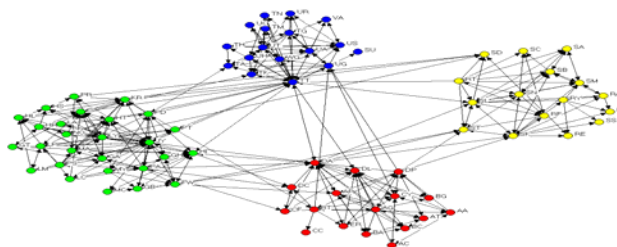


# Driving Strategic Change with a Network Perspective

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## **Abstract**

Companies increasingly undertake strategic change efforts that consume significant resources, time, and energy but often yield suboptimal outcomes. A major reason is that virtually all such change initiatives require employees to work together in new ways, but most improvement methodologies available to managers fail to anticipate common breakdowns in collaboration. In this article, we use a series of cases to show how thoughtfully working through networks in organizations can help executives (1) facilitate change by working through those in influential network positions; (2) design and model interventions with a targeted network effect; (3) track the impact of a transformation over time; and (4) drive grassroots change through improved personal network connectivity.

## Driving Strategic Change with a Network Perspective

It's hard to find an organization today that's not engaged in some sort of transformation initiative to boost performance. Yet while change programs are ubiquitous, so are the problems that lessen their impact or derail them entirely. Mergers and acquisitions often do not meet financial objectives, largely due to collaborative breakdowns in organizations despite seemingly aligned strategic goals, incentives, formal structure, and technologies. The astonishingly high failure rate-- 70%--of business process reengineering efforts can be attributed in large part to ineffective collaboration around the redesigned processes.<sup>1</sup> Cultural change efforts frequently achieve less-than-hoped-for outcomes because managers have no way to identify the employees who could champion such efforts: those who are well-connected in the organization *and* have the right mind-sets and beliefs to affect change among their colleagues. Finally, global and matrix-based structures – though logical in design – frequently generate relational-overload that grinds decision-making and execution to a halt.

The common element amongst these failures is managers' inability to identify and correct key collaborative breakdowns in employee networks. To improve the success rates of these efforts, managers need to understand and work through the seemingly invisible webs of relationships that are increasingly central to organizational and individual performance. Unfortunately, little in managers' tool kits helps them identify critical network-based drivers of performance. For example, the boxes and lines of a formal organization chart that make a reorganization seem like a good idea can mask the many relationships that dictate how work gets done--sometimes in spite of formal

reporting relationships. Process mapping may yield a linear view of how value is added at various points in a process, but such a view is increasingly irrelevant in non-routine, complex work that requires the integration of various kinds of expertise. The result of taking only a process-based view of work can be a restructuring that dramatically disrupts networks and, ultimately, organizational performance.

In short, without a network perspective, transformation efforts often bump up against rather than work through highly influential webs of relationships. Organizational network analysis (ONA)<sup>ii</sup> allows managers to visualize and understand the relationships that can either facilitate or impede change efforts. Through a series of case examples, this article will demonstrate how managers can help change programs succeed by

- working through employees in influential network positions to drive more effective and efficient change
- designing change processes to target points in a network where relationships need to be expanded and where they need to be reduced
- assessing post-intervention effectiveness to allow for continued adaptation and improvement in the restructured environment
- driving grassroots change through individual employees' network development

### **Working Through Employees in Influential Network Positions**

Think about the people who influence you at work. Are they peers with whom you interact on a day-to-day basis or superiors you often do not see for days, weeks, and sometimes months? The answer is both. We can never ignore the fact that our boss maintains some degree of control over our destiny. However, it is also clear that

accessible and valued peers have a considerable effect on our beliefs, attitudes, and behaviors. Network analysis allows us to figure out who these people are.

Why do we need to know? Because highly connected members of a group – those who support the most collaboration overall – can have a substantial impact on a transformation effort. First, these people often unintentionally become bottlenecks in a restructured environment, as longtime colleagues continue to come to them for information along with new colleagues thrust upon them through a restructuring. These highly skilled and effective—but overloaded—people introduce substantial inefficiencies if plans are not put in place to reduce their time spent in collaborations good for past purposes. Second, these central players create a susceptibility because losing them would dramatically decrease a group’s productivity. Targeting central people for special treatment or retention bonuses can help ensure a smooth transition to the post-change environment. Finally, employees may have become highly connected because their expertise was crucial to the organization. If the company undertakes a restructuring to leverage different kinds of expertise, the central people may need to be positioned differently through rotations or other staffing practices to allow previously peripheral members to assume key decision-making and execution roles.

Consider a leading provider of outsourcing and information technology consulting services that ended 2005 with approximately \$1 billion in revenues and 10,000 employees spread across more than 70 offices globally. Late that year, the company launched a strategic transformation initiative to move from a branch- and region-centric structure to a matrix organization with globally integrated business lines (BLs) and vertical practices working in conjunction with a regionally based sales organization. The

expectation was that this restructuring would focus the company on clients as well as increase flexibility and scalability, eliminate redundancy and excess costs, accelerate growth and profitability, and improve career opportunities. Management also had an aggressive timeline for the transformation, expecting the majority of changes to be completed by mid-2006 and all of them to be fully operational by the end of 2006.

The senior vice president of human resources sponsored an organizational network analysis to get a baseline of the organization's capability to work across boundaries and provide a guide for the change process. The analysis uncovered four key opportunities:

- **Hierarchical information flow.** (See Exhibit 1.) The ONA revealed that employees relied heavily on senior people: The people most central in the network were all VPs, group VPs, and directors. Those farther down in the hierarchy – who had key relationships with clients and critical expertise – tended to be on the outer rings of the network. Many of these peripheral people were both underutilized and represented flight risks--those stuck on the outer fringes of a network are four times more likely to leave than those in more central positions.
- **Silos by geography and function.** As expected, most collaborations tended to be first within a region and then within a business unit. A select set of these silos became a focal point for the restructuring; the goal was to ensure that employees transcended organizational boundaries in cross-selling and delivering holistic solutions that could differentiate the organization in the marketplace.
- **Low awareness of colleagues' expertise.** The ONA made it clear that people were not aware of skills and expertise across the network. Raising awareness at

key points was a critical precursor to increasing revenue, improving solutions, and boosting productivity.

- **Suboptimal best practice transfer and client collaborations.** Although the network analysis revealed significant time savings occurring from best practice transfer within regions, there was room for improvement. A targeted focus on collaboration (at the right intersections) was anticipated to drive economic return in the network.

