skipped question</i>			19

Since using LinkedIn, I have more professional connection with people OUTSIDE my organization than I did previously.			
	Which of the following statements comes closest to describing your attitude toward connecting with people?		
	I am an open networker, I will connect with most people who invite me	I am very selective, and only connect with people I personally know	Response Totals
Strongly disagree	3.1% (12)	3.4% (3)	3.2% (15)
Somewhat disagree	1.3% (5)	9.1% (8)	2.7% (13)
Neither agree nor disagree	2.6% (10)	18.2% (16)	5.5% (26)
Somewhat agree	22.0% (85)	42.0% (37)	25.7% (122)
Strongly agree	71.1% (275)	27.3% (24)	62.9% (299)
<i>answered question</i>	387	88	475
<i>skipped question</i>			20

I have been able to deepen my relationships with people through LinkedIn.			
		Which of the following statements comes closest to describing your attitude toward connecting with people?	
		I am an open networker, I will connect with most people who invite me	I am very selective, and only connect with people I personally know
			Response Totals
	Strongly disagree	3.4% (13)	8.0% (7)
	Somewhat disagree	13.9% (54)	25.0% (22)
	Neither agree nor disagree	23.7% (92)	29.5% (26)
	Somewhat agree	45.6% (177)	27.3% (24)
	Strongly agree	13.4% (52)	10.2% (9)
answered question		388	88
		skipped question	
		19	

What is your MAIN motivation for using LinkedIn? CHOOSE ONLY ONE ANSWER.				
	Which of the following networks do you consider to be your MAIN online social network, that is, the one where you invest the most time? CHOOSE ONLY ONE ANSWER.			
	facebook	LinkedIn	twitter	Response Totals
Business prospecting and sales	17.1% (29)	23.2% (66)	3.2% (1)	19.8% (96)
Meeting new people and networking	18.8% (32)	16.5% (47)	12.9% (4)	17.1% (83)
Contact management and keeping track of people I meet	15.9% (27)	8.5% (24)	19.4% (6)	11.8% (57)
Recruiting for staff	6.5% (11)	13.4% (38)	0.0% (0)	10.1% (49)
Exchanging Ideas and expertise	5.9% (10)	9.2% (26)	16.1% (5)	8.5% (41)
Self promotion and reputation building	17.1% (29)	14.1% (40)	29.0% (9)	16.1% (78)
Looking for a new job	5.9% (10)	9.2% (26)	3.2% (1)	7.6% (37)
It serves as my online resume	9.4% (16)	3.2% (9)	12.9% (4)	6.0% (29)
It's fun, I enjoy it	0.6% (1)	1.8% (5)	0.0% (0)	1.2% (6)
Other (please specify)	5 replies (2.9%)	3 replies (1.1%)	1 reply (3.2%)	1.9% (9)
<i>answered question</i>	170	284	31	485
<i>skipped question</i>				1

I have more connections with customers as a result of using LinkedIn.					
		In a typical week, how many hours do you spend using online social networks?			
		Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree		12.7% (8)	4.5% (10)	6.8% (13)	6.5% (31)
Somewhat disagree		7.9% (5)	8.0% (18)	7.4% (14)	7.8% (37)
Neither agree nor disagree		44.4% (28)	34.8% (78)	27.4% (52)	33.1% (158)
Somewhat agree		25.4% (16)	38.4% (86)	27.4% (52)	32.3% (154)
Strongly agree		9.5% (6)	14.3% (32)	31.1% (59)	20.3% (97)
answered question		63	224	190	477
		skipped question			21

I have been able to deepen my relationships with people through LinkedIn.					
		In a typical week, how many hours do you spend using online social networks?			
		Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
	Strongly disagree	14.1% (9)	2.7% (6)	3.2% (6)	4.4% (21)
	Somewhat disagree	18.8% (12)	16.9% (38)	14.3% (27)	16.1% (77)
	Neither agree nor disagree	29.7% (19)	25.8% (58)	22.2% (42)	24.9% (119)
	Somewhat agree	31.3% (20)	46.7% (105)	40.2% (76)	42.1% (201)
	Strongly agree	6.3% (4)	8.0% (18)	20.1% (38)	12.6% (60)
answered question		64	225	189	478
		skipped question			20

I have had phone conversations or face-to-face meetups with people I met through LinkedIn.					
		In a typical week, how many hours do you spend using online social networks?			
		Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree		34.9% (22)	12.2% (27)	9.7% (18)	14.3% (67)
Somewhat disagree		7.9% (5)	14.0% (31)	8.6% (16)	11.1% (52)
Neither agree nor disagree		14.3% (9)	11.3% (25)	13.5% (25)	12.6% (59)
Somewhat agree		31.7% (20)	36.2% (80)	33.0% (61)	34.3% (161)
Strongly agree		11.1% (7)	26.2% (58)	35.1% (65)	27.7% (130)
answered question		63	221	185	469
		skipped question			29

I have been able to draw upon the expertise of my LinkedIn network to answer questions or help solve problems.					
		In a typical week, how many hours do you spend using online social networks?			
		Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
	Strongly disagree	20.6% (13)	5.8% (13)	5.3% (10)	7.6% (36)
	Somewhat disagree	6.3% (4)	12.1% (27)	8.5% (16)	9.9% (47)
	Neither agree nor disagree	27.0% (17)	14.3% (32)	14.8% (28)	16.2% (77)
	Somewhat agree	33.3% (21)	45.7% (102)	35.4% (67)	40.0% (190)
	Strongly agree	12.7% (8)	22.0% (49)	36.0% (68)	26.3% (125)
answered question		63	223	189	475
skipped question					23

I have RECEIVED help, advice, referrals or other assistance from my LinkedIn network.				
	In a typical week, how many hours do you spend using online social networks?			
	Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree	22.6% (14)	8.5% (19)	4.9% (9)	9.0% (42)
Somewhat disagree	8.1% (5)	8.0% (18)	7.1% (13)	7.7% (36)
Neither agree nor disagree	19.4% (12)	8.9% (20)	10.4% (19)	10.9% (51)
Somewhat agree	40.3% (25)	44.6% (100)	30.6% (56)	38.6% (181)
Strongly agree	9.7% (6)	29.9% (67)	47.0% (86)	33.9% (159)
<i>answered question</i>	62	224	183	469
	<i>skipped question</i>			29

I have PROVIDED help, advice, referrals or other assistance to my LinkedIn network.				
	In a typical week, how many hours do you spend using online social networks?			
	Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree	10.9% (7)	3.6% (8)	2.2% (4)	4.0% (19)
Somewhat disagree	10.9% (7)	5.3% (12)	3.8% (7)	5.5% (26)
Neither agree nor disagree	17.2% (11)	6.7% (15)	5.4% (10)	7.6% (36)
Somewhat agree	45.3% (29)	45.3% (102)	30.6% (57)	39.6% (188)
Strongly agree	15.6% (10)	39.1% (88)	58.1% (108)	43.4% (206)
<i>answered question</i>	64	225	186	475
	<i>skipped question</i>			23

Since using LinkedIn, I have more people that I can collaborate with on business opportunities or problem solving.				
	In a typical week, how many hours do you spend using online social networks?			
	Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree	15.6% (10)	3.6% (8)	2.1% (4)	4.6% (22)
Somewhat disagree	10.9% (7)	9.0% (20)	3.2% (6)	7.0% (33)
Neither agree nor disagree	26.6% (17)	15.2% (34)	15.5% (29)	16.9% (80)
Somewhat agree	25.0% (16)	42.6% (95)	32.6% (61)	36.3% (172)
Strongly agree	21.9% (14)	29.6% (66)	46.5% (87)	35.2% (167)
answered question	64	223	187	474
skipped question				24

My LinkedIn network helps me solve problems faster than I could before using LinkedIn.				
	In a typical week, how many hours do you spend using online social networks?			
	Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree	20.3% (13)	4.9% (11)	3.2% (6)	6.3% (30)
Somewhat disagree	12.5% (8)	8.4% (19)	6.9% (13)	8.4% (40)
Neither agree nor disagree	39.1% (25)	30.2% (68)	20.7% (39)	27.7% (132)
Somewhat agree	21.9% (14)	38.2% (86)	35.1% (66)	34.8% (166)
Strongly agree	6.3% (4)	18.2% (41)	34.0% (64)	22.9% (109)
answered question	64	225	188	477
skipped question				21

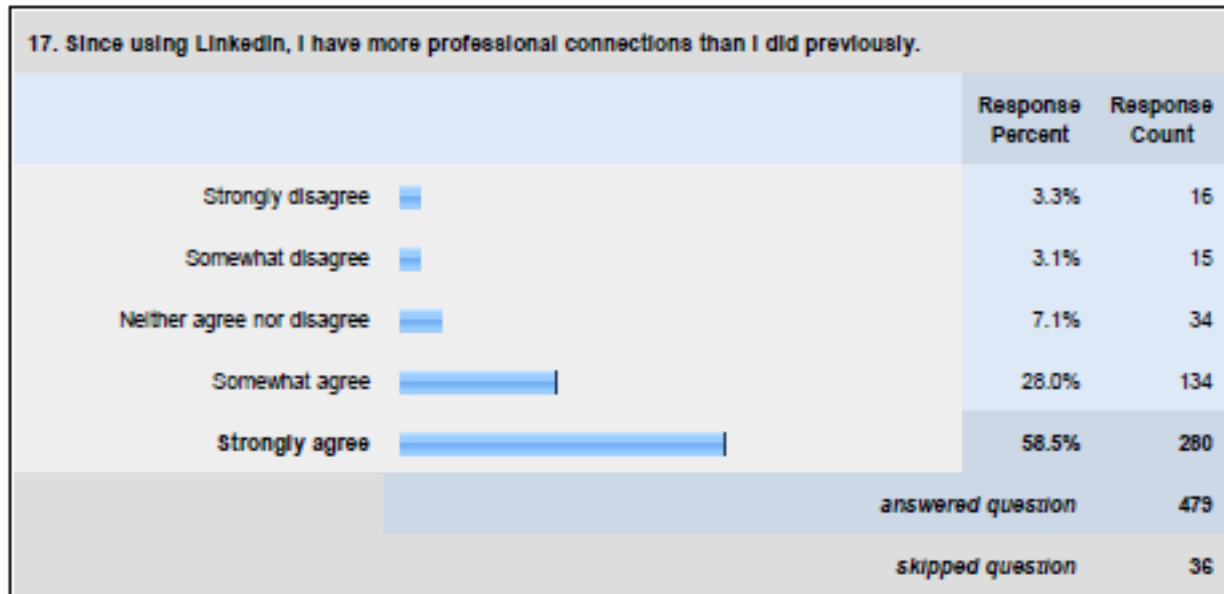
Online social networks will play a more important role in the future strategies of my organization.					
		In a typical week, how many hours do you spend using online social networks?			
		Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree		5.1% (3)	1.9% (4)	2.2% (4)	2.4% (11)
Somewhat disagree		11.9% (7)	3.2% (7)	1.6% (3)	3.7% (17)
Neither agree nor disagree		20.3% (12)	19.0% (41)	13.7% (25)	17.0% (78)
Somewhat agree		42.4% (25)	42.1% (91)	30.6% (56)	37.6% (172)
Strongly agree		20.3% (12)	33.8% (73)	51.9% (95)	39.3% (180)
answered question		59	216	183	458
		skipped question			40

