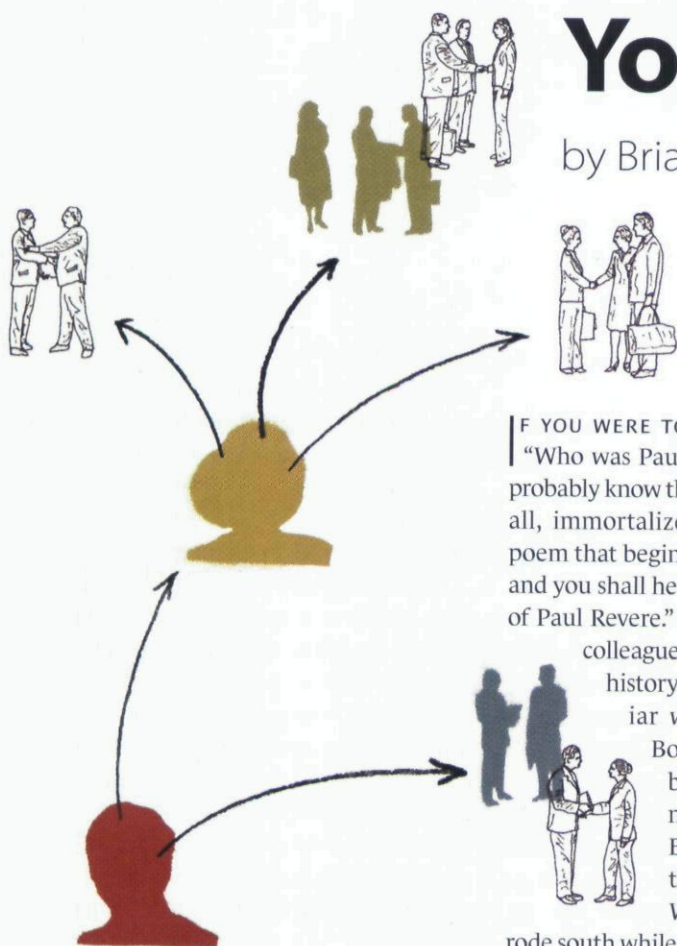


Strong personal networks don't just happen at the watercooler. They have to be carefully constructed. Here's how to strengthen your connections.

How to Build Your Network

by Brian Uzzi and Shannon Dunlap



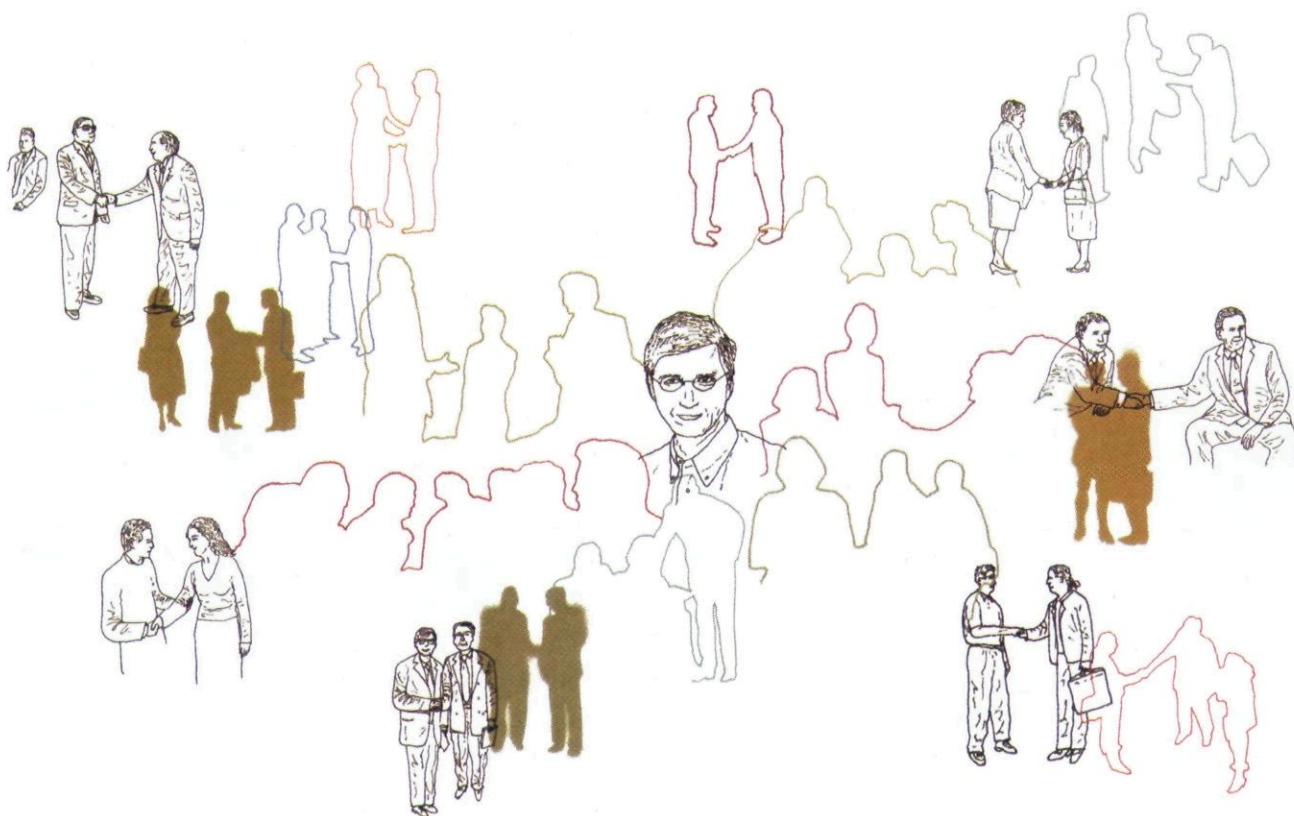
IF YOU WERE TO ASK your colleagues, "Who was Paul Revere?" most would probably know the answer. He was, after all, immortalized in the Longfellow poem that begins, "Listen, my children, and you shall hear of the midnight ride of Paul Revere." Yet how many of your colleagues, students of American history aside, would be familiar with William Dawes?

