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An Empirical Study of the Influence of Social Networking on the Transfer of Tacit Knowledge and Job Performance

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AN EMPIRICAL STUDY OF THE INFLUENCE OF SOCIAL NETWORKING ON THE TRANSFER OF TACIT KNOWLEDGE AND JOB PERFORMANCE

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ABSTRACT

AN EMPIRICAL STUDY OF THE INFLUENCE OF SOCIAL NETWORKING ON THE TRANSFER OF TACIT KNOWLEDGE AND JOB PERFORMANCE

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Dissertation Supervised by Professor James Ryland

Research and consultant work has surfaced examples of the financial benefits of transferring knowledge within an organization. However, for these benefits to be realized the environment must be conducive to learning (von Krogh, 1998; von Krogh, Kazuo, & Nonka, 2000) and to socialization. Socialization is a key component in the sharing or relay of tacit knowledge (Busch, Richards, & Dampney, 2003; Haldin-Herrgard, 2000; Hauschild et al., 2003; Leonard & Sensiper, 1998) because it serves to expand one's network of resources (Seufert, von Krogh, & Bach, 1999) and is a source of justification of an individual's beliefs (von Krogh et al, 2000). Tacit knowledge and thus social networks have a strong connection to job performance.

The study reviewed how social/work networks of twelve individuals were created, expanded, and managed. These individuals have been in their current role/assignment for one to three years. The twelve individuals represented many

employment sectors – not-for-profit organizations, government, education, religious, and business. The individuals were mostly split evenly by gender, almost all were not directly promoted to fill a position vacated by their prior direct manager, and most individuals had to relocate to their new position.

The study focused on how a primary (research subject) added new individuals to their network. Four phases seemed to emerge – identification, preparation, decision to add and establishing a common bond. Identification and preparation varied considerably by individual. Finding common ground provided the foundation to establish the relationship. At times, common ground was identified through the sharing of personal information and trust.

Once added to a network, contacts were maintained through a variety of communication channels. Each primary had his or her own channel preference (e.g. email, phone), but would adapt the choice of communication channel to the situation. Communication frequency and the method of maintaining contact information also varied.

Data outlined two key benefits – accessibility to others, which is the ability to leverage ones network to get to a person that they could not access otherwise, and the compounding effect, where the contacts from others networks become accessible or even added into the primary's network.

DEDICATION

I dedicate this effort, the high point of my educational endeavors to my wife, Penny. This effort is an attestation to Chandler and Chloe of the value that I place on education. Education and learning is a life long activity even when a particular quest for knowledge is not intended to obtain a degree.

ACKNOWLEDGMENT

I thank my committee members, Dr. William Anderson, Dr. James Henderson, and Dr. Thomas Verney for their guidance and patience during this process. A special thank you to my committee chair, Dr. James Ryland, for the many attributes he provided – his guidance, his encouragement, his wisdom. A thank you also to Dr. Vonnie Ryland for her qualitative guidance and hospitality.

I also thank my own cheering section, Penny (my wife), Chandler (my son) and Chloe (my daughter) for their support, encouragement and patience as I completed the program and my dissertation.

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Background

Listen to counsel and receive instruction, that you may eventually become wise. (Proverbs 19:20) (Hiesberger, 1995)

In this verse, we are advised to be open and to actively hear or listen to the words and experiences of others wiser than we are so that we too may gain wisdom. King Solomon provided this practical advice nearly three thousand years ago. As will be outlined in this research and literature review, interaction with others is as important today in the acquisition of knowledge as it was in King Solomon's age.

What is Tacit Knowledge?

Knowledge is generally categorized as being either explicit or tacit. Explicit knowledge is codified/formal and can be captured in procedure manuals, books, or databases. As such, it can be transferred to another individual across time and space with relative ease. Examples of explicit knowledge include cooking recipes, driving instructions, or emergency preparation procedures. Tacit knowledge is uncodified/ informal and is highly personal and experience-based. Consequently, tacit knowledge is nearly impossible to capture in databases (Dixon, 2000; O'Dell & Grayson, 1998). Examples of tacit knowledge include the innate ability to know something is wrong, knowing how to hard to throw a ball to hit a target, or reading an x-ray.

While explicit and tacit knowledge are often described as mutually exclusive categories, Leonard and Sensiper (1998) build upon Michael Polanyi's theory that tacit dimensions exist in all knowledge. As such, knowledge is neither explicit nor tacit, but rather it resides on a continuum from explicit to tacit. Spender states that tacit knowledge is ‘not yet explicated’ and that some tacit knowledge is unlikely to ever be completely explicated, such as “gut feelings” or intuition (Leonard & Sensiper, 1998).

Because the private sector has a general preference for hard data over “soft” knowing, some academics have attempted to create measurements for tacit knowledge. However, these have limited application to common operations (Busch et al., 2003). A method that directly connects the contribution of tacit knowledge to common corporate performance measurements does not seem to exist. Nevertheless, corporate or project-specific results can be used as a proxy for the existence and use of knowledge sharing, resulting in the “ends justifying the means” (Ellinger, Ellinger, Yang, & Howton, 2002).

From a business perspective, tacit knowledge transfer prevents others from repeating mistakes, is a necessary tool for innovation and a sustained competitive advantage (O’Dell & Grayson, 1998; von Krogh, 1998; Wagner, 2003) and in important problem solving, problem finding, and prediction and anticipation of issues (Leonard & Sensiper, 1998). This belief spawned the creation of many articles that postulate the importance of knowledge management and highlight its existence, outline the different types of knowledge management (individual and organizational), and provide direction on how it can or cannot be managed. Few of these articles are directly based upon qualitative or quantitative research.

A common thread in all of the ongoing research is that for knowledge to transfer from one individual to another, some form of socialization must occur (Leonard & Sensiper, 1998; Smith, E., 2001). This is even more important in transferring tacit knowledge. Tacit knowledge, by its very nature, is difficult to measure and, as such, limited research exists on tacit knowledge sharing. Although experts agree that social interaction is a foundational requirement for tacit knowledge sharing (Hansen, Nohria, & Tierney, 1999), even less research exists on this specific enabler (Smith, E., 2001).

The Problem and Its Significance

Knowledge is a justified true belief on which one has the potential to act (von Krogh, 1998; von Krogh et al., 2000) or is information in action (O'Dell & Grayson, 1998). The maximization of knowledge assets only exists when knowledge is individually acted upon and transferred from one individual or group to another individual or group and then acted upon. Knowledge transfer may occur through knowledge transfer systems, procedures documents or social interaction. The type of knowledge, which can be explicit or tacit, typically determines the primary transfer method.

Dixon (2000) and O'Dell and Grayson (1998) provide examples of firms that purported millions or billions of dollars of savings to the transfer of knowledge. Approximately 90% of knowledge within an organization is tacit in nature, housed in the minds of the human capital (Smith, E., 2001; Wah, 1999). While not the sole factor, socialization is a key component in the sharing or relay of tacit knowledge (Busch et al., 2003; Leonard & Sensiper, 1998; Hauschild, Licht, & Stein, 2001; Haldin-Herrgard, 2000) because it serves to expand one's network of resources (Seufert et al., 1999) and is a source of justification of an individual's beliefs (von Krogh et al, 2000). Because human capital is such a large percent of a corporation's market value and because socialization is an integral part of expanding the body of knowledge, individuals need opportunities to build new and maintain current social networks for an organization to prosper through individual and collective innovation. Adequate research of the importance of social networking may underscore the necessity of maintaining and building relationships as a source of increased job proficiency and corporate/organizational sustainability.

Personal Interest

I first became interested in the means and importance of knowledge transfer in 1995. At that time, I worked under an individual with a military background. Although his immediate desire for documented procedures and polices was generated by a desire for a sense of continuity of business under adversity, I soon saw the larger application of documentation as a source of knowledge transfer. Knowledge transfer was important because my international assignment was predetermined to be no more than two years. Consequently, I wanted to ensure the knowledge that I developed was properly instilled in the local organization before I returned to the United States. Over the ensuing years, I became a vocal proponent of documentation as a means of common understanding and process improvements with varied success. Most individuals regarded documentation as a tool of lesser importance, something to do during the few hours of “free” time that almost never occurs. The lack of good documentation, in my opinion, leads to the repetition of mistakes or at least creates executional risk because an individual can no longer recall the specific details that lead to a decision or a different team must overcome the same or a very similar challenge.

Changes in my working environment prompted focus on documentation as a strategic tool instead of a compliance requirement. Concurrently, I promoted documentation as a learning and knowledge transfer opportunity and sought to understand how tacit knowledge is transferred within an organization. I was asking questions such as, “How does the wealth of information held within collective of a department transfer to new members, people with whom we interact, and other groups similar in nature?” While reflecting on this question, I recalled several learning stages that helped shape my career, all of which evolved from social interaction with another person. In fact, some of the best learning moments occurred in locales outside of the boundaries of the office.

I am in a middle-level management position in a large financial institution. The group, of which I am part, has broad responsibilities that transcend departments, business units and national boundaries. Over the past several years, we have developed into a world-class organization within our discipline, providing internal consulting in addition to managing our own responsibilities. Our specific team was formed approximately three years ago and was part of a larger, interdepartmental effort. As will naturally occur, the nucleus of this interdepartmental group changed. Some people left the organization and others were assigned to different responsibilities. Large scale personnel changes not only challenge the existing micro-culture because of the perspectives that new members bring, but also creates a knowledge vacuum in the common understanding derived from sharing responsibility for projects.

While my thoughts developed over time, much of my current interest has unfolded while in my current position. Leadership requires that an individual simultaneously be a part of and to be removed from an organization (Hersey & Blanchard, 1995). Improvement of any situation requires an indwelling within the situation (von Krogh, 1998; Harrison, 1995) while conducting a critical evaluation of strengths and weaknesses (Brookfield, 1995) and establishing vision/direction (Kotter, 1995). As a leader within my organization, I attempt always to be a part of and removed from the group.

The Study and Its Purpose

As the general acceptance of knowledge as an asset has increased over the past one to two decades, the development of human capital has received greater focus in the private sector, and knowledge about knowledge has started to grow in the academic sector. The growth of knowledge about knowledge includes a variety of research interests. Some of these interests include knowledge transfer systems, how knowledge metamorphoses between the tacit and the explicit dimensions and environmental conditions. The purpose and scope of this research is to understand the contribution of social networks to the transference of tacit knowledge between individuals.

Do individuals who are more functionally proficient at their job possess stronger and broader social networks?

The following questions aid in understanding the primary question:

1. How are new contacts initiated, made and expanded?
2. What is the impact of sharing personal information?
3. How is a social contact maintained?
4. Does the individual feel a stronger network tie to individuals with whom personal information has been shared and why or why not?

General Definition of Terms

Explicit knowledge – Any knowledge that can be captured and codified to transcend space and/or time (Dixon, 2000).

Functional proficiency – Widely recognized as a subject matter expert in relevant functional area(s). Utilizes skills, knowledge and expertise to proactively develop solutions to complex issues. Proactively shares knowledge and skills with others to enhance their proficiency. (Sternberg & Grigorenko, 2001).

Market Value Added - Measures market capitalization above credit liabilities and direct shareholder investment (Ellinger et al., 2002).

Social Network - A social network or an informal network is a linkage among a set of individuals (Seufert et al, 1999) that operates separate from and often competes with formal organizational structures (Cross, Borgatti, & Parker, 2002).

Tacit Knowledge - "Procedural knowledge that one learns in everyday life that usually is not taught and often is not even verbalized" (Sternberg, Forsythe, Hedlund, Horvath, Wagner, Williams, Snook, & Grigorenko, 2000, p. xi).

Tobin's Q - Determines the value of the firm above the replacement cost of the assets, which essentially measures the value of the people and leadership practices (Ellinger et al., 2002).

Social Network Definition of Terms

Adjacent – "The graph theoretical expression of … two agents represented by points are directly related to one another" (Scott, 2000, p. 67).

Agent – An individual or group of individuals that can be represented as a collective (e.g. an organization in comparison to other organizations) (Scott, 2000).

Degree – Number of points in a neighborhood (Scott, 2000).

Density – “The number of lines in a graph expressed as a proportion of the maximum number of lines” (Scott, 2000, p. 71). In other words, it is the percentage of people within a network who know each other.

Directed Graph or Digraph – Lines that connect agents and display the direction of the relationship (Scott, 2000).

Distance – The “length of the shortest path” or geodesic path (Scott, 2000, p. 68).

Element – See Agent.

Inclusiveness – “The number of points that are included within the various connected parts of the graph” (Scott, 2000, p. 70)

Indegree – The number of lines on a digraph directed to a particular point (Scott, 2000)

Length of a path – The number of nodes contained in the path (Marsden, 2002).

Line – Graphical representation of relationship between two elements or nodes (Scott, 2000).

Multiplicity – “The number of separate contacts which make up the relationship” (Scott, 2000, p. 65).

Neighborhood – “Those points to which a particular point is adjacent” (Scott, 2000, p. 67).

Node – See Agent.

Outdegree - The number of lines on a digraph directed from a particular point (Scott, 2000).

Path – Sequence of distinct nodes or indirect connectedness.

Point – Graphical representation of an element or node (Scott, 2000).

Valued Graph – Similar to a directed graph, but numerically represents relationship intensity instead of the direction of the relationship (Scott, 2000).

Limitations of the Study

This study will be conducted with an awareness of the following limitations:

(1) The findings of this qualitative review are not generalizable, but might be transferable.

Chapter 2

The mind of the intelligent gains knowledge, and the ear of the wise seeks knowledge. (Proverbs 18:15) (Hiesberger, 1995)

Goals of the Literature Review

The literature review will be focused initially on the definition and creation of knowledge, specifically tacit knowledge. The categorization of knowledge and how it metamorphoses between tacit and explicit states will be explored.

An important contributor in the transference of knowledge is the environment, both in organizational culture and in professional mechanisms to capture and facilitate transfer that transcends time and space. Various programs that focus on tacit knowledge transfer, such as mentor programs and apprenticeships, will be reviewed. Finally, the literature review will focus on the influence of socialization on tacit knowledge, specifically on the creation and maintenance of social networks and the impact these have on job performance.

Introduction

The study of knowledge is not a new topic. For over four millennia, philosophers and scholars have debated about the role and importance of knowledge, from the Greek classics (Socrates, Plato, Aristotle, and Epicurus) through the present day. Plato believes the answer to the question, ‘What is the good life?’ lies in knowledge. Knowledge creates a harmonious person (Albert, Denise, & Peterfreund, 1988). Aristotle postulates that the “primary tasks of intellect are first, to give us knowledge of invariable and fixed principles, and second to provide a rational guide for action in daily life." (Albert et al, 1988, p. 43). The 19th century Utilitarian philosopher, John Stuart Mills, highlighted that "men lose their high aspirations as they lose their intellectual tastes…" (Albert et al, 1988, p. 206). Over the past century, as overall knowledge has increased, the masses have focused on practical knowledge over philosophical knowledge and have started to specialize in a category of knowledge, such as psychology, business or education. Today, a variety of positions exist on the classifications of knowledge and the application of knowledge.

Classifications of Knowledge

Constructive and Cognitive

von Krogh (1998) outlines the two major perspectives that explain how knowledge is created. In the cognitive theory, knowledge is captured into blocks or modules, where each module represents an event or concept. Learning occurs as the module becomes a more accurate representation of reality. Therefore, two "learned" individuals should have exactly the same perspective. If not, the learning process is not complete. To the cognitivist, knowledge is explicit, coded and stored, and can be easily transferred to others. In the constructivist theory, knowledge is a process of creation, building upon previous experiences and perceptions. Some knowledge is explicit while some is very much tacit. The primary distinction is that cognitive theory is external – someone else provides the knowledge - but the constructivist theory focuses on an internal discovery process.

