Leveraging Human Networks to Accelerate Learning

By Maya Townsend, April 2009

To make the most of their learning initiatives, CLOs must understand the power of informal workplace networks and know how to leverage them to drive organizational change.

The executive team of a small, community-based West Coast hospital received a major wake-up call a year ago. After a string of big wins — instituting best practices, winning external recognition for clinical quality and earning significant profits — executives learned they had made a strategic misstep that threatened the very existence of the hospital.

They needed to correct the error. More importantly, they needed to figure out how the misstep occurred and learn how to prevent similar strategic errors in the future. "What they missed was that they weren't sharing information or learning together about what the business demanded," said consultant Dr. Sarah Fisk.

To help the group see why it made the strategic misstep, Fisk conducted a network analysis that showed how information flowed between executives. The resulting map confirmed what Fisk suspected: Team members were operating as individuals and refraining from collaborating on the issues that mattered. With that information in front of them, the team was able to see the hidden patterns in its interactions and change its behavior.

This story is just one example of how hidden human networks influence organizational strategy, decision making and innovation without people even being aware of them. Today, more CLOs are turning to networks to help accelerate learning and change in the organization.

Where Learning Happens

"Networks are where learning happens," said Patti Anklam, author of Net Work. Anklam explained that employees instinctively create networks of informal relationships to get things done. They learn who can solve a problem, provide expertise on a certain product line, brainstorm new ideas, fix broken processes and give excellent career advice.

For years, networks have been the open secret. People have known that the grapevine spreads gossip, conversations on the golf course help people advance and the old boys' network makes things happen. In recent years, technology forced these networks out into the open.

Social networking tools such as LinkedIn and Facebook now allow people to compile and tap into their networks consciously. While these tools can be helpful for recruiting, finding expertise and building connections on virtual teams, they're just the beginning of what networks can do for organizations.

Networks have certain qualities and attributes that benefit the CLOs who know how to access them. Networks diffuse information so quickly that people can receive messages long before they arrive through formal channels.

Network Qualities and Attributes

- Diffuse information quickly.
- Connect diverse people quickly and easily.
- Withstand stress and adapt quickly to change.
- Contain a small number of people with disproportionate influence.

Anklam tells the story about a time in which she needed to connect with someone she knew had sworn off e-mail. Uncertain about how to get in touch with him, Anklam sent a Twitter message. Within 10 minutes, she had received several suggestions on how to get in touch with the person, including one from the person himself. Her network mobilized quicker than she had anticipated to get her message to the target.

Networks connect diverse people quickly and easily. A 2005 Harvard Business Review article highlighted a story of a system administrator in the physics department at the University of Trieste who discovered a vulnerability in the Linux server that could have compromised thousands of files worldwide. He contacted his colleagues for help. They connected him to a researcher in Atlanta and developers in Australia and California. The chain of

people expanded to form a network that, in 29 hours, fixed a problem that could have lasted weeks or months.

Networks can withstand stress and adapt quickly to change. According to a Supply & Demand Chain Executive article, in 2000, a fire at a Philips Electronics plant threatened to significantly delay delivery of cell phone chips to Nokia. Faced with a potential production hit, Nokia quickly dispatched 30 employees to help Philips restore operations. This wasn't part of Nokia's plan — no one could have predicted the fire — but the company was able to mobilize staff and integrate into Philips quickly. The results were just want Nokia needed: It got its products to market while achieving sales goals for the year.

Networks contain a small number of people that have proportionately more influence over the network than others. This 5-10 percent of individuals, called critical connectors by organizational anthropologist Karen Stephenson, occupy specific places within networks:

- **Hubs** are directly connected to many people and, as a result, have the ability to disseminate information quickly. Hubs sometimes become bottlenecks: people so overwhelmed with information requests and communications that their productivity wanes. When this happens, the ripple effects have a disproportionate affect on the network and many people feel the results. They help CLOs spread information and accelerate change by getting messages out quickly and effectively across a wide network of individuals.

- **Gatekeepers** stand at the intersection between parts of the organization or areas of expertise. They can be the managers who, for sake of control, prohibit anyone from working with their direct reports without them present. They can be the executives who shield their organizations from abusive colleagues. Or they can simply be subject matter experts who can easily and quickly access people in a certain field of knowledge.

- **Pulse-takers** are the covert influencers within networks. They're often more knowing than known, and they connect with others strategically. They can be the Machiavellian, behind-the-scenes players or quietly influential informal leaders who people turn to during times of uncertainty. These are the people CLOs want to have on their side during major change initiatives because, with just a few actions, they have the power to accelerate or impede progress.

"Any one person or organization can change once, but making change truly sustainable over time requires real learning from a trusted source," Stephenson said. "That's why CLOs don't need to talk to everyone in their organization to achieve success. They only need to tap into 5 percent of their organizational networks to make success lasting, but it has to be the right 5 percent of the deeply connected and trusted. If the right 5 percent believe in your message, then everyone else will, too."

Networks can be encouraged in any organization, whether a technology budget is available or not. The requirements simply are the desire to leverage human networks, the willingness to invest time and the ability to engage others in the process.