I use a variety of different online social networks in my work, not just LinkedIn.					
		In a typical week, how many hours do you spend using online social networks?			
		Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree		32.8% (19)	10.7% (23)	9.3% (17)	13.0% (59)
Somewhat disagree		22.4% (13)	17.8% (38)	10.9% (20)	15.6% (71)
Neither agree nor disagree		10.3% (6)	5.1% (11)	7.1% (13)	6.6% (30)
Somewhat agree		25.9% (15)	37.9% (81)	32.8% (60)	34.3% (156)
Strongly agree		8.6% (5)	28.5% (61)	39.9% (73)	30.5% (139)
answered question		58	214	183	455
		skipped question			43

Online social networks will become a bigger part of my job in the future.				
	In a typical week, how many hours do you spend using online social networks?			
	Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
Strongly disagree	8.8% (5)	1.9% (4)	2.2% (4)	2.9% (13)
Somewhat disagree	15.8% (9)	7.4% (16)	2.2% (4)	6.4% (29)
Neither agree nor disagree	22.8% (13)	20.8% (45)	16.5% (30)	19.3% (88)
Somewhat agree	47.4% (27)	44.0% (95)	35.7% (65)	41.1% (187)
Strongly agree	5.3% (3)	25.9% (56)	43.4% (79)	30.3% (138)
answered question	57	216	182	455
skipped question				43

Social media will become the dominant form of media in the future.					
		In a typical week, how many hours do you spend using online social networks?			
		Less than 1 hour per week	Between 1 and 5 hours per week	More than 5 hours per week	Response Totals
	Strongly disagree	15.0% (9)	8.4% (18)	2.7% (5)	7.0% (32)
	Somewhat disagree	31.7% (19)	18.1% (39)	15.3% (28)	18.8% (86)
	Neither agree nor disagree	23.3% (14)	24.2% (52)	24.6% (45)	24.2% (111)
	Somewhat agree	25.0% (15)	36.7% (79)	35.0% (64)	34.5% (158)
	Strongly agree	5.0% (3)	12.6% (27)	22.4% (41)	15.5% (71)
answered question		60	215	183	458
		skipped question			40

Appendix Four: Original and Recalculated Data for Likert Scale Questions



Since using LinkedIn, I have more professional connections than I did previously.

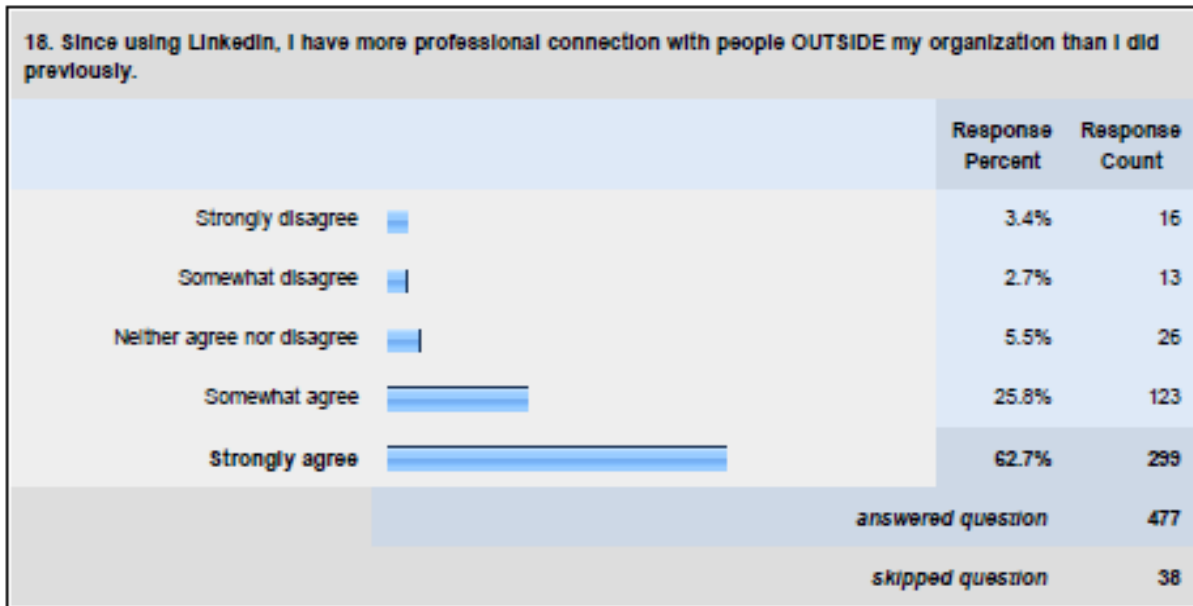
v101	Percent	No. cit.
Non-response	13.60%	70
Strongly disagree	3.10%	16
Somewhat disagree	2.90%	15
Somewhat agree	26.00%	134
Strongly agree	54.40%	280
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1982

Mean = 4.45 Standard deviation = 0.94

The mean and standard deviation are calculated ignoring non-responses.



Since using LinkedIn, I have more professional connection with people OUTSIDE my organization than I did previously.

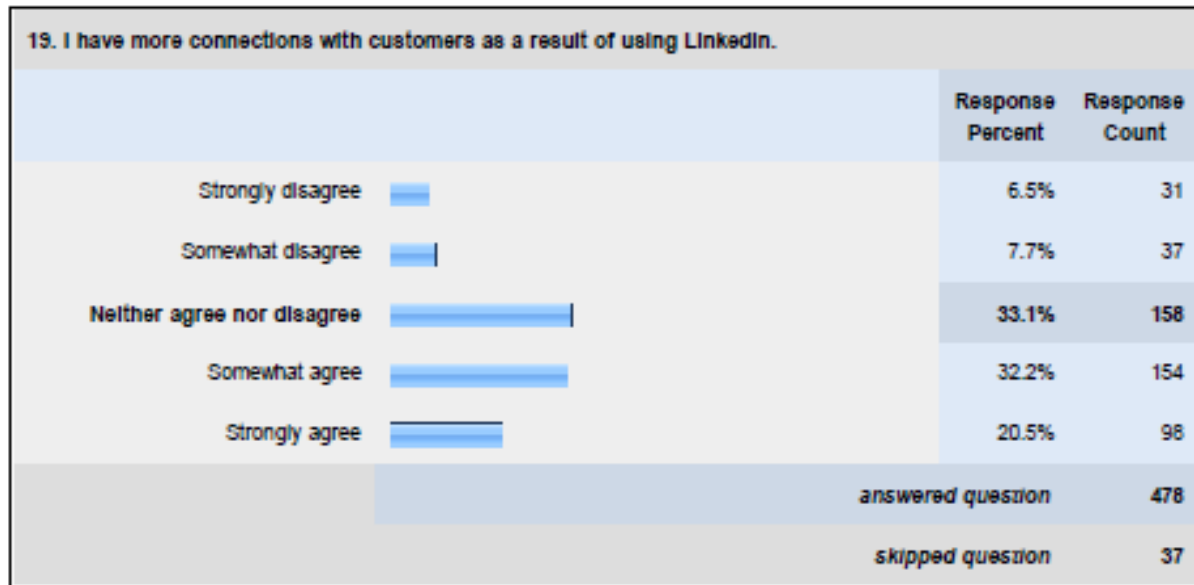
v102	Percent	No. cit.
Non-response	12.40%	64
Strongly disagree	3.10%	16
Somewhat disagree	2.50%	13
Somewhat agree	23.90%	123
Strongly agree	58.10%	299
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 2029

Mean = 4.50 Standard deviation = 0.92

The mean and standard deviation are calculated ignoring non-responses.



I have more connections with customers as a result of using LinkedIn.

v103	Percent	No. cit.
Non-response	37.90%	195
Strongly disagree	6.00%	31
Somewhat disagree	7.20%	37
Somewhat agree	29.90%	154
Strongly agree	19.00%	98
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1211

Mean = 3.78 Standard deviation = 1.27

The mean and standard deviation are calculated ignoring non-responses.



I have more connections with people in competitor organizations as a result of using LinkedIn.

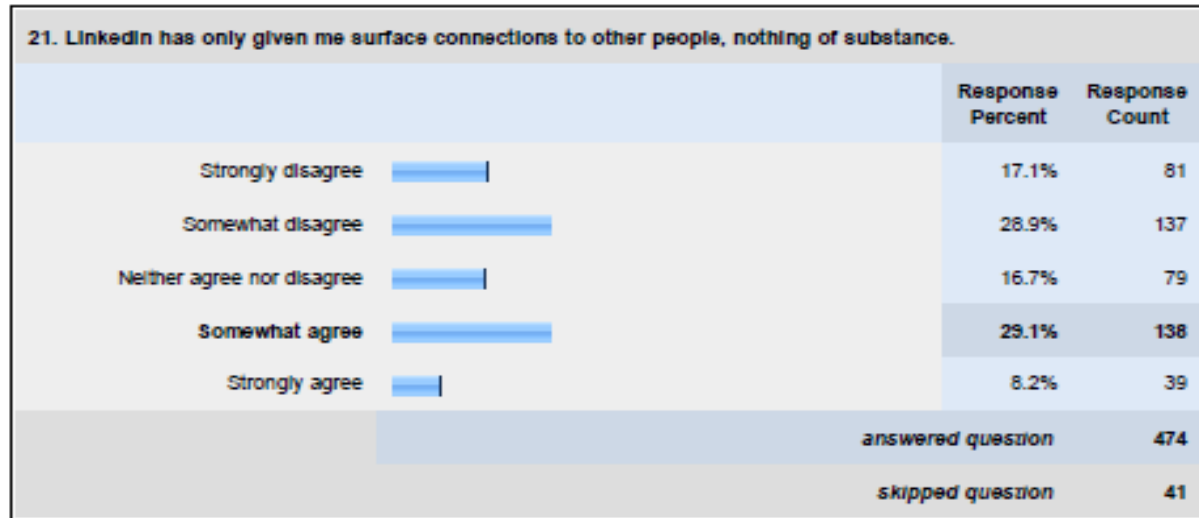
v104	Percent	No. cit.
Non-response	31.10%	160
Strongly disagree	5.20%	27
Somewhat disagree	7.60%	39
Somewhat agree	34.80%	179
Strongly agree	21.40%	110
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1371

Mean = 3.86 Standard deviation = 1.19

The mean and standard deviation are calculated ignoring non-responses.