Practical and Academic

Sternberg et al. (2000) differentiates knowledge through its type of contribution to individual expertise. Practical knowledge is that intelligence gained through everyday life and aids in the development of expertise in a particular discipline. Expertise is not only the possession of knowledge (e.g. academic knowledge or mastery of a particular process in one's occupation), but also the flexible application of the knowledge to one's environment (e.g. appropriately pricing in accordance with supply and demand theory, or being able to leverage a particular process in one's occupation to another similar application). Flexible applications may entail analytical skills to thoroughly understand a topic, creative skills to be able to identify immediate and similar application, and practical skills to be to implement or to influence the application. Practical intelligence is comprised mainly, but not exclusively, of tacit knowledge.

While practical knowledge is experiential based, academic knowledge is knowledge gained in traditional educational settings, such as colleges or in-house training programs. Academic knowledge serves to expand one's horizon and may ultimately provide practical knowledge, but does not create expertise in and of itself.

To illustrate the difference, an example of academic knowledge is a corporate training program on the Microsoft Access software program. At the end of the session, a participant can create tables in a database, build queries to extract desired information from a table and generate a report of the query. The lowest level of practical knowledge or intelligence is the ability to use Microsoft Access within one's immediate responsibilities. Higher levels of practical knowledge or expertise may be the ability to understand how an existing database can be copied and modified to meet a particular need within one's realm of responsibilities, or how the database skill set can be used to develop or support a strategic initiative.

Sternberg and Grigorenko (2001) identify no correlation between practical intelligence and academic intelligence, or with measures of personality or of styles. However, a strong correlation exists between practical intelligence and job performance and even between practical intelligence and adjustment to a new environment.

Explicit and Tacit

Explicit knowledge is any material that can be captured and codified to transcend space and/or time (Dixon, 2000). Examples of explicit knowledge range from detailed procedure manuals to assembly instructions for a child's toy or a recipe in a cookbook. The complexity of the codified materials may range from a knowledge transfer database with video clips and example documents to a three-step recipe printed on the back of a product box. Tacit knowledge is uncodified and informal and is highly personal and experiential-based. Consequently, tacit knowledge is nearly impossible to capture in databases (Dixon, 2000; O'Dell & Grayson, 1998). Examples of tacit knowledge include the innate ability to solve a problem (cognitive tacit knowledge) or knowing how to shoot a basketball into the hoop (physical tacit knowledge). Cognitive tacit knowledge is gained through experience (e.g. constructive learning theory) and social interaction (Leonard & Sensiper, 1998).

Because tacit knowledge is highly individualistic and is constructed from individual experiences, it is difficult to transfer (Dixon, 2000; O'Dell & Grayson, 1998). Halden-Herrgard (2000) identifies transfer challenges to include perceptions, language, time, value and distance. People generally are not in full understanding of what they know (perception of individual capacity). Because the individual experiences that comprise tacit knowledge are stored in non-verbal language (i.e. in the mind), communication is often very challenging without having common experiences as a foundation (language). However, common experiences are not necessarily the same experience. Rather, similar experiences against which two individuals can seek commonalities as the basis of their communication. Language issues are even more prevalent when the level of expertise is dichotomous. Few organizations have reserved enough time for learning to achieve tacitness through acclimation and reflection (time), instead over loading newly hired individuals with a multitude of assignments. Some “outputs” of tacit knowledge are intuition and rule of thumb, which generally are not valued as much as facts and data. As well, knowledge hording occurs if reward systems are not in alignment with intent (assigning value to shared knowledge). The need for face-to-face interaction, while not necessarily required for tacit transfer (e.g. studying other experts), is important for socialization and tends to accelerate the transfer effectiveness (distance). Organizational forms of tacit knowledge include culture, routines, and cognitive schemes. Socialization is the best way to learn, but time is required to learn and internalize.

Various studies suggest that tacit knowledge has three main practical applications; problem solving, problem finding, and prediction and anticipation. Problem solving, which is the most common application, is the ability to understand a problem and to recommend a solution. Problem finding involves two aspects – the ability to find a problem because of a general unease and the ability to frame a problem in a radically different manner by rejecting the obvious. Prediction and anticipation surfaces a partially conscious understanding to an individual that can then be explored more deliberately (Leonard & Sensiper, 1998).

Environment

The 1980s and early 1990s saw a plateau of the direct influence on the business climate of the quality leaders Deming, Juran, and Crosby. Each agreed that the best approach to quality is through the prevention of errors and that some similarities in their theories exist. Deming outlined his philosophy through his fourteen points that covered essentially three facets of the business environment; working environment, teamwork, and the scientific approach to measurement (Neave, 1990). Juran had three major points in his quality program; that top management had to be in charge of quality, that people were trained in how to manage for quality, and that quality had to improve at a rapid pace. Crosby had four major points; conformance to standardized requirements, that prevention of errors should be the focus for improvement, that the standard for quality is zero defects, and that measurement is the price of non-conformance to the requirements. Deming and Juran felt that defects are inevitable; quality improvements entailed the creation of programs and processes to reduce the number of defects to the lowest point possible (Dobyns & Crawford-Mason, 1991).

In the 1990's, Senge impacted thinking within the business and academia environments with the introduction of his book *The Fifth Dimension*, which laid the foundation for research in the academic world and created a new "fad" in the private sector. *The Fifth Dimension* sought to shift the boundaries of management from concentrating on silos (e.g. marketing, HR, finance, production) to looking at organizations as open systems. These open systems or Learning Organizations interact with outside systems and put into motion forces that may not be easily understood using traditional systems to assessment. Senge's five dimensions include building a shared vision, mental models, team learning, personal mastery, and systems thinking (Senge, 1994).

Senge's work, which followed various quality-focused philosophies in the same vein as Deming, eluded real or lasting practical application in the private sector for several reasons. First, a single, clear definition of a Learning Organization does not exist (King, 2001), no concrete evidence exists to prove that the theory is profitable or beneficial when turned into practice (Ellinger et al., 2002), and organizations do not create structured plans to become one (King, 2001). Synthesizing various definitions of a learning organization, King (2001) describes it as "one that focuses on developing and using information and knowledge capabilities in order to create higher-valued information and knowledge, to change behaviors, and to improve bottom-line results. Therefore, a learning organization is one that creates, acquires, and communications information and knowledge, behaves differently because of this, and produces improved organizational results from doing so" (p.12).

Second, the concepts, though theoretically sound, have not been conclusively proven to improve financial performance. Because knowledge and culture is difficult to quantify, some researchers have approached the problem by creating tools to measure the conduciveness of knowledge transfer within an environment. To gauge the attributes of a learning organization, Watkins and Marsick created and validated the Dimensions of a Learning Organization Questionnaire (DLOQ) in 1997. The DLOQ has been used as a measurement tool for family-held organizations (Selden & Watkins, 2001), private sector firms (Ellinger et al., 2002) and internationally in Spanish (Hernandez, 2003).

As Senge (1994) and Deming (Neave, 1990) indicate, organizational culture or the environment is a significant factor in the creation of a learning organization, or in simply the transfer and advancement of individual and organizational tacit knowledge. von Krogh (1998) indicates that care is the most significant factor in creating an enabling environment. As indicated previously, personal opinions only become knowledge or a justified belief after being shared with others, becoming public, which makes the entire validation process extremely fragile (von Krogh, 1998). As such, care is a cornerstone in an enabling environment.

Constructive and helpful relationships speed up the communication process, enabling organization members to share their personal knowledge and to discuss their ideas and concerns freely. "Overall, good relations purge a knowledge-creation process of distrust, fear, and dissatisfaction" (von Krogh, 1998, p. 136). von Krogh outlines care as having four building blocks; trust, help, lenient judgment, and courage. Care gives rise to trust, which must occur due to a lack of knowledge. Care translates to real help. As in the old parable, care is teaching a person "how to fish," not simply feeding them. Care includes lenient judgment, which promotes undertaking new risks and the possibility of failure in its risks without harm. Care creates the courage to allow peers to experiment and take risks, which may enhance the overall environment or provide a lesson for the organization (von Krogh, 1998).

Building on the cornerstone of care, von Krogh et al. (2000) outline five environmental "enablers" that facilitate the transfer of knowledge: instill a knowledge vision, manage conversations, mobilize knowledge activists, create the right context, and globalize local knowledge. Instilling a knowledge vision involves creating a mental map of the ‘current knowledge location’ and the ‘ought to be location’ and outlining a trip plan to connect the two. Managing conversations is essentially getting people to talk to each other through productive, inclusive dialogue. The mobilization of knowledge activists permits access to and movement of those local experts that every organization has, as well as affording some freedom of rein to them for continued individual development. Creating the right context “involves organizational structures that foster solid relationships and effective collaboration.” (von Krogh et al., 2000, p. 176). The globalization of knowledge occurs in three phases; the expression of an opportunity either to provide or to receive knowledge, packaging and dispatching knowledge, and re-creation and local application of the ‘imported’ knowledge. Several barriers that reduce or constrict an environment include the need for legitimate language (explication of personal knowledge), negative stories and habits, formal procedures and company paradigms (von Krogh et al., 2000).

In line with the concept of von Krogh et al.’s (2000) second enabler, managing conversations, Ellinger, Watkins, and Bostrom (1999) qualitatively studied twelve individuals to understand what a good facilitator of learning actually does. The individuals were nominated by their peers and subordinates from four different organizations identified as “learning organizations.” Two distinct types of behavior emerged from the codified and classified sentences from the two-hour meetings; an empowering cluster and a facilitating cluster. The first cluster identifies behaviors where empowerment is provided to the subordinates, even though managers still have overall responsibility for a project's success or failure. These behaviors include question framing to encourage employees to think through issues, being a resource to remove obstacles, transferring ownership to the employee, and not providing the answers. The second cluster identifies behaviors where the manager "promoted new levels of understanding, new perspectives, and offered guidance and support to their employees to foster learning and development" (Ellinger et al., 1999, p. 761). The facilitating cluster behaviors include providing feedback, soliciting feedback from employees, working issues out together, creating and promoting a learning environment, setting and communication expectations, broadening employees perspective, and using analogies, scenarios, and examples.

While socialization within an organization exists regardless of the organizational structure (e.g. enabling environment, learning organization, autocracy, or hierarchical/controlling), organizational culture can facilitate and encourage the sharing of knowledge instead of hoarding. Nevertheless, an organization is most likely not completely at one end or another of the full disclosure-hoard spectrum. Even within a favorable environment, pockets of individuals or groups will inevitably choose to hoard knowledge (Almashari, Zairi, & Alathari, 2002).

Social Learning Theory has, in part, that an individual learns through observation and emulation. Thus, if the successful individuals of an organization share knowledge, then Social Learning Theory holds that the individual will also share and seek knowledge/ tacit knowledge, regardless of individual traits (e.g. extrovert/introvert). While knowledge can be gained through the individual efforts of experiential learning or from communal sources such as from peers, socialization is a key component of the transfer of tacit knowledge because it serves as a means of validation of acquired knowledge and provides an avenue to correct gained inaccurate tacit knowledge.

Acts of Knowledge Transfer

Nonako and Takeuchi describe knowledge as being fluid; tacit knowledge is explicated through socialization and explicit knowledge, and when combined with personal experiences such as participation on a project or mentoring, becomes tacit through internalization (Leonard & Sensiper, 1998). For tacit knowledge to be transferred, it must be explicated to a level of understanding for the intended recipient, who will then internalize the new knowledge by blending it into or recreating existing knowledge.

Knowledge Transfer Systems

Even if a single definition of a "Learning Organization" exists, the philosophy is proven to be beneficial, and an enabling environment is in place, some type of action must be taken to change the direction. While von Krogh (1998) and Leonard and Sensiper (1998) lend credence to social interaction, King (2001), who is following the approach of Nonako and Takeuchi in the explication of tacit knowledge, outlines six implementation strategies for different target populations; information systems infrastructure strategy, intellectual property management strategy, individual learning strategy, organizational learning strategy, knowledge management strategy and innovation strategy.

Information systems infrastructure strategy is the creation of databases, inquiry capabilities, and communications capacities. This approach is relatively passive, creating an environment where information is available but without specifically pursuing learning objectives. Intellectual property management strategy is the creation of a repository of intellectual capital and empirical learning as well as a channel for distribution or access. Individual learning strategy is the development of human capital through the education and development of the employees such as on-the-job training, corporate universities or institutes, and informal mentoring programs. Organizational learning strategy is the adaptive behavior to a changing environment through structured activities such as formal training, change management, and career pathing. Knowledge management strategy is the acquisition of professional expertise to make their tacit knowledge explicit knowledge for the organization. Implementation strategies are normally executed through information systems or another structured program. Innovation strategy is the structural support for and retention of organizational creativity. Common practices include group brainstorming or the use of analogies (Salisbury & Plass, 2001).

Over time, there has been an increasing amount of information available to individuals within organizations. However, the tools to capture and to transfer information or knowledge have remained relatively unchanged. Many organizations have attempted to capture information in word-processing software, databases or intranet, which may have provided some incremental benefit, but has not created a knowledge enabling organization. For knowledge to be transferred from one individual to another, the tools must be able to transcend time and/or space to the future needs of individuals or to individuals who are geographically separated from the knowledge source (Dixon, 2000; Salisbury & Plass, 2001).

Salisbury and Plass (2001), who have created several knowledge transfer systems, outline the approach used to create a system for the Department of Energy, which is geographically diverse and has an experienced, aging employee base that is nearing retirement. Salisbury and Plass (2001) first surveyed a sizeable population of potential users to understand their needs in order to build a build a system that helped people to learn. In the case study, the authors indicated that the majority of research does not explain or assist in building a technological solution to how people learn. Rather, most systems were simply a repository for various bits of knowledge, documents, spreadsheets, reports, etc that individuals may share. Almashari et al. (2002) indicate that 82% of employees in a study felt knowledge is personal and consequently may be reluctant to deposit information into the system, thereby reducing the overall effectiveness.

One of the goals in building a knowledge transfer system was to design a system that was adaptable to and grows with the environment. The first step is to categorize the knowledge into four different areas that generally followed Bloom's (1956 as cited by Salisbury & Plass, 2001) and Krathwohl's (1998 as cited by Salisbury & Plass, 2001) learning taxonomies; factual (e.g., terminology and reference materials), conceptual (e.g., theories, models, principles, or generalizations), procedural (e.g., skills or algorithms), and meta-cognitive (e.g., decision support and knowledge acquisition).

To ensure the system was going to meet the needs of the end user, the authors surveyed 52 representatives from various user groups. Based on the results, the system was subdivided into six categories: reference materials (technical business practices and related materials), search (free form text), communication (points of contact, threaded discussion, frequently asked questions), instruction ((instructor led (synchronous) and stand alone (asynchronous)), decision support (guided search for technical business practices by subject and the guided support for technical business practices by activity), and knowledge acquisition (case studies and real-life examples) (Salisbury & Plass, 2001).

Almashari et al. (2002) studied the role and effectiveness of multi-media-based practices in Kuwaiti organizations, focusing on the transfer of knowledge. Quantitative (5-point Likert scale questionnaire) and qualitative (interviews) data was collected from 77 public and private firms based in the United Kingdom and Kuwait. The survey results indicate contradictions. For example, 62% of the firms keep track of their employees and organizational knowledge, while 82% of the employees feel knowledge is something private. A large majority of the employees identify knowledge as a form of power, which means one's power increases proportionality with the more unique knowledge that one possesses. Most employees use a knowledge system to track organizational matters and to obtain knowledge, but less than 1 in 5 is willing to enter their knowledge/experiences into the knowledge transfer system. While the study took place internationally, and cultural differences may be a factor, a significant majority of the respondents felt that knowledge was private (82%), which underscores the challenge of changing organizational culture. It can easily be assumed that these organizations had reward systems that promoted individual achievement over organizational learning. Almashari et al. (2002) are supported by Cross, R., Parker, A., Prusak, L., and Borgatti, S. (2001), whose research and field work indicate that an individual is over two times more likely to obtain assistance from another person over databases or other sources.

