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Knowledge Management in a Distributed Workforce: Implications for Leadership

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CERTIFICATE OF APPROVAL

This is to certify that the Non-thesis Project of

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Abstract

Over the past decade, the distribution of workers across the country and around the world who work together in various configurations has increased. Work relationships range from being co-located in the same office to working from a virtual office. This paper explores knowledge management in the virtual workforce and best practices for leadership in an increasingly distributed workforce. There is great potential for collaboration within a distributed workforce; however, people need to connect or be connected with each other in order for the collaborative process to flourish.

In this project, knowledge management in a distributed workforce was explored among employees who are team members at a large organization (over 30,000 employees). The employees involved specialize in very specific areas of information. This information is well maintained in knowledge management tools developed by the organization. The organization had previously invested in an internal social media platform that would help employees identify which employees could best provide needed information; however, the platform was seldom used. Employees were not populating and updating their profiles, which decreased the effectiveness.

A survey was taken to identify the factors that influence how people search for information based on proximity to managers/co-workers and social media activity outside of work. The results showed that people who created social media profiles outside of work were not more likely to have created a social profile within the company's internal social media platform.

The survey helped team leaders pinpoint how increased use of the internal social media platform could be achieved. The next phase of the project involved increasing employee awareness of how useful the internal social media platform can be. A push was made to communicate to employees on a one-on-one basis.

As a part of this project, members of the project team focused on enhancing the ease of searching for and connecting with others through Microsoft Lync and internal profiles. In addition, members of the leadership team have modeled a commitment to completion of internal profiles and enhanced connectedness. A profile template focused on career and skills was developed. Each group was also tasked with the identification of key searchable terms that would allow others to quickly locate them. A section of the profile is dedicated to key terms to enhance the ability to search and locate a person with specific skills or subject matter expertise efficiently and effectively. The goal of the project team is to increase the use of the internal social media platform.

Appendix A Table of Contents

Knowledge Management in a Distributed Workforce:

Implications for Leadership

Donna is a woman in her mid 40s who is a part of two very important teams. She is a member of the family care team that provides care for her terminally ill aunt, and she is an employee of a large corporation. She works from home as a member of a virtual team. Because she is a virtual employee, she is able to work remotely from her home as well as the home of her aunt. One week a month she travels to another state, stays with her aunt, and helps with doctor appointments and care. She is able to flex her schedule to meet the needs of her aunt during the day and the team during the evening. Donna routinely expresses gratitude for being able to maintain her employment with pay; she has not had to choose between family and work. While coverage under the Family and Medical Leave Act (FMLA) would provide protection of her employment for up to twelve weeks a year, it does not provide payment for those hours. Working in a virtual environments means that she can flex her hours and save her paid time off and FMLA for times she is unable to work. She frequently comments about how much she values her employer and how she feels valued. In a recent email she said, "I feel blessed to work for a company that cares about me, values me and is supportive of me during this rough patch in my life…" Donna is extremely motivated and can be counted on to consistently meet deadlines with quality work.

Brandon is another employee who works from home and is able to make necessary changes to his environment to better accommodate his medical conditions, which cause frequent discomfort, pain and fatigue. While reasonable accommodations would have been made in the face-to-face office environment, there is opportunity for creativity and

greater flexibility at home. He benefits from two naps during the day and also requires the ability to change positions frequently. As a virtual employee, he can take scheduled naps in his bed and has the flexibility to work in a variety of settings – at a desk, from bed, a table, standing, etc. Other team members express gratitude for saving hours in commute time that can be spent as they wish; especially during road construction and winter weather.

Tornadoes in 2011 shut down two office hubs and disrupted many virtual employees who were without power. Because there were employees in similar roles across the country, the workload could be distributed across a broader network of employees who were in areas unaffected by the tornadoes. The unaffected team members could each work a few hours of overtime which, distributed across the company, covered the hours lost by employees who needed to focus on restoring not just power to their homes, but recovery from loss or damage to homes and community.   The overtime worked by the unaffected members of the virtual team allowed those team members impacted by storms to repair and return to work as able, without company pressure and without disruption to customer experience.

From the employer's perspective, a dispersed workforce helps mitigate potential impact of weather or other disasters on productivity. A fire, flood, or snowstorm could impact hundreds of employees unable to work in a face-to-face environment, but in a virtual environment, the risk is lessened as people do not share one physical office environment.

According to an analysis of the U.S. Census Bureau's 2012 *American Community Survey* completed by GlobalWorkplaceAnalytics.com, "2.6% of the U.S. employee

workforce (3.3 million people, not including the self-employed or unpaid volunteers) considered home their primary place of work" (GlobalWorkplaceAnalytics.com, 2013). Working from home has many benefits to both employees and employers (GlobalWorkplace Analytics.com, n.d.). Employees save on transportation, clothing and food expenses, have increased flexibility in schedule, and have career opportunities that are not limited by geography. Employers' benefits include, but are not limited to, savings in real estate expenses, decreased lost time, increased productivity, and availability of a talent pool that is not limited by geography. From an employer's perspective, there is less disruption of productivity when a person is able to flex their hours to accommodate engagement in their children's activities at school or doctor appointments without needing to use vacation or sick time. Most importantly, employers are able to offer creativity and flexibility in retention of a skilled workforce that continues to drive individual and company performance (Kaczmarczyk, 2008).

There is great potential for collaboration within a distributed workforce; however, people need to connect or be connected with each other in order for the collaborative process to begin. Over the past decade, the distribution of workers across the country and around the world who work together in various configurations has increased. Work relationships range from being co-located in the same office to working from a virtual office. This paper will discuss knowledge management in the virtual workforce and best practices for leadership in an increasingly distributed workforce.

Literature Review

In an effort to identify and summarize the research of others in best practices for leadership in a virtual environment, Boule (2008) published a literature review in *Library*

Technology Reports. Boule explained that this review is helpful for leaders of virtual as well as blended teams as it identified actionable practices as well as thought processes key to successful leadership of virtual teams. Blended teams are those that contain members who are co-located in the same office and other members who work from a remote location; the remote location could be working from home or another office. Boule categorized three primary categories of guidelines when leading a virtual team: organizational practices, team leadership, and team practices.