### **Editor's Note: Insert Exhibit 1 About Here**

While the company implemented various efforts after the network analysis, special attention was paid to the overly central members. The ten most central people – all but one of whom was a VP or director – had between 24 and 51 people coming to them regularly for information to do their work. In addition, many employees said they could not get timely information, resources, or decisions from the central people. Through no fault of their own and despite working to their limits, these leaders had in various ways become bottlenecks – delaying decisions and being unavailable to collaborate on projects and sales efforts. They also represented points of susceptibility in the network: Removing just these ten people (roughly five percent of the group) decreased the number of relationships in the network by 26%.

Clearly, the organization needed to correct this vulnerability by reallocating information access and decision rights as well as delegating responsibilities and portions of roles. The importance of delegation is a managerial truism; the advantage of a network perspective is that it lets managers focus on both overloaded people and those who could assume more responsibility. This company took several steps to balance connectivity.

First, the organization implemented an expertise locator to help people find resources across the organization (instead of elevating informational requests up the hierarchy, this technology helped push some of those requests to lower levels). Second, management redefined dollar thresholds so that pricing decisions and deal closings could also happen at lower levels of the organization. For instance, a team one level below the VPs was given decision rights regarding solutions and pricing. Third, to facilitate the transition to a matrix structure, a variety of educational sessions were held on topics such as BL service offerings, delivery experience for service offerings, and rules of engagement between regions and BLs. Fourth, global solution teams were set up so that subject matter experts were not tied to one region but instead crossed regional boundaries. Finally, a heavy emphasis was placed on developing a culture of responsiveness and increasing information flow down and across the hierarchy by encouraging people to return calls and e-mails within 24 hours regardless of the seeker's title or position.

In addition to alleviating some of the relational demands on those at higher levels, heavy emphasis was placed on driving change through the central connectors. For example, as the leader of Application Services, one of the largest global groups, Peggy Smith was highly central (see Exhibit 2). After reviewing this group's network diagrams, she saw significant fragmentation across regions. People tended to collaborate heavily within their own region but not with other regions. Peggy determined that one way to build connectivity was for her and her direct reports to forge relationships with the central people in other regions. These targeted connections quickly increased awareness of who knew what much more effectively than simply creating committees among those in certain positions in the formal structure.

### **Editors Note: Insert Exhibit 2 About Here**

A second ONA assessment six months later showed clear improvements. First, collaboration and connectivity in the network were much more evenly distributed and network members were able to get answers from highly central people much more rapidly. In addition, the group as a whole was getting greater leverage from its peripheral members, many of whom played client-facing roles. The second ONA revealed a 17% increase in the ties to and from the periphery, which had a very positive impact on client service and account penetration. Second, the network was much more integrated across functions and regions, an improvement crucial to the success of the new matrix structure. The ratio of employee ties (to all possible ties) that were external to their functions increased by 13%, resulting in numerous examples of improved client service, revenue growth, and best practice transfer at these key junctures.

ONA accelerated the consulting company's transformation from a branch-centric to a global operation. One highly central VP indicated that "the ONA was helpful in realizing why we lack nimbleness and, thus, quick turnaround times for RFPs or unsolicited proposals. Creating points of contact and information conduits across business lines and regions will help us assemble teams more efficiently with needed skills, knowledge, and experience, enabling faster time to market." The second network analysis supported this executive's observation by revealing a substantial increase in revenue-producing collaborations. Overall, results revealed a 27% increase in sales collaborations of up to \$500,000; 15% for sales between \$500,000 and \$2 million; and 9% for client sales between \$2 million and \$10 million.

In addition to the people who support many collaborations, another key network player – the broker – is critical to consider in transformation efforts. Although brokers do not have the most connections, they maintain a large number of relationships that bridge subgroups in a network. As a result of these bridging ties, brokers can efficiently diffuse information through the network. Because they have ground-level credibility with people from disparate functions, locations, and occupations, they also tend to have the best perspective on what aspects of a redesign will work across various subgroups. In short, these are the people leaders need on design and implementation teams or as champions for a change effort.

**Editor's Note:**

**[Brokers and Central Connectors Insert About Here]**

Consider how the Defense Intelligence Agency leveraged brokers to implement a change program. With over 7,500 military and civilian employees worldwide, this agency is a major producer and manager of foreign military intelligence to inform combat troops, defense policymakers, and force planners and to support U.S. military planning, operations, and weapon systems acquisition. A typical project involves intra-agency or inter-agency collaboration, sometimes on a large scale, in an attempt to include all relevant sources of knowledge in a problem-solving effort. In response to Iraq's invasion of Kuwait in August 1990, for example, the agency set up a 24-hour crisis management cell designed to tailor national-level intelligence to the coalition forces assembled to expel Iraq from Kuwait. By the time Operation Desert Storm commenced, in January 1991, some 2,000 agency personnel were involved in the intelligence support effort and more than 100 employees had been sent to Kuwait.

Given the importance of effective collaboration to this agency, in 2004 leadership set out to create a cross-directorate (i.e., function) network that could break through traditional silos such as intelligence collectors and intelligence analysts and become a model of collaboration organization-wide. At this group's inception, a network analysis revealed that although the overall information network was somewhat connected, some members (generally those who had been around the longest) were overly central, while many newcomers were stuck on the periphery. The network was also fragmented by both directorate and physical location.

Though the agency took a variety of actions in response to these findings, one low-effort, high-impact initiative was leveraging the network's brokers to integrate peripheral experts and bridge key points of fragmentation. Specifically, mentoring relationships were established between brokers and peripheral people (see Exhibit 3)—a simple effort that increased connectivity by 20% for the peripheral people while dramatically reducing the number of steps between members in the entire network.

**[Editor's Note: Insert Exhibit 3 Here]**

Specifically, in the fall of 2005 the agency established a structured mentoring program and first-meeting protocol to help each broker/peripheral pair connect in ways that had value for both. One mentee in this program – which was called Smart Mentoring because it leveraged knowledge throughout the network to help build high-impact relationships – was Susan, who had recently started working in the agency's Human Capital department. As a new employee, it was critical for her to establish relationships with employees across directorates as quickly as possible. However, the results from the first ONA indicated that only three people went to her for information frequently. With

this wake-up call, Susan began to cultivate her network in very targeted ways by connecting with brokers and central people in network sub-pockets throughout the agency. A second ONA conducted nine months later showed that 19 people sought her frequently for information. Perhaps more important, 15 of those people were outside Human Capital, spread across functional groups.