The incidence rate of personal contact equals the incidence rate of all other sources of information combined.

Project-based Learning

"The traditional view of projects saw them as one-shot, time-bound, goal-driven activities directed toward the delivery of a new product or service" (Arthur, DeFillippi, & Jones, 2001, p. 99). Arthur et al. (2001) theorize that most companies focus on the goals of the project - on time implementation or the incremental revenue impact - at the detriment of individual career development and organizational learning ("non-financial capital"). The accumulation of these experiences through projects is termed "career capital." Career capital is comprised of three posits or 'ways of knowing'. Knowing-why reflects an individual's values, ethics and initiative. Knowing-how is the skills and abilities derived from formal or informal education (learning on the job). Knowing-whom are the connections and network an individual contributes. Each project provides the opportunity for development in any of the three. Career advancement and the maximization of contribution require the development of all three, but the greatest of ideas (knowing-how) and the drive of the creator (knowing-why) will not foster without the appropriate influence (knowing-whom). Corporate or organizational learning from projects occurs with the aggregation of individual career capital (Arthur, 2001).

In the organizational sense, cultural capital is the collective beliefs, values, and goals (compliment to knowing-why). Human capital is the organization's combined knowledge base (compliment to knowing-how). Social capital is the sum of all available internal and external resources (compliment to knowing-whom). The interaction between project participants serves as an information sharing channel, which when combined with the collective experience gained from the project, simultaneously enhances the company non-financial capital and the individual's career.

Project-based learning is the staging of a cultural evolution through the introduction of the practice of reflection. Reflection holds many forms such as storytelling, individual/group exercises, and leadership development. Only after some level of trust is built and maintained, will individuals shed their silo- or job function-based perspectives and start to understand the systems' perspective. Project-based learning has several distinguishing features; a sense of purpose and clarity for both long- and short-term objectives, psychological safety and a commitment to telling the truth, balance between emerging and formal structures, communities of practice that cross project boundaries, leaders set the tone for learning and model the reflective behavior, and systemic and collective reflection to make problems and mistakes opportunities for learning (Ayas & Zeniuk, 2001, pp. 64-65). Ayas and Zeniuk (2001) studied the impacts of introducing learning through public reflection to two large-scale projects that were behind schedule and over budget. In one of the two case studies, participants created "'team learning” sessions with short lectures, group and individual exercises, introduced brainstorming and dialogue techniques, and created simulation games. Some of the benefits of these sessions were shared vision over project and team objectives, and creative communication for cross-fertilization of individual competencies and assessment for learning (i.e. feedback for continuous improvement). Initially, individuals did not appreciate the long-term career benefits. Over time, individuals felt the reflection broadened their overall business/systems understanding.

Keegan and Turner (2001) conducted a qualitative study of 19 project-oriented European companies to understand the quantity and quality of the knowledge transference. Learning was first categorized into variation, selection, or retention. Variation is exploratory learning - seeking new processes and questioning the continuing practice and applicability of common practices and beliefs. Variation tends to occur as a "have to" activity instead of a common practice. Selection is the decision or approval process of ideas generated in variation. Retention is exploitative learning, a Tayloristic approach of documenting procedure manuals and maximizing task efficiency through routinization. Retention captures the gains from previous projects for future utilization, as in lessons learned databases, quality procedures and process documentation, and corporate level training programs. The preponderance of project-based learning occurs in retention.

Three common issues impede systematic project-based learning; time pressures (aggressive project timelines dictate focus over learning), centralization to senior management or specialized departments (e.g. centers of excellence), and deferral (the concentration of project learning to the end of the project, which causes lessons to be forgotten or the practice to be entirely skipped because of introduction of the next project). "Time pressures and short-term contingencies continually take precedence. Under these time pressures, project teams deliver … without reflection. And without reflection, there is scarcely time to discuss, capture or share learning experience that might, in the future, yield genuine value…" (Keegan & Turner, 2001, p. 95).

Arthur et al. (2001) theorize that each project provides the opportunity for development of knowing-why, knowing-how, and knowing-whom for an individual's career capital and an organization's cultural, human, and social capitals. In a limited case study of two companies, Ayas and Zeniuk (2001) identified positive results for the use of reflection in a project. However, Keegan and Turner (2001) identified that most organizations do not have or invest the time for reflection. Project-based learning is essentially a theoretically great concept with minimal practical application.

Mentor Programs

Bokeno and Gantt (2000) postulate that learning is manifested in many different forms, but it is most effective of when theory can be melded into practice in a safe environment. Three safe, real-life learning environments are management practice fields/learning labs, the hallway, and dialogic mentoring. Management practice fields are labs or schools (even referenced as a management flight simulator) that are specifically designed to simulate real-life experiences (e.g. through case studies or internal consulting). Hallway conversations are informal conversations that occur haphazardly in common areas (e.g. smoking patio, coffee station, or break room) resulting in an exchange of information. Dialogic mentoring is dyadic where information is exchanged both directions (mentor to protégé and protégé to mentor). Dialogic mentoring provides for a double looping learning experience (lecturing is a single loop, two-way conversation and critical reflection are double looping).

In an open system, where risks sufficient for learning can be taken, learning is the amplification of deviation and alternatives are considered. Mistakes are an opportunity for growth. Bouwen and Fry's study (as quoted on page 245 by Bokeno & Gantt (2000) outlines:

> Workplace learning is best understood in terms of the communities being formed or joined and personal identities being changed. The central issue in learning is becoming a practitioner and not learning about practice. Understood this way, the diffusion of learning in organizations becomes a matter of relationships among learners, where the relationships are what is practiced and the learning is what happens rather than the other way around. (Bouwen & Fry, 1991 as cited on p. 245)

Fundamentally, dialogic mentoring is based upon relationships, two individuals that have a personal understanding of and sincere care for a fellow employee. Although the term mentor connotes a superior/inferior or wise/ignorant relationship, dialogic mentoring is double loop. The mentor learns and benefits from the interaction as much as the protégé. The protégé provides fresh perspectives on stagnant status quo outlooks. The mentor is able to impart invaluable years of experiential knowledge and a larger picture perspective, to create a legacy and the opportunity to teach how to learn.

Even with the right environment, several factors that may influence the effectiveness of a mentor program are language, distance, personality, gender, and age (Kalbfleish & Davies, 1993). Halden-Herrgard (2000) warns, though, that mentoring relationships are challenging especially with extreme levels of expertise on the part of one or more of those involved. Finding a common language is important and can jeopardize the mentoring relationship if not recognized. Turban and Dougherty (1994) investigated the relationship of the protégé personality, initiation, the mentoring experience, and career success. The study concluded that the quality and amount of mentoring received could be attributed to the amount of protégé initiation. Turban and

Dougherty further describe the potential negative impact of gender. In an environment where the majority of the potential mentors are of the opposite gender, most likely male, females may be reluctant to participate to ensure the avoidance of the perception of sexual undertones either by the mentor or by others. A study on informal mentoring relationships identifies the degree of mentoring (depth) and frequency of mentoring as predictors of a knowledge-sharing climate, career satisfaction, career prospects and job satisfaction. Age is also an identifier of job satisfaction (Engström, 2003). While the concerning factors are valid, some, if not all, can be adequately addressed once recognized by the mentor and protégé.

Social Networks

A social network or an informal network is a linkage among a set of individuals (Seufert et al, 1999) that operates separate from and often competes with formal organizational structures (Cross et al., 2002). Social network analysis (SNA) is a means of mapping and analyzing relationships among multiple organizational levels, ranging from individuals to multiple departments (Cross et al., 2001) or even to communities or societies (Seufert et al., 1999). SNA has existed since at least the middle of the 1930s. In 1934, Dr. J. L. Moreno, a social psychologist in New York City, conceptualized the sociogram, which is a picture of interpersonal connections. Although progress continued over the past seventy years, significant advances in SNA only materialized over the past decade, primarily due to the increase of computer capacity (Cross et al., 2002). Despite the lack of wide spread application to, and consequently acceptance by, the practitioner realm (Cross et al., 2002), research provided insight to the extent to which management understands informal networks and to the factors that influence or impact an informal network (Cross et al., 2001; Seufert et al., 1999).

Managers tend to evolve to a disconnected or outskirt position on a SNA graph, which is primarily attributed to a greater focus on administrative responsibilities than on the day-to-day operations (Cross et al., 2001). A downward spiral of the manager intimacy in the network begins – the less a manager can contribute as a source of "know-how" or "know-whom" knowledge, the less the network relies upon the manager. However, as the manager is being pushed out of one network, he/she is most likely entering into new networks. Having positional authority, the manager will not be removed entirely from the network.

Cross et al. (2001) identify that effective networks differentiate themselves from ineffective networks through four factors; an understanding of who knows what, accessibility to the knowledge source person, timely access to the knowledge source person, and the degree of relationship safety. A deficiency in any one of these factors identifies an ineffective network, which means the quality of interactions is not as beneficial as possible. For example, Person A knows who can provide assistance with a problem and that that other person is always willing to help, *if* they can be reached. Another example is Person A knows a Person B who can help, who is accessible and immediately available. However, because the relationship is new, Person B does not provide Person A with all of their knowledge about the topic, which only partially solves the problem. Obviously the lack of timely access was not beneficial and did not solve the problem in the first example. A partial answer in the second example may lead Person A astray, which will weaken the effectiveness of the network.

Networks or relationships can be categorized based upon content, form, and intensity. Content includes products or services, information, or emotions; form is the duration and closeness of the relationship; and intensity is the communication frequency. Networks are normally hybrids of the categories instead of being grounded in a single category (Seufert et al., 1999).

Knowledge Networks

Seufert et al. (1999, p. 184) define knowledge networking as "a number of people, resources and relationships among them, who are assembled in order to accumulate and use knowledge primarily by means of knowledge creation in transfer processes, for the purpose of creating value." As such, a knowledge network is essentially a social network created for a specific purpose, possessing information-based content. Knowledge networks may be intentional, which means they are built from scratch, or emergent, which means the community exists but needs to be cultivated (Seufert et al., 1999). As a distinct network, knowledge networks possess three basic foundations; facilitating conditions through a safe, enabling environment, processes for socialization and consequently the externalization or explication of tacit knowledge and the internalization of explicit knowledge, and network architecture or tools to support the process (Seufert et al., 1999).

Conclusion

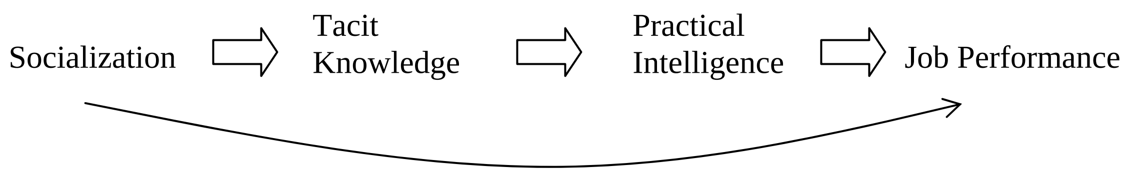
Research and consultant work has provided a variety of examples of the financial benefits of transferring knowledge within an organization. A McKinsey and Company study revealed significant improvements in production and development time (Hauschild et al, 2001). Buckman Laboratories saw an increase of new product revenues and sales increase by 10% and 50% respectively, Texas Instruments accrued $1.5 billion in annual savings, and Chevron credits $150 million annually in savings (Dixon, 2000; O'Dell & Grayson, 1998; Wagner, 2003). Over 10% of an organization's Return on Assets, Return on Equity, and Market Value Added financial indicators can be directed attributed to the activities of a learning organization (Ellinger et al., 2002).

However, for these benefits to be realized, the literature outlined several important factors. The first is an environment conducive to learning, including mental safety and care (von Krogh, 1998; von Krogh et al., 2000). Mental safety is manifested in the ability for individuals to experiment and take reasonable risks without fear of retribution. For example, a manager or a facilitator of learning (Ellinger et al., 1999) will assign a responsibility to a subordinate. They will discuss the intent and boundaries, but the facilitator of learning will allow the employee the opportunity to work the responsibility through to completion, including through any hurdles and challenges. When an issue surfaces, the manager/facilitator of learning may not provide the solution, but will guide the employee to the solution through Socratic-style questioning. At the same time, the manager provides feedback and maintains regular communication (Ellinger et al, 1999). In this example, the facilitator of learning expressed sincere care (von Krogh, 1998) for the subordinate; to help the person develop, lenient judgment which promotes experimentation and trust. Through this process, the employee constructed cognitive tacit knowledge (Leonard & Sensiper, 1998) or practical knowledge (Sternberg & Grigorenko, 2001).

The second factor to accomplish the benefits is socialization. From a theoretical perspective, socialization is needed in the internalization process of explicit knowledge to validate understanding and potential application (Leonard & Sensiper, 1998), contained in two of Senge's (1994) five dimensions (creating a shared vision and team learning), and included in each of von Krogh et al.'s (2000) five environmental "enablers" (instill a knowledge vision, manage conversations, mobilize knowledge activists, create the right context, and globalize local knowledge). From the practical perspective, socialization is embedded in the behaviors of a facilitator of learning (Ellinger et al, 1999), is the "knowing-whom" identified by Arthur et al. (2001) in project-based learning, is engrained in learning through public reflection (Ayas & Zeniuk, 2001), and is a basic requirement in a mentor program (Bokeno & Gantt, 2002). Depending on the construct of a knowledge transfer system, socialization may occur. However, the literature highlights that knowledge transfer systems should be supplementary instead of the primary medium (Almashari et al., 2002; Cross et al., 2001).

Socialization is a key component in the sharing or relay of tacit knowledge (Busch et al., 2003; Haldin-Herrgard, 2000; Hauschild et al., 2003; Leonard & Sensiper, 1998) because it serves to expand one's network of resources (Seufert et al., 1999) and is a source of justification of an individual's beliefs (von Krogh et al, 2000). Because a strong correlation exists between practical intelligence and job performance and even between practical intelligence and adjustment to a new environment, and because tacit knowledge comprises a substantial portion of practical intelligence (Sternberg et al., 2000), social networks have a strong connection to job performance.

Figure 1: Visual statement of the conclusion. Socialization is a contributing factor of job performance.



Chapter 3

Research Structure

He who gains intelligence is his own best friend; he who keeps understanding will be successful. (Proverbs 19:8) (Hiesberger, 1995)

As previously indicated, socialization is a key component in the sharing or relay of tacit knowledge (Busch et al, 2003; Haldin-Herrgard, 2000; Hauschild et al, 2003; Leonard & Sensiper, 1998) because it serves to expand one's network of resources (Seufert et al, 1999) and is a source of justification of an individual's beliefs (von Krogh et al, 2000). Thus, individuals who are commonly regarded as more successful or proficient should have a larger and better quality social network from which to draw knowledge.

Methodology

While this research could be categorized into any of several of the major types of qualitative strategies (Table 1), it most closely was associated with ethnographic anthropology (Gellner & Hirsch, 2001; Morse, 1994; Patton, 2002) as it sought to understand the particular practices of individuals within various groups. Gellner and Hirsch (2001) assert that ethnography is normally associated with immersion in a foreign culture with years of observation and research, but a growing, though still small, focus is on the culture that exists within organizations. Patton (2002) further outlines the necessity of ethnography's need to evolve as cultures evolve. The definition of culture has broadened from small groups and nation-states to now include organizations, organizational culture, work groups/teams, virtual communities, program evaluation, and applied educational research.