LinkedIn has only given me surface connections to other people, nothing of substance.

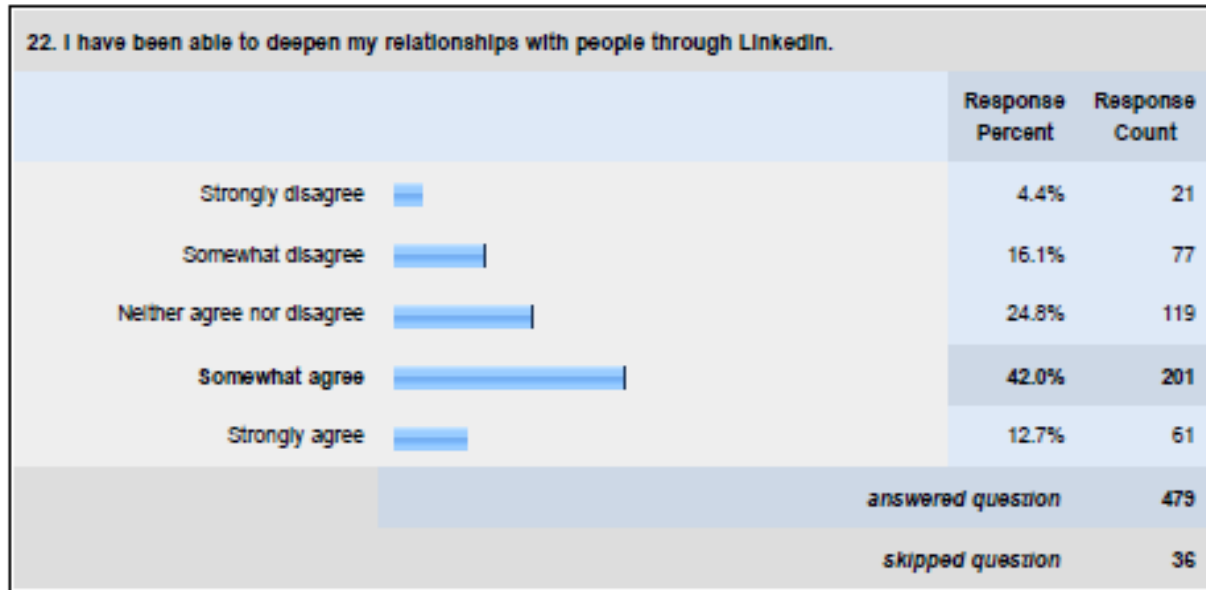
v105	Percent	No. cit.
Non-response	23.30%	120
Strongly disagree	15.70%	81
Somewhat disagree	26.60%	137
Somewhat agree	26.80%	138
Strongly agree	7.60%	39
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1102

Mean = 2.79 Standard deviation = 1.37

The mean and standard deviation are calculated ignoring non-responses.



I have been able to deepen my relationships with people through LinkedIn.

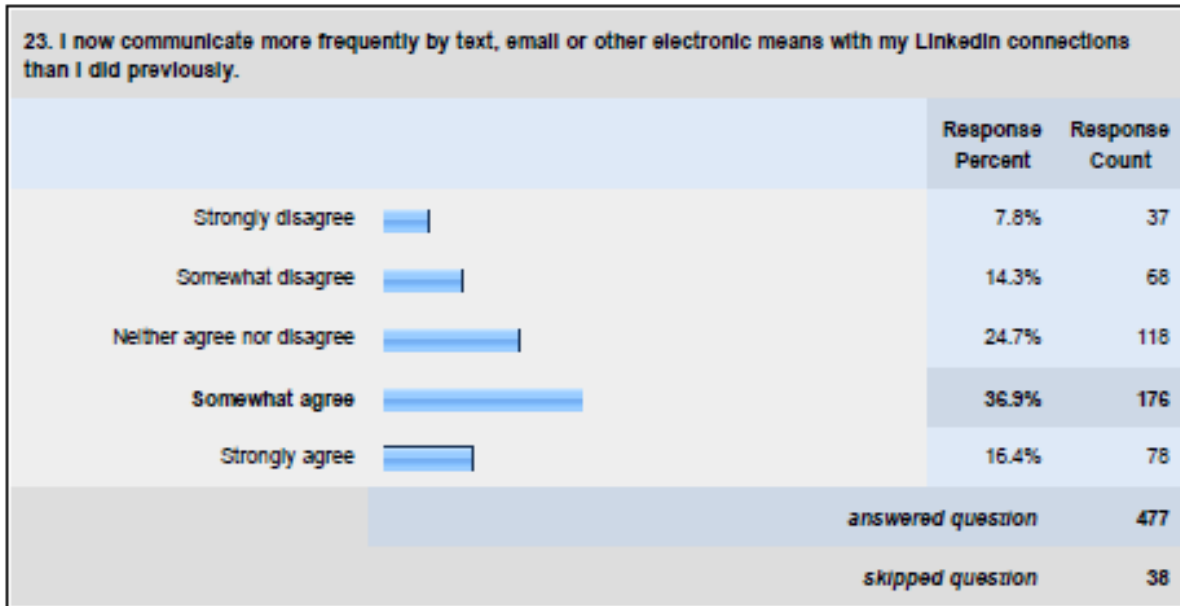
v106	Percent	No. cit.
Non-response	30.10%	155
Strongly disagree	4.10%	21
Somewhat disagree	15.00%	77
Somewhat agree	39.00%	201
Strongly agree	11.80%	61
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1284

Mean = 3.57 Standard deviation = 1.17

The mean and standard deviation are calculated ignoring non-responses.



I now communicate more frequently by text, email or other electronic means with my LinkedIn connections than I did previously.

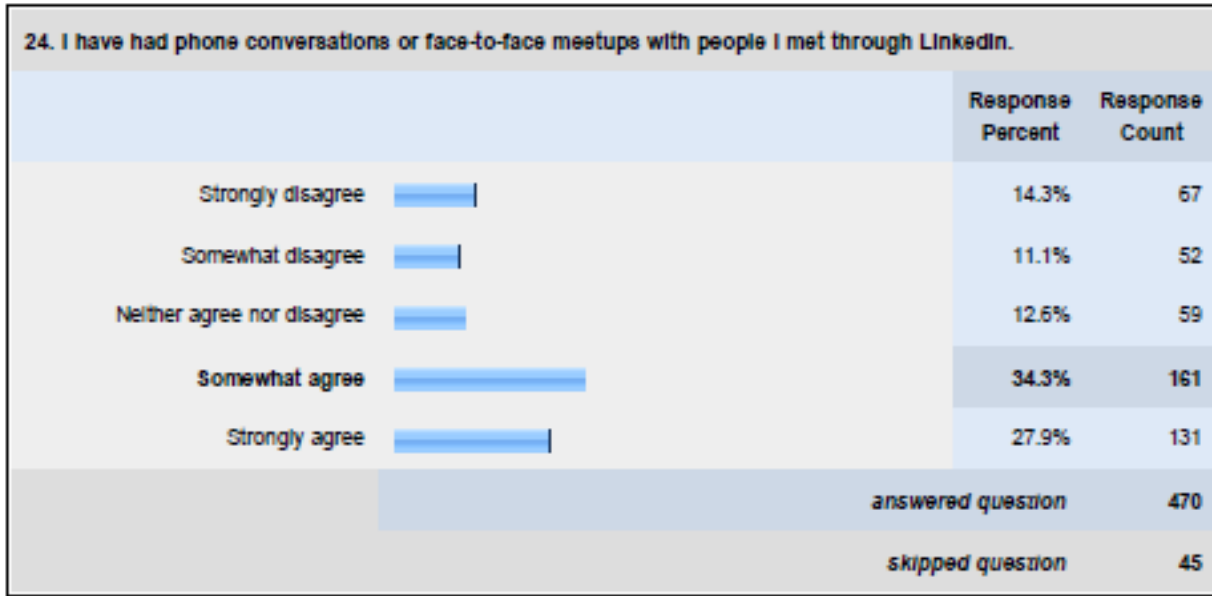
v107	Percent	No. cit.
Non-response	30.30%	156
Strongly disagree	7.20%	37
Somewhat disagree	13.20%	68
Somewhat agree	34.20%	176
Strongly agree	15.20%	78
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1267

Mean = 3.53 Standard deviation = 1.30

The mean and standard deviation are calculated ignoring non-responses.



I have had phone conversations or face-to-face meet-ups with people I met through LinkedIn.