Techniques for Leveraging Human Networks

- *Network mapping* uncovers the flows and bottlenecks in information exchange, decision making, expertise and learning in the organization. The resulting network maps visually depict interactions between departments, divisions and organizations.
- *Pulse groups* bring employees together in real time to share knowledge, identify challenges and plan actions before presenting proposals to executives. This is just one of many non-technologically dependent methods of leveraging human networks.
- *Blogs* disseminate information across wide networks and provide windows into previously obscure areas. See Paul Levy's blog, runningahospital.blogspot.com, for a good example of how one CEO uses this tool.
- *Shared work spaces* include virtual meeting rooms, knowledge repositories, project planning and discussion sites for dispersed teams.
- *Web and videoconferencing* allow real-time, visually connected meetings across geographies and time zones.
- *Knowledge repositories* provide online, searchable libraries and discussion forums for people across an enterprise or, in some cases, across supply chains. Teams can develop their own knowledge repositories through wikis.
- *Social networking tools* provide ways of connecting people with common interests, backgrounds or organizational affiliations. Companies are beginning to create home-grown applications and adapt commercial applications to create internal knowledge directories and facilitate connections between employees.
- *Prediction markets* use crowd sourcing to predict product, service and industry direction, as well as topics for future R&D investments. Companies such as IBM have used prediction markets to choose new development projects

Networking at Merrimack

Merrimack Pharmaceuticals, based in Cambridge, Mass., develops disease treatment options by taking a network biology approach to understanding disease.

In 2005, the founder and CEO began to worry employees were not collaborating sufficiently. As the company grew, integration became more difficult and the company sought new ways to transfer knowledge and develop internal partnerships. Given the company's focus on biological networks, it was a natural step for Merrimack to think about its workforce in network terms, as well.

Andy Porter, senior director of human resources, said the company started by creating network maps that identified the flow of knowledge in the organization. With the assistance of consultant Bruce Hoppe of Connective Associates, Merrimack created a wiki workspace in which employees added areas of expertise and tagged learning priorities. This information was used to map common areas of expertise across teams.
Another map was developed based on seating arrangements. Comparison of the knowledge and seating maps showed there were opportunities for greater integration. The company put major changes in place to encourage collaboration:

• **Teacher-learner pairs:** The wiki helped Merrimack identify who had knowledge and who needed it. By making matches, the company identified and connected teacher-learner pairs, usually from completely different disciplines.

• **Multidisciplinary teams:** In a radical shift from traditional organization design, Merrimack eliminated all departments within R&D. The company learned over time, and through some unwelcome staff departures, that it was better to allow people to choose their own teams. Today, people choose their projects based on research interests.

• **Peer-to-peer networks:** Merrimack actively encouraged people to create informal, self-organizing peer-to-peer networks around areas of interest and expertise. These networks have been effective at leveraging knowledge, streamlining models and encouraging sharing across the organization.

One group, focusing on computer modeling, meets every week without any set goals other than to share knowledge and solve problems collectively. People receive advice on thorny issues, avert potential problems and receive coaching from peers. Merrimack is committed to keeping this group, and the other peer-to-peer networks, informal.

"If we mess with it and make it too formal, it becomes just another meeting," Porter said.

To embed innovation and knowledge sharing into the organization, Merrimack adopted the credo: "Learning and work have to take place at the same time." To support this belief, Merrimack invests in core organization skills training that every employee attends each year.

This core skills training, focused on giving and receiving feedback, coaching skills, running meetings and seeing systems, provides people with the tools they need to learn while working. Much of the additional learning is integrated into day-to-day work.

The results of Merrimack's efforts have paid off. It's poised to launch two completely new drugs into clinical trials in back-to-back years, something rarely done by a company of Merrimack's size. In comparison to industry averages, Merrimack has substantially decreased the amount of time and dollars spent from discovery to entering clinical development with its first two products, while finding new and innovative approaches to disease treatment.

Individuals from different disciplines have moved a little closer, and many more now embrace each other's diverse tools and skills. For instance, more and more biologists are using computational tools previously exclusive to computational modelers. And likewise, more modelers are now integral to designing laboratory experiments.

Porter said all HR professionals should learn about how networks can be helpful in their organizations. "There are informal learning groups in the company whether you see them or not," he said. "Understanding and being able to see networks in your organization gives you a leg up and helps you understand how to accelerate learning. It gives you the opportunity to leverage networks as opposed to letting them happen by chance."

Leveraging Networks

Networks can be encouraged in any organization, whether a technology budget is available or not. The requirements simply are the desire to leverage human networks, the willingness to invest time and the ability to engage others in the process. Here's how to get started:

1. **Get clear on the "why."** What can your organization gain by leveraging its networks? Look beyond rationales that only appeal to the HR organization. For networks to catch on internally, the business needs to be engaged. What are the company's strategic goals for the year? What is the company's track record for achieving similar goals? How could networks help accelerate the process?

2. **Identify the venue.** There are many options for engaging human networks. If you need to diagnose and understand why networks aren't operating or optimize existing networks, network mapping or pulse groups might be the right option for you. If you need to disseminate information quickly, try blogging. To create opportunities for people to share knowledge, brainstorm or innovate, try shared work spaces, Web conferencing, knowledge repositories or social networking. Prediction markets might be your tool if you need to draw on the power of the group to forecast market needs, evaluate product features or choose research topics.

3. **Seed the effort.** Draw on your critical connectors to launch the effort. Use those key influencers to help design the project, invite others to participate, launch the effort and lead the conversations.

4. **Stand back and let the network do its work.** One of the few rules of networks is that control is impossible. Networks often will self-organize and grow in unanticipated and delightful ways. To overly control a network is to limit what's most valuable: its ability to adapt, change and invent new possibilities.

Maya Townsend, founder of Partnering Resources, specializes in helping leaders identify and leverage the hidden web of relationships that drives organization performance.