Table 1 Comparison of the major types of qualitative strategies

Type of Research Question	Strategy	Paradigm	Method	Other Data Sources
Meaning questions eliciting the essence of experience	Phenomenology	Philosophy (phenomenology)	Audiotaped conversations; written anecdotes of personal experiences	Phenomeno-logical literature, philosophical reflections, poetry, art
Descriptive questions of values, beliefs, practices of cultural group	Ethnography	Anthropology	Unstructured interviews, participant observations, field notes	Documents, records, photography maps, genealogies, social network, diagrams
'Process' questions – experience over time of change	Grounded theory	Sociology (symbolic interactionism)	Interviews (tape-recorded)	Participant observation, memoing, diary
Questions regarding verbal interactions and dialogue	Ethnomethodology, discourse analysis	Semiotics	Dialogue (audio/ video recording)	Observation field notes
Behavioral questions	Marco Participant observation	Anthropology	Observation, field notes	Interviews, photography
	Micro Qualitative ethology	Zoology	Observation	Videotaped, note taking

Source: Morse, 1994

Parameters of the Study

The purpose and scope of this research was to understand the construction of social networks, which contributes to the transference of tacit knowledge between individuals and ultimately of job performance. Individuals were selected according to time in their position and industry or trade, which is representative of the American culture. The study was conducted using semi-structured interview questions (Morse, 1994). The primary focus was on individuals who have recently been placed in a position of leadership and sought to understand how they manage the social networking that is required in the new position.

Participants

Purposeful sampling was used to determine interviewees who are recognized as high performers by nature of their position within an organization. Individuals were obtained by first identifying sectors that are representative of society. Secondly, the necessary rank or level of a high performer by sector will be identified. Finally, additional criteria were outlined to focus on individual who are in the crux of establishing or continuing to establish networks at a new performance level.

Selection of Participants

"Target" Interviewees – two persons representing each of the following sectors were invited to participate in the study.

1. Business/Industry: Senior Vice President or higher
2. Higher Education: University/College President
3. Basic Education: Superintendent
4. Public Sector - Government – State Government: State Representative
5. Not-for-Profit Organization: Executive Director
6. Religious: Roman Catholic Bishop

All individuals needed to be recently placed/promoted (approximately 1-3 years) to their position and are new to their organization.

Research Design and Procedures

As previously indicated, this study was conducted via semi-structured interview questions. Interview questions, which were created to answer the primary and supporting research questions, were divided by category. Initiation sought to understand how new contacts are made whereas Maintenance sought to understand how existing contacts are maintained or kept current.

Initiation

1. How are new individuals identified and added to your work social network?
2. Do you specifically target individuals as ‘someone you need to know’?
3. How much do you believe that your position contributes to accessibility to others? (respect for positional authority as opposed to individual influence)
4. Do you tend to be introduced or do you initiate the initial interaction?
5. When you initiate the interaction, do you tend to reference the third party that said to call them?
6. How do you attempt to build the initial relationship?
7. What are some reasons you have recently had where you needed to expand your network? Why?
8. What are some recent examples where you were added to someone else’s network?

Maintenance

1. Once you have added someone to your work social network, what is your primary communication channel (in person, telephone, email, other)?
2. What do you do to maintain the relationship including frequency of communication?
3. Do you share personal information with each other?

4. If yes, to what level of detail – nominal (e.g. knowing the other person's family structure), moderate (e.g. knowing family structure and recent events such as vacation destinations), or considerable (e.g. family structure, recent events, and shared non-work events such as dinners or golfing)?
5. Do you see a connection on the level of trust you place in a person with the strength of your relationship with the person?

To validate the responses provided in the interviews, interviewees were asked to provide three names of individuals who they had recently added to their network ("new contacts") and three names of individuals who had been part of their network for at least one year ("existing"). The "new contacts" were called via telephone to obtain permission to interview them as part of the study. The individuals were called in the order in which the names were provided by the interviewee. Calls were placed to the "new contacts" group until one person accepts or all three have declined. This process of recruitment was repeated for the "existing" population. Upon completion, a maximum of two individuals were interviewed; one from the "new contacts" group and one from the "existing" group.

Initiation

1. Were you introduced or do you initiate the initial interaction?
2. How did your contact (e.g. the Bishop) attempt to build the initial relationship?
3. What were the circumstances behind you getting to know the individual (e.g. the Bishop)

Maintenance

1. What is your primary communication channel (in person, telephone, email, other) with the individual?
2. What does the individual maintain the relationship including frequency of communication?
3. Do you share personal information with each other?
4. If yes, to what level of detail – nominal (e.g. knowing the other person's family structure), moderate (e.g. knowing family structure and recent events such as vacation destinations), or considerable (e.g. family structure, recent events, and shared non-work events such as dinners or golfing)?
5. Do you feel a connection on the level of trust you place in the individual person with the strength of your relationship with the person?

Data Collection Methods

Each interview was conducted in-person via face-to-face or via telephone. Each interview was tape recorded and subsequently transcribed.

Chapter 4

Research

For lack of guidance a people falls; security lies in many counselors (Proverbs 11:14) (Hiesberger, 1995)

The purpose and scope of this research was to understand the construction of social networks, which may contribute to the transference of tacit and practical knowledge between individuals and ultimately of job performance (Sternberg & Grigorenko, 2001). The primary focus is to understand how individuals, who have recently assumed a position of leadership, manage the social networking that is required in the new position. Purposeful sampling was used to determine interviewees who are recognized as high performers by nature of their position within an organization (Morse, 1994).

Selection of Participants

Individuals were selected from sectors/trades that broadly represent society and an appropriate level of organizational leadership was identified for each sector. Additional criteria were applied to focus on individuals who are in the crux of establishing or continuing to establish networks at a new performance level.

“Target” Interviewees – two persons representing each of the following sectors participated in the study.

1. Business/Industry: Senior Vice President or higher
2. Higher Education: University/College President
3. Basic Education: Superintendent
4. Public Sector - Government – State Government: State Representative

5. Not-for-Profit Organization: Executive Director
6. Religious: Roman Catholic Bishop

All individuals were recently placed/promoted (approximately 1-3 years) to their position. These ranges were set to allow sufficient time for someone to acclimate to their new role (one year minimum requirement), while having not becoming routine (three year maximum requirement). For purposes of this research, the target interviewees are referenced as a "primary".

Research Design and Procedures

The study was conducted via semi-structured interview questions (Morse, 1994). Interview questions, which are created to answer the primary and supporting research questions, were divided by category. "Initiation" questions sought to understand how new contacts are made and how the network expands. "Maintenance" questions sought to understand how existing contacts are maintained or kept current within the network.

Initiation

1. How are new individuals identified and added to your work social network?
2. Do you specifically target individuals as 'someone you need to know'?
3. How much do you believe that your position contributes to accessibility to others? (respect for positional authority as opposed to individual influence)
4. Do you tend to be introduced or do you initiate the initial interaction?
5. When you initiate the interaction, do you tend to reference the third party that said to call them?
6. How do you attempt to build the initial relationship?

Maintenance

1. Once you have added someone to your work social network, what is your primary communication channel (in person, telephone, email, other)?
2. What do you do to maintain the relationship including frequency of communication?
3. Do you share personal information with each other?
4. If yes, to what level of detail – nominal (e.g. knowing the other person's family structure), moderate (e.g. knowing family structure and recent events such as vacation destinations), or considerable (e.g. family structure, recent events, and shared non-work events such as dinners or golfing)?
5. Do you see a connection on the level of trust you place in a person with the strength of your relationship with the person?

To validate the responses provided in the interviews, primary interviewees were asked to provide three names of individuals who they have recently added to their network ("new contacts") and three names of individuals who have been part of their network for at least one year ("existing"). The "new contacts" were contacted to obtain permission to be interviewed as part of the study. The individuals were contacted in the order in which the names were provided by the interviewee. Contacts were placed to the "new contacts" group until one person accepted or all three had declined. This process of recruitment was repeated for the "existing" population. Upon completion, a maximum of two individuals were interviewed; one from the "new contacts" group and one from the "existing" group. This group was referenced to as "secondary" interviews.

"New contact" and "exiting" individuals were asked semi-structured interview questions (Morse, 1994) designed to validate comments from the "target interviewee" of whose network they are a part.

Initiation

1. Were you introduced or do you initiate the initial interaction?
2. How did your contact (e.g. the Bishop) attempt to build the initial relationship?
3. What were the circumstances behind you getting to know the individual (e.g. the Bishop)?

Maintenance

1. What is your primary communication channel (in person, telephone, email, other) with the individual?
2. What does the individual maintain the relationship including frequency of communication?
3. Do you share personal information with each other?
4. If yes, to what level of detail – nominal (e.g. knowing the other person's family structure), moderate (e.g. knowing family structure and recent events such as vacation destinations), or considerable (e.g. family structure, recent events, and shared non-work events such as dinners or golfing)?
5. Do you feel a connection on the level of trust you place in the individual person with the strength of your relationship with the person?

Data Collection Methods

Each interview was conducted in-person via face-to-face or via telephone. Each interview was tape recorded and subsequently transcribed.

Data Analysis Procedures

Maykut and Morehouse describe qualitative data analysis as “a nonmathematical analytical procedure that involves examining the meaning of people’s words and actions” (1994, p. 121). Strauss and Corbin categorize qualitative data analysis by the amount of researcher interpretation. The first approach entails no analysis by the researcher. In the second approach, the researcher combines salient points or facts from interview, field observations, and personal interpretation into a study. The third approach is the theoretical development and involves the most amount of researcher interpretation. It is from the second approach that Maykut and Morehouse built their research approach, which they have called ‘interpretive-descriptive research’ (Maykut & Morehouse, 1994, pp. 122-123).

In reviewing the research, I followed the ‘interpretive-descriptive’ approach (Maykut & Morehouse, 1994). The objective was to weave a story that is based primarily on the words and concepts of the interviewee, which were extracted and regrouped to create categories that were common to several or all of the interviewees.

Each tape-recorded interview was transcribed. I printed two copies of each interview; one for personal notes and one for codification. I reviewed each transcription and separated independent comments and concepts made by each primary by cutting the concept from the transcript, making a concept slip. I created the first category based on the content of the first concept slip. I subsequently reviewed each concept slip for every primary against the topic of each category. When a concept slip matched the category, I appended it to the bottom of the existing list. When a concept slip did not match any existing categories, I created a new category. Once all primary transcriptions were dissected and categorized, I read all of the concept slips within each category again to ensure all fit. If a concept slip was not similar with the others in the category, I moved it to another category or created a new category, whichever was appropriate (Maykut & Morehouse, 1994). The categories are outlined below under the sections titled “Importance of Relationships in Leadership Positions”, “Initiation: Network Expansion”, “Network Maintenance”, “Benefits of Networks”, and “Network Voices: Secondary Interviews”.

Primary Interviewee Demographics

Each of the primary interviewees had assumed their position of leadership within the prior one to three years. Table 2 displays characteristics for the twelve primary interviewees.

Gender

The primary interviewees were distributed evenly by gender. Five of the twelve (42%) are female, but this percentage increased to 50% when excluding the Roman Catholic Bishops, a position in which only males can attain.

Direct Promotion

Direct promotion displays primary’s who had previously reported to his/her predecessor and was promoted directly to the current position upon its vacancy. Each person had to establish new network contacts in their new position as opposed to solely relying on contacts that had been made as an understudy. While one primary interviewee was directly promoted, he needed to create relationships that had only been possessed previously by his prior manager.

> Superintendent-1: Well I think in the past year … I added the superintendents of [the] County who I really didn't know before I became Superintendent (Superintendent-1, Interview, p. 1).

Both of the Roman Catholic Bishops had been bishops prior to their current diocese, but neither was an auxiliary bishop within their current diocese. As such, the researcher classified both as not a direct promotion.

<u>Employment Method</u>

Employment method describes if a primary interviewee was promoted from within the organization or if they were hired from outside the organization. Fifty percent were promoted from within the same organization and the other half were hired externally.

<u>Geographic Relocation</u>

Geographic relocation indicates if a primary interviewee had to physically relocate their place of residence to assume their new position. Geographic relocation required more effort of a primary to build a network as opposed to a primary who could leverage local resources. Business-1, Bishop-1, Bishop-2, and Not-for-Profit-2 relocated to assume their new positions.

> Business-1: I would say it's actually quite an overwhelming experience to move to a new city, a new site, and to then try to figure out who you need to know (Business-1, Interview, p. 1).
>
> Bishop-1: When I came to [this diocese], I literally knew no one (Bishop-1, Interview, p. 1)
>
> Bishop-2: I had no official connection here (Bishop-2, Interview, p. 1).
>
> Researcher: When you moved into this area – it was mostly work related.
> Not-for-Profit-2: Right, I have not technically moved here. My social base is still in … County.
> Researcher: What about your area here?

> Not-for-Profit-2: My area here is work social. And [I] just began networking by going to events, chamber events and meeting people that way (Not-for-Profit-2, Interview, p. 1).

Table 2 -Demographic display of primary interviewees

Sectors	Gender	Direct Promotion	Employment Method	Geographic Relocation
Business – 1	Female	No	Internal	Yes
Business – 2	Female	No	Internal	Yes
University President – 1	Male	No	External	Yes
University President – 2	Female	No	External	Yes
Superintendent – 1	Male	Yes	Internal	No
Superintendent – 2	Male	No	External	Yes
State Representative – 1	Male	No	External	No
State Representative – 2	Male	No	External	No
Not-for-Profit – 1	Female	No	External	No
Not-for-Profit – 2	Female	No	Internal	Yes
Bishop – 1	Male	No	Internal	Yes
Bishop – 2	Male	No	Internal	Yes

Whereas, Not-for-Profit-1 did not relocate to assume her new position.

> Not-for-Profit-1: Primarily when I first started the first year, [it] was a real challenge because I didn't know how to meet new people. I had to base my connections on people I already knew and use my experiences from my previous job … to further those connections with clients and somehow help the [organization] in that way (Not-for-Profit-1, Interview, p. 1).

Of the twelve primaries, 67% relocated geographically for their new position. The number increased to 80% when the State Representatives were removed due to the residency requirement within their district.

<u>Age</u>

The researcher approximates the age range of the primaries to be between 30 years old and 55 years old. This approximation is arrived at through personal observation and supplemented with information from the Internet where available. This factor is relevant to underscore the diversity of the primary interviewees. For example, if all the primaries were 60 years old, then they would have had approximately 35 years of experience of building and cultivating relationships. Whereas a 30 year old individual would have approximately 5 years in a post-college, work environment of network management experiences.

Introvert/Extrovert Tendency

One interview question focused on how interactions are initiated to determine as a proxy if the person is reserved, reclusive (introvert) or outgoing (extrovert). While the question essentially provides a dichotomous response, the researcher was surprised that many answered that the initiation was dependent on the situation or occasion of the initial interaction.

> Researcher: Do you tend to introduce yourself or be introduced by others?
> Superintendent-2: I normally like to introduce myself. I feel most comfortable doing that. However, in formal occasions when you have large groups of people and then I will have someone else introduce me (Superintendent-2, Interview, p. 3).
>
> Researcher: Do you tend by nature to be introduced or do you tend to initiate? Do you seek out people or do you have people come to you?
> Superintendent-1: I like to think I am this outgoing person that goes up and introduces myself to everybody, but it will be situational. If you took me to the House of Representatives, I would wait to be introduced. If you took me to a gathering of superintendents, I would probably introduce myself a little bit more. So, I guess I sort of look at where I would be on the pecking order of things. In a normal situation, I would like to think I introduce myself, but a lot of times I wait to be introduced only because I somehow think that is the right thing to do (Superintendent-1, Interview, p. 1).
>
> Researcher: Do you tend to be introduced or to initiate the initial interaction?
> University President-2: Both, but more you tend to be introduced (University President-2, Interview, p. 3).
>
> Researcher: Is it your nature that you tend to be introduced or do you tend to initiate the initial interaction?
> Business-1: I would say it is kind of a combination of both. It depends on the crowd I'm with and how many people I know. For my first year here, my tendency was definitely to be introduced and now it's more so to introduce myself (Business-1, Interview, p. 2).
>
> Researcher: When you meet someone, do you tend to introduce yourself or are you introduced?