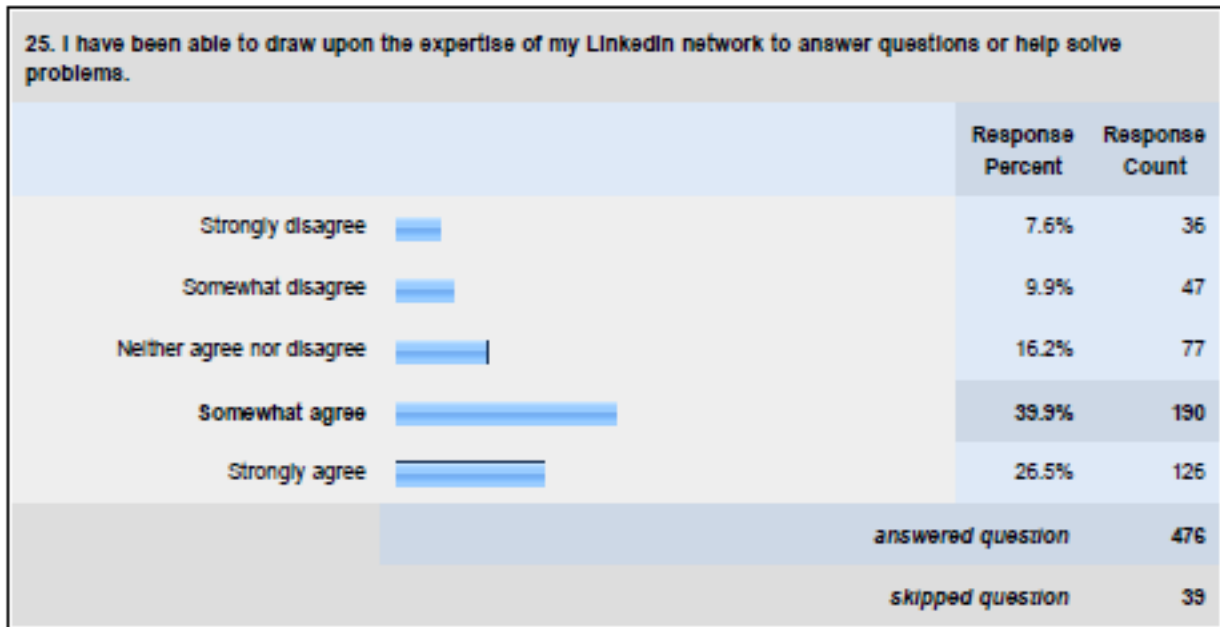
v108	Percent	No. cit.
Non-response	20.20%	104
Strongly disagree	13.00%	67
Somewhat disagree	10.10%	52
Somewhat agree	31.30%	161
Strongly agree	25.40%	131
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1470

Mean = 3.58 Standard deviation = 1.46

The mean and standard deviation are calculated ignoring non-responses.



I have been able to draw upon the expertise of my LinkedIn network to answer questions or help solve problems.

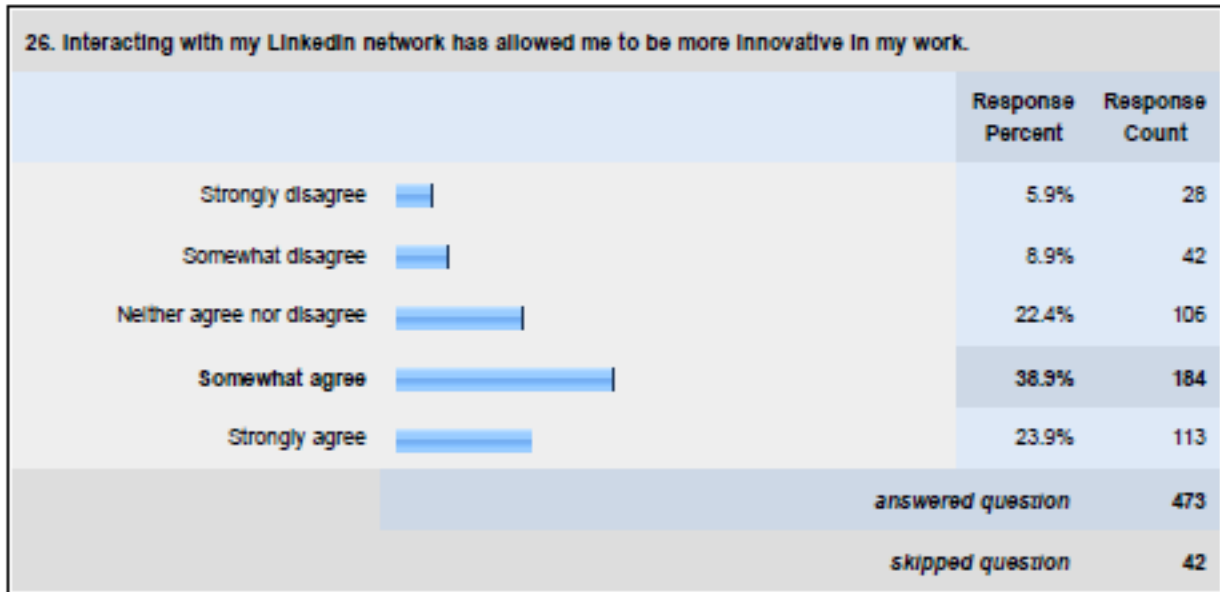
v109	Percent	No. cit.
Non-response	22.50%	116
Strongly disagree	7.00%	36
Somewhat disagree	9.10%	47
Somewhat agree	36.90%	190
Strongly agree	24.50%	126
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1520

Mean = 3.81 Standard deviation = 1.25

The mean and standard deviation are calculated ignoring non-responses.



Interacting with my LinkedIn network has allowed me to be more innovative in my work.

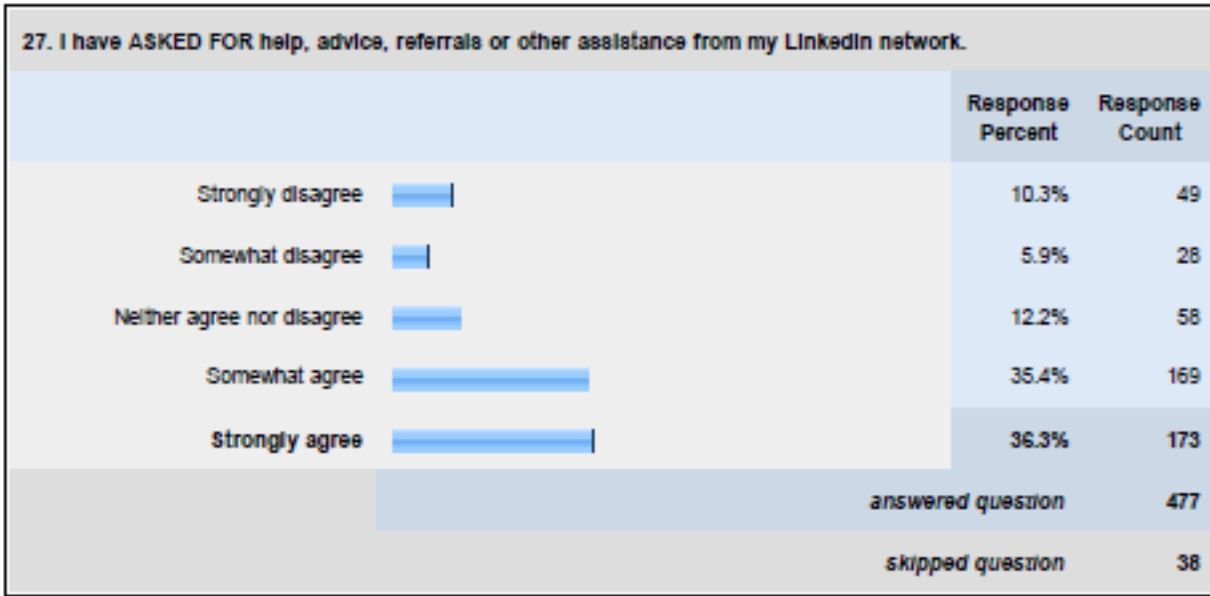
v110	Percent	No. cit.
Non-response	28.70%	148
Strongly disagree	5.40%	28
Somewhat disagree	8.20%	42
Somewhat agree	35.70%	184
Strongly agree	21.90%	113
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1413

Mean = 3.85 Standard deviation = 1.20

The mean and standard deviation are calculated ignoring non-responses.



I have ASKED FOR help, advice, referrals or other assistance from my LinkedIn network.

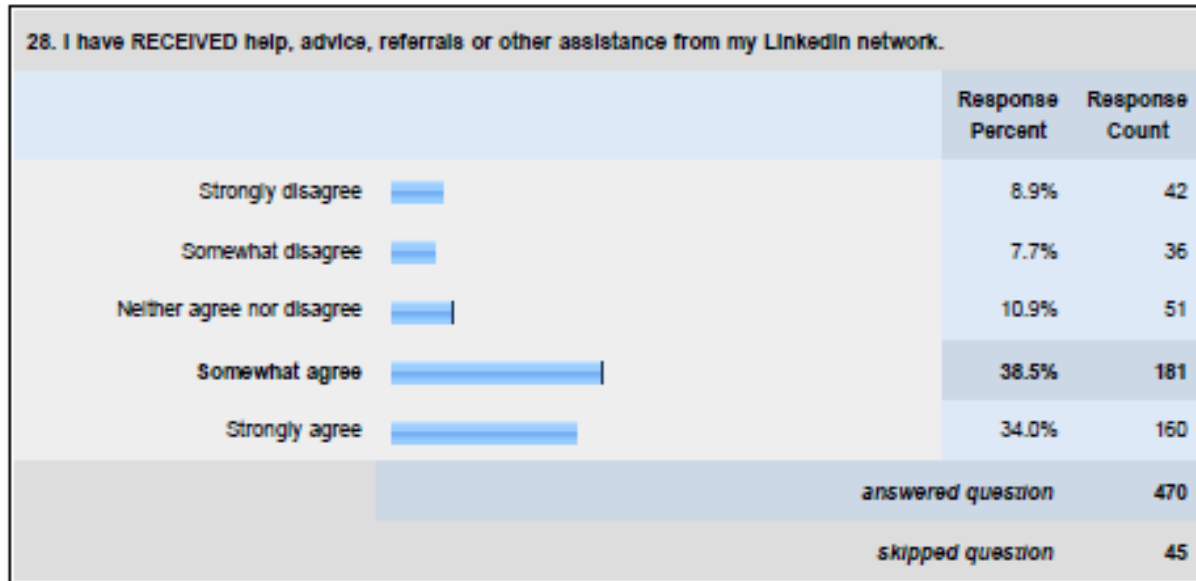
v111	Percent	No. cit.
Non-response	18.60%	96
Strongly disagree	9.50%	49
Somewhat disagree	5.40%	28
Somewhat agree	32.80%	169
Strongly agree	33.60%	173
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1646

Mean = 3.93 Standard deviation = 1.32

The mean and standard deviation are calculated ignoring non-responses.



I have RECEIVED help, advice, referrals or other assistance from my LinkedIn network.