Organizational practices include selecting resources and tools that are effective and best fit your need and also encouraging others to experiment and learn from each other as new technology is incorporated.

Team leadership includes setting clear direction and staying on course, coaching team members to remain engaged, creating and maintaining a group identity and using communication methods that match individual needs of team members instead of preference of team leader.

Team practices include incorporating time for discussions to get to a deeper level of interaction and understanding, supporting "routines of conversations" such as checking a web page for updates daily that allow the team to remain up to date on items without being in the same place at the same time, providing context to projects and materials presented. Team practices also include support of experimentation and team unity.

Boule's review provided a beneficial summary of findings; but did not address the specifics of the research. While the three categories of review provide a helpful framework in which to think about leadership in a distributed workforce, a more detailed review of the research would help further define best practices. Further research and best

practices review is also needed on blended teams as they may experience different

challenges than completely virtual or face-to-face teams.

    The literature review will be organized according to these three categories;

organizational practices, team leadership, and team practices.

Organizational Practices

    Thomas, Bostrom, and Gouge (2007) explored the role of the project leader in the use

of information and communication technologies (ICT) to improve team performance

through improved communication. The authors conducted two-hour interviews of 13

practicing virtual technology leaders with an average length of five years' experience in

leading virtual teams. The leaders had experience in 20 organizations. Data was

collected on 52 incidents of communication technology intervention in the performance

of 30 projects. Project success or failure was determined by the project leader's self-

assessment. The interviews identified primary triggers of technological intervention as

opportunities or problems. The majority of triggers (77%) were problem focused.

    Five primary triggers were identified as external to the team, such as:

        (1) organizational policies regarding the use of CIT,

        (2) tool inadequacies,

        (3) trust and relationship breakdown within the team,

        (4) interference of group structure such as time zones and change of members,

        (5) member knowledge about how to effectively use the CITs.

    Once triggers were identified, the leaders described how they chose CIT interventions

to meet the need and then implemented change within the group. They identified

interventions as requiring both structural implementation of technology and support.

Support of interventions included:

(1) setting and enforcing expectations for use,

(2) persuading others in the benefits of change, and

(3) making sure people have the training needed to most effectively use the

technology.

The leaders described improved participation in the project and increased information

processing capacity of the team after implementation of a technological intervention.

The team leaders also expressed improvement in cooperation, coordination and

communication as information became (1) more visible, (2) easier to exchange, and (3)

easier to view and manipulate with multiple participants.

This study was limited in that there was a small number of interviewees (13).

Although there were 52 incidents reviewed, which was a good sample, they came from a

limited source of 30 projects. The authors made assertions about the use of

communication technology as an intervention to achieve project success. Further

research would be helpful in validating the identified triggers and related interventions.

The authors propose the development of tools to help project leaders assess how well

they identify and respond to opportunities for ICT intervention. Further research will

help guide best practices and training in the areas of triggers and successful interventions,

pairing knowledge of virtual communication technology with organization development.

Team Leadership

Ruggieri's (2009) research provided support that the style of a leader, transactional or

transformational, can be identified by virtual team members and has an impact on the

level of group task satisfaction expressed by team members. The research demonstrated

that the groups who identified leaders as transformational had higher group task satisfaction than those with a transactional leader. This study was conducted using ten teams of college students between the ages of 20 and 24. Each team included four participants unaware of the study's purpose and two who were plants who were aware of the purpose of the study and who were to assume the role of leader for the group. The leaders were to transition at the two-week point of a four-week project. Each leader was also to exemplify a different style of leadership so that each group experienced both transactional and transformational leadership throughout the course of the project. At the midpoint and end, subjects identified and described their leaders using the Adjective Checklist developed by Gough and Heilbrun in 1965. At midpoint and end of the project, subjects also described their group task satisfaction using a questionnaire written by Ruggieri that contained a Likert scale. The research was limited by using only college students between the ages of 20 and 24 and could be expanded and repeated using a variety of subjects. The researcher did not discuss whether there was any carry-over effect from one style of leadership to the next. Another limitation may have been the self-developed survey; it would add value to the review of this article to include the actual survey. Using the Adjective Checklist (1965) developed by Gough and Heilbrun is a strength of this research because it incorporates a standard measure. The group also had different deliverables during each phase. Ruggieri was silent on whether the type of task had an impact on group satisfaction as well. Further research could be done to identify the relationship between leadership style, task, and group satisfaction.

Whitford and Moss (2009) explored whether the benefits of transformational leadership such as work engagement and job satisfaction extended to virtual work

environments. They also explored the relationship between <u>regulatory focus</u> and <u>goal orientation</u> on these benefits.

<u>Regulatory focus</u> is a characteristic of followers and can be described as being either promotion focused or prevention focused.

Promotion: driven to achieve their goals.

Prevention: driven to avoid negative consequences and meet obligations.

<u>Goal orientation</u> is another characteristic of followers and is categorized as performance orientation or learning orientation.

Performance orientation: focused on demonstration of skill

Learning Orientation: focused on skill development

Understanding the motivation and goal orientation can also be helpful in identification of fit between leadership style, team members, and the deliverables of the team. The authors surveyed 165 employees, of which 47% did not work in the same location as their manager. The survey was created using a combination of measures previously developed and validated. The survey included measures of:

- transformational leadership, developed and validated by Rafferty and Griffin (2004), regulatory focus, developed and validated by Lockwood, Jordan and Kunda (2002),

- goal orientation, developed and validated by VandeWalle (1997),

- work engagement developed and validated by Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002), and a

- job satisfaction measure developed by Warr, Cook, and Wall (1979).

The authors identified a positive relationship between transformational leadership and promotion focus; however, this was strongest in face-to-face work environments and weakened when an employee and manager were in different locations. The authors challenged the reader to consider that leadership training should include working with virtual teams; specifically how best to support promotion focus in virtual teams. Approximately half of the participants (47%) were located in a different environment from their manager. The authors did not identify whether the participants were working from home independently or whether they were in different face-to-face office environments. The researchers also noted that they did not consider the frequency of contact and communication as a variable. This would be an excellent opportunity for future study.

