by Karen Otazo

On Trust and Culture

Five books about
social networks explore
the importance of "who
you know."

The old bromide is truer than ever. It's not what you know, it's who you know. And it's especially who knows you. The emergence and influence of a whole new breed of social networks is a rapidly growing phenomenon. Moreover, a number of people are paying attention to social networks — not just anthropologists, but historians, business leaders, and a host of teenagers.

In large part, we can thank — or blame — the Internet. Despite its vast size and complexity, the Internet has turned out to be a profoundly personal venue. People around the globe are forming connections based on every conceivable common interest, from the serious and practical to the outright silly. In 2005, the 80-million-member networking Web site MySpace, a gathering place where people introduce themselves publicly to friends and strangers, received more page views than Google. And the movement continues to grow.

It was only 40 years ago that the social psychologist Stanley Milgram published the results of his "small world" experiments, demonstrating

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that a person could be connected to any stranger in the United States by a remarkably short chain of "I-know-someone-who-knows-someone." Those experiments, which inspired the phrase "six degrees of separation," were a revelation in the 1960s. By now, general awareness of the density of personal connection has become so entrenched in the culture that the concept is perhaps best known as a pop culture cliché: "six degrees of Kevin Bacon."

To understand the significance of this concept for individuals and organizations, one must turn to a relatively new field of study: social network analysis (or, as it is sometimes called when applied to structured groups, organizational network analysis). There are many books on this subject, but five stand out as particularly relevant. All five books demonstrate how advances in transparent technology and ubiquitous media have led to an unprecedented shift in the role of networks in human culture. All of our traditional social skills developed from being close to one another physically, not virtually. Now we will need to rely upon trust more than ever before to interact with people on the other side of the world.

The first book of the five, published in 2000, has become a standard: *The Tipping Point: How Little Things Can Make a Big Difference,* by *New Yorker* writer Malcolm Gladwell (Little, Brown, 2000). The second is a solid new book: Karen Stephenson's *The Quantum Theory of Trust: The Secret of Mapping and Managing Human Relationships* (Financial Times Prentice Hall, 2006). The third book is a groundbreaking but overlooked academic treatise that laid out the methods of network research more than 20 years ago: *Structural Models in Anthropology* (Cambridge University Press, 1983), by Per Hage and Frank Harary. The fourth is a managerial handbook for applying these techniques in business: Rob Cross and Andrew Parker's *The Hidden Power of Social Networks: Understanding How Work* Really *Gets Done in Organizations* (Harvard Business School Press, 2004). And finally, there's a recent historical review by Pamela Walker Laird, *Pull: Networking and Success since Benjamin Franklin* (Harvard University Press, 2006), which tracks the hidden influence of social networking from the American Revolution onward.

Anatomies of Contagion

Malcolm Gladwell's book popularized the useful and now nearly ubiquitous term "the tipping point," which in epidemiology describes "that one dramatic moment in an epidemic when everything can change all at once," Mr. Gladwell writes. He examines a similar phenomenon in culture. Small factors, ideas, or behaviors gather momentum and become contagious. When they reach critical mass — a tipping point — they become epidemic. Mr. Gladwell's experience writing about AIDS for the *Washington Post* convinced him that change is about the "law of the few." He realized the disproportionately powerful role that a small group of people can have in moving along any kind of infectious entity: an epidemic, a new way of doing things, the buzz about a new product, or a fad of any kind. Using this model, he shows how the crime rate can drop in a city or how *Sesame Street* can spread all over the world, with the infectious entity traveling across nothing more than informal communications, one person at a time.

Mr. Gladwell identifies three types of social networkers: Mavens, Connectors, and Salesmen. Mavens

love to gather knowledge and pass it on to others: Mr. Gladwell describes one Maven who didn't just recommend a Volvo to a colleague, he accompanied him when he went to buy one to ensure he got the best deal. The Maven likes to exercise expertise and be helpful.