Both men rode on horseback from Boston on the night of April 18, 1775. Both sounded the alarm that the Revolutionary War had begun. Dawes rode south while Revere rode north, but the towns they traveled through were demographically similar. Both men came from the same social class and had similar educational backgrounds. But only Revere raised a militia, and only Revere's name became famous. What accounts for the difference? In large part, the type of social network each man cultivated.

Paul Revere was an *information broker*, a person who occupies a key role

in a social network by connecting disparate groups of people. Because Revere targeted other well-connected people during his ride, his news spread widely and quickly, as explained in Malcolm Gladwell's *The Tipping Point*, for example. William Dawes was not an information broker, so he didn't know which doors to knock on when he entered a new town. As a result, the information he carried was circulated within a small group of people instead of expanding outward. (See the exhibit "The Networks of Paul Revere and William Dawes.")

Now imagine that the information being ferried by messengers isn't about redcoats but about a new product idea or a different way to manage a team. If that information isn't delivered to the right people, it will wither and die. For example, before Microsoft was a household name, Bill Gates had a singular distinction in his network—his mother, Mary Gates, who sat on the board of United Way with John Akers, a high-level IBM executive. At the time, Akers was helping to lead IBM into the desktop



computer business. Mary Gates talked to Akers about the new breed of small companies in the computer industry, which she felt were underappreciated competitors of the larger firms with which IBM traditionally partnered. Maybe she changed Akers's vision of who to go to for the new IBM PC's DOS, or maybe her comments confirmed what he already knew. In either case, after their conversation, Akers took proposals from small companies, one of which was Microsoft. The rest is history: Microsoft won the DOS contract and eventually eclipsed IBM as the world's most powerful computer company. Without Bill Gates's potent network, a sensational new operating system might have faded into obscurity just like William Dawes.

Studies have shown the same correlations between networks like Paul Revere's and success in various commercial ventures. Networks determine which

ideas become breakthroughs, which new drugs are prescribed, which farmers cultivate pest-resistant crops, and which R&D engineers make the most high-impact discoveries. In a monumental 1998 study of innovations in science, art, and philosophy, sociologist Randall Collins of the University of Pennsylvania showed that breakthroughs from icons such as the seven sages of antiquity, Freud, Picasso, Watson and Crick, and Pythagoras were the consequence of a particular type of personal network that prompted exceptional individual creativity. In fact, Collins could find only three exceptions in all of recorded history: Taoist metaphysician Wang Chung, Zen spiritualist Bassui Tokusho, and the Arabic philosopher Ibn Khaldun.

In this article, we'll take a close look at the inner workings of networks. We'll also show you how to diagnose your current network, create a more potent one, and then actively manage it.

A Powerful System

Networks deliver three unique advantages: private information, access to diverse skill sets, and power. Executives see these advantages at work every day, but might not pause to consider how their networks regulate them.

When we make judgments, we use both public and private information. These days, public information is easily available from a variety of sources, including the Internet; but precisely because it is so accessible, public information offers significantly less competitive advantage than it used to.

Private information, by contrast, is gathered from personal contacts who can offer something unique that cannot be found in the public domain, such as the release date of a new product, unpublished software code, or knowledge about what a particular interviewer looks for in candidates. Private information, therefore, can give top executives an edge, though it is more subjective than public information because usually it is not verified by an independent party, such as Dun & Bradstreet. Consequently, the value of your private infor-

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mation to others—and the value of others' private information to you—depends on how much trust exists in the network of relationships.