Team Practices

Hoegl, Ernst, and Proserpio (2007) conducted a survey to identify the impact of teamwork in team effectiveness of dispersed teams. They surveyed 145 software development teams from four corporations located in Germany. There were no team members outside of the country. The individuals surveyed included 145 managers who did not directly lead the project team, 145 project team leaders who reported to the managers, and 285 team members. The survey for managers included measures of effectiveness and efficiency. The survey for team members measured teamwork quality and the survey completed by team leaders included measures of team member proximity and team size. The primary finding was that teamwork has a positive relationship to the success of a team in virtual and face-to-face environments and that a virtual team can perform as well as or better than a face-to-face team if there is strong teamwork as

measured by the team. The researchers were careful to control the project teams to include like projects and people. The authors identified that this study could be enhanced by looking longitudinally at these groups instead of as a point in time. Also, this study was completed by groups working on technology projects and could be replicated using a more diverse workforce. Items identified as measures within teamwork include communication, coordination, mutual support, effort, and cohesion. Further research could be completed to help identify how best to support teamwork in a virtual environment.

Lira, Ripoll, Peiro, and Orengo (2008) explored the impact of group conflict on group potency in both virtual and face-to-face teams. Group potency was defined as "the collective belief in a group that it can be effective" (as cited in Guzzo, 1993). The two types of conflict explored were relationship conflict and task conflict. The authors summarized current research about both types of conflict and then hypothesized about what the impact of team member location (being in a virtual or face-to-face setting) would have on the group potency. Relationship conflict was predicted to negatively impact group potency, which was consistent with the research cited by the authors. The research surrounding task conflict and group potency was mixed and the authors hypothesized that task conflict could have a positive impact on group potency due to the non-routine nature of the subject group team. The authors also hypothesized that relationship conflict would have less of a negative impact on face-to-face teams because they would have non-verbal communication in addition to verbal. The authors' final hypothesis was that communication media would moderate the relationship between task

conflict and group potency with the greatest impact and that the strongest positive impact would be seen in face-to-face teams.

The authors' research was a study of 44 teams of four members each. The participants were randomly assigned to each group. Each team met weekly for four weeks and was asked to perform a specific objective each week relating to the start-up of a human resources consulting agency. The teams completed a group potency survey at the beginning of week one and at the end of week four. The survey used seven items from the Guzzo (as cited in Guzzo1993) scale. The participants also completed a survey of task conflict and relationship conflict using three items each from the Jehn (1995) scale at the end of week four. The results supported that relationship conflict negatively impacts group performance and that the impact is greater on the group potency of virtual teams. Task conflict did not significantly predict group potency; however, it was noted that task conflict had a greater negative impact on virtual teams than on face-to-face teams. The research was limited in that the participants were all college students with an average age of 22.97 years. The sample of participants was unbalanced related to gender, as 82% of participants were women and 18% of participants were men. While this ratio is consistent with the ratio of women to men enrolled in the psychology program in the study, it is not consistent with many other settings. Further research could identify if gender impacts perceptions of or impact of relational conflict in virtual teams. The length of the study was also limited; the authors hypothesized that virtual teams develop different communication and work strategies over time that lessen the impact of conflict. A longer study would allow the opportunity to explore this hypothesis. This study could also be repeated using teams of employees in corporations as this was completed in a

university setting. The study supported the authors' hypothesis that conflict, both relationship and task, has a greater negative effect on group potency in virtual teams than in face-to-face teams. The authors offer the richness of non-verbal communication in face-to-face environments as the primary factor. This study contributes to leadership of virtual teams in that it has raised awareness of the impacts of two types of conflict on virtual teams. It does not offer interventions related to the challenge. Further exploration of interventions will assist in the development of best practices of teams and leaders.

Conclusions from Reviewing the Literature

Boule (2008) explored best practices of leaders in virtual environments and identified coaching and mentoring as critical roles of a virtual leader in order to increase a team member's ability to stay engaged and productive. Whitford and Moss (2009) described the increase of work satisfaction reported by virtual employees as their engagement also increased. It is important for work satisfaction that people continue to develop and remain actively engaged.

While there are many advantages to a distributed workforce, both from the employer and employee perspective, working from home is not successful for everyone. Both leader and follower behaviors and expectations impact the success of an individual in a work at home environment. There is the risk that an employee may have difficulty self-structuring their day or might feel isolated. An individual who thrives in a face-to-face environment with team contact may have expectations of the workplace that are inconsistent with working from home. The team leader plays a key role in setting individual and team goals, measuring outcomes and providing feedback.

Virtual teams and distance workers are a growing part of the workforce. Leadership training and team training will be integral to the success of virtual teams and will be most successful when based on research. Research surrounding best practices in transitioning teams from a co-located to a virtual work environment will also provide needed guidance in supporting the physical and mental health of members as they adapt and then grow in a new work environment. As research on specific leadership attributes and practices continues to grow, we will be better informed on how to maximize team performance and employee engagement in virtual teams.

The literature that exists to date falls well into Boule's three categories; however, the research presently available is limited. As additional studies are completed (both quantitative and qualitative), we will continue to grow in our knowledge of what makes virtual teams more effective and how leaders can best lead virtual teams. We will then need to apply lessons learned through review of literature to our organizations.

Methodology

This project grew from a desire to enhance communication among team members working in a large organization (over 30,000 employees). The employees involved specialize in very specific areas of information. This information is well maintained in knowledge management tools developed by the organization.

The organization had previously invested in an internal social media platform that would help employees find out which employees could best provide needed information. The author noticed that the platform was seldom used. Employees were not populating and updating their profiles, which decreased the effectiveness.

The author wondered why the internal social media site was not used and hypothesized that it might be related to use of social media outside of work. Would familiarity, use, and comfort with social media technology outside the organization be transferred to a social media platform available within the organization? She wanted to find out, in an objective way, whether social media was a comfortable communication tool for the team. Understanding the attitudes and ability of team members provides an opportunity to create a customized approach to engagement to increase usage of the internal social media platform based on the needs of the individual users. She developed and administered a survey.

This survey project sought to identify the factors that influence how people search for information; both contacts and organizational wisdom, based on proximity to managers/co-workers and social media activity outside of work. In addition, the project sought to explore the hypothesis below:

Hypothesis: Participants who created social media profiles outside of work would be more likely to create a social profile within the company's internal social media platform.