Connectors seem to know everyone. They can get information where it needs to go because they just love to connect. Paul Revere, best known for rallying Middlesex, Mass., farmers with his cry, "The British are coming!" in the Revolutionary War, was a classic Connector, with a knack for knowing and attracting people. Had the silversmith been less gregarious, argues Mr. Gladwell, then the colonists might have lost.

Salesmen can be great persuaders. They are irresistibly positive; their ideas and attitudes are infectious. In effect, their positive emotions transmit to other people. Mr. Gladwell gives the example of Tom Gau, a financial planner in southern California, who made a ridiculously low bid on a new home, yet persuaded the seller to accept it. When these three types of people interact in the context of a social network, little ideas can turn into big deals with astonishing speed.

Like many bestsellers, *The Tipping Point* owes its popularity to the fact that it is an entertaining read about a compelling subject that unexpectedly illuminates a hitherto unseen aspect of our world; however, its longevity on the bestseller lists is due to the fact that it points to something both ancient and timely. Mr. Gladwell's work was not the first of its kind, but, at just the right moment, he hit upon a phenomenon with fundamental importance for anyone who needs to anticipate the behavior of a network of people. His naming of that phenomenon with a short, punchy term from epidemiology was brilliant.

Mr. Gladwell approaches his material in a literary, unscientific way, but in a *New Yorker* article in December of 2000, he profiled a scholar who examines the same concepts in a more analytical and rigorous fashion. Karen Stephenson, a professor and business consultant, studies social networks within organizations to understand the patterns of information flow and influence in those settings.

Dr. Stephenson began using the techniques of social network analysis in the late 1970s to study ancient trade networks and early primitive organizations. She drew "sociograms," or diagrams of the individuals in an organization, with each person represented as a dot and the lines between them showing the paths of communication. Later she adapted her analysis for the modern organization and tracked regular contact in meetings, by telephone, and via e-mail. In social systems as diverse as IBM and the network of Chinese philosophers who created the *I Ching,* the maps revealed important patterns of connectivity outside formal structures — the points of contact not explicitly reflected in the hierarchy.

Why do so many communications take place "off the charts"? This anomaly intrigued Dr. Stephenson. In puzzling through it, she recalled that most early anthropologists believed that in ancient social systems, kinship was determined by biological facts — marriage and reproduction. But then the famous anthropologist W.H.R. Rivers discovered that kinship was made up of both social and biological connections: People simply pretended they were kin when it suited them, and more often than not, the pretense became the reality. In

much the same way, in modern organizations, the "real" work often takes place through informal personal connections. Many people pretend that maintaining these connections is part of their "official" job description, even when it is not. Executives had tried for years to "fix" their organization's culture, or at least unravel its mysteries, by tweaking the flow of decision rights and hierarchical structures, but they had been looking in the wrong place. The tipping point for change could be triggered only in social networks, and, more importantly, in the trust relationships that underlie those networks, because people connect in meaningful ways only with those whom they consider trustworthy. And as Dr. Stephenson showed, a diagram of trust relationships typically looks nothing like the organization chart.

The researcher has used her insights to help companies like IBM and Steelcase create new businesses. She and other social network analysts are bringing cultural relativity into the world of business in the same way Margaret Mead brought the concept to home and hearth a century ago. In her book *The Quantum Theory of Trust,* Dr. Stephenson shows how organizations are evolving from command-and-control structures, past interim thinking about networks to a strange new world of networked institutions, which she calls "heterarchy."

Dr. Stephenson has a background in quantum chemistry and mathematics but earned her doctorate in anthropology, first studying social networks among baboons. Her background in four seemingly unrelated fields — biology, anthropology, business, and design — is one of the factors that distinguish

her book from others written about social networking. All of these fields, including design, have at their core the study of complex systems, with intricacies that emerge from common sources, invisible to the untrained eye. She connects dots across professional divides, which is a rare thing in academia.