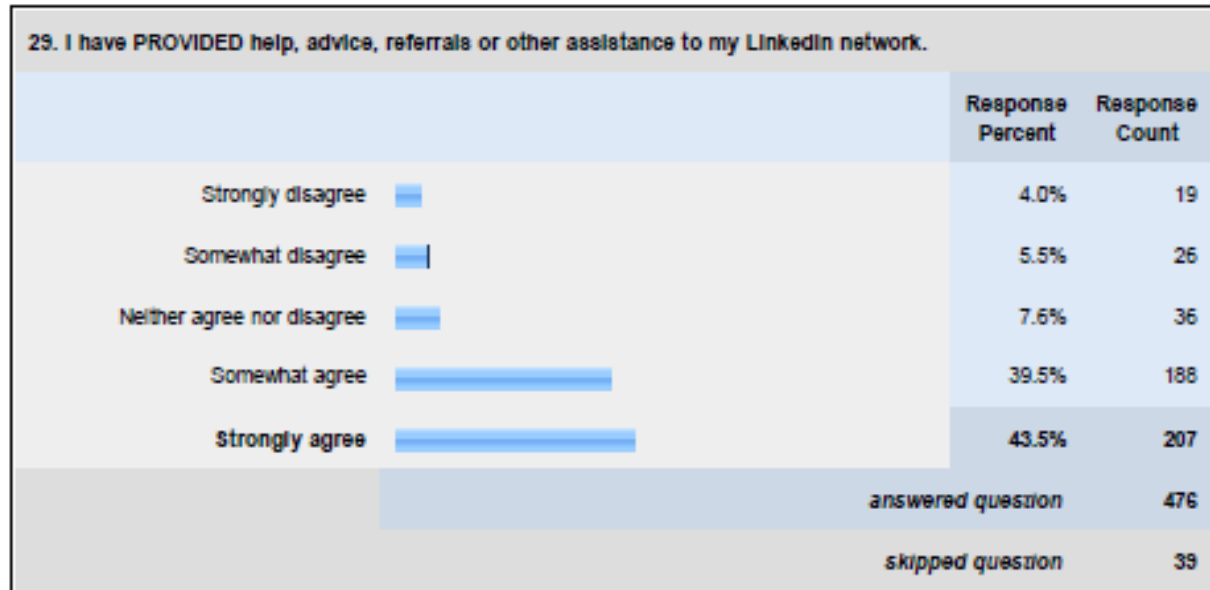
v112	Percent	No. cit.
Non-response	18.60%	96
Strongly disagree	8.20%	42
Somewhat disagree	7.00%	36
Somewhat agree	35.20%	181
Strongly agree	31.10%	160
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1638

Mean = 3.91 Standard deviation = 1.27

The mean and standard deviation are calculated ignoring non-responses.



I have PROVIDED help, advice, referrals or other assistance to my LinkedIn network.

v113	Percent	No. cit.
Non-response	14.60%	75
Strongly disagree	3.70%	19
Somewhat disagree	5.10%	26
Somewhat agree	36.50%	188
Strongly agree	40.20%	207
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1858

Mean = 4.22 Standard deviation = 1.02

The mean and standard deviation are calculated ignoring non-responses.



Since using LinkedIn, I have more people that I can collaborate with on business opportunities or problem solving.

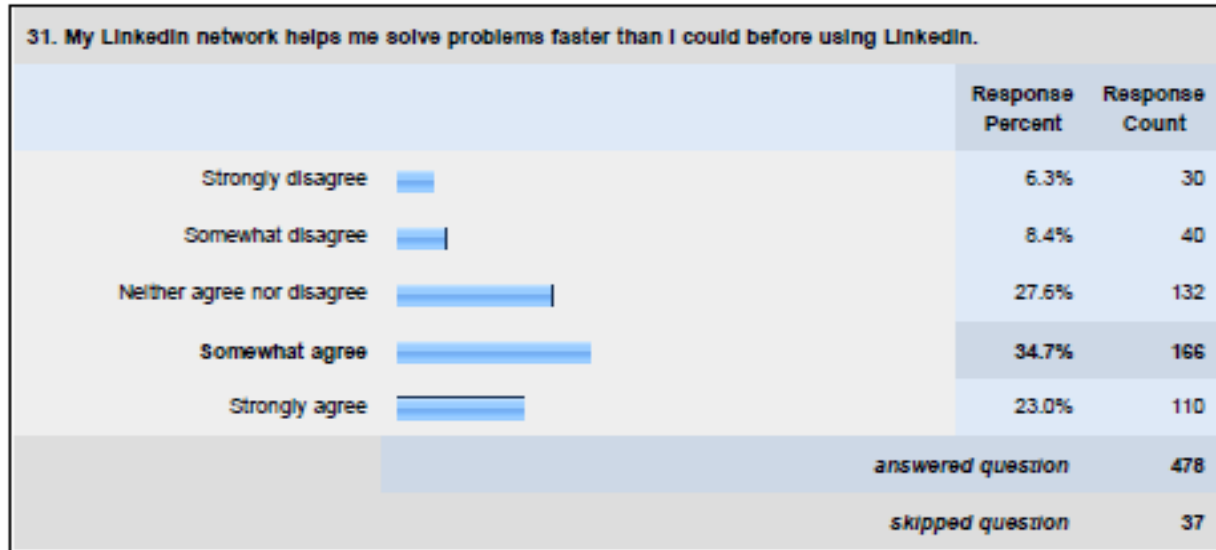
v114	Percent	No. cit.
Non-response	23.30%	120
Strongly disagree	4.30%	22
Somewhat disagree	6.40%	33
Somewhat agree	33.40%	172
Strongly agree	32.60%	168
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1616

Mean = 4.09 Standard deviation = 1.12

The mean and standard deviation are calculated ignoring non-responses.



My LinkedIn network helps me solve problems faster than I could before using LinkedIn.

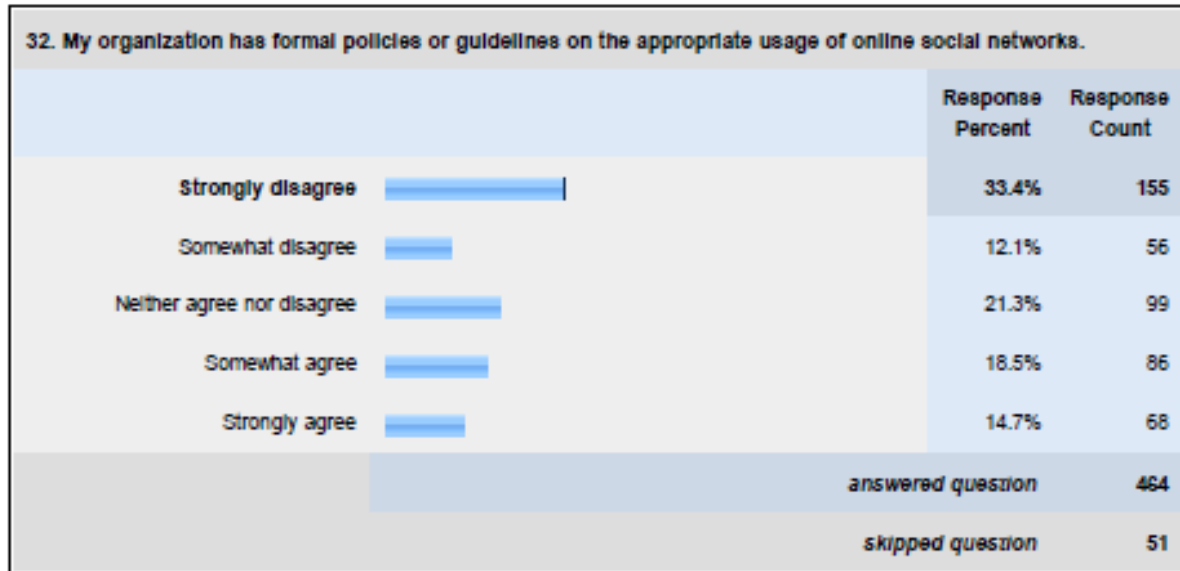
v115	Percent	No. cit.
Non-response	32.80%	169
Strongly disagree	5.80%	30
Somewhat disagree	7.80%	40
Somewhat agree	32.20%	166
Strongly agree	21.40%	110
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1324

Mean = 3.83 Standard deviation = 1.24

The mean and standard deviation are calculated ignoring non-responses.



My organization has formal policies or guidelines on the appropriate usage of online social networks.

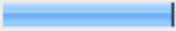

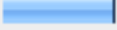
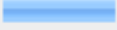

v116	Percent	No. cit.
Non-response	29.10%	150
Strongly disagree	30.10%	155
Somewhat disagree	10.90%	56
Somewhat agree	16.70%	86
Strongly agree	13.20%	68
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 951

Mean = 2.61 Standard deviation = 1.64

The mean and standard deviation are calculated ignoring non-responses.

33. My organization has formal policies or guidelines about what kinds of information can and cannot be distributed via online social networks.		
	Response Percent	Response Count
Strongly disagree 	30.3%	141
Somewhat disagree 	13.8%	64
Neither agree nor disagree 	19.6%	91
Somewhat agree 	20.0%	93
Strongly agree 	16.3%	76
answered question		465
skipped question		50

My organization has formal policies or guidelines about what kinds of information can and cannot be distributed via online social networks.






v117	Percent	No. cit.
Non-response	27.40%	141
Strongly disagree	27.40%	141
Somewhat disagree	12.40%	64
Somewhat agree	18.10%	93
Strongly agree	14.80%	76
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1021

Mean = 2.73 Standard deviation = 1.64

The mean and standard deviation are calculated ignoring non-responses.

34. My organization does NOT place restrictions on the personal use of online social networks during work hours.		
	Response Percent	Response Count
Strongly disagree 	13.4%	62
Somewhat disagree 	14.9%	69
Neither agree nor disagree 	18.4%	85
Somewhat agree 	21.0%	97
Strongly agree 	32.3%	149
answered question		462
skipped question		53

My organization does NOT place restrictions on the personal use of online social networks during work hours.