Another mentee, Joan, had been at the agency for a year but had an inadequate understanding of how things worked. Mary, Joan's mentor, was able to provide her with some context about the organizational structure, a sense of how everyone's job fit in, and some of the tacit cultural norms. Over time, this mentoring relationship helped Joan see how to execute her role most effectively in the context of the agency's mission as well as how best to navigate the power structure and informal networks. The relationship was also important for Mary, giving her a morale boost as she passed on her experience.

The benefits of this fairly simple intervention accumulated powerfully in the network. An assessment conducted one year later revealed a significant improvement in information flow (a 14% increase in helpful relationships). Although the peripheral people's networks grew, most interesting was that the number of people tapping these newcomers' expertise tripled, an increase due in no small part to the legitimation and introductions they received from their well-placed mentors. The ONA also revealed a significant improvement in cultural perceptions. In particular, network members felt far more energized in collaborations with colleagues; there was an 18% improvement in a culture assessment indicating both employees and leaders felt the organization was becoming more decentralized and flexible; the "gap" between the perceived and desired

work environment had shrunk substantially; and there were 235 new collaborative relationships.

This example shows the effectiveness of working through well-placed network members. Brokers are often not recognized, because they tend to live in the “white space” of an organization. But once identified through a network analysis, they can be leveraged to great effect. Leaders can dramatically influence change programs or other interventions, such as technology implementations, by working through brokers more effectively. For example, companies we work with often conduct network assessments prior to technology implementations to test the effectiveness and business impact of a new technology. In this process, they can use the network results to identify brokers and then train them as lead users and ambassadors of a new technology, dramatically increasing both the speed with which the tool is adopted and its overall use. Picking as lead users those who are truly influential in the network – not just those who are technically inclined, friends of the project sponsor, or occupying a formal role – has a dramatic influence on the adoption of a new technology.

### **Designing and Modeling Change Processes with a Targeted Network Effect**

Network analysis is also a powerful tool for pinpointing intervention efforts that build needed connectivity. Rather than engage in efforts that promote collaboration indiscriminately, identifying a group’s strategic goals and then systematically rolling these goals into collaborative requirements and the networks that need to be in place enables more effective change efforts. Consider one of the world’s largest engineering consultancies, which in 2003 realized more than \$975 million in revenue and employed

more than 6,000 specialists in 36 countries. The firm managed hundreds of projects each year, providing services to a wide array of institutions, including municipalities, government agencies, multinational companies, industrial concerns, and military organizations worldwide. Yet although its projects spanned the globe, the firm did not operate as a global enterprise, in large part because it had grown through numerous acquisitions and had not yet established consistent processes.

In their efforts to establish truly global operations, the firm's leaders decided to start with the IT function. What had been a geographically organized unit with staff in six fairly autonomous business centers in the United States, Europe, and Asia was to become a functionally organized global department—called iNet--that had to deliver outstanding service to internal and external customers—at much lower cost. The key to the success of iNet, which comprised 185 people in 27 offices in 11 countries, would be collaboration. Unfortunately, a lot of the people who would now be expected to work together seamlessly had never even exchanged e-mails, let alone met in person.

Indeed, a snapshot of the iNet network in 2003 revealed a sparse and fragmented information network. Those with similar expertise were not well connected outside of their geography, which resulted in solutions being recreated and proliferating in an inefficient fashion. Not only were people working in a fragmented fashion, but information sharing was also constrained by hierarchy and limited, especially at the lower levels of the organization. iNet was also overly insular, relying on relatively few connections to external experts. As to be expected, people's awareness of their far-flung colleagues' expertise – an important determinant of information seeking when new

projects come along – was very low. The initial analysis also identified that the network connections were clustered around several people who had become bottlenecks.

By tracking ONA results over several years, the iNet organization has been able to implement targeted interventions focused on improving connectivity and breaking down regional silos at points that were critical to strategic goals. Some change occurred simply by creating the new formal organization. However, several initiatives were directed at the specific challenges uncovered in the ONA: extensive communication efforts through regular and frequent newsletters, staff meetings, and team-building activities; creation of knowledge bases in primary expertise areas; creation of IT knowledge communities to encourage collaboration and knowledge sharing—focused on creating global best practices and lessons learned; development of cross-functional project management teams around key initiatives; and an increased travel budget to facilitate more face-to-face meetings.

Three significant improvements in collaboration materialized as a result of these and other efforts. First, collaboration rose dramatically across all expertise groups and locations. Overall, silos within each region began to disappear, indicating a more seamless flow of information. Second, the network results indicated a dramatic improvement in employees knowing whom to turn to for what, both inside and outside of their expertise areas. Improvement in this network dimension was particularly important for new solution development and substantially improved quality and service to clients.

Third, the high concentration on a few key people became more balanced, improving overall network flexibility and reducing the vulnerability to the departures of central people. Historically, boundary spanners (those who serve as critical connectors

between diverse information sources) were found only among the higher-level directors. However, by 2005 supervisor/team leaders and business unit leaders were also serving as boundary spanners between regions – important network connections yielding substantial efficiencies in best practice transfer as well as freeing up leaders’ time, which enabled them to develop services and solutions for the line practice.

**Editor’s Note: Insert Exhibit 4A and 4B about here**

By 2005, ONA results demonstrated that iNet had become a truly global department. In an annual survey, 43% of employees stated, “I feel that iNet communication is effective and adequate,” a 19% increase from the previous year alone (network assessments were conducted annually to monitor progress). The network results indicated that silos were breaking down from region to region in ways that had important business impact. For example, the organization’s 2005 ONA measured value by time saved through collaboration and showed substantial economic value created within and between prior silos. Over the course of a year, the top eight people alone provided value of a little over \$1 million to others across regions through their collaborative efforts. Importantly, this network showed that the BU leaders, who were second in command, had also become much more transparent, accessible, and open in their communications, as seen by high values—from \$6,000 to \$44,000 per person—cascading from them to those lower in the group. In addition, the role that contributed most to collaboration with the highest value per person had now become the supervisor/team leader.

This level of detail can help managers reframe roles and responsibilities to give the right people more time and accountability for enabling specific kinds of collaborations. The CIO explains, “At the beginning, ONA provides a powerful

communication tool for how things are going in a reorganization. Now, managers in iNet are using it as a tool to actually manage and structure interventions into their operations. As we keep using this methodology, greater insights into the performance of the iNet operation will be developed and, hopefully, transferred for use into other company operations.”