The social networking studies described in *The Quantum Theory of Trust* revealed that information connects through at least three "archetypes" — network roles that recur regularly in organizations and communities, no matter how different they might be in other ways. In any given organization, there are always some people who play the part of Hubs. Information pathways radiate all around them; they know the most people, and others seek them out because of their charismatic charm and ability to multitask. Dr. Stephenson warns readers that Hubs are consummate jugglers: "Keeping all the balls in the air is not the same thing as directing the flow of information." So if you want to keep a secret, she says, don't tell Hubs; they connect naively, not strategically.

Gatekeepers, by contrast, are expert at managing information flow. They know what to tell when,

and to whom, in order to achieve their goals. They show up in network diagrams as connected to a few, not many. A department manager who insists on being the only contact point for all of his or her subordinates is a classic Gatekeeper. A well-placed Gatekeeper can facilitate highly efficient communication, and a counterproductive Gatekeeper can hijack momentum.

A less visible, but equally important, archetype is the Pulsetaker. Pulsetakers are keen observers of the people and trends around them and often make excellent mentors and coaches. Niccolo Machiavelli proved himself the ultimate Pulsetaker when he described the ways in which the initiative, attitudes, and strength of a Medici prince tended to influence the mood of the other key people around him, and thus to affect how long he would stay in power. One can imagine a modern-day Machiavelli making similarly perceptive comments in hushed tones to trusted colleagues, about the vice president of marketing or the head of the Asia Pacific region.

One of the first steps in any serious change initiative should be to bring some Pulsetakers on board.

Until the 20th century, the only ways to describe social networks were as *family connections, nepotism,* or *old school ties*.

As Dr. Stephenson puts it, "Hubs know the most people; Gatekeepers know the right people; and Pulsetakers know the most people who know the right people."

Roots of Corporate Culture

Dr. Stephenson realizes that one rarely recognizes pure mathematical archetypes in real life. She says that on the ground, people usually encounter hybrids, and she assigns Mr. Gladwell's descriptions of Connectors, Mavens, and Salesmen as naturally occurring hybrids of her mathematical archetypes. For example, she says Mr. Gladwell's Connectors are Hub–Pulsetakers. They combine the buoyant enthusiasm of Hubs with the finesse of Pulsetakers. Mavens are Gatekeeper–Pulsetakers. They may not know quite as many people, but they are more invested in the people they do know. And Salesmen are Hub–Gatekeepers. They get information across, but also seem to put their listeners under a spell. It is very difficult to say "no" to such a person.

In complex systems, the features of the three archetypes and three hybrids can on occasion converge into one powerful position, the Hub–Gatekeeper–Pulsetaker, or

HGP. Dr. Stephenson nicknames these rarities "Strange Attractors." These individuals are often unaware of the reach of their influence. HGPs work below the radar. Rarely is an HGP the head of a company.

Dr. Stephenson gained her precise perspective from her early scientific training and by working and studying for years with the deeply reflective anthropologist Per Hage and the mathematician Frank Harary. In fact, the textbook *Structural Models in Anthropology,* written by her two mentors, is the forerunner of graphic social network analysis as we now use it.

Per Hage was an anthropologist who liked to use stories to show relationships, whereas Frank Harary was known for his pioneering research in graph theory — the study of visual representations of networks and grids. Their work moved social network researchers inexorably toward identifying a basic unit of cultural meaning as "the relationship" rather than taking the traditional anthropological view of "kinship" as the basic unit.

The two men also showed how to use graphic techniques to highlight the nature of the relationships among individuals, groups of peo-

ple, symbols, and cultural stories. "Cultural" clues unearthed this way could include rules for eating, marriage, gift exchange, or warring. The authors showed how, given a few basic symbols or rules, whole systems of meaning could be decoded in the same way that a few rules of syntax can jump-start an elementary understanding of an unfamiliar language.