Bishop-2: It really goes back and forth. There are people here who were not at my installation who are key people. I've called them and introduced myself as the Bishop. I understand that you're very involved with [an organization] and their efforts to help the poor. I'd like to sit down and talk to you about that. Other times, people will call me and say my name is John Smith, I'm the head of the last remaining steel corporations in [location]. I haven't met the bishop yet and I'd like the chance to talk with him. Then there are people, just this morning, I had a dinner at my house last week and one of the people who was invited was a doctor who is at the hospital. He just sent me this morning a note that he mentioned to some of the other doctors that he had dinner at my house with a group of other people. And they said they would like to have a chance to talk to me about health care issues. I'll follow up on that and set up a luncheon with them (Bishop-2, Interview, p. 2).

Researcher: When you are meeting new folks, do you tend to be introduced or to you initiate the conversation yourself?
Not-for-Profit-2: Depends on where I am. Because I am still somewhat in the inaugural stage of the job, it's mostly board members taking me someplace and introducing me. So it's more that type of thing. Of course if I am going to a [another large not-for-profit organization's] meeting or a chamber meeting, they are usually introducing me. But for the most part, its having community briefing where people can meet me (Not-for-Profit-2, Interview, p. 2).

Researcher: Do you tend to introduce yourself or tend to be introduced?
Business-2: I introduce myself (Business-2, Interview, p. 2).

Researcher: Do you tend to be introduced or do you tend to initiate the initial interaction with people?
Not-for-Profit-1: 50/50 (Not-for-Profit-1, Interview, p. 7).

Researcher: Do you tend as an individual to be introduced or do you tend to initiate the conversation?
State Representative-2: If it's formal, I tend to be introduced. If it's informal, I always introduce myself. If it is a formal setting, I would expect the host to the introductions. If it's informal and we are walking down the street, I bump into somebody, my hand's right there. So it depends on the situation (State Representative-2, Interview, p. 2).

Researcher: So what I am hearing you say, did the majority of the people that you get to know whether it be constituents, will start with them, most of them probably come to you as opposed to the other side would be campaigning which would be the opposite point where you are going out. But in your role, basically you sit here and they come to you because of your position.
State Representative-1: That's exactly right. I have two offices and they come to me. They call in for whatever reason and that's how I start the relationship. Now with elected officials and people like that, I usually go to them, especially

> my first two years. Township supervisors and school board members, I go to them and say, “What can I do to help you? What can I do to make your job easier?” We need to work together in certain situations, so I do go to them. I went and personally met all the township supervisors, all the school board members, and just anybody in elected positions. I usually go to them. Now, they certainly call me, but I make it appoint of going to them. But generally my constituents call me, e-mail me and come to me and we build a relationship out of that (State Representative-1, Interview, p. 2).

The research question surfaced that some primaries self-identify as being extroverted. However, even if one is not extroverted, they force themselves to fulfill the requirements of their leadership position by meeting people in a manner that is appropriate for the circumstances.

<u>Summary</u>

The primary interviewees’ demographics affirm the group’s diversity. Gender is nearly split evenly, age is approximated to be between 30 years old and 55 years old. Introvert/extrovert tendency essentially is nullified as a contributing factor. Half of the primaries were promoted from within their same organization. Promotion from within the same organization provides the benefit of having a network already established when assuming the leadership position. External hires face the challenge of leading an unfamiliar organization while creating a network within that organization. This hurdle is compounded when a person relocates for the new job as their personal network or support structure is harder utilized due to the geographic disparity. Three primaries had the most difficult challenge of relocating into a new organization.

Importance of Relationships in Leadership Positions

During the interviews, several leaders underscored their awareness of the importance of relationships and the impact it has on their success in the position.

> Bishop-2: I believe that it's extremely important in a position of leadership to build up relationships. That way you build up relationships so that people know me and what I think, and why I think about something, and I know them so that when a problem develops or when an opportunity develops, when I pick up the phone, I don't want to be calling a stranger (Bishop-2, Interview, p. 1).

> University President-2**:** The presidency is the most social job I have ever, ever had. It is almost completely social. You have all of this intellectual ability and all of this experience and you use it five or six hours a day and the other 12 hours in the day it's all social, every bit of it (University President-2, Interview, p. 1).

> Not-for-Profit-1: You can be an excellent planner and have no social skills and not really care about what you do, but an excellent planner and you could fail, you could flop (Not-for-Profit-1, Interview, p. 2).

Initiation: Network Expansion

The data surfaced a common sequence of steps or phases used in the expansion of one's network. The first phase is identification of individuals who may be added to the network. The second phase, though not applicable in all circumstances and not explicitly stated by every primary, is preparation for meeting the other person. The third phase is the decision to add the person to their network. The fourth phase is establishing a common bond.

Identification of Network Additions

The first phase is identification of individuals who may be added to the network through conscious management of the network itself. The data identify two methods for individuals to be added to a primary's network. The first method is through the unplanned activities of one's normal day-to-day activities.

> State Representative-1: So within my everyday job, I meet people in a variety of ways; through e-mails, through phone calls, through personal meeting just like this and they all have to do with issues relating to not relating so much to state government but just in general. They come to me and I have to solve every problem there is (State Representative-1, Interview, p. 1).

State Representative-2: Some of them I met during banquets where we were speaking at the same time (State Representative-2, Interview, p. 1).

Superintendent-2: I mean I work out at the Y at different times and there are always people in the locker room or work out next to me that I don't know. Normally what I do in that interaction type thing is say, "hi" friendly and if they respond back then I continue the dialogue especially in the morning at the Y (Superintendent-2, Interview, p. 3).

Not-for-Profit-1: I have met people through the … grant workshop that we all attended. I also will patronize certain places and meet people that way. Because sometimes the more they see you, the more familiar they become and when you actually approach them for something or want to get to know them better or how can our organizations work together because we have already seen you a couple of times and you become more familiar and more comfortable talking to you (Not-for-Profit-1, Interview, p. 1).

Not-for-Profit-1: Some people will come to me … Mary F. was like that, she came to me and I did not go to her. She said, " I heard you are doing a spaghetti dinner, I would like to help."
Researcher: Did you know Mary before?
Not-for-Profit-1: No
Researcher: She just came up and said…..
Not-for-Profit-1: Out of the clear blue, she's an angel. I get a lot of, I call them "angel's in the community" that are out there that nobody's knows about and when there's a need, especially for non-profit organizations, it's like the angels come out and are saying, "let's help, let's make this happen" (Not-for-Profit-1, Interview, p. 2).

University President-1: I try to go out and meet people and introduce myself to people (University President-1, Interview, p. 3).

The second method is the methodical expansion by targeting specific individuals or interest groups.

Researcher: How do you identify people to bring into your social network?
University President-2: Well, the first thing I would say is for this job as president of the university it's been much more conscious. I think it is a skill you develop over the years learning how association with one person leads to another leads to another and they all extend your influence. But in this job, you come in and it has to be the building of the network is the number one job in your first year and it is extremely conscious how everyone does that by the time you are at this level. For me, I did it in stakeholder categories. I did not make lists, but I knew that there were categories where I needed to master beginning relationships, and that was my number one goal for this year. So the categories

would be: people who report directly to me; my executive leadership team, internal constituents like staff, faculty, students, starting really with leadership. Then in the second year, I will try to master almost everybody on campus's name and get to know them a little bit... Then you have constituent groups like the legislature, the governor's staff, and your representatives in congress. But I would say the top network for me is the potential donor network … your alumni, your sports fans your theatre fans, your music fans, so you have interest group after interest group (University President-2, Interview, p. 1).

Business-2:   How do I target people or how do I know someone that I may need to add to my social network? I'm going to use this role as an example. Understanding who the players are on [her manager's] team, the general managers, the other directs. The other observation was looking around [the CEO's] table, as a two down from [him]. Who are people in similar roles as myself, working for other senior leaders so I was not just staying within [her] group. … people that do similar functions to what I do, but they support a different senior. So I know they are people that I need to know to for a socialization network (Business-2, Interview, p. 1).

Superintendent-2: Basically what I did there and had what I would call an entry plan. An entry plan was where I basically looked at all the stakeholders in the community and of course that would be people who hired me on the board and the various employees that work here, the business members in the community, the tax payers in the community and …went out and visited them and interviewed them. You start the whole process by detailing, fully interviewing the nine people that hired you. I had a structured two-hour interview with those people and involved about 30 questions and from there I mushroomed out (Superintendent-2, Interview, p. 2).

University President-1: The chancellor, the other presidents, the peers. There are university presidents associations; there are networks throughout the county... I started to religiously go to the NCAA meetings (University President-1, Interview, p. 3).

University President-1: I tried to get out; I specifically accepted an appointment kind of sight unseen to be a member of the Red Cross board of directors. Partly so I could force-feed myself into the network system so I would have other contacts, other people, and other issues. Shortly after I arrived here, I accepted the invitation to become the chairman of the board of the [local] Region of the Boy Scouts of America, again for the same reason (University President-1, Interview, p. 2).

Bishop-2:   The way I did that was, when I arrived there was an established structure in the administration. There were eight people who reported directly to me. What I did was spent time getting to know those people…
Researcher: and from there from the core eight you fanned out?

Bishop-2: Yes. We have in the diocese … 115 parishes. Each parish is headed by a pastor. I made it my goal in my first year to visit and celebrate Mass at every parish in the diocese. I also went to all the gatherings of the priests.
Researcher: How about outside of the specific religious because your role contains some 'civil' aspects, interaction with elected officials …
Bishop-2: Right. Many of the elected officials like the mayor[s] … the governor, state senators – many of them attended my installation. I made a point of speaking to them individually and asking them if we could meet some time after the installation at their convenience (Bishop-2, Interview, p. 1).

University President-2: Right, but I try at every event to make a personal contact. So two weeks ago, there's this church in town that happens to be my church but every summer they have three speakers come in from the community and you are suppose to talk for 40 minutes about the question, "who and what made me who and what I am?" So I did that and they had music and afterwards, everyone in the crowd and there were probably 100 people there everybody came up and obviously wanted a personal contact with me because it was a very personal talk. I made sure I did not leave that building to I talked and connected personally with every single person.
Researcher: Till the line that was waiting to meet you was done?
University President-2: Yes, well no it wasn't just that, there was a line waiting to meet me in one room and there were people who did not wait in line and went in and had pie. I went into the room with the pie and I tried to get in touch with everybody who was still there personally going up to them. So, I initiated contact for people that did not initiate it with me because I thought they were honoring me as a person by coming to that. So, you have to do both, you have to really work the room (University President-2, Interview, p. 3).

Preparation

When expansion of the network was through a managed, planned occasion, some primaries indicated they would prepare before the meeting by becoming familiar with the other person.

Not-for-Profit-2: Depending on who we are meeting, I would have already done some background research on the person or the company or whatever context it is to determine what their interests are and how they would connect with us (Not-for-Profit-2, Interview, p. 2)

Researcher: Within each of the stakeholder groups and perhaps you can just think of one other than the leadership on campus, how do you know who to go after?
University President-2: I have lists. Advancement Staff makes lists. So at first there are lists of people who are giving parties for me and I am attending them

and I get to know them … Your influence is gained by the people you know, what you know about them, what they know about you. So with advancement, their job is to create relationships between me and potential donors or potential power brokers and so they guide me and I pick up on it and follow their lead (University President-2, Interview, p. 1).

University President-2: I think what we try to do is before every event, I get a list of who will attend and I go over the list as many times as possible to try to remember people's names (University President-2, Interview, p. 3).

Business-2: Really observe around the table on what types of comments people made on what types of topics. Trying to understand just by listening and observing in a group setting. What the Senior Leadership team is keying in on and then understanding more of what my role was – how could I enable what they are keying in on (Business-2, Interview, p. 1).

Bishop-2: I spent time spent time talking to priests and laypeople who have spent time here … most of their life. And having been around, they know who the movers and shakers are, they know who the key people are. I ask them, would this be a good person to talk to. And then I will have one of my staff do background research because some of these people may have been influential people moving the community forward twenty years – but for whatever reason, they may not be at the pivot point right now. So some of those people are important to know because they know the history, but I also need to know who are the people making the decisions … right now (Bishop-2, Interview, pp. 1-2).

Decision to Add a Person

The third phase is the decision to add the person to their network. After an initial introduction, each person is consciously or subconsciously evaluated for addition to the primary's network. The primary has three choices; to fully add the new addition, to permit the addition with reservations, or to reject the addition to the network.

Superintendent-1: Why do I invite someone into my network that I don't like to be around even though they could be very knowledgeable and help me? I sometimes filter it out that way. So I want to bring someone into my network, someone I enjoy talking to, if it's just calling them up on the phone and talking for five minutes or spending a day or two with them (Superintendent-1, Interview, p. 1).

Not-for-Profit-1: There are certain people that I trust more. I'm much closer with my volunteers than I am with business acquaintances. Whereas other people who I've heard them giving out information about other people that they know, I would never tell them personal information about myself. And then there is certain people that I know don't have a good reputation in the community. For instance, [there is someone] I didn't feel comfortable connecting with because I didn't want the [organization] to be connected to that person in any way where it could hurt us. If you want the [organization] to have a certain type of image in the community, you can't connect with people who don't have a good image (Not-for-Profit-1, Interview, p. 8).

State Representative-2: Not all acquaintances at banquets do you want to build relationships with. Some I want to keep plenty of distance (State Representative-2, Interview, p. 2).

Common Ground

Once the primary has decided to add the person to their network, the primary forged the relationship by finding common ground or common points of interest, which is the fourth phase.

Researcher: How would you go about doing that and cultivating the relationship with him further?
State Representative-2: Well you got to have common ground (State Representative-2, Interview, p. 3).

State Representative-1: We get up, we socialize and you just build the network that way.
Researcher: You just start talking about whatever? It may be the topic at hand or a golf game?
State Representative-1: Exactly. We talk about our kids. We talk about playing golf, that's a big topic there. Or it might be hunting or anything that draws us together (State Representative-1, Interview, pp. 1-2).

Superintendent-1: I think you establish the common bond. What does that person have that is the same interest area, and it could be a million different things and that starts the conversation and then the bond. We talk about adding people to our network, but it is a two-way street; the other person has to want to be involved in that. So, I think it is just really establishing what we have in common. I think as it goes further along belief systems come into play, but I think early on it is just what you have in common (Superintendent-1, Interview, p. 2).

Business-1: I think a lot of times just by sharing things that you have in common … So it's really just about common experiences and people are people (Business-1, Interview, p. 2).

Personal Information Sharing

When a common point of interest is identified, individuals may feel comfortable to share personal information. This may be to find further common ground or may be a means of evaluating the trustworthiness of the other individual. Primary's willingness to share personal information ranges considerably from very little shared/surface level (Bishop-2, University President-1) to in depth conversations about finances (Superintendent-2).

> Researcher: Once you made a relationship with somebody, how much personal information do you get into sharing with them?
> Bishop-2: It's usually not about the personal. We may talk about the fact that I was born and raised in New Jersey and that I went to school in California and the difference in culture, but it is not very much personal (Bishop-2, Interview, p. 3).
>
> University President-1: I am one who is very careful with personal information. I don't share it. I often don't perceive that it is necessary to the performance of the job. I share what I call proud personal information; married to my wife 32 years. I asked her to marry me on the first date; she said, "maybe" (University President, Interview, p. 7).
>
> Researcher: How much personal information do you get into sharing?
> Superintendent-2: I think everything right down to finances many times.
> Researcher: Does that vary based on how close the person is to you, like your inner circle versus …?
> Superintendent-2: Yes, the inner circle. We try to go on vacation together, 25 - 30 of us maybe on a every couple of year basis. I am talking about a week vacation we get together probably about 4 – 5 times a year locally. So, that group we pretty much talk about finances for college and all the different things going on with that. Really everything, the health and wellness of everyone and how they are doing and the children and all that kind of stuff (Superintendent-2, Interview, p. 4).