In this scenario, the organization was able to target and then actively manage fragmentation in the network that would have undermined success over time. The network approach can also improve change programs where bottlenecks are likely to emerge that could hamper organizational performance. For example, a large pharmaceutical company in the middle of a merger needed to relocate 80% of the scientists in the company’s most important therapeutic areas as they consolidated 12 North American and European facilities into two locations.

The company’s senior managers conducted a traditional cost/benefit analysis to assess the impact of losing scientists who might not want to move. In this, they calculated the cost of recruiting new scientists and even considered the knowledge they might lose. Ultimately, they concluded that most of the tasks these scientists performed could be redistributed to other employees or to new hires. What they failed to anticipate were the relationships the scientists had within the company and outside it, with academics who contributed to research and development efforts. In most drug development, such external relationships are critical to innovation. For example, in just one of the therapeutic areas, 12 scientists held 60% of the relationships with outside academics. After the merger, two of those-- who happened to have the most connections to the academic community—left

the company. As a result, innovation rates per scientist were lower than they had been in either company before the merger.

### **Assessing Effectiveness of Work and Collaboration in a Redesigned Environment**

A network perspective can also help managers assess the impact of organizational changes – such as the implementation of a technology, a large-scale redesign of formal structure, or changes to the physical work environment. Consider a network assessment of one of the world’s leading manufacturers of office products and designer of work spaces and physical environments. Six years earlier, the company had created a physical space that co-located product designers, engineers, marketers, business developers, and architects. One of the objectives was to have all executives (e.g., R&D, Finance), who had been located in different sites, reside in one place. Another objective was to improve interactions with the end customer. Leaders believed that if potential customers could see, in-person, office product prototypes, innovative designs and features, and designers collaborating to make these products, they would be more likely to purchase the company’s products and services. By placing internal design teams in a common work space, management also hoped to increase collaboration and innovation.

The space (called Front Door) was designed using the principles of city planning to simulate a “village,” a place where residents (designers, architects, and other employees) and visitors (customers and external design consultants) could congregate. It was designed in an open format, with no individual offices, but instead individual spaces (or workstations) with short walls between them. Booths ran alongside the building windows to allow for discussions among two to four people, and there were conference

rooms throughout the area for larger meetings. Large walls had been erected to display work in progress and other visuals, and a café bar at one side of the space allowed employees to make their own gourmet coffees or meals while interacting with colleagues.

Yet though compelling in concept and physically very appealing, after four and a half years, the organization decided to redo the space, as it had not become the destination place or spark for innovation that had been anticipated. In short, although the company had built an ideal environment, it had not worked through the network to stimulate use of the space and to facilitate strategically important collaborations. This is a common scenario. Far too often, the people who cluster in the cubicle farm continue to cluster in the open-space environment unless efforts are made to reshape the network.

Network analysis, conducted before a second redesign was undertaken, showed that the physical space had had relatively little impact. As a result of the ONA, management made a commitment to work in a more balanced fashion through the network to ensure greater success in the new environment. Several strategic changes were made to reinvigorate this space:

- First, new criteria were used to decide which groups would reside in the space. Residents would be those working on high-end projects, with strong executive awareness and support. Residents would also possess knowledge that was deemed important to share among other internal groups; and they would be well connected in the network and so likely to yield the greatest value from sharing expertise across projects.
- Second, each person was given a permanent station in the space to ensure that it became both a showcase to clients and a place where real work was done.

Previously, only some members of a group had resided in the space, which resulted in fragmentation and poor team collaboration on several critical projects.

- Third, in addition to staffing the work space with intact teams to promote execution, the organization was focused on using the work space to better engage the approximately 600 customers who visited each year. To accomplish this, the company devised “knowledge nodes” to attract viewers and display knowledge. Each group’s knowledge node contained product displays, kiosks, videos, and Web site displays, and was updated several times a year. Sales representatives made these knowledge nodes a regular stop on their customer tours.
- A final, significant change had to do with the physical layout of the space. Early users found it difficult to collaborate because they couldn’t necessarily see one another. For example, when a person walked into the building, they encountered a large fountain that blocked their view of the layout. Large walls inhibited easy access from one area to another. Also, individuals had walls around their work spaces that prevented them from seeing others around them. The organization spent three months redesigning the space to address these challenges, including creating an entrance that allowed visibility into the entire floor area, eliminating wall barriers between groups, and placing shorter walls at each individual work space, thereby allowing easy line-of-sight with other colleagues sitting nearby.

Two ONAs were conducted, one in the fall of 2004 before the changes described earlier were implemented and one a year later after the changes had been made. The purpose of the network assessment was to measure the impact of the newly redesigned

work space on important collaborations. Exhibits 5-A and 5-B show the network structures based on the first and second survey results, respectively. The people in the diagrams are those who frequently use the space, and the arrows indicate if a person turned to another person for work-related information. The first ONA (see Exhibit 5-A) shows a fragmented and sparse network – with five employees completely isolated from the group. A close look at the arrows reveals mostly one-way communication, the bulk of which was dictated by the reporting structure as opposed to peer-to-peer collaboration among designers, engineers, and marketers. The network after the redesign (see Exhibit 5-B) reveals a much more integrated group of employees, with fewer isolated people and more two-way communication. There were also more connections both within the research group and between research and other groups. Overall connectivity from the first to the second network analysis increased by over 50% (as measured by the number of existing connections divided by the number of total possible connections in a network).

**Editor’s Note: Insert Exhibit 5-A and 5-B about here**

An important difference in the second version of the open-space environment was that the company used network results to choose well-connected people to reside there (as opposed to just picking friends or using the formal chart). For example, employees IO and IF (circled in Exhibit 5-B) moved to the space (after its latest changes) to become more connected with the rest of the research team. Both played the role of a broker in the design process: they interacted frequently with external consultants, designers, academics, and other researchers to uncover the latest thinking and current trends around an office product topic, and they communicated that information to internal teams organized around a specific product line (e.g., office, workplace, health care). The other

research members benefited from having IO and IF physically reside in the space, because it became much easier to obtain information and get questions answered. These two employees were also critical in sharing information across the research group, as depicted by their central positions in the network.