A survey was developed (Appendix A) to assess the above hypothesis and to identify factors which may influence how a person searches for information. An email requesting voluntary participation in a survey was sent to 33 team members of the organization. The team members represented individuals from two teams and included a spectrum of people who work exclusively from home to people working exclusively in an office setting. The email also contained a link to a website in which the survey was embedded. In order to maintain anonymity of respondents, the survey was created using Google Docs in a manner that did not track the individual identity of responders; just a date and time stamp

of the responses received. The questions were also developed to maintain anonymity.

Because the corporation's web security protocols did not allow access to the survey

website, participants completed the surveys from their home computers. Once the

surveys had been completed; the data were summarized (see Appendix B for summary of

survey responses and Appendix C for additional analysis of survey results) and reviewed

against the author's predicted results.

Findings

While the resulting sample of the nineteen respondents was too small to provide

statistically significant results, the survey did provide feedback regarding factors that

influence how the respondents search for information.

The author hypothesized that participants who created social media profiles outside of

work would be more likely to create a social profile within the company's internal social

media platform. Contrary to the author's prediction, the results showed that participants

who had created social media profiles outside of work (63%) were not more likely to

have created a social profile within the company's internal social media platform (37%)

than people who had not created a social media profile outside of work (see Appendix B:

Survey Results Summary and Appendix C – Additional Analysis of Survey Results). Of

the seven respondents who had created an internal company social profile, four also had a

profile on a social media site outside of the organization and three did not. There were

also seven respondents who had a social profile outside of work with no internal social

profile. The sample was not sufficient for significant results; however, this would be an

interesting opportunity for future research, in order to explore the relationship between social media participation in and out of the workplace.

Further analysis of these results provides implications for leadership as well as future research opportunities. The majority of respondents (84%) were aware that they could build a profile on the organization's intranet; however the survey did not ask if the respondents knew how to build a profile. Forty-eight percent (48%) of respondents did not know that employee profiles were searchable using Microsoft Lync and even more (63%) were unaware that internal social profiles could be searched using an intranet search. Only 2 respondents (10%) said they searched internal social profiles daily and 0% for both weekly and monthly. Seventy-nine percent (79%) of respondents said that they search profiles less than monthly. The author received feedback from three participants that this question did not give "Never" as a response, otherwise they would have selected "Never." Again, this was a small sample; and further research could be done to identify barriers and solutions to enhance the use of these tools.

The author decided that the problem was that people did not know how useful the internal social media platform can be. The author determined that an effort was needed to inform employees and began communicating to individuals on the team one-on-one and has found that use of the internal social media platform has increased.

The author then began working as a member of a project team focused on enhancing the ease of searching for and connecting with others through Microsoft Lync and internal profiles. As a part of this project, members of the leadership team have also modeled a commitment to completion of internal profiles and enhanced connectedness. A profile template focused on career and skills was developed. People are encouraged to use the

profile structure and enhance their profiles with personal information as they are comfortable. Each group was also tasked with the identification of key searchable terms that would allow others to quickly locate them. A section of the profile is dedicated to key terms to enhance the ability to search and locate a person with specific skills or subject matter expertise efficiently and effectively.

Leaders in virtual environments, as other environments, need to assess needs and then identify how best to meet those needs. In this example, a leader identified an opportunity to help people connect with each other; enhance collaboration, share materials, and provide subject matter expertise efficiently and effectively. The organization reviewed options for technological solutions, from the development of a new internal tool to adoption of the use of internal profiles and Microsoft Lync (which were available, but not widely used). The use of simple and available applications were selected. Because the tools had previously been loaded onto employee's computers and the organization's intranet site as part of an organization-wide project, employees had the tools available to use and to explore. The technology selected was user-friendly and could be adopted quickly due to a shorter learning curve. Training was provided to the work group members. They experimented with the technology independently and as a group and worked collaboratively to develop team practices. Organizational practices were developed through a primarily technological approach that was supported through team leadership and team practices. These tools were demonstrated to help team members visualize how the use of these tools could meet their needs to connect with others and identify resources within the organization. Of course, the search will only be able to respond to what has been entered, so if the profiles are empty, search results will be blank

and utilization will decrease. A leader must communicate, expect, and model clear expectations for use of technology.

This process is an example of Boule's Organizational Practices, Team Leadership and Team Practices: selecting effective resources and encouraging others to experiment and learn from each other. Boule's Organizational Practices provide a framework for assessment and the ongoing action required to create, maintain, and continue to grow a distributed workforce.

Conclusions and Recommendations

Amazing things can happen within a distributed workforce. Successful organizations continue to develop both depth and breadth. A mindful approach to organizational practices, team leadership, and team practices contributes to the success of an organization. A leader helps establish and then maintain the appropriate balance between these items, depending upon the needs of the organization and its people and the level of complexity of the task.

A distributed workforce relies upon engaged people, clean and clear processes and appropriate technological supports. Further research will help identify factors that enhance the success of a distributed workforce as well as identification of barriers to avoid or work through. Research opportunities are available on an individual, team, and organization level; to identify how leaders can best address the physical and emotional and technological components of optimal engagement. For example, what factors influence the development of a team over time; what is the impact of video communication and instant messaging? What processes best support ongoing communication and collaboration when a team is dispersed across time zones and

continents? As the technological supports continue to evolve it will be important for leaders to evaluate and select processes and technologies that support them based upon the needs of users and implement components at a level that is meaningful to a variety of users.

A distributed workforce allows opportunity for collaboration between individuals and teams that may have never crossed paths without intervention. Morten T. Hansen, in *Collaboration* (2009) shares the story of Apple and Sony, both competing for market share. Apple had released the first iPod and Sony was scrambling to catch up. While Sony had all of the business components within their family of companies, they lacked the culture of collaboration to pull it all together. Silos and an internally competitive culture left Sony with a product that it did not launch in the US and apologized for abroad. Apple, on the other hand, had collaborated within the organization to bring together existing components and functions into a new device, the iPod (other components included Sony batteries). It is not enough to have the best technology or people or process if they don't work together. The leader sets the tone of an organization. What is rewarded is repeated. A leader in alignment with a culture of collaboration will see many opportunities within a distributed workforce and will model behaviors and attitudes necessary to support the members of their organization as they connect with, explore, and learn more about and from one another.