Several cite that they will share as much as possible within reason to establish a common bond, if they feel the person is someone that should be added to their network.

> Researcher: So as you are sitting and talking to folks, how much personal information do you get into?
> Superintendent-1: Well I think it's interesting because just something from the two retreats we have been in and probably where we sit around the most happens

to be after the retreats and in the bars and in that type of setting and, I think there is a lot of personal information that is exchanged because I think you find more in common. It goes back to that common bond. [Another person] and I found out that we coached against each other fifteen years ago, and we found that out at a retreat on the tenth hole. So, I think that personal information tightens the bond and allows you to develop that (Superintendent-1, Interview, p. 3).

Researcher: After you've gotten to know somebody, do you get into sharing personal information with each other?
Not-for-Profit-2: There may be some surface of that type of thing. I really try my best to keep business and personal separate.
Researcher: My next question is then, if yes, what level?
Not-for-Profit-2: I would say depends on the person. I mean most of my board members probably have more detail of what's happen because you're talking socially also. You're talking vacations. So you know those people. But if I was doing that cultivation thing in the community, I probably wouldn't be telling them anything more than like I have a [relative] that is a policeman. It really determines on that connection so that you have the common ground more than anything else. I would tell you things that might connect as a common thread as a conversation purposes.
Researcher: Almost like a need to know? Even if that needs to know is used to have a common bond?
Not-for-Profit-2: It really is that social conversation, that on the surface conversation (Not-for-Profit-2, Interview, p. 3).

Even still, they remain relatively guarded about too much information being shared. Time and the nature of the relationship were determinants of how much information to share.

Researcher: How much personal information do you get into?
Business-2: Depends on the person and the responsibility on that relationship. Generally I know people's kid's names, husbands/wife's name, a key hobby or something they like to do.
Researcher: Do you have others that you feel are closer within the business environment that you would share more and others less?
Business-2: Absolutely, but there are some that you share too much and get burned (Business-2, Interview, p. 2).

Researcher: When you're building your relationships with people or maintaining them, how much personal information do you get to share?
Not-for-Profit-1: It depends. There are certain people I don't feel comfortable sharing personal information with. There are certain people that I trust more. I'm much closer with my volunteers than I am with business acquaintances. There are only certain volunteers that I feel comfortable divulging personal

information. like [a specific volunteer]. She shows a certain type of character. She is very caring, loving person and she is not a gossip. So I feel comfortable sharing personal information with her because I know she is not going to go around and tell everybody about it. Whereas other people who I've heard them giving out information about other people that they know, I would never tell them personal information about myself. And then there are certain people that I know don't have a good reputation in the community (Not-for-Profit-1, Interview, p. 8).

Researcher: How much personal information do you tend to share with people once you bring them into your network?
Business-1: I would say quite a bit to be honest. I have always been that way. Not to cross the line of too personal, but just as an example, in the network of my immediate team. We mutually share a lot about our families and our children, previous experience either work related or personal related. I would consider us to be a pretty close bunch.
Researcher: What about with the folks outside of [your organization]?
Business-1: Not as much. I would tend to be a little bit more guarded in talking about personal family type things, but would talk very openly about work related things.
Researcher: So what I am hearing and I don't want to sound like I am putting words in your mouth, it almost sounds like obviously the more you get to know, the more you probably will open up. Without a doubt a certain threshold that just is not going to be crossed because certain things are private in nature. But do you feel that that mutual sharing creates a stronger bond?
Business-1: Absolutely (Business-1, Interview, p. 5).

Trust

Trust can be given at the beginning of a relationship to be taken away, if necessary, or others need to earn one's trust. Primaries strongly favored the first – provide trust to new individuals and remove it if necessary.

Researcher: Do you tend to give people trust and make them lose it, or do you they have to earn it?
Superintendent-1: I do and have always been that way.
Researcher: Basically, I am going to trust you until you screw me or as opposed to earning it?
Superintendent-1: I will trust you. Yes, I am a giver of trust; it does not have to be earned (Superintendent-1, Interview, p. 3).

University President-1: I will deal with anybody on a straight up basis until they cross the line. Once they cross the line, it won't be punitive, it will be silent, and I won't deal with you. I no longer choose to absorb your advice to the point where if you do provide wisdom or advice (University President-1, Interview, p. 5).

Superintendent-2: I wish I was a person that would make you earn the trust. In this business I do not do that. I am a person that will give it to them and they lose it. It is always harder when you give it to somebody to accept the fact they are losing it as opposed to someone earning it. So, one of my faults is I trust too many people and then I get personal with them. So, a short answer, I give trust upfront and they lose it. My problem is, I never let them lose it but sometimes I should (Superintendent-2, Interview, p. 5).

Not-for-Profit-2: Yes, I would give you the benefit of the doubt until I have a reason you prove to me that I was wrong (Not-for-Profit-2, Interview, p. 4).

Researcher: Are you the type that gives people trust that they would have to lose or that they must earn?
Business-2: I'm the first. Give the trust up front and you lose it. And if you lose it, I have a really hard time giving it back. I'm really good at that. But it takes a lot for me to consider that you've lost trust. People make mistakes and that's ok. It's really more when someone is not up front about something or they are overly self-serving (Business-2, Interview, p. 2).

Researcher: That was one of the questions I had. Do you tend to make people earn the trust or do you give it and allow them to lose it?
University President-2 Both, it depends on who it is.
Researcher: How do you differentiate?
University President-2 Intuition. If I intuit somebody's trustworthy, I will take the risk and see. But you know I don't give much information out that shouldn't be given out, I just don't do it.
Researcher: Generally as a person?
University President-2 Yes, if you give them little pieces of that, it does not hurt anybody then they are not going to pump you for information and if they do, you just change the subject. At this level, you meet such amazing people. You get to spend time with people that you just want to be like all of them. You want a little piece of all of them. You just want to learn from them and those are the people you can trust. If [a US Senator] sets down with me, anything he asks me, I will tell him. He's a quality person, there's no doubt in my mind. So, there are just certain people like that that you can say anything to (University President-2, Interview, p. 5).

In addition to starting with a relationship with a baseline of trust, primaries also felt that a connection exists between the strength of the relationship and the amount of trust.

Researcher: Do you see a connection on the level of trust that you place on a person with the strength of the relationship with that person?
Bishop-2: Yes, very much so. Because in developing these relationships what I want to do is for them to trust me and me to trust that person. And we may disagree but what I'm aiming at is that we will be honest with each other and that even if we disagree about a procedure, we will still know that both of us are working for the common good (Bishop-2, Interview, p. 3).

Superintendent-1: I think that may be finding a common bond and the second thing is can you trust them?   If there is not a common bond, you can still trust them but I think you want to take it another step, and the next step is, "Can I trust them?" (Superintendent-1, Interview, p. 3).

Researcher: Do you see a connection on a level of trust you place in a person with the strength of the relationship you have with the person?
Superintendent-2: Yes, there is no question about that (Superintendent-2, Interview, p. 4).

Researcher: I would suspect that once an individual starts to lose the trust, then you would start to push them further away from your immediate network, true?
Superintendent-2: Yes (Superintendent-2, Interview, p. 5).

Researcher: Do you see a level of trust that you place in a person and is there a connection between the strength of that relationship based on trust?
Not-for-Profit-2:   Yes. Because quite frankly, if there's any perception on my part that I won't be able to trust them in the first place we wouldn't be having any conversation. If I met you and there was a glimmer of a fact of dishonesty or trust, it would be very cordial. It wouldn't get past cordial. I would have to move you to someone else (Not-for-Profit-2, Interview, pp. 3-4).

While many primaries placed a bond between the strength of the relationship and trust, some, but not all, primaries alluded to positional trust, which is trust that is placed in a position and that would be either strengthened or weakened subsequently by the specific individual interactions.

Bishop-2:   Relationships are very important. It takes time to build relationships. You cannot build them overnight. There are people who automatically would connect to you. For example, because of what the Catholic Church is doing in the city of [X], the mayor would obviously be interested in what the church is doing. There are kind of natural relationships that develop, but I think the key is that those relationships have to be built – time and effort needs to be put into them. They cannot be simply assumed. It takes time to build those relationships. And I think those relationships are the key to success.

Researcher: It's automatic because of the positions that two people hold, but the depth and the strength the relationship will be determined by the amount of effort that you put into meeting, getting to know the person, finding common ground, etc.
Bishop-2: I would agree (Bishop-2, Interview, p. 3).

University President-2: If [a US Senator] sets down with me, anything he asks me, I will tell him. He's a quality person, there's no doubt in my mind. So, there are just certain people like that that you can say anything to.
Researcher: I guess your intuition in that case would be he's also a public figure.
University President-2: Yes, and some of it is, for instance, there's a couple people I wouldn't of known that, but the former governor has told me they are good people. So a lot of it is in this network and this area, you have people you can trust tell you who you can trust too.
Researcher: Do you see a connection on the level of trust you place in a person with the strength of the relationship with that person?
University President-2: Not necessarily. There are certain people that through life I have become good friends with that I would not entrust with some information. We have had good times together, but they are not at a professional level that they could cope with this information and do wise things with it. So when you enter a job like this, somebody who works with national security knows when you are dealing with some really risky stuff and they get it but somebody I have played tennis with my whole life and I like and enjoy being with, I wouldn't tell her the same thing. So, I don't think I equate trust with this. I think it is a whole different thing at this position.
Researcher: Maybe I can use the term, "positional trust."
University President-2: Yes, more than relational trust**.** There are things I wouldn't tell my mother because she wouldn't know what to do with it (University President-2, Interview, p. 5).

Researcher: Some of my other interviews have surfaced positional trust. It doesn't matter as much on the person but the position.
Not-for-Profit-2: That's not really me. I don't know that I would trust you more because you are a minister verses a politician. Its pretty much an even playing field until something is said or you did something or something would happen that would cause that to drop (Not-for-Profit-2, Interview, p. 4).

Trust in a relationship is important. If a person is added to a primary's network, a baseline of trust is provided, which will be subsequently lost or fortified. Though not common to all, positional trust is sometimes provided to a new network additions.

Summary

The importance of relationships was identified by the literature and reaffirmed by the voices of the primaries. Expansion of a network through the addition of new people and new relationships seemed to follow four steps; identification of new people, preparation, a decision to add the new person, and establishing a common bond. Identification of new people occurred as an unplanned event or as a planned event. When the meeting was planned, some primaries prepared for the event by learning as much about the other person as possible prior to the meeting. During the course of the meeting, a decision was made to either sever the relationship at that point or to advance the relationship at which time common ground was sought and a baseline of trust was provided.

Network Maintenance

Once an individual has been added to a network, effort is needed to maintain the relationship. Otherwise, the relationship becomes lethargic or dies, providing no further or minimal additional value in knowledge transfer.

> Bishop-2: Relationships are very important. It takes time to build relationships. You cannot build them overnight. There are people who automatically would connect to you. There are kind of natural relationships that develop, but I think the key is that those relationships have to be built – time and effort needs to be put into them. They cannot be simply assumed (Bishop-2, Interview, p. 3).

This section of the research sought to understand how primaries maintained relationships, focusing on the means in which communication occurs as well as the frequency.

Contact Methods

Common vehicles for communication include in-person meetings, telephone, electronic mail (e-mail), and instant message (IM). No primary mentioned regular mail as a regular method of communication with a network member. No single method of communication surfaced as a common or even preferred.

> Business-2: I generally use IM as a tool. Just ping somebody - how are things, how did the reorganization affect you, just reminding them that you are out there and finding out what they are doing (Business-2, Interview, p. 1).

> Business-2: I don't think email is an effective form of communication. We all get slammed with so much email. So I'll pick up the phone and just stay in touch from that perspective (Business-2, Interview, p. 2).

> Researcher: What tends to be your primary communication channel? Is it in person, telephone, or e-mail?
> Bishop-2: I would say telephone.
> Researcher: Because it's the happy medium? You don't have the impersonal aspect that you do with e-mail but yet it's more practical then meeting face-to-face?
> Bishop-2: Yes, and I find that there is a lot that can be accomplished over the phone that people sometimes feel they underuse the phone (Bishop-2, Interview, p. 2).

> Superintendent-1: E-mails and phone calls are nice and they keep you in touch, but I think the face-to-face meetings are where you need to be (Superintendent-1, Interview, p. 2).

> Researcher: Do you tend to have a preference when you communicate with people? Is it e-mail, telephone, person?
> University President-1: I would probably say in order, as much in person as possible. Secondary would be telephone. Third and for the primary reason of ease of access today, is at least initial contact e-mail followed by telephone or in person? I am still a writer. I will still write congratulatory notes to people (University President-1, Interview, p. 8).

> Researcher: Maintenance, once you've added someone, what's your primary communication method?
> Not-for-Profit-1: E-mails; following up after meeting someone (Not-for-Profit-1, Interview, p. 8).

> Not-for-Profit-2: I'd have to say it's a bit of everything. With the board it's a combination of updates via emails, which seems to be the most convenient way for people to look at their information now. We do almost everything email. If it's a high-end donor, it will be quarterly phone calls. A quick call to let them know what's been going on here. Giving them updates and asking if there's anything else we can do for them (Not-for-Profit, Interview, p. 3).

> State Representative-1: So that takes a lot of effort and after that initial visit, I either make a phone call, a personal visit, or e-mail some people (State Representative-1, Interview, p. 5).

> University President-2: E-mail is easiest. So if anybody e-mails me, I e-mail them back easily within 24 hours. I am not on the e-mail all the time but I try to get back to people. The hard thing for me that I have never done before that I make myself do here is I consciously pick up the phone and call people (University President-2, Interview, p. 4).

No consistent method existed by all the primaries. However, most primaries have a preference for personal, synchronous contact such as face to face meetings or phone over impersonal, asynchronous methods such as email. Instant message (IM) is a hybrid communication tool that can be both personal and impersonal, synchronous and asynchronous. Only one person referenced IM as a communication tool. This may be explained in that the primary used IM in a closed telecommunications network contained within a single business entity and one that is predominantly office-based instead of in manufacturing or service-oriented.

No primary mentioned text messaging as a communication tool. Though prevalent in society, it tends to not be a tool embraced by the primaries. This could be explained by text messaging not having a professional feeling, its inherent lack of ease of use, and wide acceptance as not a professional means of communication. This may change in the future as general usage and acceptability expands within the general population.

Contact Frequency

While a few primaries outlined a conscious, planned effort to maintain relationships, most indicated that maintenance of their network contacts tended to be the result of event-based triggers such as common activities or something happened that sparked a thought to contact a person.

> Superintendent-2: The frequency part I would say is erratic per the individual. If it is a seasonal think like I am in a kayak group and right now we are not doing much because the water is low. E-mails are primarily the form. Now the closest network of friends is all phone. But the next group of network people who I socialize with on a seasonal basis like I got a Penn State group that is into football and that would be e-mail contact intermittent throughout the year or once a year (Superintendent-2, Interview, p. 4).

> Superintendent-2: This week I have spent the last week and a little of next week catching up or touching base with folks I have worked with in the past. It will be an annual event like I just talked to my old AD who is now a principal and called 2 – 3 other people the same way. So I will do 15 – 20 people like that and I do that every summer (Superintendent-2, Interview, p. 2).

> Business-2: It's really just picking up the phone a couple of times a week when you don't need anything from anybody. And this was advice [a mentor] gave me by the way. He said 'call five people a week that you need nothing from and just touch base with them' and you can't be a time robber when you do it (Business-2, Interview, p. 1).