After conducting follow-up interviews, two themes emerged: First, the new space enabled impromptu meetings and connections, which were necessary for new ideas and innovation. Second, it enabled employees to gain access to company stakeholders they would not have encountered in a traditionally designed work space. Users of the open-space environment confirmed that the actions taken to improve the physical space were allowing for more frequent and spontaneous collaborations. A designer who had joined the company fairly recently said that being in the space gave her opportunities to meet key people in design, which led to the creation and implementation of new ideas. She also believed that the space had been vital not only with new product insights but also with other projects because it is much easier to gain access to a spectrum of expertise quickly in an open work environment than it is to schedule 20 separate meetings with individuals behind closed doors. In another example, an architect said that the lower walls let her see and hear people around her, which made it much easier to start impromptu work discussions. She also said, “I like the energy at the Front Door (the new workspace). I come to the office (as opposed to working from home) to be near people, so when others are not there, I notice it.”

A big benefit of Front Door is that employees working there can interact with employees outside of the immediate work area, suppliers, and customers – people whom they would not meet otherwise. A person in the research group, who was working on a

project to make the company's products as environmentally friendly as possible, needed access to people across a wide range of roles: designers, engineers, and product suppliers. He described his collaboration needs as "more breadth than depth." He revealed that he got lots of work done by connecting with people who came through the Front Door space. Twenty to thirty suppliers came through Front Door a day, and he was able to have impromptu meetings with them to get updates on things important to him, such as future product specifications. Front Door has also initiated relationships between residents and the wider organization. As one senior researcher said, "A few years ago, I had an anniversary marking my 20 years of tenure at the company. I was given a list of other employees with similar tenure. I was shocked to see I only knew 17% of the other employees who came in at the same time I did. During the last three years, I have met and built a relationship with more people throughout the company as a result of them coming through Front Door than I did in my first 20 years combined!"

Finally, most said that the knowledge nodes helped customers understand the company's products more than they helped internal groups share information with one another. The main reason for this was that information displayed at the knowledge nodes focused on finished products and features as opposed to work-in-progress research that would be of more interest internally. However, one internal benefit of the nodes was better connections between the salespeople conducting the tours and the internal designers. The research group relied on salespeople to recommend customer sites that would be appropriate for field-testing prototype products. Before the work space was redesigned, most interaction between salespeople and designers was through e-mails and phone calls, with very little, if any, face-to-face communication. As a result of Front

Door, the salespeople and designers have built stronger relationships, which help with product testing.

### **Driving Change through Personal Networks**

In addition to group-level networks, effective change initiatives can also be driven through programs targeting each employee's individual network. In our assessments, we uncover the overall network while also generating reports for each person in it. These individualized results enable employees to see their own network and connectivity on dimensions important to performance, compare themselves with relevant peer groups, and then craft action plans for adapting their connectivity for a restructured environment. Helping each employee build a vibrant network that is appropriate for a new role can have tremendous payoff in terms of both individual and organizational productivity.

A major financial services organization, for example, used personal network profiles to enhance collaboration within a key division. "We wanted to break down the silos," said the division's leader. "By analyzing their personal networks, employees purposefully establish new relationships across the organization. This helps them share information more effectively and solve complex problems." With the goal of promoting more effective collaboration, he brought employees into a half-day networking workshop in cohort groups consisting of roughly 25 participants from different hierarchical levels and departments. These workshops were staffed to create a new, informal network of employees as well as to support each employee in developing a more robust personal network. In the workshops, participants engaged in a structured activity to assess their

own networks and develop a targeted plan to build or renew relationships important for them as they helped the organization achieve its goals.

Most employees realized that they did not take the initiative to develop or maintain relationships with people with whom they did not interact regularly. Many shared information with those on their immediate project teams but did not reach out to teams in other parts of the organization – a situation that created silos and duplicated efforts throughout the network. Another pattern that emerged was that employees tended to communicate mostly with those who had similar types of expertise, be it technical or business, limiting their ability to solve problems in ways that address both business and technical concerns. These individual-level views helped employees see learning patterns and whether their networks were extending their abilities in ways that prepared them for advancement.

Personal network benchmark profiles can be used to drive performance improvement by helping members of an organization understand how they compare with peers on relationships that our research shows have a big impact on performance (e.g., bridging information ties, connectivity outside the office and company, or mentoring relationships). In one services organization, benchmark profiles for the senior members of a business unit were used to enable leaders to see the number of mentoring (and other) ties they had and how they compared with their peers. In a range of services firms, mentoring relationships are important professional development mechanisms as well as leading indicators of “followership,” or how much others want to work with a particular individual.

In this organization, several of the senior members were surprised to learn that although a number of people identified them as mentors, they were sought out significantly less frequently than their peers. For example, one senior member had five mentoring relationships, whereas the average for her peer group was 11 (at the other extreme, one senior member had as many as 24 mentoring relationships). Overall, it turned out that only five of the 13 senior people accounted for most of the mentoring relationships. The individuals, especially those with lower numbers of mentoring relationships, used the results to get feedback from their colleagues about how the senior management team could distribute responsibility for mentoring more evenly. The 13 leaders held a breakout session with their junior colleagues at a professional development off-site to understand what makes someone a good mentor and what junior members were looking for in mentors.

At higher organizational levels, network analysis can help leaders make a transition into a new role by determining precisely where they need both to increase connectivity and to let go of relationships good for past purposes. Consider Kim, VP of the business solutions and support group of the financial services organization mentioned earlier. She had been with the organization for 14 years and had worked at multiple locations in operational roles requiring her to manage large groups distributed across the United States. When we met Kim, she had just received a promotion that required her to relocate to headquarters, align with a new boss, manage through a major restructuring in the organization, and move into a leadership role requiring an entirely different network. Kim's personal network profile helped her see where she needed to make network improvements to succeed in this new role.

For example, one of Kim's biggest challenges was to find projects for her group to work on. Her employees were always looking for new challenges; if they were not part of interesting projects, they would move on and she would be forced to rebuild her team. Kim's new role, therefore, required her to build and leverage key contacts in the company to find new project opportunities.

Although she had developed a wide network of peers and external partners over the years, she now needed a very different network. The feedback Kim received from her personal network profile was eye-opening. First, she realized she had a very "closed" network. In other words, most of the people in her network knew one another, which meant that Kim couldn't necessarily rely on them for new ideas and perspectives (see Exhibit 6-A). This was particularly troubling because in her new job she needed strategic thinkers who knew about upcoming financial product lines and could help her find new projects for her staff. Second, only one person in her network was above her in the hierarchy (see Exhibit 6-B). This was a problem in her new role, because she needed visibility for her new group and "pull" from other VPs who would engage her group in key projects. Finally, the assessment revealed that one person was too dominant in her network. This person had hired her into the company, and they had worked together for over a dozen years. Not only had this relationship prevented Kim from getting to know other executives in the company, but she felt some employees may have associated her too closely with her mentor and therefore had not contacted her for new opportunities.

