The Power and Potential of Social Networks
Experts tell what social connections could do for businesses if executives started to use them with intent

by Jennifer Robison

They might not know who you are. But they can make you fat or thin, they can make you smoke or quit, they can make you happy or sad -- and they don't even mean to. They do know the people that you know -- and that's how your network of friends, their friends, and their friends' friends influence you. And rest assured, you're doing the same thing to them.

This process, called social contagion, was made famous in the widely discussed book *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives* by Harvard professor Nicholas Christakis, M.D., Ph.D., and James Fowler, Ph.D., a professor at the University of California, San Diego. Social contagion works like any other kind of contagion -- through transmission from one person to another. Instead of germs, however, social contagion transmits behaviors, norms, and emotions.

As Christakis and Fowler write in *Connected*: "Our connections affect every aspect of our daily lives. . . . How we feel, what we know, whom we marry, whether we fall ill, how much money we make, and whether we vote all depend on the ties that bind us. Social networks spread happiness, generosity, and love. They are always there, exerting both subtle and dramatic influence over our choices, actions, thoughts, feelings, even our desires. And our connections do not end with the people we know. Beyond our own social horizons, friends of friends of friends can start chain reactions that eventually reach us, like waves from distant lands that wash up on our shores."

Those connections are powerful, and they explain a lot -- from why some teams perform better than others to why, when a husband comes home cranky, his wife soon becomes cranky too. That begs the question: What would social connections do for business if business used them on purpose?
Environmentally conscious

Typically, social contagion happens so seamlessly that we generally don't even notice it. Yet setting up networks toward a specific end takes quite a bit of forethought. What the network's architect winds up with has a lot to do with how the network is structured.

Consider, Christakis suggests, the difference between graphite and diamond. They're made out of exactly the same thing -- carbon atoms. Whether those atoms form a substance that is soft and dark or hard and clear is a function of how the atoms are configured. One arrangement links carbon atoms into pencil lead; another links the atoms into diamonds.

"Certain environments will foster certain patterns of network ties, and other environments will foster different patterns of network ties," Christakis says. "For example, if you have an environment of trust, humans might assemble themselves into a particular kind of network."

It's also worth considering what kinds of behaviors are being transmitted across the network. If the environment is emotionally positive, it's likely that the balance of the behaviors and emotions that are transmitted across the network will be more positive than negative.

That's a key issue because emotional states spread throughout networks, and good moods spread more effectively than bad ones. "We found that happiness spreads more robustly than unhappiness," Christakis says. "We think, though this is a speculative idea, that positive and negative emotions may serve different purposes: the former bind a group together and the latter transmit information. Happiness may be a kind of social glue, and for this reason happiness may be more powerful than unhappiness."

Christakis and Fowler have found an interesting codicil to that, however. Because people are both cooperative and competitive at work, some kinds of happiness won't make everyone happy. A promotion, for example, will make at least one person happy -- but it likely will make other people jealous.

Teams

Once you understand that emotions and behaviors can be transmitted and that the environment shapes the transmission, the next step in harnessing the power of the social network in your organization is to take a look at the transmission vehicle itself -- groups of people. In organizations, that often means teams.

Every member of a team has a network of social contacts, and so does every person in each team member's network. Deliberately designing a team to optimize the social networks of everyone on it would take a computer the size of a bus and a manager with a doctorate in quantum mechanics. So a manager's best bet is to start at square one and configure the team by the task.

"We think there are ways to control the topology of human networks in ways that
make them more productive," Christakis says. "It depends in part on the size of the workgroup, its task, and what the team is trying to achieve. The general principle is that the network structure matters, but the details will vary from application to application."

Some of the most interesting research into social networking among teams has been conducted by Brian Uzzi, a professor at Northwestern University's Kellogg School of Management. Uzzi believes that the makeup of a team should depend on the job at hand. He says that the greatest efficiency is achieved by specialists, each working on a separate piece of the project. But business rarely works on an assembly-line basis anymore; most tasks require a certain amount of creativity. In such cases, teams of specialists are less productive.

"A simple rule of thumb is that a team of specialists or generalists doesn't really work, especially with messy, creative problems," Uzzi says. "You really need a mixture of specialists who see one part of the problem with a whole lot of depth and a generalist who can help integrate the views of the individual specialists."

Creativity in teams

In one of Uzzi's most famous research studies, he looked at the networks of the teams behind Broadway musicals and compared them to the success or failure of the shows. What he found is applicable to any organization.

A Broadway musical is usually produced by a small group of people: the choreographer, the director, the set designer, the composer, and the librettist, for example, among others. Because relatively few musicals are staged in any given year, those specialists may work together frequently over the course of their careers.

"What we found is that the teams that were made up of people who all knew each other well and were highly networked had low levels of creative and financial success," Uzzi says. "Teams [that were made up] of creative artists [who] were highly separated from each other, with no bridges through at least one common member, also had low levels of success."

Creative teams made up of both incumbents who knew each other and newcomers who didn't, however, were more likely to produce hit shows. Uzzi says that's because teams with too many overlaps in their social networks are less creative -- the team members all know the same stuff. Teams that aren't networked at all, however, aren't good at sharing what they do know. The most successful teams were those in which everyone knew one or two others but not everyone -- and not no one.
"When some of the group members overlapped and some didn't, you got your best creative material. The reason is that the creative material that was circulating in different groups could still intermix, but it wasn't homogenous," Uzzi says. "The overall network is very important not only in defining how much creative material artists have access to but also in how that creative material freely flows between and among artists."

**Higher potential**

"Creativity depends upon a person's ability to take ideas and information that may be well understood in one area and bring it into a new area where it's suddenly received as invention," Uzzi says. Therein lies the productivity potential of social networks -- they take whatever useful material is circulating and put it together in new ways. "Much of creativity is just new combinations put together from different pieces of information and material," Uzzi says. "That's how networks can really amplify creativity."

For that reason, Uzzi suggests that organizations subvert the "proximity principle," or people's tendency to create networks from those around them. "The problem with the proximity principle is it tends to create homogeneous networks that lack diversity," Uzzi says. "To undo the proximity principle . . . locate people from different specialties in the same area rather than keeping all specialists located near each other."

But be careful. Brand new people with their own well-established networks may not integrate easily into the existing team. For that reason, Uzzi recommends viewing major team integrations -- like mergers and acquisitions -- through the lens of naturally occurring social networks.

"Will the new social network expand the social network that the company currently has or will it create larger echo chambers?" Uzzi says. "Will one network see the other networks as inferior? That does happen, and instead of enhancing networks and connections, it tends to drive people away from each other."

On paper, putting similar groups together would seem to increase efficiency, economies of scale, and productivity. In practice, this tactic can create silos, Uzzi says. So when merging groups of people, it pays to consider the role of social networks. A cobbled-together department is trouble waiting to happen, but a carefully designed team offers all the capacities of its individual workers plus the power of their social networks.

"A company's resources are not just its patents or its plants or its money in the bank. They're not only its people, the human capital," Christakis says. "Corporations have social capital as well. There's a value in the connections between the workers, and this capital can be mobilized for productive purposes."

Social networks and the behaviors, feelings, and traits they transmit are always present and always functioning, whether organizations are aware of this or not.
The head of marketing may be influencing the new guy in legal, and the new guy in legal might be influencing the assistant to the vice president of sales, although none of them have ever met. If they're transmitting good things, they could be making the organization better, stronger, and more profitable.

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