> Researcher: What tends to be the frequency that you reach out to folks that you want to maintain a relationship with?
> Bishop-2: I am still working on that to try to get that to some sort of even level. I don't feel that I do that enough and I am trying not to do overkill. Anytime that something comes up that's connected to that person or connected to that person's interest, then I try to get in contact with them. But I don't feel that I have reached a point where I consider it to be a comfortable and easy routine with that. It's more sporadic at this point.
> Researcher: I guess you can almost say event-based trigger, like you said, something pops into your mind that you know that so and so would be interested in knowing about this and then you relay it to them.
> Bishop-2: That's right (Bishop-2, Interview, p. 3).

> Researcher: How do you go about maintaining that? Do you e-mail people? Do you pick up the phone and call them? Do you schedule meetings? How do you go about keeping that relationship?

State Representative-2: Not everyone that you meet you have time to keep a relationship with. I just don't have time. I use to play golf three times a week. Now I'm lucky if I play once a month. My time is so limited because of so many things I need to do, so many people I need to see. So continuing a relationship with a new acquaintance is very difficult to do unless you are going to work with them right away on an issue (State Representative-2, Interview, p. 3).

Researcher: You might e-mail them, phone call them, try to visit with them in person, how frequently do you do that?
Not-for-Profit-1: Depends on how I value that relationship.
Researcher: Now are you meaning what you believe that it could do for the [organization]?
Not-for-Profit-1: Right or how much I trust that person, personally. There are some people that are strictly, I see them as phony. They are not really interested in the [organization]; they are interested in what the [organization] can do for them. When I pursue a relationship, it's because I care about that organization as well (Not-for-Profit-1, Interview, p. 9).

University President-2: In my mind, I maintain when to check back in with whom I called (University President-2, Interview, p. 1).

Although few of the primaries indicated a methodical approach to maintaining relationships, several had awareness of the desire to do more frequent 'reaching out'. Contacts most often seemed to be event triggered where something happens that prompts a contact or contacts were organizational structures, such as a quarterly update or a broadcast email.

Contact Information Management

In addition to understanding the method and frequency of contacts, the study sought to understand how relationship information is stored and managed. The data surfaced no consistent approach for maintaining contact information. Several managed contacts from databases, others from business cards and others through no structured mechanism.

State Representative-1: We have, and I am not exactly sure how I pick these people up, but we have a list out there of about 125 people and I thought they had an interesting problem or when I talked to them, we sort of clicked or had something in common (State Representative-1, Interview, p. 5).

Superintendent-2: Yes, I have an e-mail and a rolodex that have them in and I have a 3-ring binder full of 3x5 cards (Superintendent-2, Interview, p. 5).

State Representative-2: I've got stacks and stacks of business cards that people just hand them to me. I could tell you who all is in there and I got a regular rolodex. This is just the ones that people said, "here's my card" and I bring them in here and put them on a stack so if I ever need to reference them, there it is I can leaf through it, "there it is. Do you remember me?" "Yes." "Ok, I need to discuss whatever with you" and I can solicit their help (State Representative-2, Interview, p. 3).

Not-for-Profit-1: So these business cards, I have 100's of them. So all of these are my contacts (Not-for-Profit-1, Interview, p. 8).

Researcher: How do you keep that info (in the network)?
Not-for-Profit-2: I just keep it or know how to access it. I'm not that organized. I may not remember it but I know how to get to it if I need it. You don't realize how many people you know until someone asks if you know something or somebody (Not-for-Profit-2, Interview, p. 4).

Despite advances in technology, primaries have exhibited a preference for personal contact, though not exclusively. Typically contacts with relationships tend ot be event-base triggered where something happens that prompts the primary to contact another in their network. Several primaries indicated a desire to do more frequent non-event based contact initiation. Management of contact information is classified as having evolved to a process that works for each individual. I was surprised by the frequency of individuals that store the information by a stack of business cards.

Benefits of Networks

Personal opinions only become knowledge or a justified belief after being shared. Constructive and helpful relationships speed up the communication process, enabling individuals to share their personal knowledge and to discuss their ideas and concerns freely (von Krogh, 1998). During the course of the interviews, several benefits surfaced from their network.

Compounding Effect

A benefit from one's network was the compounding effect of gained from access to other people's networks.

> Researcher: Like you said, if you sever that part of your relationship of your network, you don't know who else they are connected it to. The image that came to my mind is like a piece of broccoli. You got the stem that shoots out and the florets that just got all these hundreds of little connections.
> Not-for-Profit-1: That's perfect analogy. It's funny because you might have somebody for instance who seems a little out there, a little radical on [a topic] and is like, "You shouldn't do that." And you're like, "I completely understand, let me show you why we have to do things this way. This is how many [units] we have, this is how much income. Tell me, do you know another way because if you know another way, you need to share that information. We want to help [units] more that what we can at this point so, please." And then they're like, "oh." But if you just say, "oh, that person's a jerk, get away; I don't have to listen to you, get out of here." All of a sudden, they know five people that are interested in the[organization]. Then there are people, might be someone who is already supporting us and says, "I am thinking I'm not giving them a donation next year because they were so rude to my sister, or they were so rude to my best friend, or that was my cousin and they treated her wrong." It's amazing how people are connected (Not-for-Profit-1, Interview, p. 5).
>
> Not-for-Profit-2: So the people that he was networking with also became mine (Not-for-Profit-2, Interview, p. 1).

Accessibility to Others

In their view, the primaries' leadership positions did provide some access beyond the 'average' citizen, which provides them with uncommon opportunities to further develop and expand their network.

> Researcher: Do you feel that your position has opened doors for you that you wouldn't have had as a normal citizen?
> State Representative-2: That goes without saying. Without a shadow of a doubt. There's many a door open to me now because of this position. Not just enjoyable things to do, but doors of responsibility that are opened that I would

never have opened if I wouldn't be in this position (State Representative-2, Interview, pp. 1-2).

University President-1: It's my nature because my mission is 'it's all about the university, it's not about me'. But you begin to realize that because you're the president, you will get in the door… Now, I think what happens is, if I make an appointment as Citizen [X], it's like 'thanks a lot, will see you'. If I make an appointment as [X], President of …University, its like, the president of one of the universities called up, [United States] Senator … would you like to talk to them? Next thing [the senator] is calling me from his telephone in his car (University President-1, Interview, p. 4).

Business-1: That was an adjustment for me to be honest because not a lot of what I do is about that right, your name and your title, your power and all of those things. But as you get to know people, what it's more about is relationships that you build with people (Business-1, Interview, p. 2).

Researcher: Do you believe that your position contributes to the accessibility of others?
Bishop-2: Yes, I think so very much (Bishop-2, Interview, p. 2).

Researcher: Do you believe that your position as executive director of the [organization] contributes to accessibility to others?
Not-for-Profit-1: Definitely. I would not have been able to make these connections without that title (Not-for-Profit-1, Interview, p. 6).

Researcher: I am going to reference some of the questions to make sure I have captured what you have already answered and make sure I have captured it correctly. How much do you believe your position contributes to accessibility to others? You answered that you can pick up the phone and call the governor where as before, that would not have happened (University President-2, Interview, p. 3).

Researcher: Do you believe that your position as Superintendent adds to your accessibility to others?
Superintendent-1: I am almost positive that it does. "Tom" is the [organization] Executive Director of the [location] Development Corporation and, "Tom", nice guy, would he talk to me if I wasn't in this position? Probably not because it is a network for him. So I think the position itself opens up doors. That helps me in talking to him learn about economic development for this area. So, would we have those conversations if I wasn't, probably not. I am almost sure so, yes, the position itself does lend to more doors being opened plus the different meetings I now have to attend allow for different networking opportunities. So, definitely yes (Superintendent-1, Interview, p. 1).

> Researcher: Do you believe that your position as the Executive Director of the [X] contributes to your accessibility to others?
> Not-for-Profit-2: Yes I do. And again, because I think it's the perceptions of the community. Because people see you in a certain role, they will more likely contact you to be involved in certain areas. Being the Executive Director of the organization and one of the larger organizations that [another organization] fund(s), they came to me and asked if I would talk to donors to explain how the [organization] works. The Chamber of Commerce will call and ask me to do this. Or I get calls to ask if I could speak here. So I think that wouldn't happen if it wasn't for the position. It was the position more than the person (Not-for-Profit-2, Interview, p. 2).

As previously outlined, transference of knowledge should have a direct benefit to job performance (Sternberg & Grigorenko, 2001). Access to knowledge expands with the inclusion of the collective knowledge possessed by the people in the networks of the people in one's network. This opportunity is even more important to individuals in positions of leadership, which have access to contacts that may be 'off limits' to the average person.

Network Voices: Secondary Interviews

Each primary was asked to provide two names of individuals in their network for the researcher to obtain their perspective of the relationship. Of the twelve primaries, five provided two names of individuals in their network and three provided one name of someone in their network. Of the remaining primaries, one declined to provide any names and three indicated they would provide names at a later point but did not. In total, 13 secondary (people in a primary's network) interviews were conducted.

While the secondary interviews tended to be short and did not yield the depth of insight that I had hoped, several themes emerged from the data. These themes are Primary Character Traits, Shows Interest, Trust, and Personal Information Sharing.

Primary Character Traits

Secondary interviewees identified traits about the primary that they found favorable. Examples of favorable traits include humility, friendly, giving, and competent.

> On University President-2: Basically was somebody who got along with everybody whether they were secretarial staff in our office or college office, faculty members, associate deans who sometimes can be difficult to work with, and the vice presidents (University President-2-2-1, Interview, p. 1).
>
> On University President-2: She is very warm and welcoming and cordial … If for any reason someone greets her, recognizes her, she is very, very friendly (University President-2-2-2, Interview, p. 1).
>
> On University President-2: So it showed a little humility (University President-2-2-2, Interview, p. 1).
>
> On Business-1: [She] is a very giving person (Business-1-2-1, Interview, p. 1).
>
> On Business-2: The influencing skills. The ability to work with people at all levels without any kind of intimidation. She was tremendously thorough, detailed and just flat out didn't drop the ball. Very articulate when she gave her updates (Business-2-2-1, Interview, p. 1).
>
> On Not-for-Profit-1: I was very impressed to find out that she was the type of individual that wanted to learn. If she didn't understand how something was done, she wanted to know. She was eager for education and to better herself in the knowledge of the industry (Not-for-Profit-1-2-1, Interview, p. 1).
>
> On Not-for-Profit-1: If she thinks that I may be able to help her out or give her advice, she doesn't hesitate to call me (Not-for-Profit-1-2-1, Interview, p. 1).
>
> On Not-for-Profit-2: She is very, very competent and knows the [organization] so well. She has great experiences and that kind of exudes confidence in people feeling very comfortable with them and she is a very nice person as well (Not-for-Profit-2-2-1, Interview, p. 1).
>
> On State Representative-1: I value integrity. I have known him to be very straight forward and he tells me what he thinks whether it is with me or against me. Yes, I put a lot of confidence in what he tells me (State Representative-1-2-2, Interview, p. 1).

<u>Shows Interest</u>

Secondary interviewees felt they were valued by the primary because they displayed interest in the secondary.

> On University President-2: She is not just some smiling face, but I think she is interested in people (University President-2-2-2, Interview, p. 1).
>
> On University President-2: … is surprising (to me) that she was paying attention to my style. Storytelling is something she wants to do well and was sort of comparing (herself to) me as a qualification that this story may not be as good as you are used to hearing (University President-2-2-2, Interview, p. 1).
>
> On State Representative-1: I am very active in the community as a volunteer and if I go in his office and if there is someone there, he makes it a point to introduce me to the individuals and say, "this is one of the volunteers of the community" and I feel very good about that. I feel very honored that he would take the time to introduce me to some of these people and explain the background I have (State Representative-1-2-2, Interview, p. 1).
>
> On State Representative-1: I am [involved with] a number of local organizations as well. [He] has never told me this, but I sometimes sense that I am a good source (State Representative-1-2-1, Interview, p. 1).
>
> On Business-2: So I recall her coming into [location] and her really making the effort to come and physically meet me … It was interesting the kind of the different sites that we would run into each other, but she would always take the time to try and seek me out and say, "Hi, how you doing" not always project based but social as well (Business-2-2-1, Interview, p. 1).
>
> On Business-1: She pays very close attention to what the other person wants. Her conversation, her way of approaching you is not about like what (she) want(s). It is never about, "I need you to do", or "I wish you would" or anything like that. She is very (secondary) or you or whomever focused. That communicates very well with somebody like me (Business-1-2-1, Interview, p. 1).

<u>Trust</u>

Two secondary interviewees provided insight on trust that exists in the relationship with the primary.

> On State Representative-1: A lot of the things that he and I discuss, I would say, both of us hold in confidence and again that is a way to build a relationship. You know, I am telling things to him off the record and he may be telling stuff to me because we know we may be working toward something at this point

> shouldn't be public and I know just from working with him that it's something I can do with him and he can do with me and I think it is another aspect in this trust (State Representative-1-2-1, Interview, p. 1).

> Researcher: I am sensing there is a lot of, I think it is evident although you did not quite use the word, trust.
> On Business-2: That is exactly the word I would have jumped to that says there was trust that if I work with her I know that I don't have to get into the details of whatever it is she's assigned because I know she's got it handled (Business-2-2-1, Interview, p. 1).

Personal Information Sharing

Secondaries knowledge of personal information about the primary spanned the gamut from little or no knowledge to a close personal friendship.

> On Not-for-Profit-1: Not personal, no. Well, when her mother was ill, if I would stop in, I'd make a point to look in the door and say, "how's your mom doing?" But as far as when she got married, I met her husband once at a function prior to their marriage and was told he was a law enforcement officer of some sort. But as far as knowing her at a personal level, I really don't (Not-for-Profit-1-2-1, Interview, p. 1).

> On Business-2: There is clearly a social kind of non-work aspect of it. I wouldn't say that it was primarily a social relationship.
> Researcher: You talked about the personal information or the personal aspect of it, what type of information sharing from the personal aspect did you get into? I am looking at nominal where you kind of know high level where you just know names of the family or did you get into sharing more?
> On Business-2: Some of the things go there, I think. It is something that I would tell you from me I'm just very cognizant of when I run any kind of a large project is that people have personal lives. So it just becomes kind of a natural part of conversation at some point in time that I am always working to be respectful of that fact that we have things to get done for business but I am also respectful of people's personal time. So it just kind of comes out when you're like, "oh gosh you guys, we got to be on a call at 5:00 on Saturday. I know that is a bit of an imposition. How is everybody doing with that?" "I got to be at a soccer game for my son and then it just automatically kind of leads to the conversations that tell me about your family. Then you just over time kind of check in and say, "How's everybody doing?" (Business-2-2-1, Interview, p. 1).

> On University President-2: Her husband was one of my students in junior high school. So, it turned out that there was kind of a more personal connection there when she met him and got married. I think that helped because he has family here. On a couple of occasions they would come back to visit family so we

> might get together for lunch or my wife and I might go out to dinner with the two of them. (University President-2-2-1, Interview, p. 1).

One comment provided insight as to how that has had an influence on them from a professional sense.

> On Business-1: I know about issues that are happening in her life. She is a very different leader in that respect that she leads in a way that is what is important to her and you know that from the very beginning. You know all about her son and what he is going through, you know everything because she is really hard on your sleeves type of leader and I think that is what people are drawn to (Business-1-2-1, Interview, p. 1).

> On Business-1: There is something about a young leader, young woman in arguably one of the most powerful positions in our community and her strength in that position and her way in that position proves to other leaders like me that you don't have to be "businessman like" but you can talk about your family and continue to lead successfully an organization and she is such an incredible leader in our community and an inspiration for so many people and she continues to be (Business-1-2-1, Interview, p. 2).