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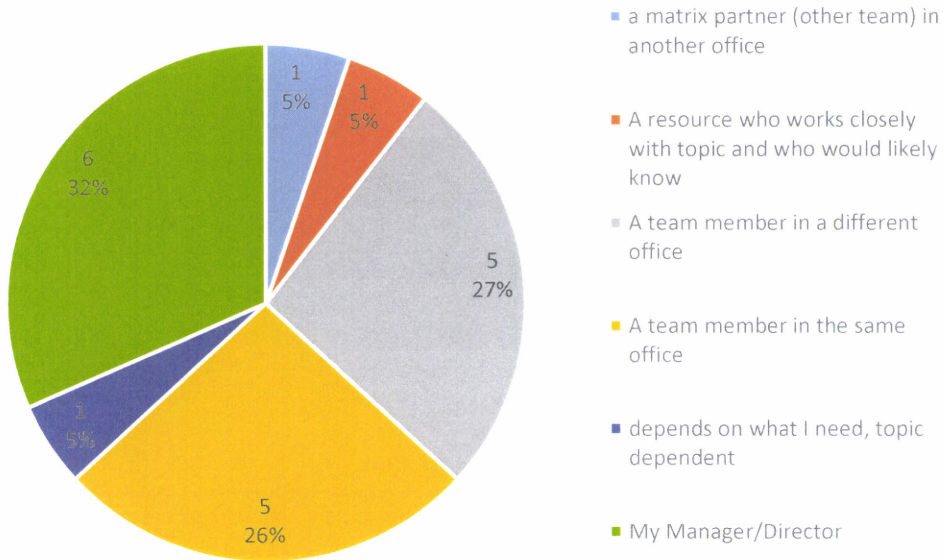
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Appendix A : Survey

1. Who (please do not use names) do you currently seek out most frequently when you need to identify a subject matter expert; who do you ask for a referral/name? *If other, please describe person's relationship to you, but do not use name of individual.*
   A. My Manager/Director
   B. A team member in the same office
   C. A team member in a different office
   D. Other

2. What are the top three (non-person) tools/resources you use to identify a subject matter expert? *Please enter three non-person resources below*

3. Do you have an active Facebook page?
   A. Yes
   B. No

4. Do you have an active LinkedIn page?
   A. Yes
   B. No

5. Did you know that your Employer has a social profile page available for each employee on the employer's intranet where you can build your own profile?
   A. Yes
   B. No

6. Are you aware that the Employee Profiles are searchable using Lync?
   A. Yes
   B. No

7. Are you aware that Employee Profiles are searchable using an Enterprise search?
   A. Yes
   B. No

8. How long have you been a member of the team? (note: specific name of participants team has been removed to retain participant anonymity)
   A. Less than 1 year
   B. 1-2 years
   C. 3-4 years
   D. 5-6 years
   E. More than 6 years

9. Do you work in an office with your direct manager/director?
    A. Yes
    B. No

10. Do you work in an office with members of your team?
    A. Yes
    B. No

11. Do you work from home:
    A. Every day
    B. 1-2 days per week
    C. 3-4 days per week
    D. Flexible-as needed
    E. Only in emergencies (i.e. sickness, weather related)
    F. Never

12. How long have you worked for your employer?
    A. Less than one year
    B. 1-2 years
    C. 3-4 years
    D. 5-6 years
    E. 6-10 years
    F. More than 10 years

13. How long have you been in your current role?
    A. Less than one year
    B. 1-2 years
    C. 3-4 years
    D. 5-6 years
    E. More than 6 years

14. Have you created a Profile through your employer sponsored page?
    A. Yes
    B. No

15. When did you create a Profile through your employer sponsored page?
    A. Within 3 months ago
    B. 3-6 months ago
    C. 6-9 months ago
    D. More than a year ago

16. How frequently do you search profiles for contacts/subject matter experts?
    A. Daily
    B. A few times a week
    C. Monthly
    D. Less than monthly

17. Have online tools made it easier for you to efficiently connect with others in the organization? Please comment below:
    A. Yes
    B. No
    C. I have not tried these tools, but think they will help me more efficiently find people.
    D. I have not tried these tools and would prefer not to use them in the future.

18. Please comment on how you use search tools to find contacts within the organization.

19. Has the availability of online search tools changed the way you search for information within the organization?

Appendix B : Survey Results by Question

Question 1: Who (please do not use names) do you
currently seek out most frequently when you need
to idenitfy a subject matter expert; who do you ask
for a referral/name?

- a matrix partner (other team) in another office
- A resource who works closely with topic and who would likely know
- A team member in a different office
- A team member in the same office
- depends on what I need, topic dependent
- My Manager/Director

Question 2: What are the top three (non-person) tools/resources you use to identify a subject matter expert?

phone/contact directory, resource guides white papers

Company intranet sites

Microsoft Access Data base of subject matter experts

Historical documents on shared LAN drives

company org charts, company phone directory, departmental webpages

Compliance sharepoint site, data roadmap tool, enterprise intranet pages

Contact List by Topic

Topic / Group page on Intranet or Share Point site

Shared Drive

Contact lists, websites, and/or email.

Department Internal internet site

Enterprise Internal internet site

Phone directory

Fuse, cigna legal homepage, icomply

Global Phone directory

Intranet

Share point tools

Google, firefox and safari

Inter company website

Personal contact list compiled over time

Documents from related subject matter projects or activities

(e.g., emails, meeting minutes, other communications).