Lisa Bristol (not her real name) is the president of a financial institution in the mortgage-lending industry. Historically, her firm had hesitated to share private information with potential alliance partners for fear of appropriation or misinterpretation. Bristol realized, however, that when she began developing trust with them through trade shows and informal shared activities, private information started to flow in both directions. This helped Bristol solve problems and develop financial strategies more efficiently than when she relied solely on public information, which most of her competitors also possessed. For example, the public information concerning her industry indicated that success was based on price points. But, through her network, Bristol became one of the first executives to piece together the features of her industry's new competitive driver: She learned that some companies had been experimenting with value-added services and that they were achieving greater success than companies that relied on price

points. By using this information, she was able to position her company at the forefront of this trend and capture market share before other companies attempted to move into the niche.

The next advantage that a network like Paul Revere's confers is access to a diverse array of skill sets. Linus Pauling,

more complete, creative, and unbiased views of issues. And when you trade information or skills with people whose experiences differ from your own, you provide one another with unique, exceptionally valuable resources.

The final advantage of a network like Paul Revere's is power. Traditionally,

If you've introduced yourself to your key contacts more than 65% of the time, then your network may be too inbred.

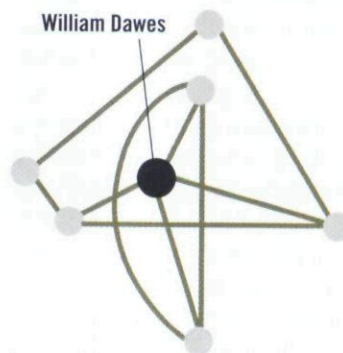
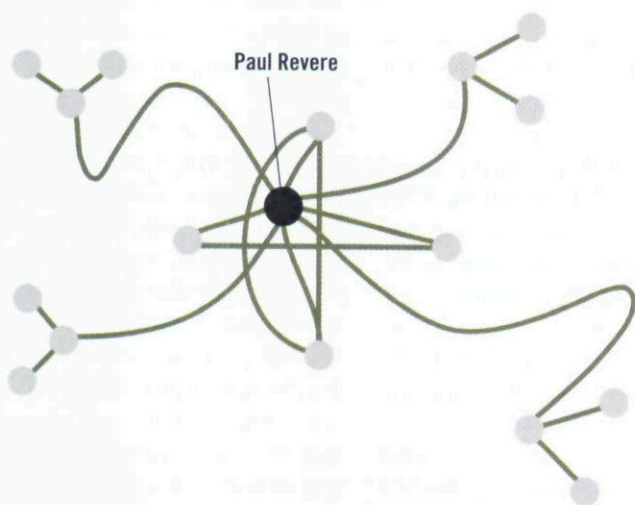
one of only two people to win a Nobel Prize in two different areas and considered one of the towering geniuses of the twentieth century, attributed his creative success not to his immense brainpower or luck but to his diverse contacts: "The best way to have a good idea is to have a lot of ideas." While expertise has become more specialized during the past 15 years, organizational, product, and marketing issues have become more interdisciplinary, which means that individual success is tied to the ability to transcend natural skill limitations through others. Highly diverse network ties, therefore, can help you develop

executive power was embedded in a firm's hierarchy. When corporate organizations became flatter, more like pancakes than pyramids, that power was repositioned in the network's information brokers, who could adapt to changes in the organization, develop clients, and synthesize opposing points of view. These brokers weren't necessarily at the top of the hierarchy or experts in their fields, but they linked specialists in the firm with trustworthy and informative ties.

Most personal networks are highly clustered—that is, an individual's friends are likely to be friends with one another

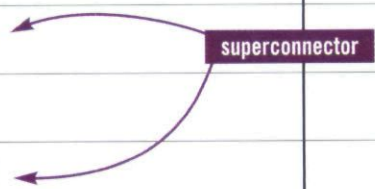
The Networks of Paul Revere and William Dawes

Paul Revere's social network connects multiple clusters of people who are linked through Revere himself, while William Dawes's network is just one big cluster. It's easy to see why news carried by Revere would reach a wider audience than news carried by Dawes.



How to Map Your Network

Name of Contact	Who introduced you to the contact?	To whom did you introduce the contact?
Mark Granovetter	Me	
Greg Duncan	Steve Alltop	
Deb Gruenfeld	Me	
Henry Bienen	Steve Alltop	
John Wolken	Mitch Petersen	



This exhibit reveals part of coauthor Brian Uzzi's completed work sheet. At the top of his list, for example, is Mark Granovetter, who was Uzzi's graduate school adviser. Granovetter shares his research with Uzzi before it reaches the public domain and reads Uzzi's papers before they're sent out for review.