Conclusion

The study reviewed how social/work networks of twelve individuals were created, expanded, and managed. These individuals were not new to management, but all were new to their current role/assignment having assumed their present leadership position within the past one to three years. The twelve individuals represented many sectors within employment arena – Not for profit organizations, government, education, religious, and business. The research subjects were mostly split evenly by gender, almost all assumed the position from outside (not directly promoted to fill a position vacated by their prior direct manager), and most individuals had to relocate to their new position.

The study first focused on how a primary (research subject) added new individuals to their network. Four phases seemed to emerge – identification, preparation, decision to add and establishing a common bond. Identification and preparation, when applicable, varied considerably by individual. One person essentially waited for people to come him whereas others followed a relative methodical process that identified key stakeholders. In all cases, the primary had to decide to add the person to the network and, to some degree, had to ascertain the immediate importance to the network. Addition to the network is not automatic as some primary's outlined they needed to guard the reputation of the organization. Finally, finding common ground provided the foundation to establish the relationship. At times, common ground was identified through the sharing of personal information and trust.

Once an individual was added to a network, contacts were maintained through a variety of communication channels. Essentially each person had his or her own channel preference (e.g. email, phone), but would adapt the choice of communication channel to the situation. Frequency of communication and method of maintaining contact information also varied by individual.

Data outlined two key benefits of networks – accessibility to others, which is the ability to leverage ones network to get to a person that they could not access otherwise, and the compounding effect, where the contacts from others networks become accessible or even added into the primary's network.

Secondaries or individuals within a primary's network were interviewed to obtain the perspective of the other person – someone that interacts with a primary. Several secondaries provided strong witness, affirming the statements of the primary.

Chapter 5

The tongue of the wise pours out knowledge, but the mouth of fools spurts forth folly (Proverbs 15:2) (Hiesberger, 1995)

Interpretation and Conclusions: Overview

Socialization is a key component in the sharing or relay of tacit knowledge (Busch et al., 2003; Haldin-Herrgard, 2000; Hauschild et al., 2003; Leonard & Sensiper, 1998) because it serves to expand one's network of resources (Seufert et al., 1999) and is a source of justification of an individual's beliefs (von Krogh et al, 2000). Because a strong correlation exists between practical intelligence and job performance and even between practical intelligence and adjustment to a new environment, and because tacit knowledge comprises a substantial portion of practical intelligence (Sternberg et al., 2000), social networks have a strong connection to job performance.

The purpose and scope of this research is to understand one component of socialization - the construction of social networks by high performers within an organization. High performers from a variety of organizations that represent society were interviewed to understand how they bring new people into their network and how they maintain that relationship once someone is added. In addition to understanding this phenomenon, the study also provided insight on the primaries' perception on the value of relationships and some of the benefits of relationships.

The study was conducted via semi-structured interview questions (Morse, 1994). Interview questions, which are created to answer the primary and supporting research questions, were divided by category. "Initiation" questions sought to understand how new contacts are made and how the network expands. “Maintenance” questions sought to understand how existing contacts are maintained or kept current within the network.

Initiation

1. How are new individuals identified and added to your work social network?
2. Do you specifically target individuals as ‘someone you need to know’?
3. How much do you believe that your position contributes to accessibility to others? (respect for positional authority as opposed to individual influence)
4. Do you tend to be introduced or do you initiate the initial interaction?
5. When you initiate the interaction, do you tend to reference the third party that said to call them?
6. How do you attempt to build the initial relationship?

Maintenance

1. Once you have added someone to your work social network, what is your primary communication channel (in person, telephone, email, other)?
2. What do you do to maintain the relationship including frequency of communication?
3. Do you share personal information with each other?
4. If yes, to what level of detail – nominal (e.g. knowing the other person’s family structure), moderate (e.g. knowing family structure and recent events such as vacation destinations), or considerable (e.g. family structure, recent events, and shared non-work events such as dinners or golfing)?
5. Do you see a connection on the level of trust you place in a person with the strength of your relationship with the person?

In this chapter, I provide a summary and implications for each of the five sections; Importance of Relationships in Leadership Positions, Initiation: Network Expansion, Network Maintenance, the Benefits of Networks, and Network Voices: Secondary Interviews.

Summary and Implications for the Importance of Relationships in Leadership Positions

Summary – Relationship Importance

The need for and importance of relationships as outlined in the literature has been identified in the first several chapters of this research and highlighted again in the overview of this chapter (Busch et al., 2003; Haldin-Herrgard, 2000; Hauschild et al., 2003; Leonard & Sensiper, 1998; Seufert et al., 1999; von Krogh et al, 2000; and Sternberg et al., 2000). From the research itself, the importance of relationships emerged as a theme from several of the primaries, even though a specific question on their perception of the importance was not asked. Some primaries offered it as 'advice' either before or at the end of the interview or the topic emerged in the course of their response to another question.

The importance of relationships surfaced different purposes. For one person (University President 2), the need to have solid relationships provided the foundation upon which she would build her change. She had planned to assume the presidency and make the sweeping changes that many expected a new person in that position to do. Another reason for the importance of relationships is the need to have a common understanding of each other before a crisis emerges (Bishop-2, Interview, p. 1). This avoids the need for potential philosophical discussions at a time when critical care desperately may need to be provided. It permits focus on the task at hand due to the prior establishment of a common understanding.

Implications – Relationship Importance

High performing individuals know how to get things done. This is in part because of the network they have built. High performers recognize the importance of the people that make up that network and that the network is dynamic. This network provides numerous benefits such as a sounding board for ideas, a flow of information, and a source for resources.

It will change over time with the addition of new people as well as the intentional or unintentional 'pruning' of limbs no longer of value. If the network does not change over time, it will have an impact on the overall effectiveness of the high performer, perhaps no longer being considered 'high', but average. The network is as much of an individual's greatest work-based asset as any other attribute, personality, trait, skillset, or knowledge.

Summary and Implications for Initiation: Network Expansion

Summary – Network Expansion

Many managers are given assets to manage – capital in the form of budgets or similar investments, assets in the form of infrastructure, or human capital in the form of people reporting to them. A person's network is an asset as well and as such it needs to be managed just like a budget, infrastructure or people are managed. While capital and infrastructure can easily be measured and monitored (return on asset, productivity, etc), human capital, which includes one's own network, is more difficult to measure and network effectiveness is quite difficult if not impossible to monitor. Nevertheless, that inability does not diminish the understood intrinsic value.

Analysis of the study data identified a common sequence of steps or phases used in the expansion of one's network. The first phase is identification of individuals who may be added to the network. The second phase, though not applicable in all circumstances and not explicitly stated by every primary, is preparation for meeting the other person. The third phase is the decision to add the person to their network. The fourth phase is establishing a common bond.

Implications – Network Expansion

To improve one's capacity and capability, each person should conduct a personal network analysis. A personal network analysis essentially entails three steps: knowing who is in ones network, identifying who is not in ones network but should be, and creating a plan to add the "missing" people. This process essentially leverages the four phases that surfaced from the research.

The first step of a personal network analysis is to inventory one's individual network: with whom do they interact on a regular basis and an irregular basis, how do they connect with that person (e.g. via phone or email), and what personal information do they know about the person. During the inventory process, one needs to evaluate their public perception of the individual, questioning if that person should still be removed from one's network or if the relationship needs to be developed further.

The second step is to identify key people within the organization or other key stakeholders that possess power, positional authority, knowledge, and other pertinent attributes. These individuals should be evaluated against one's own criteria and standards. Essentially asking, is this person someone with whom I would want to be associated? What is their level of credibility with me and with others? The list of individuals needs to be compared against the personal network list to identify where the network needs to be expanded.

Once an individual is identified as someone that needs to be added, then it is important to determine why you are a benefit to them. Turning it around, answering the question that the other person may ask, ‘Why should I add them to my network?’ In this case, preparatory work is advised to predetermine a common bond or why the other person ‘should care’.

While this undertaking will benefit everyone, it is especially important to individuals who are new to a position or organization. This will provide a roadmap of key individuals to seek out or create opportunities for interaction and it will accelerate a new person’s organizational awareness. “Getting a list (of names of key people) especially moving into a new role would have been a great idea” (Business-2, Interview, p. 2).

After initial contacts, the individual will determine if they will proceed by adding the person to their network. Obviously, adding someone to their network is not a formal process. Rather, it is normally a subconscious decision where they found the other person interesting or possessing something of present or future value. If so, they will determine in what capacity and how much time and effort to invest in the relationship.

Summary and Implications for Network Maintenance

Summary – Network Maintenance

Network maintenance focused on the logistics of the relationship contacts – the communication tool, the frequency of communications, and how contact information is maintained. Of the various communication tools or mechanisms available, which include email, phone, instant message, in-person, or United States Postal mail, no single tool stood out as prevalent. Factors for this may include the reason for the contact (Why am I contacting this person at this moment?), time availability (Do I have time available right now for a phone conversation or only enough to send an email?), prior contacts (How have I communicated with this person lately and do I need to change this time?), personal preference of the primary, or perceived future value of the relationship (Do I want to increase my investment in this relationship?), response time (How quickly do I need an answer if I am posing a question?), or the level of complexity of the material to be discussed. All together, these factors may influence which communication tool is chosen on a particular situation. As well, some communication mediums may not be prevalent in various settings due to limitations or restrictions on communication mechanisms (e.g. instant message capability may not be provided at one's place of employment or accessibility may be limited to internal communications). Nevertheless, phone and email were cited as a preferred communication method more often than mail, in-person, or instant message.

Contact frequency data also yielded no prevalent timeframe in which to contact people within the network. Several indicated a desire to improve in this area. Often the reason for the recontact was event-based where something happened that prompted a contact. However, a few indicated they will actively manage the network by reaching out to people for no particular event-based reason.

Contact information management varied considerably. Primaries have evolved into a system that worked for them. A few primaries use from business cards, writing notes on the back to remind themselves in the future around the circumstances of the meeting. The most structured primary kept a database and noted key events or points from conversations for future reference.

Implications – Network Maintenance

In some ways I was surprised by the manner that the primaries maintain their relationships and in other ways I was not as I consider how I presently manage my own network. Maintaining a relationship is an investment in time and, as some said, it does take time. This investment comes in the form of time. Time to add and cultivate new relationships or network nodes and time to maintain the relationships once forged (which will be reviewed in a following section). “Social networks are built with time. Social networks are built with periodic interactions and subsequent interactions over time” (University President-1, Interview, p. 2). A relationship cannot be built in a single meeting.

Unfortunately, time is not something that people have an abundance of, regardless of employment sector. Building a relationship involves interaction. For example, I can sit beside someone for two hours and not know a thing about them. However, if I sit and talk with someone for two hours, I will probably know a lot about them and they would know about me, which is the basis of a relationship. Interaction occurs through communication. The data suggests one method of communication is no more prevalent than another. Bishop-2 prefers phone conversations, Business-2 feels email is ineffective, and Not-for-Profit-1 prefers email. Each person has a communication method that is most convenient and comfortable for him or her. On-going, in-person meetings were rarely referenced in the data except for scheduled common events (e.g. banquets). I believe this is due to two factors – time and geography. In-person meetings not only incur the time of the meeting, but also the time of travel to a location. Geography can also deter in-person meetings if the meeting will require significant travel beyond a short drive (e.g. when one person works in New York and the other in Chicago). All combined, in-person requires a significant investment of time. With societal focus on efficiency and short term results, the long term benefits of in-person meetings are ignored or downplayed.

From a contact management perspective, each person had evolved to a mechanism that works for him or her. From my perspective, some methods/tools were very archaic. Ideally, a computer-based tool could track and notify the individual of the need for a contact. The computer software would store all pertinent information on a network contact (e.g. name, address, email address, home phone, work phone, cell phone, birthday, and other key dates) and have a section where a contact can be logged (e.g. phone/IM/email, date, key points of a conversation). When a contact is entered into the tool, the person would need to assess and enter the value of the relationship. This value would then determine the frequency in which communication is made with the contact. The software would inform the user of relationship that is being neglected and needs attention. The software would need to be simple and interact with existing tools (e.g. Microsoft Outlook). Otherwise, it is yet another task that an already-too-busy executive must do and it won’t be done. I am not personally aware of any software that exists that provides the functionality that I mentioned. Microsoft Outlook’s contact list can provide some of the facets, but not all. It does not easily allow for a relationship value field and similar custom fields and it will not proactively notify of a need for a relationship contact.

Summary and Implications for the Benefits of Networks

Summary – Network Benefits

Personal opinions only become knowledge or a justified belief after being shared. Constructive and helpful relationships speed up the communication process, enabling individuals to share their personal knowledge and to discuss their ideas and concerns freely (von Krogh, 1998). During the course of the interviews, two benefits surfaced from their network – a compounding effect and accessibility to others. As a new person is added to someone’s network, the addition not only brings the wealth of information that the particular individual has, but also opens access to all the contacts within that person’s network. For example, if I have 10 people in my network and each person has 10 people in their network, I have direct or indirect access to 110 people. Assuming this 1:10 ratio is constant, I add another 11 people to my network when I add one new person. Similarly, when I allow one relationship to sever, I lose access to each person in that relationship’s network.

While the primaries predominantly felt their position provided access to people, I believe nearly everyone is accessible to someone through leveraging the combined networks.

Implications – Network Benefits

The compounding effect of a relationship's network further underscores the importance of the relationship itself. At times, I have personally contacted someone in my network and started the conversations with "I know you probably don't know the answer to x, y, or z, but I know you probably know who does or can at least push me in the right direction." As such, at some point a component of the relationship needs to include who the other person knows. This resource awareness will only become known through an investment of time with the other person.

Summary and Implications for Network Voices: Secondary Interviews

Summary – Network Voices

Each primary was asked to provide two names of individuals in their network for the researcher to obtain their perspective of the relationship. Although these interviews were short, several themes emerged from the data. These themes are Primary Character Traits, Shows Interest, Trust, and Personal Information Sharing. Secondary interviewees identified character traits about the primary that they found favorable. Examples of favorable traits include humility, friendly, giving, and competent. Secondaries also expressed appreciation that the primary made them feel valued. Trust was briefly discussed and the amount of personal information shared varied significantly from virtually none to everything.

Implications – Network Voices

The secondary interviews provide two interpersonal implications – character matters and sincere feelings of value. At times, the American public has been lead to believe that character does not matter and should not be a consideration. While this context commonly is used in the political arena, the secondary interviewees have clearly stated that character is still a factor and does matter. The study has focused mainly within the perspective of a person adding relationships to their network. The secondary interviewees are reminder that while a primary is attempting to add new people to their network, the primary is also being evaluated by the secondary. From the vantage of the secondary, they are the primary and are also deciding if this is a person (the primary in the study) that they want to add to their network. While the primary may want to add the secondary, the secondary could decide not to nourish the relationship. One determinant in that decision is character.

A relationship has to be dyadic if it is to prosper and survive. People can sense when they are being taken advantage of or used. High performers realize that these resources are not capital nor a piece of machinery. These assets or resources are people, each one of whom has value intrinsically as a person foremost. Capital assets can be written off the books. Machinery can be depreciated and discarded. If a person treats a contact as a mere asset, one that can be written off, discarded, or only called upon when they need something, the relationship contact will see the other's perceived value of relationship as being used. When that happens, the relationship person will leave or devalue the relationship. In doing so, they may mention the other's actions to people in their network who may further share. This reverse compounding effect could damage the character of the high performer and their capability.

Opportunities for Future Studies

Because this research is but one stone of the mountain of potential research on knowledge transfer, I see the following as opportunities for additional research.

- How relationships are created and maintained when workers are geographically disperse?
- What is the knowledge transfer value of business travel and investment value of the expenses of travel for face-to-face meetings with peers/others?
- How does additional technology (e.g. webcams) enhance relationship building and/or knowledge transfer with telecommuters?
- Do telecommuters who are in the office several days a week have stronger relationships than those who never/seldom work in the office?

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