In their overview of the history of anthropology, Professors Hage and Harary use famous studies from Margaret Mead, the work of Claude Levi-Strauss, and the characters in novels to portray relationships between and among people, food, bodily fluids, rituals, and reciprocity.

When it was first published, this book demonstrated the power of graphic representations of social connections and engendered a new respect for social network analysis, particularly of organizations. Although it is out of print, this brief but dense book is well worth tracking down.

For a more hands-on look at how social networking functions in organizations and how to better manage it, see *The Hidden Power of Social Networks,* by Rob Cross and Andrew Parker. (Mr. Cross is the

GE sustains organizational success decade after decade with different CEOs, thanks in great part to its deliberate use of social networks.

coauthor of "The Craft of Connection," *s+b*, Autumn 2006.) Their book offers in-the-trenches tips for understanding how social networks, often invisible to management, can save or scuttle an organization.

The authors identify their own set of important networking roles. Their Central Connectors are akin to Mr. Gladwell's Connectors. The opposite of these central people are the Bottlenecks. They may be ultra-busy managers who travel so much and spend so much time on e-mail and phone calls they don't have time to connect when others need them. They are similar to Dr. Stephenson's Gatekeepers; they can hijack or help momentum in getting things done. Information Brokers act like Central Connectors with organizational information. Boundary Spanners may be rare, but could be the kind of people an organization needs to cultivate, to ensure that various departments or groups communicate with one another across functions or regions, and share expertise and knowledge of clients, competitors, and more. The authors give examples of some successful Boundary Spanners, and mention in passing that management can't dictate that a Boundary

Spanner play this role; it's simply too informal. Management can only provide the permission, recognition, and financial support that allow people who are predisposed to this kind of role to invest themselves in it. Another role in this book is the Peripheral People — including Mavens and experts in the legal, human resources, and technology domains — whom the authors don't see as being very central to organizational networking.

The Hidden Power of Social Networks is essentially a how-to guide, one of those management books that offer recipes for change in the form of lists of things to do. Using examples from different types of businesses, the authors encourage managers to look past the formal hierarchies and to analyze the social networks that control the flow of power and information in their companies. Rob Cross and Andrew Parker list simple techniques like skill profiling, instant messaging, changing performance evaluation to reward connections, and adjusting organization charts. Their appendices take readers through a step-by-step process for mapping networks through questionnaires and interpreting the information effectively.

Although it lacks the breadth and depth of the Gladwell, Stephenson, and Hage/Harary works, this is a practical book with useful appendices, and an especially valuable guide for midlevel managers and first-line supervisors.

Socially Made Men

The fifth book looks at social networking from a different viewpoint altogether — that of a historian. Pamela Walker Laird, associate professor at the University of Colorado at Denver, recently wrote a chronicle of two centuries of the "old boy network" and its influence in the United States: *Pull: Networking and Success since Benjamin Franklin*. Professor Laird destroys the myth of "self-made" men (rarely women), the idea that anyone can achieve fame and fortune if he just works hard enough. This has been a popular idea in America, at least: Worldly success comes to those who demonstrate individual worth in our glorious meritocracy. Even the American cowboy ideal was based on individual merit. Yet in real life, those who are well connected and who look and act the same as those in power tend to get ahead. Andrew Carnegie, for example, promoted

himself as a "self-made man," and he was indeed a gifted investor, manager, and technologist; but he was also a Scotsman who drew heavily in early life upon his connections through his countrymen in Pittsburgh, and, later, on connections forged in the nascent railroad industry and the American Civil War.

Professor Laird substantiates her point by writing about nepotism, the power of inner circles in many organizations, and the nature of legislation against discrimination in the mid-20th century. In many cases, this legislation has been about "push" — pushing people (such as women and minorities) to keep them out of the ranks of senior management, rather than finding ways to draw them in. It's *pull,* or social networking, that brings executives through the glass ceiling; hence the importance of mentoring, sponsoring, networking, and connecting with role models in organizations. She adds that the vocabulary of social networking is useful precisely because it groups these other ideas into one conceptual whole. Those who are deemed "different" in organizations need more connections and fair Gatekeepers.