Published contact lists and organizational charts.

posted lists, the internet, other persons

Publications

Intranet websites

Presentations

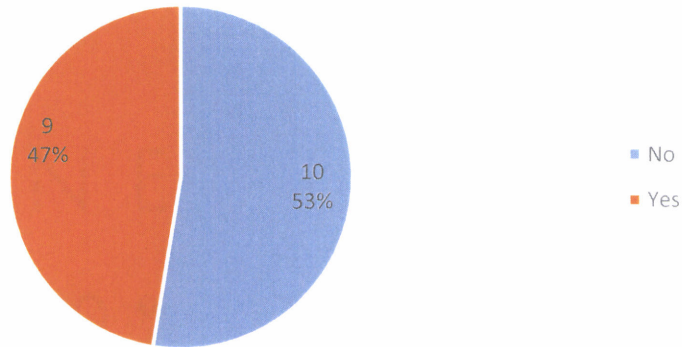sharepoint - contact lists

personal emails

company phone directory
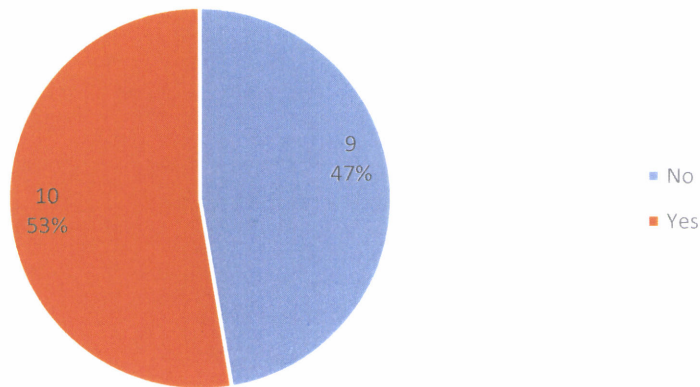
Subject Matter Expert Listings
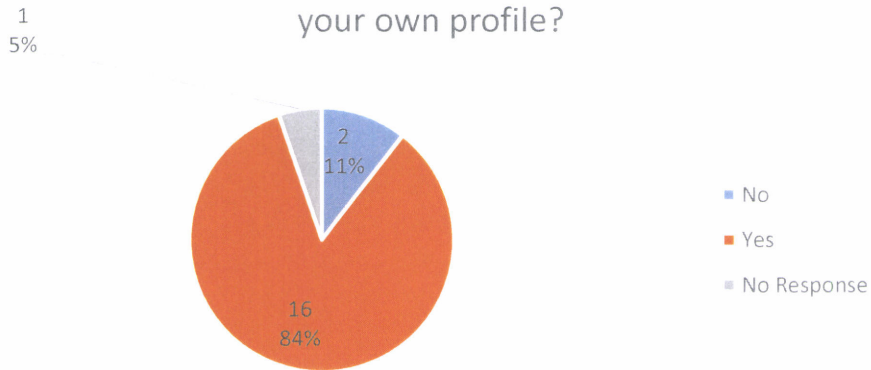
Previous Email Correspondence

Question 3: Do you have an active Facebook page?

9
47%

10
53%

- No
- Yes

Question 4: Do you have an active LinkedIn Page?


9
47%

10
53%

- No
- Yes

Question 5: Did you know that your Employer has a social profile page available for each employee on the employer's intranet where you can build your own profile?
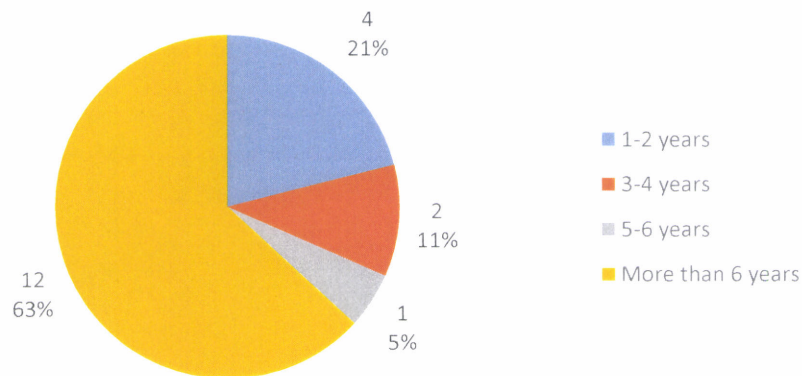
1
5%

2
11%

16
84%

- No
- Yes
- No Response

Question 6: Are you aware that Employee Profiles are searchable using Lync?

1
5%

9
48%

9
47%

- No
- Yes
- No Response
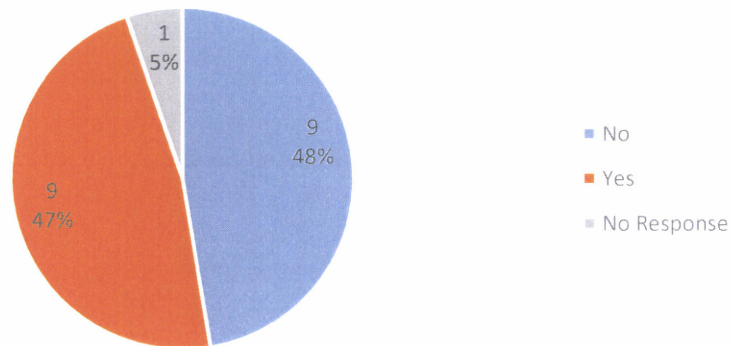
Question 7: Are you aware that Employee Profiles are searchable using an Enterprise Search?

1
5%

6
32%

12
63%

- No
- Yes
- No Response
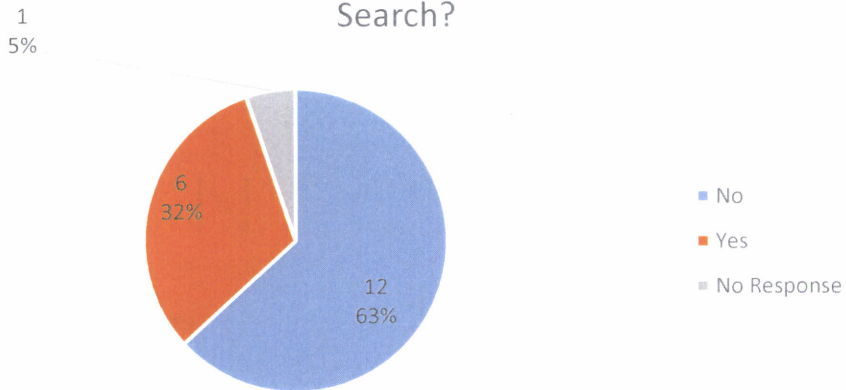
Question 8: How long have you been a member of the team?