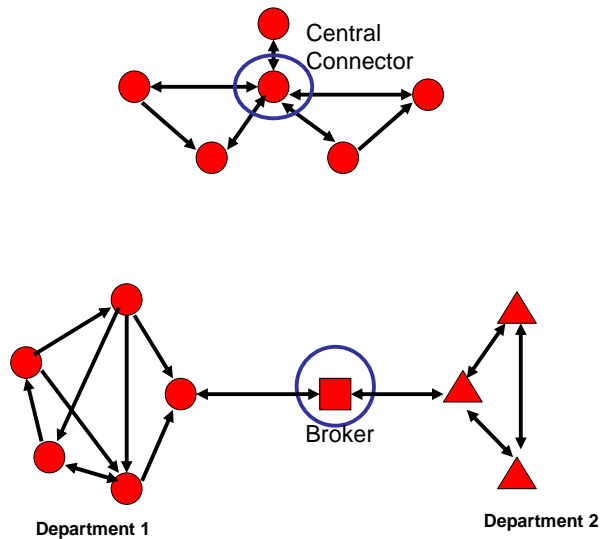
Kim took a wide range of specific actions to build out her network in very targeted ways. For example, after the network assessment she took on a major financial restatement project. Kim said, "I normally wouldn't have taken on this project. The

reason I took it was to build sponsorship within the company for me and my group. We had to prove ourselves and show that we could deliver to the top executives. It allowed me to expand my network and be close with the CFO and Controller.” Beyond individual steps like this to build out ties in a targeted fashion, she also began to attend events – both social and professional – that in the past she had disregarded as a distraction from her real work. These events allowed her to expand her network on both work and non-work topics in ways that have helped her be more successful professionally; in addition, she can tap this network if she needs personal support during stressful times.

### **Conclusion**

Managers ignore networks in change efforts at their peril. These complex structures are hidden from the view of most managers and change agents but can be highly influential in facilitating or impeding organizational change efforts. To date, most recommended change interventions start, implicitly or explicitly, with an organization’s formal structure. Taking a network perspective allows managers to shift their attention to the informal structure and recognize the significant influence of informal communication channels and opinion leaders on organizational change processes.

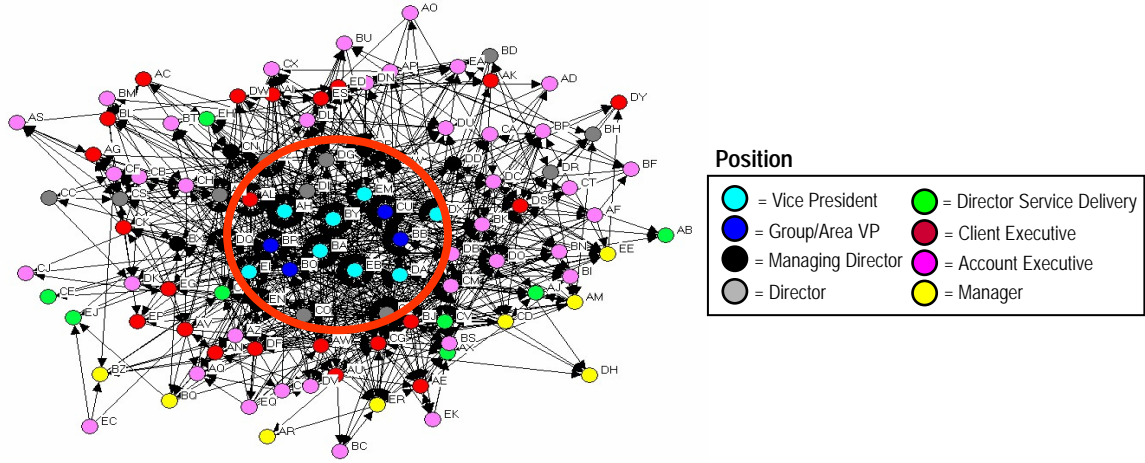
## INSERT: Brokers and Central Connectors in a Network



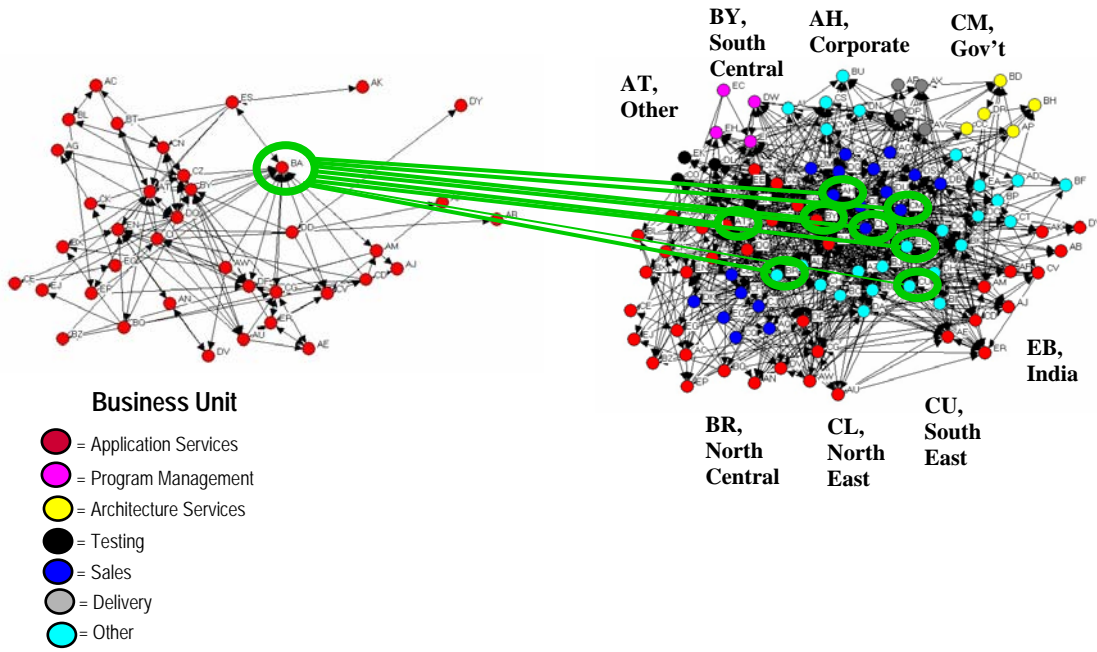
The above diagram depicts connections in a network, with the Central Connector and Broker positions highlighted. Arrows indicate the direction of information flow between employees. Central Connectors are people whom others frequently turn to for information, expertise, or decision-making help. Brokers connect subgroups in the network. Often, these subgroups are functions, departments or divisions, hierarchical levels, tenure levels, and physical locations.