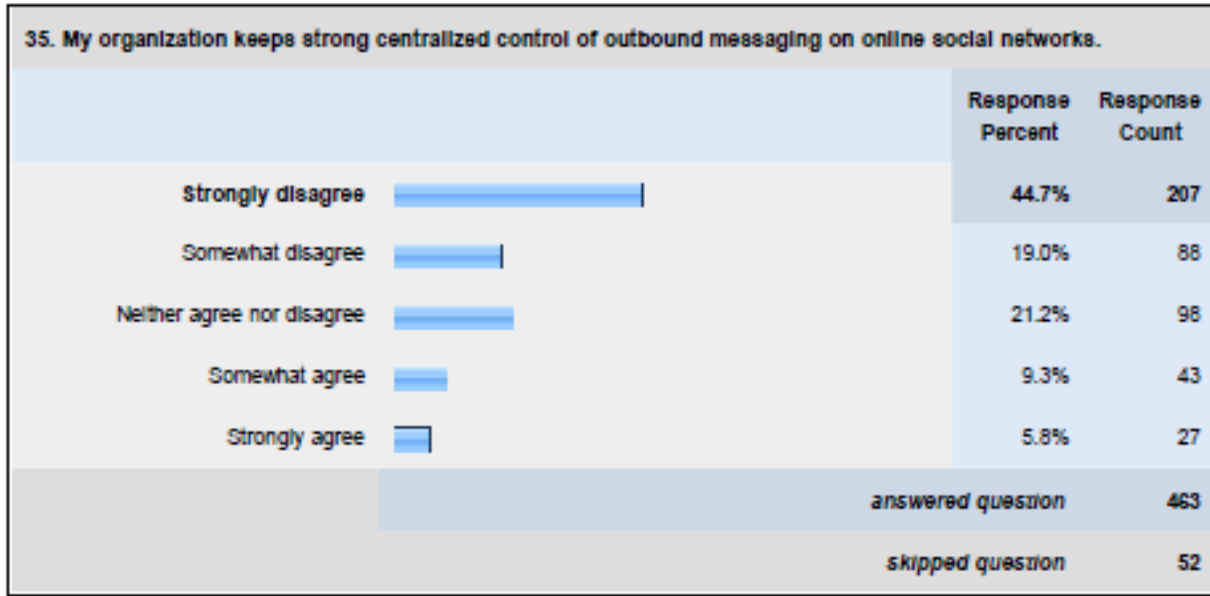
v118	Percent	No. cit.
Non-response	26.80%	138
Strongly disagree	12.00%	62
Somewhat disagree	13.40%	69
Somewhat agree	18.80%	97
Strongly agree	28.90%	149
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1333

Mean = 3.54 Standard deviation = 1.55

The mean and standard deviation are calculated ignoring non-responses.



My organization keeps strong centralized control of outbound messaging on online social networks.

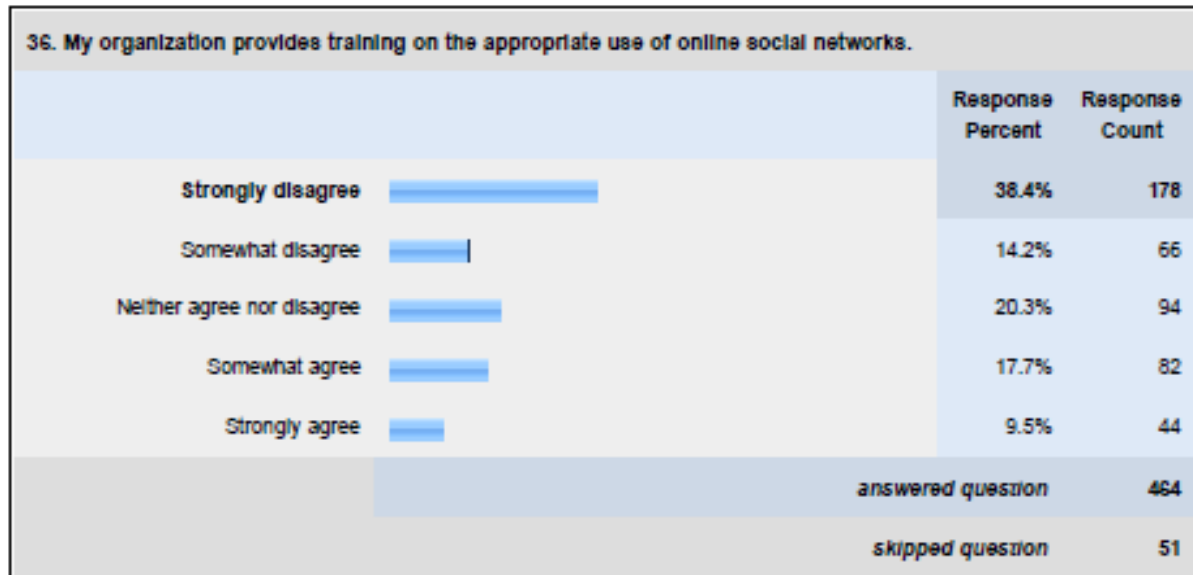
v119	Percent	No. cit.
Non-response	29.10%	150
Strongly disagree	40.20%	207
Somewhat disagree	17.10%	88
Somewhat agree	8.40%	43
Strongly agree	5.20%	27
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 690

Mean = 1.89 Standard deviation = 1.30

The mean and standard deviation are calculated ignoring non-responses.



My organization provides training on the appropriate use of online social networks.

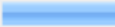




v120	Percent	No. cit.
Non-response	28.20%	145
Strongly disagree	34.60%	178
Somewhat disagree	12.80%	66
Somewhat agree	15.90%	82
Strongly agree	8.50%	44
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 858

Mean = 2.32 Standard deviation = 1.53

The mean and standard deviation are calculated ignoring non-responses.

37. My organization is vulnerable to "accidents" or negative consequences of inappropriate usage of online social networks.		
	Response Percent	Response Count
Strongly disagree 	20.8%	95
Somewhat disagree 	12.1%	55
Neither agree nor disagree 	28.7%	131
Somewhat agree 	26.3%	120
Strongly agree 	12.1%	55
answered question		456
skipped question		59

My organization is vulnerable to "accidents" or negative consequences of inappropriate usage of online social networks.

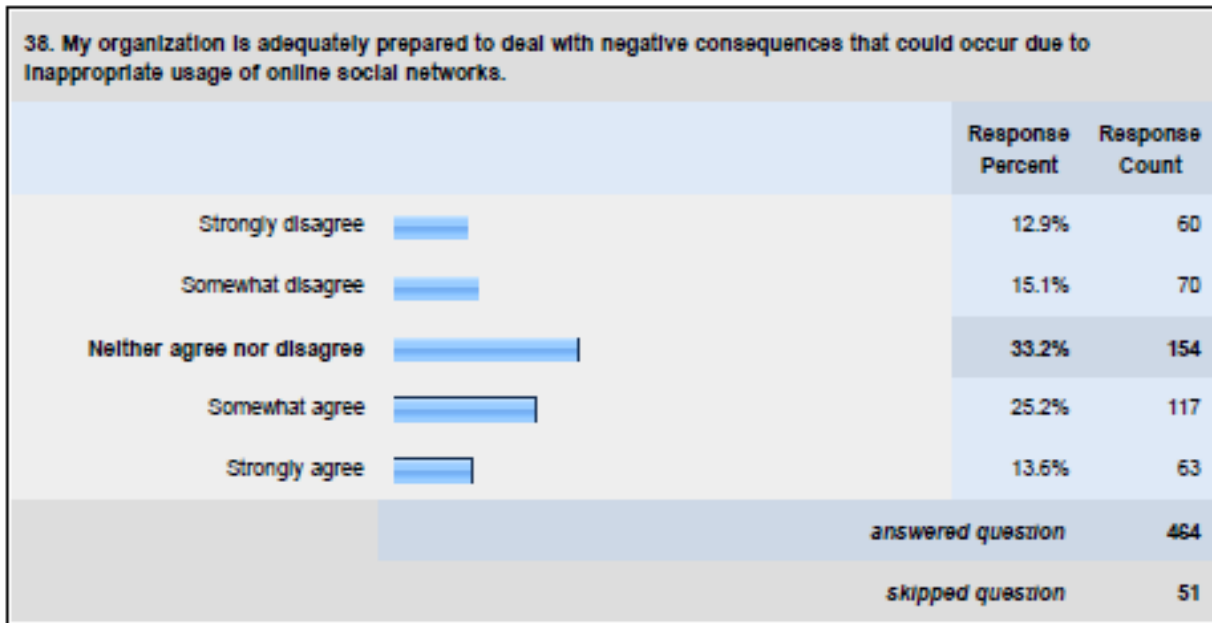
v121	Percent	No. cit.
Non-response	36.90%	190
Strongly disagree	18.50%	95
Somewhat disagree	10.70%	55
Somewhat agree	23.30%	120
Strongly agree	10.70%	55
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 960

Mean = 2.95 Standard deviation = 1.55

The mean and standard deviation are calculated ignoring non-responses.



My organization is adequately prepared to deal with negative consequences that could occur due to inappropriate usage of online social networks.

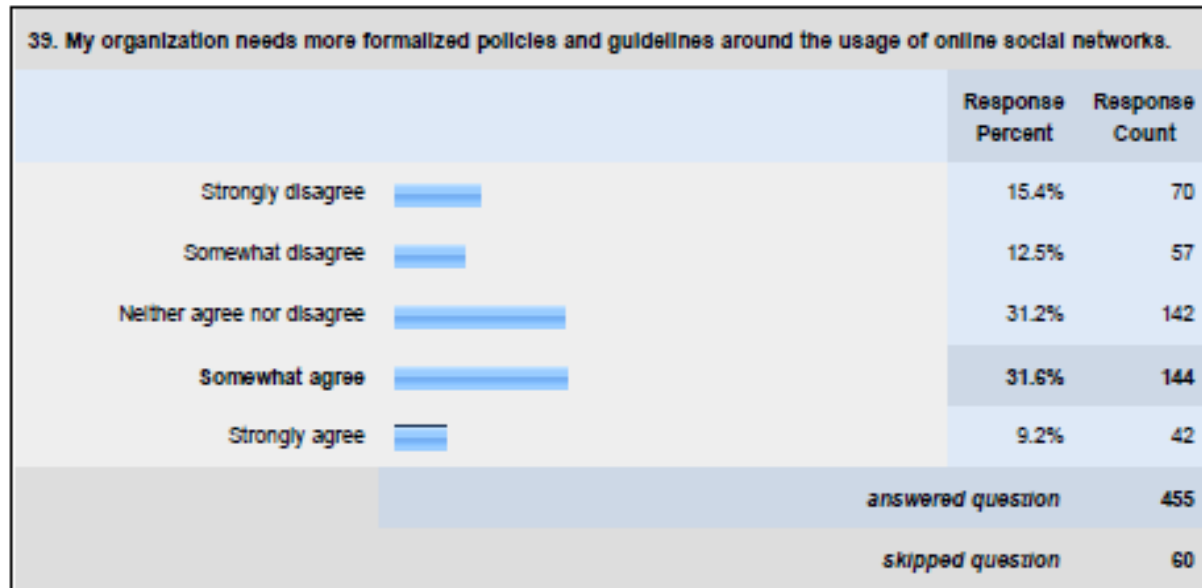
v122	Percent	No. cit.
Non-response	39.80%	205
Strongly disagree	11.70%	60
Somewhat disagree	13.60%	70
Somewhat agree	22.70%	117
Strongly agree	12.20%	63
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 983

Mean = 3.17 Standard deviation = 1.47

The mean and standard deviation are calculated ignoring non-responses.



