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By analyzing how people interact with each other, companies can manage their intellectual capital more effectively and navigate change more smoothly

By Marjo Johne

After spending years analyzing the social structures of extinct civilizations, Karen Stephenson, an anthropologist who studied at Harvard and the University of Utah, decided to turn her attention to living cultures. So she delved into the world of corporate America — and found that, socially speaking, little had changed over the centuries.

“You want to talk about the rituals and ceremonies and headhunting expeditions that go on?” asks Stephenson, who also holds a degree in arts and chemistry from Austin College. “I’ve found that, whether you’re looking at an ancient tribe or a major corporation, there are set patterns in how people interact with each other.”

These patterns of interaction form the basis of a management principle that, in the last two decades, has quietly influenced the direction of such companies as IBM, Steelcase and Zurich Insurance. Through her company, NetForm, Stephenson teaches organizations how to understand their social networks: who talks to whom, how information is relayed, and where the new ideas are coming from. By analyzing their social networks, Stephenson helps companies manage their intellectual capital more effectively and navigate the inevitable waters of change more smoothly and precisely.

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Stephenson’s concept, which she calls “network management,” employs a methodology that combines qualitative research with algorithms that, in essence, quantify the value of a social network. The result is a mathematical model that not only charts a company’s social network but can also be used for predictive and, therefore, strategic purposes. Like a computerized game of chess, Stephenson’s model can tell you what is likely to happen if you move a certain player a certain way.

“We know there are a set of macro rules and micro rules which hold any one network together and that interact in set ways,” says Stephenson.

“And knowing which people do what within these networks can help you achieve predictable results within your company.”

But isn’t that what organizational charts are for? Not quite, says Stephenson. Where organizational charts depict hierarchies and procedural knowledge, network analysis reveals the informal and invisible “lines of trust” that form naturally and inevitably between people in groups. These lines of trust make people comfortable about sharing information with each other and are the building blocks of an organization’s knowledge structure.

“Eighty per cent of the work done at companies is done at the tacit level and through trust relationships,” says Stephenson. “The goal is to get at that tacit knowledge by taking individual or what I call ‘egocentric’ strategies, aggregating them by dimensions of knowledge and putting our algorithms on top of it.”

In her years of examining cultures, Stephenson has identified roles that emerge as constant components within social networks: hubs, gatekeepers and pulse-takers. Hubs, according to Stephenson, are central players who are connected to many people. They have the highest number of “direct ties” within an organization and hold a lot of face-to-face conversations. Gatekeepers are the connectors between the hubs and other employees. Depending on how they feel about their coworkers, gatekeepers can either facilitate or block the flow of information within a network. They have the power to choose who gets to share the knowledge and who doesn’t.

Finally, there are the pulse-takers, who have the most indirect ties within the network. Stephenson describes them as “unseen but all-seeing — almost the opposite of hubs.” Pulse-takers work quietly and behind the scenes, but they wield a lot of clout. As an example of the ultimate pulse-taker, Stephenson points to Niccolo Machiavelli, the cunning and manipulative Italian statesman.

In addition to identifying the hubs, gatekeepers and pulse-takers within an organization, Stephenson also defines the dimensions of knowledge within a network. For instance, there are dimensions of knowledge around innovation, workflow, learning and decision-making.
The knowledge gleaned from network analysis can be applied in many areas, including mergers and acquisitions, talent management, corporate restructuring, globalization strategies, and succession planning.
the new team — which is understandable when you’ve just put together two new divisions — but at the same time we realized the potential power of this new team as a network.”

Seeing the potential of this network-in-the-making, and recognizing which people are connected allowed HP to be more effective in passing on information, says Gaarn. “The value is, when you are trying to create strategy, you can bring in those people who are connected. By doing this, we were able to accelerate information-sharing better than if we had just used formal channels of communications. We still used those formal channels but we were able to communicate and bring about change more effectively through the informal networks.”

The HP network management project — from survey to analysis to strategic planning — took about six weeks, and involved close to 1,000 employees all over the world. Many of the findings came as a complete surprise to management, says Gaarn, while others confirmed what the higher-ups in the company already knew.

“It really gave us a different view of talent,” says Gaarn. “Instead of just recognizing people for what they officially do, we saw the talent of people as connectors. It’s like having leaders who are not very conscious that they’re acting as leaders.”

Network management also uncovered a few surprises at Merrill Lynch. In the late 1990s, after hearing Stephenson speak during a human resources management program at UCLA, Maria Leo, first vice president of human resources at Merrill Lynch, decided to apply network management to her company’s human resources division.

At the time, Merrill Lynch was focused on becoming a truly global organization — instead of a company that just happens to have satellite offices all over the world. Leo wanted to do something “much more progressive” and leading-edge to meet this objective. Stephenson’s work, she thought, would allow the company to make incisive and profound changes quickly and strategically.

“Human resources is usually based on transactions — hiring, firing and training — between people, and I wanted to do something more strategic,” says Leo. “I thought that Stephenson’s work would allow us to do what was basically an X-ray or an MRI of our organization, and from this quickly go in and do the surgery that can really make a difference.”

What Merrill Lynch discovered through network analysis was that there were best practices within certain regions that were not being shared by other offices across the globe.

“We could literally go in and see — visually not just intuitively — that robust communications existed within a region but did not exist in other areas,” Leo recalls. “At the time, human resources was more robustly based in the U.S. and we saw that some of the knowledge from the States which should have been going out to some of the regions — like succession planning and leadership development, for example — weren’t getting to all parts of the globe. We could see from the maps that we had people in place, but in some areas the relationships were fragmented and the concepts weren’t being communicated significantly. In some cases, it was a matter of someone sitting in an office, say in New York, who was supposed to communicate practices but just wasn’t thinking globally.”

Network analysis and management allowed Merrill Lynch to make the changes it needed to globalize its human resources operations, says Leo. In the last few years, the organization has analyzed its social network repeatedly, to verify the soundness of its decisions and ensure that it continues to make progress. Merrill Lynch is now going through a significant change with one of its divisions, which is being transformed from a back-office to a revenue-generating operation. Leo says network management will once again play a crucial role in creating strategies to drive this change.

“I think what Karen has built is one of the most powerful tools I have found,” she says. “It provides a very quick turnaround and you can time it for whatever your objectives are for any particular function. But what makes it really wonderful for me is that it pointed out things I intuitively thought was happening and provided more scientific underpinnings to those intuitions. It’s more specific and prescriptive, so I know I’m not throwing a dart here and there and hoping I did the right thing.”

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