4
21%

2
11%

1
5%

12
63%

- 1-2 years
- 3-4 years
- 5-6 years
- More than 6 years

Question 9: Do you work in an office with your direct manager/director?

- No
- Yes
- No Response

2
11%

1
5%

16
84%
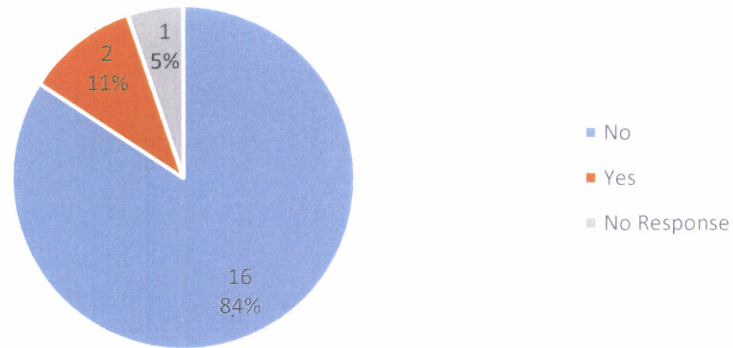
Question 10: Do you work in an office with members of your team?

- No
- Yes
- No Response

1
5%

7
37%

11
58%
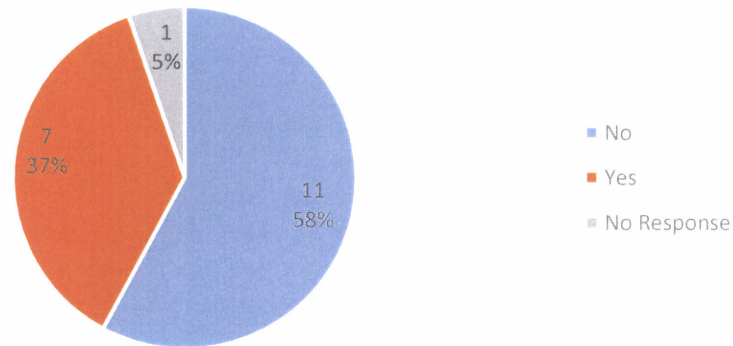
Question 11: Do you work from home:

- 1-2 days per week
- 3-4 days per week
- Every day
- Flexible-as needed
- Only in emergencies (i.e. sickness, weather related)
- No Response
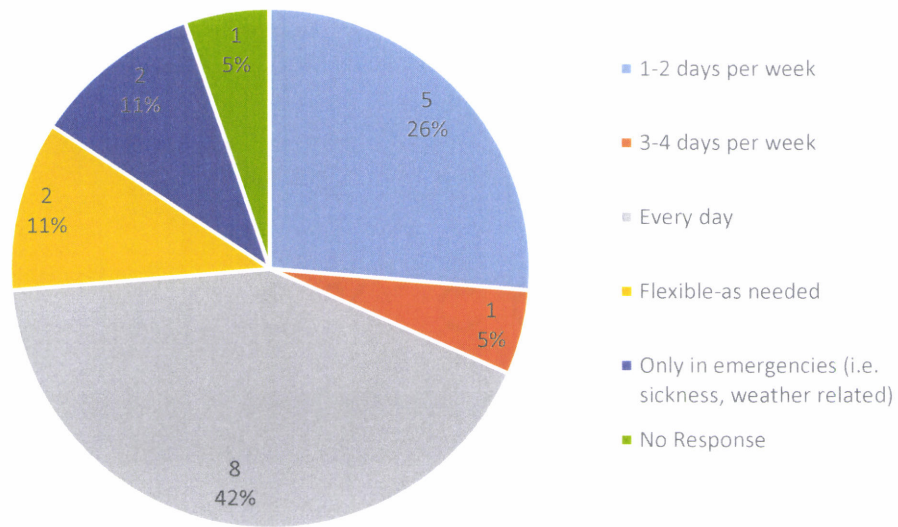
Question 12: How long have you worked for your employer?

- 1-2 years
- 3-4 years
- 6-10 years
- More than 10 years
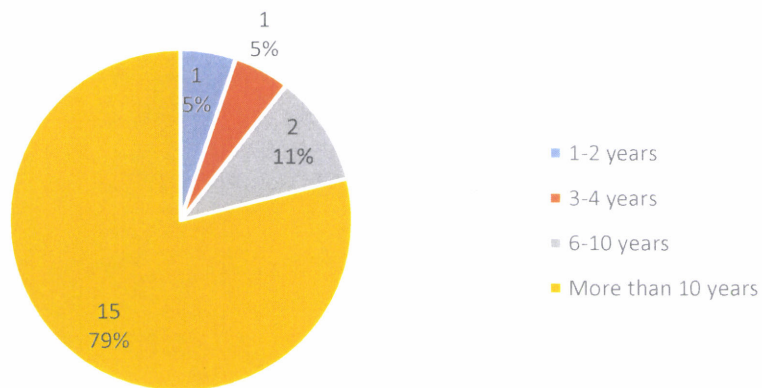
Question 13: How long have you been in your current role?

Legend:
- 1-2 years
- 3-4 years
- Less than a year
- More than 6 years
- No Response

Pie chart values:
- 4 / 21% (1-2 years)
- 2 / 11% (3-4 years)
- 4 / 21% (Less than a year)
- 8 / 42% (More than 6 years)
- 1 / 5% (No Response)
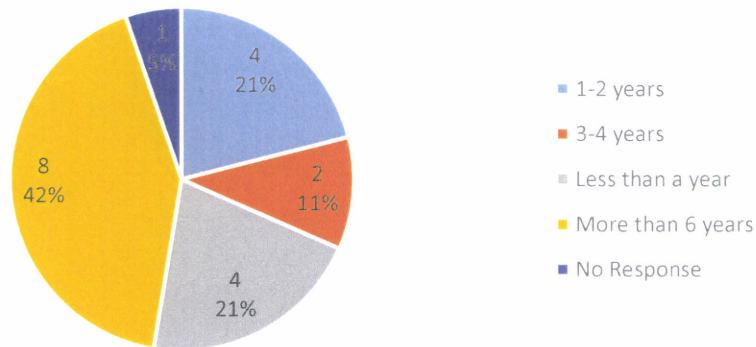
Question 14: Have you created a Profile through your employer sponsored page?