# Exhibit 1

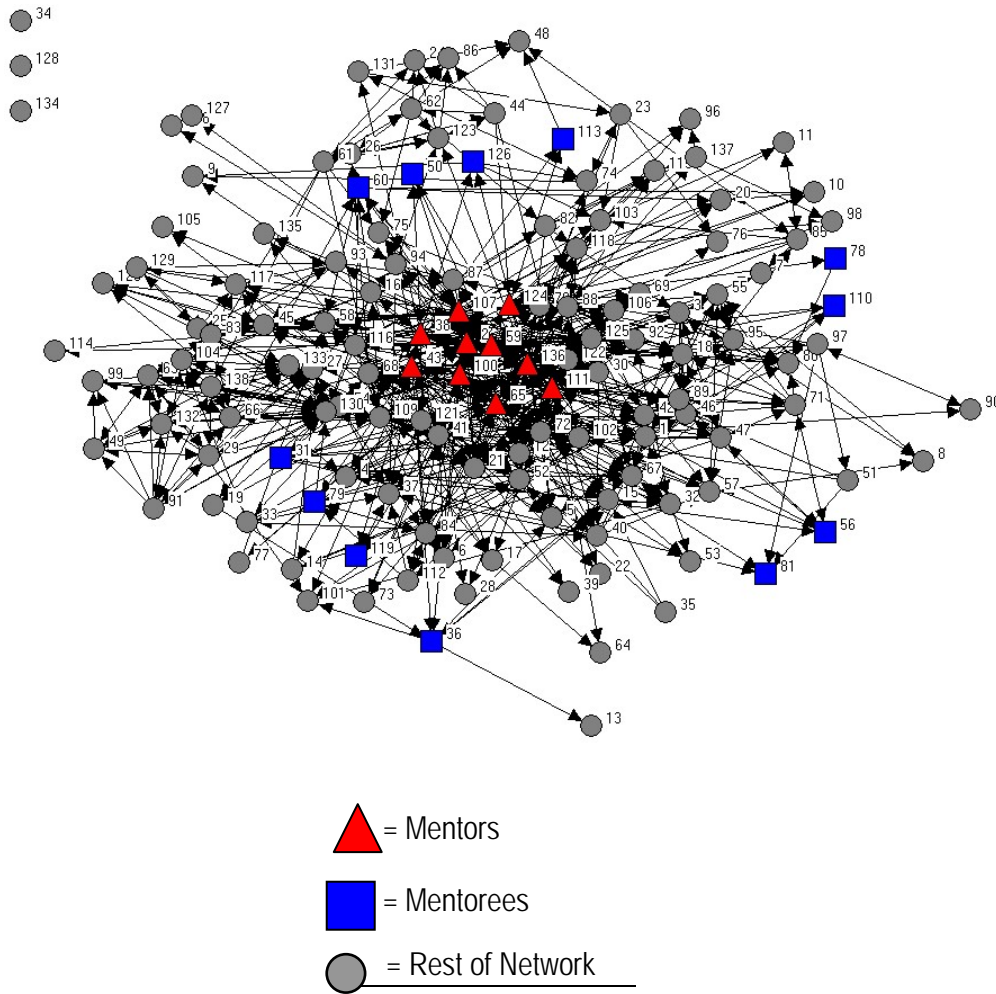
## Overly Hierarchical Network at Company A



## Exhibit 2 Facilitating a Matrix Structure Through Targeted Connectivity

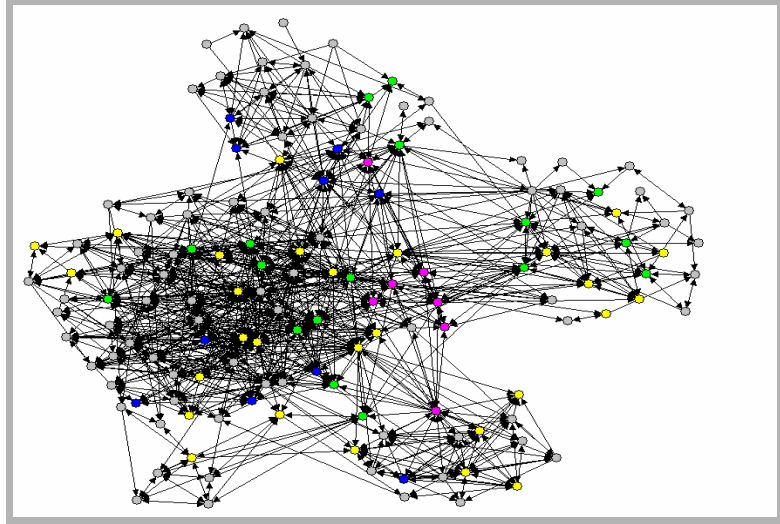


### Exhibit 3 Pre-Smart Mentoring: Connecting Brokers and Peripheral Players



**Exhibit 4-A**  
**iNet Information Network in 2003**

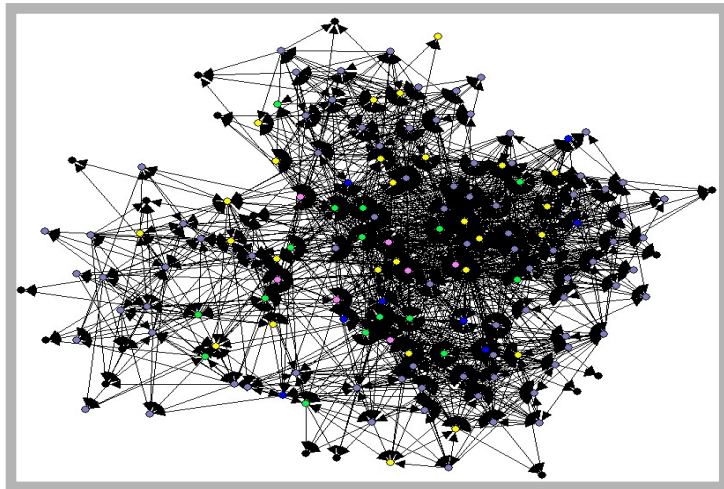
- Hierarchy**
- = Individual Contributor
  - = Supervisor/Team Leader
  - = Project Mgr/Program Mgr
  - = Manager/BU Leader
  - = Director