Until the middle of the 20th century, there were no ways to describe social networks other than with terms like *family connections, nepotism,* or *old school ties.* But as Professor Laird notes, social networking opportunities are everywhere today: professional associations, neighborhood groups, and even Big Brother or Big Sister organizations. Access to social networks with influence traditionally came through class and connections. People learned how to behave in those networks, and they gained the endorsement of people with clout. Using interesting tales about many well-known names in business, Pamela Walker Laird shows the importance of social networking in business history. Readers who enjoy biographies will enjoy this approach to social networking.

The Networkers of Crotonville

In different ways, these five books help explain the complex dynamics of organizational success, and they can be applied to any corporate situation. For example, much has been written about the charismatic leadership of former General Electric CEO Jack Welch; current CEO Jeffrey Immelt is beginning to enjoy the same kind of media attention.

But the business media have traditionally tended to overlook GE's extensive reliance on social networks, which were in place long before Mr. Welch stepped in, and which allowed his changes to take root. Indeed, GE sustains organizational success decade after decade with very different CEOs, thanks in great part to its deliberate use of its networks. Of course, the company didn't always operate inclusively. In 1954, as Pamela Walker Laird points out, the interview protocol in the *GE Handbook* included questions about social upbringing. Favorable ratings were assigned to those who were raised in "relatively high socio-economic circumstances." Now that's being part of a privileged social network.

GE also thrives because it knows its own culture. The leadership deliberately establishes core values and reinforces them by having leaders who consciously model the right way to do things. These values are nourished and promulgated among incoming generations of employees through informal conversation, training courses, large events, and performance reviews.

Therefore, well-supported new ideas, such as Mr. Immelt's commit-

ment to Ecomagination, can be engineered to pass a tipping point quickly and efficiently, setting this huge organization in a new direction. Such shifts take place in any organization only when they are reinforced inherently and completely by well-established networks. Dr. Stephenson's theory elegantly explains how a company like GE could accomplish this. She points out that "networks, more than hierarchy and more than markets, make culture what it is and what it can be."

GE fosters its social networks through a variety of means, but one important way is its management development curriculum. The company's more than 60 years of management development programs — including those given at GE's famous Jack Welch Learning Center at Crotonville, N.Y. — attract the top cadre of people who become the leaders of businesses over time. Casual friendships struck up during courses become the basis of informal networks that last for the length of an individual's career, and that become indispensable in getting things done. What you become at GE is a function of who you knew when. The transfer of people across divisions and functions has also kept networking alive and robust. Additionally, there is the ritual of the senior management meeting every January in Boca Raton. The value of networking at this major event is well known. And in GE, a big measure of knowing you'll "make it" is "When do I get to go to Boca Raton?" And the famous "deselection" process at GE, in which managers routinely weed out those who don't perform or share the corporate values, is a way of ensuring that the people who don't fit the culture leave while the networks support the rest.

These five books describe how trust fuels networks, which then feed and sustain the expertise and culture of the enterprise. For those interested in institutionalizing something similar at their own company, books may not be enough. Fortunately, a cottage industry has sprung up to offer tools for social network analysis. A regularly updated list of these appears at www.insna.org/INSNA/soft_inf.html. This Web site offers an overview of more than 70 programs, including Dr. Stephenson's and Mr. Cross's, of computer algorithms that can help users create two-dimensional graphs and tools to map their organization's network. The list is a product of INSNA, the International Network for Social Network Analysis. Its Web site has a changing view of social network graphs that provide insight into many types of networks.

Networks can be difficult to see, but once you spot them, you'll never look at an organization chart — or think of "culture" — the same way again. ✚