My organization needs more formalized policies and guidelines around the usage of online social networks.

v123	Percent	No. cit.
Non-response	39.20%	202
Strongly disagree	13.60%	70
Somewhat disagree	11.10%	57
Somewhat agree	28.00%	144
Strongly agree	8.20%	42
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 970

Mean = 3.10 Standard deviation = 1.44

The mean and standard deviation are calculated ignoring non-responses.



Online social networks will play a more important role in the future strategies of my organization.

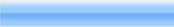

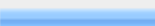


v124	Percent	No. cit.
Non-response	26.00%	134
Strongly disagree	2.10%	11
Somewhat disagree	3.30%	17
Somewhat agree	33.40%	172
Strongly agree	35.20%	181
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1638

Mean = 4.30 Standard deviation = 0.91

The mean and standard deviation are calculated ignoring non-responses.

41. My organization has hired or will be hiring a full-time employee or the equivalent whose primary job is related to online social networks and social media.		
	Response Percent	Response Count
Strongly disagree 	31.8%	147
Somewhat disagree 	11.5%	53
Neither agree nor disagree 	28.6%	132
Somewhat agree 	14.7%	68
Strongly agree 	13.4%	62
answered question		462
skipped question		53

My organization has hired or will be hiring a full-time employee or the equivalent whose primary job is related to online social networks and social media.

v125	Percent	No. cit.
Non-response	35.90%	185
Strongly disagree	28.50%	147
Somewhat disagree	10.30%	53
Somewhat agree	13.20%	68
Strongly agree	12.00%	62
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 835

Mean = 2.53 Standard deviation = 1.64

The mean and standard deviation are calculated ignoring non-responses.



Senior management in my organization are becoming more engaged in online social networks and social media in general.

v126	Percent	No. cit.
Non-response	30.70%	158
Strongly disagree	6.40%	33
Somewhat disagree	8.20%	42
Somewhat agree	32.60%	168
Strongly agree	22.10%	114
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1359

Mean = 3.81 Standard deviation = 1.26

The mean and standard deviation are calculated ignoring non-responses.



Senior management in my organization should be more engaged in online social networks and social media than they currently are.

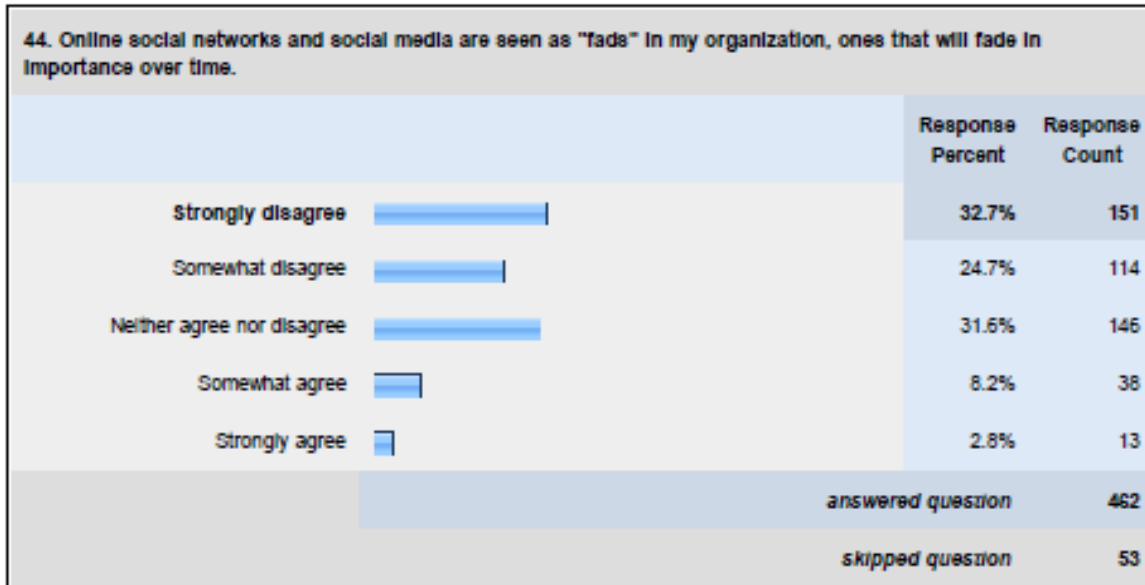
v127	Percent	No. cit.
Non-response	38.10%	196
Strongly disagree	5.20%	27
Somewhat disagree	8.00%	41
Somewhat agree	30.90%	159
Strongly agree	17.90%	92
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1205

Mean = 3.78 Standard deviation = 1.23

The mean and standard deviation are calculated ignoring non-responses.



Online social networks and social media are seen as "fads" in my organization, ones that will fade in importance over time.

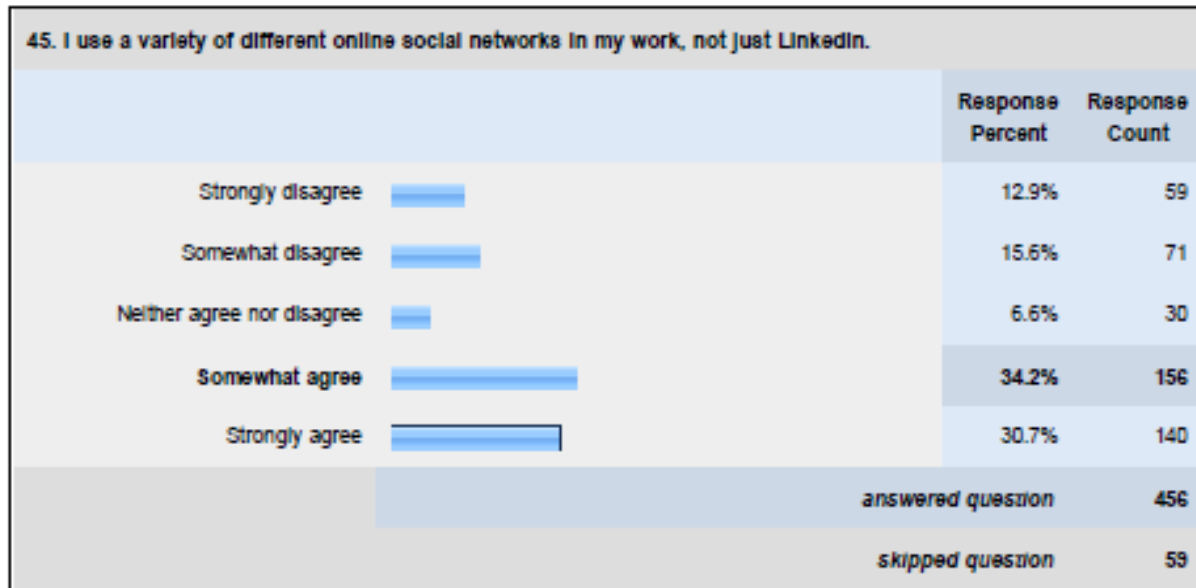
v128	Percent	No. cit.
Non-response	38.60%	199
Strongly disagree	29.30%	151
Somewhat disagree	22.10%	114
Somewhat agree	7.40%	38
Strongly agree	2.50%	13
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 596

Mean = 1.89 Standard deviation = 1.15

The mean and standard deviation are calculated ignoring non-responses.



I use a variety of different online social networks in my work, not just LinkedIn.

v129	Percent	No. cit.
Non-response	17.30%	89
Strongly disagree	11.50%	59
Somewhat disagree	13.80%	71
Somewhat agree	30.30%	156
Strongly agree	27.20%	140
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1525

Mean = 3.58 Standard deviation = 1.44

The mean and standard deviation are calculated ignoring non-responses.



Online social networks will become a bigger part of my job in the future.

v130	Percent	No. cit.
Non-response	28.50%	147
Strongly disagree	2.50%	13
Somewhat disagree	5.60%	29
Somewhat agree	36.30%	187
Strongly agree	27.00%	139
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1514

Mean = 4.11 Standard deviation = 1.00

The mean and standard deviation are calculated ignoring non-responses.



My performance is measured, at least in part, by my ability to use my online social networks effectively.

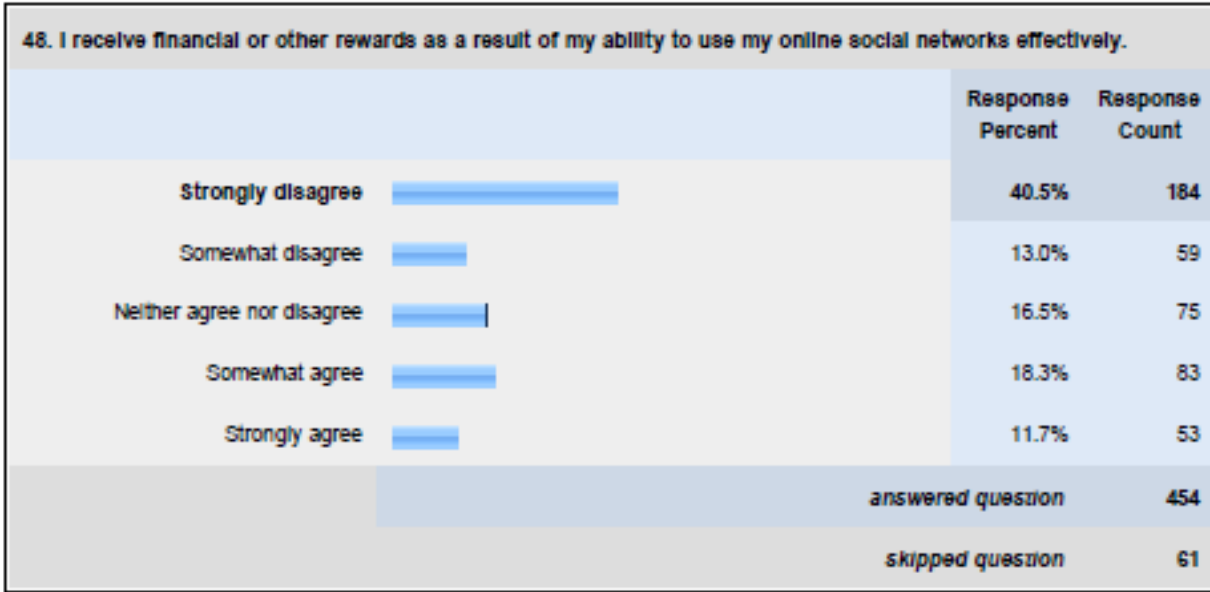
v131	Percent	No. cit.
Non-response	25.10%	129
Strongly disagree	30.30%	156
Somewhat disagree	13.60%	70
Somewhat agree	19.60%	101
Strongly agree	11.50%	59
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 995

Mean = 2.58 Standard deviation = 1.58

The mean and standard deviation are calculated ignoring non-responses.