Legend:
- No
- Yes
- No Response

Pie chart values:
- 11 / 58% (No)
- 7 / 37% (Yes)
- 1 / 5% (No Response)
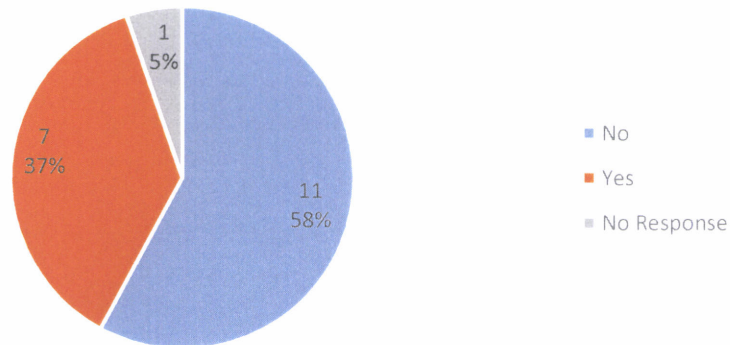
Question 15: When did you create a Profile through you employer sponsored page?

- 3-6 months ago
- Move than a year ago
- No Response

3
16%

3
16%

13
68%
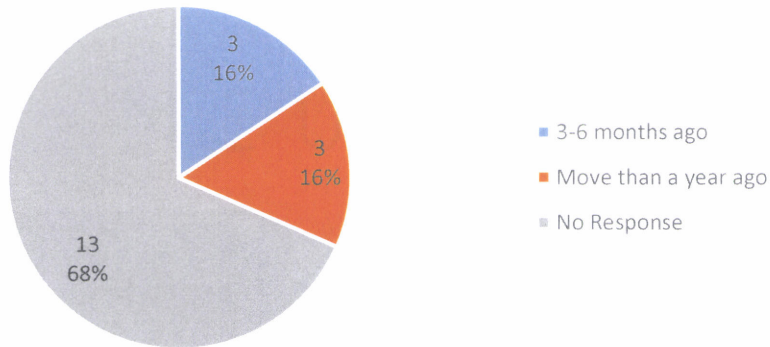
Question 16: How frequently do you search profiles for contacts/subject matter experts?

- Daily
- Less than monthly
- No Response

2
11%

2
10%

15
79%
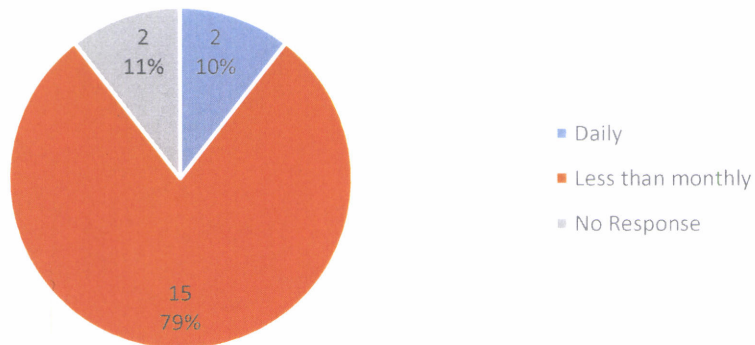
Question 17: Have online tools made it easier for you to effeciently connect with others in the organization? Please comment below:
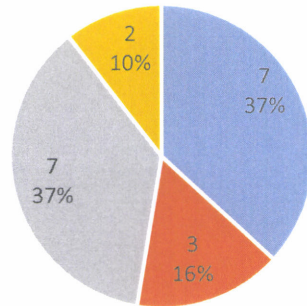
- I have not tried these tools, but think they will help me more efficiently find people.
- No
- Yes
- No Response

Question 18: comment on how you use search tools to find contacts within the organization.
Apart from my personal/improvised lists and searches, I mostly use published contact lists
and organizational charts to find subject matter experts and/or management relationships
and staff.

Availability

Intranet searches for established websites

don't currently use them

Global employee directory to look at org chart

Global phone directory, reach out to known contacts for reference

I bookmark key contact pages so I can quickly pull up a list of Subject Matter Experts

I don't use online search tools. I am not sure if they will help me, need to explore and
then decide.

I search for company contacts using the FUSE and business unit intranet sites.

Intercomany website and reverse search in global directory

Seldom

Some of the search tools do not provide enough information to identify if the contact is
a subject matter expert or even what function the individual performs within the organization.
Even if the information provided by the search tools was not so vague, there is an issue with it
being accurate and current. Even if I can find a contact through an available search tool, we
still need to verify with the individual that they would still be the correct resource directly before
proceeding or ask who would currently be in that role.
The subject matter expert list has been a tool that has impacted how I find relevant Individuals.

Question 19: Has the ability of online search tools change the way you search for information within the organization?

have not used them really

No

No.

No. I find that the search functionality rarely yields relevant results, so I have given up

not really

To a limited extent.

Yes

Yes, and I think better understanding (e.g., through a dedicated training session) of all the tools would change / help even more.

Yes, I can usually find what I am looking for online without having to ask another person to direct me to the information.

Yes, in part.

Yes, instead of having to go person to person, online search tools have made finding the right person for the right questions has become much easier.

Yes. The search tools make things easier and a bit faster, but are still not perfect or a one-stop option for finding a needed resource.

Appendix C: Additional Analysis of Survey Results

C1: Frequency of working from home and who is most frequently contacted to identify a subject matter expert

Frequency of Working from Home

Who is Most Frequently Contacted?	1-2 days per week	3-4 days per week	Every day	As needed	Only in emergencies
A matrix partner (other team) in another office	1	0	0	0	0
A resource who works closely with topic and who would likely know	1	0	0	0	0
A team member in a different office	0	0	5	0	0
A team member in the same office	0	0	1	1	2
Depends on what I need, topic dependent	0	0	1	0	0
My Manager/ Director	3	1	1	1	0

C2: Participants who have an active social media profile outside of work

Participants who have an active social media profile outside of work (either Facebook, LinkedIn, or both)

7
37%

12
63%

No

Yes