**Exhibit 4-B**  
**iNet Information Network in 2005**

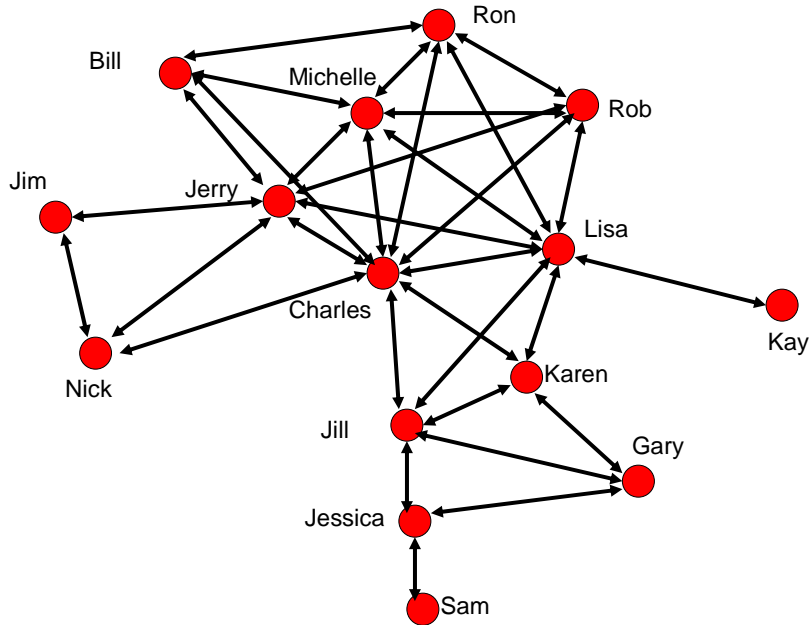
Network Measures*		
	2003	2005
<b>Density</b>	6%	8%
<b>Cohesion</b>	3.2	2.5
<b>Centrality</b>	9	13

- Hierarchy**
- = Individual Contributor
  - = Supervisor/Team Leader
  - = Project Mgr/Program Mgr
  - = Manager/BU Leader
  - = Director





**Exhibit 6-A**  
**Personal Network Diagram for Kim**



The above personal network can be considered a “closed” network. We asked Kim to list 15 people she turns to for help in her work. Then we asked her to indicate if each pair of people knew each other. As seen in the diagram, many people in her network already knew each other, potentially resulting in similar work patterns and perspectives. Therefore, it can be considered a “closed” network for Kim because it may not expose her to new perspectives.

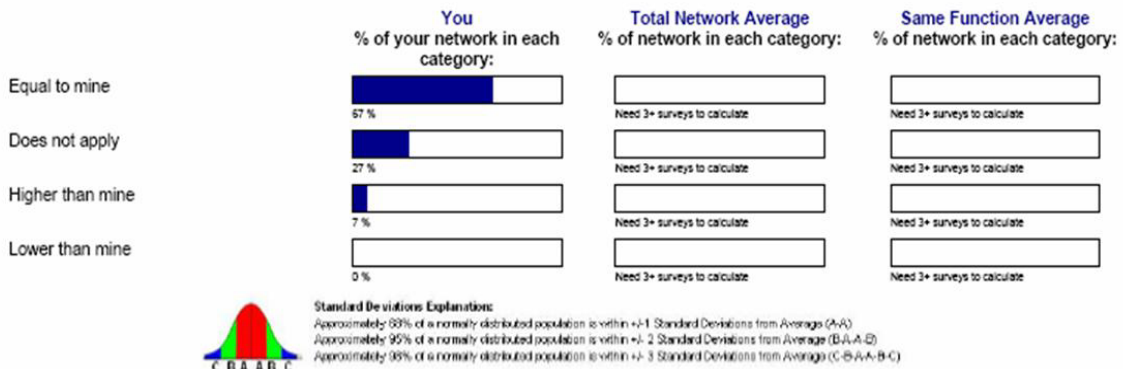
## Exhibit 6-B Personal Network Profile for Kim

### Have you built relationships with people from all hierarchical levels?

It's easy and comfortable to get information from those at the same level as you, and such relationships are crucial: these people may be doing work that is similar to yours and can help you brainstorm and provide the specific help and information you need. But connections with people from different levels is also crucial. Those above you in the hierarchy can help with making decisions, acquiring resources, developing political awareness, and explaining organizational activities that are beyond your purview. Those from lower levels are often the best sources of technical information and expertise. The key here is maintaining a balance so that you won't miss out on what people from all levels can offer.

Take a moment to check the boxes above where you might be maintaining more relationships than necessary. Similarly, place a check in those boxes where you might have too few relationships. This does not mean that you need to check all or even any of the boxes, only those where making a change to your network could be helpful to you.

**Hierarchy:** Please indicate each person's level relative to your own.



The above is a screenshot from Kim's personal network report. As can be seen, ten of the 15 people (67%) listed in her personal network were at the same level as she. Only 1 person out of 15 (7%) was at a higher level. This was a problem because she needed to gain visibility for her new group by working with VPs and executive-level managers.

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Bashein, B. J., Markus, L.M., & Riley, P. (1994). Business Process Reengineering: Preconditions for Success and How to Prevent Failures. *Information Systems Management*. 11(2), 7-13.

ii Of course, social network analysis is not new. The idea of drawing a picture (called a “sociogram”) of who is connected to whom is often credited to Dr. J.L. Moreno, an early social psychologist. Moreno’s first studies in what became the field of sociometry mapped “liking” and “disliking” relationships among 500 girls in the New York State School for Girls, among 2,000 students in a New York public school, and in other communities. Since then, network techniques have influenced a variety of scholarly pursuits. For example, management scholars and sociologists have studied both local and virtual communities as well as the relationship between interaction patterns and social phenomena such as power. Cultural anthropologists have applied network analysis to social structure, roles, and kinship systems. Communication researchers have used network analysis to assess the rate of adoption and barriers to diffusion of such things as information, medicine, and the fax machine. And social psychologists have shown how the structure of group communication affects performance.