I receive financial or other rewards as a result of my ability to use my online social networks effectively.

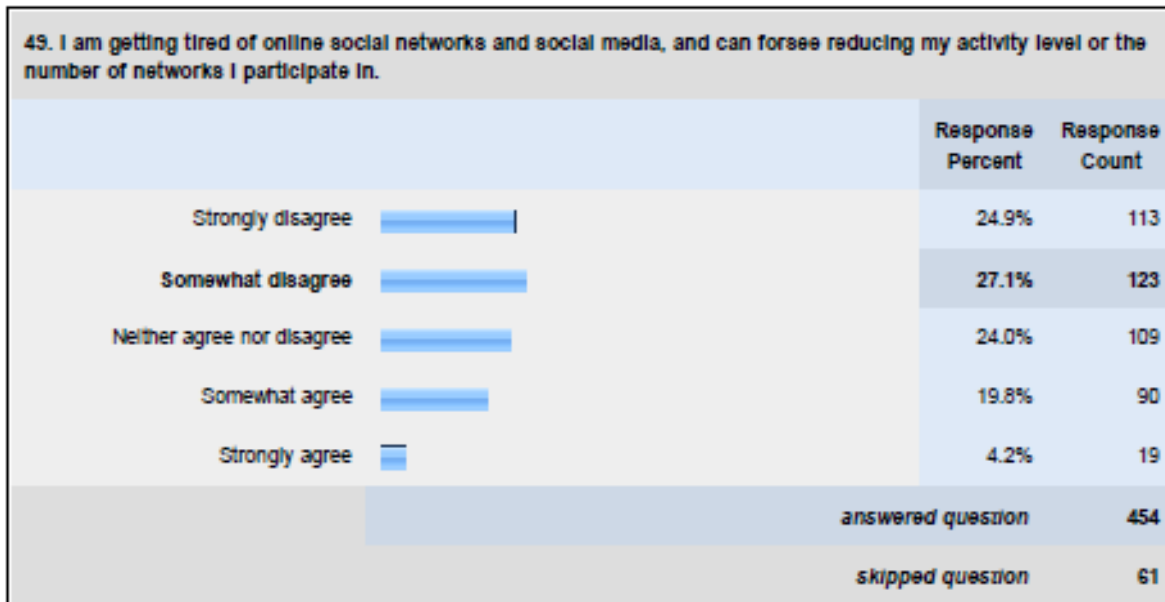
v132	Percent	No. cit.
Non-response	26.40%	136
Strongly disagree	35.70%	184
Somewhat disagree	11.50%	59
Somewhat agree	16.10%	83
Strongly agree	10.30%	53
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 899

Mean = 2.37 Standard deviation = 1.58

The mean and standard deviation are calculated ignoring non-responses.



I am getting tired of online social networks and social media, and can foresee reducing my activity level or the number of networks I participate in.

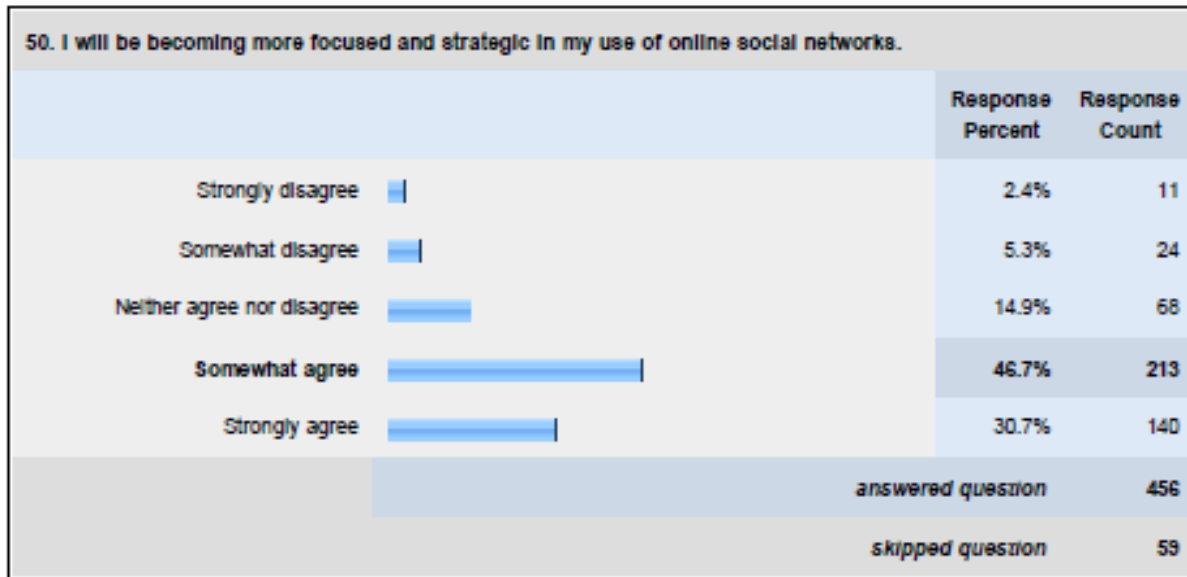
v133	Percent	No. cit.
Non-response	33.00%	170
Strongly disagree	21.90%	113
Somewhat disagree	23.90%	123
Somewhat agree	17.50%	90
Strongly agree	3.70%	19
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 814

Mean = 2.36 Standard deviation = 1.32

The mean and standard deviation are calculated ignoring non-responses.



I will be becoming more focused and strategic in my use of online social networks.

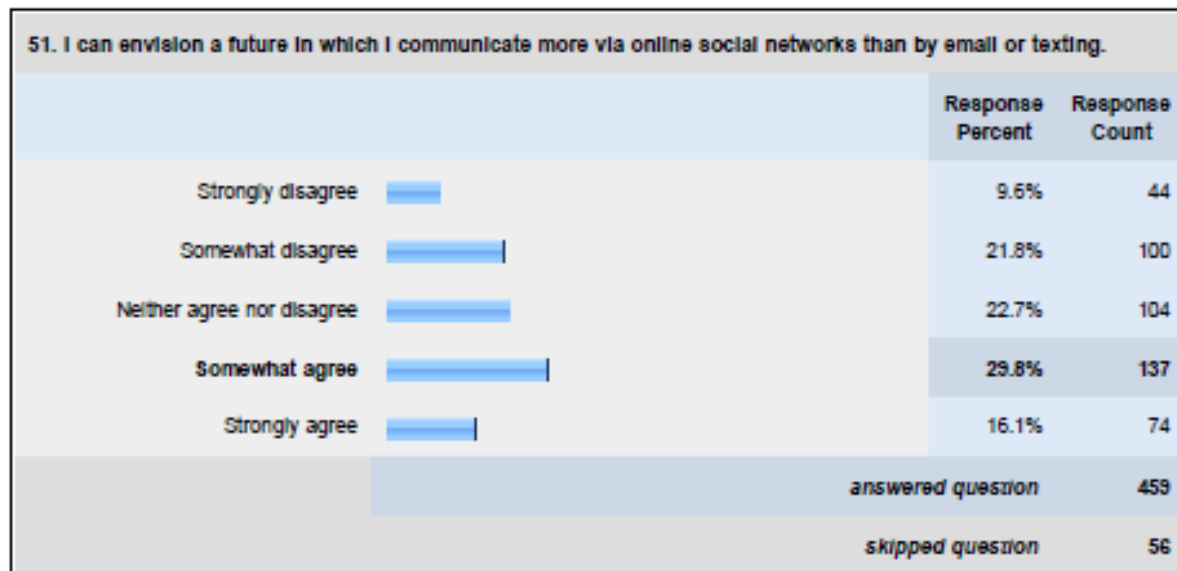
v134	Percent	No. cit.
Non-response	24.70%	127
Strongly disagree	2.10%	11
Somewhat disagree	4.70%	24
Somewhat agree	41.40%	213
Strongly agree	27.20%	140
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1611

Mean = 4.15 Standard deviation = 0.92

The mean and standard deviation are calculated ignoring non-responses.



I can envision a future in which I communicate more via online social networks than by email or texting.






v135	Percent	No. cit.
Non-response	31.10%	160
Strongly disagree	8.50%	44
Somewhat disagree	19.40%	100
Somewhat agree	26.60%	137
Strongly agree	14.40%	74
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1162

Mean = 3.27 Standard deviation = 1.39

The mean and standard deviation are calculated ignoring non-responses.

52. Social media will become the dominant form of media in the future.		
	Response Percent	Response Count
Strongly disagree 	7.0%	32
Somewhat disagree 	18.7%	86
Neither agree nor disagree 	24.2%	111
Somewhat agree 	34.4%	158
Strongly agree 	15.7%	72
answered question		459
skipped question		56

Social media will become the dominant form of media in the future.

v136	Percent	No. cit.
Non-response	32.40%	167
Strongly disagree	6.20%	32
Somewhat disagree	16.70%	86
Somewhat agree	30.70%	158
Strongly agree	14.00%	72
TOTAL OBS.	100%	515

Minimum = 1, maximum = 5

Sum = 1196

Mean = 3.44 Standard deviation = 1.31

The mean and standard deviation are calculated ignoring non-responses.