The work sheet also reveals that Uzzi's superconnector is Steve Alltop. He introduced Uzzi to both Greg Duncan and Henry Bienen, who are individually vital to Uzzi's network.

as well. Most corporate networks are made up of several clusters but with few links between them. Brokers are especially powerful because they connect the separate clusters, thus stimulating collaboration and exploiting arbitrage among otherwise independent specialists.

When Bristol actively expanded her network to include people whose expertise and positions differed from her own, she could link with brokers in her own field as well as in other areas that were strategically important to mortgage lending. These ties spurred creative problem solving and prompted invitations for Bristol to speak at industry events that valued and showcased forward thinkers. Soon, she earned a reputation for spotting promising innovations in their preview stages. Informal post-talk discussions spilled over into formal office discussions, and Bristol went on to lead an advisory group made up of ten high-level financial executives. Bristol didn't need to change her work style fundamentally or develop an entirely new expertise to achieve this success. Rather, she used her new network to turn what she already knew into power, both individually and for her firm.

Sometimes, however, the advantages of private information, access to diverse skill sets, and power, can work in opposition to one another. Choosing contacts to maximize a sense of trust in your network, for example, can inadvertently undercut its diversity—that's what thwarted William Dawes's network. You can avoid the pitfalls, but first you must learn how to diagnose your network.

Diagnose Your Network

You can use a work sheet like the one in the exhibit "How to Map Your Network" to determine what type of network you currently have, discover how your networking practices can lead to one kind of network or another, and overcome the key paradoxes of network building. Starting with the left-hand column of the work sheet, fill in the names of the most important contacts in your network—people you rely on for the exchange of private information, specialized expertise, advice, and creative inspiration. A crucial contact could be your former college roommate who has become influential in an area of interest to you and your firm, a current business associate, an old colleague from the first

company you ever worked for, or your brother-in-law. As you write in each name, think of the resources you exchange with that person, the quid pro quos, and the strength of your ties.

After you identify your key contacts, think about how you first met them. In the center column of the work sheet, write the name of the person who introduced you to your contact (if you met the person yourself, write "me"). This column will reveal the brokers in your network and help you see the networking practices you used to connect with them. In the right-hand column, write the name of someone you introduced to your key contact. This column will demonstrate how you act as a broker for others.

Once your data is filled in, look at the number of times "me" appears in the center column. According to our studies, if you've introduced yourself to your key contacts more than 65% of the time, then you're probably building your network using the *self-similarity principle* and your network may be too inbred. The self-similarity principle states that, when you make network contacts, you tend to choose people who resemble you in terms of experience, training,

worldview, and so on. We have found that executives, in particular, disproportionately use the self-similarity principle to build their networks. Obviously, it is easier to trust someone who views the world through the same lens you do; you expect that person to act as you would in ambiguous situations. What's more, working with people who share your background is often very efficient: You both recognize concepts that allow you to transfer information quickly, and you are less likely to challenge one another's ideas. Finally, like-minded people will usually affirm your point of view and, as a result, gratify your ego.

Our research shows, however, that these benefits offer diminishing returns—and can even turn negative. Too much similarity restricts your access to discrepant information, which is crucial to both creativity and problem solving. If all your contacts think the way you do, who will question your reasoning or push you to expand your horizon? And because, over time, people tend to intro-

duce their contacts to one another so that everyone becomes friends, the similarity of thought and skill reverberates, creating what we call an echo chamber. (See the exhibit "The Importance of Brokers in Companies.")

The self-similarity principle contains pitfalls, however, and even strategic thinkers can be oblivious to them. An excellent illustration comes from Columbia University management professors Paul Ingram and Michael W. Morris. They conducted a study in 2002 to investigate whether executives in the process of making new contacts would fall prey to the self-similarity principle. As part of Columbia's executive MBA program, students were invited to a "business mixer" for a chance to meet new people. At the event, each student wore an inconspicuous electronic device, similar to ones used by a local dating service, that recorded who they talked to and for how long. A survey taken before the event indicated that the executives' primary goal was to

meet as many different people as possible. In practice, however, the students formed new ties with others who were most like them—the investment bankers connected with other investment bankers, the marketing executives talked to other marketing executives, and so on. The most successful networker that evening, in fact, turned out to be the bartender.

Another obstacle to diversity in networks is the *proximity principle*, which holds that workers prefer to populate their networks with the people they spend the most time with, such as colleagues in their department. The reason this principle works against building efficient networks is that the world is organized by like things—people with the same training tend to be in the same department, just as people with similar backgrounds tend to live in the same neighborhood. If you follow your natural tendencies and build networks according to the proximity and self-similarity principles, you will create

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echo chambers in your network and reduce opportunities to enrich your networks with greater diversity.

Forge Better Connections

The best way to break through the barriers created by the self-similarity and proximity principles is by using the *shared activities principle*. Potent networks are not forged through casual interactions but through relatively high-stakes activities that connect you with diverse others. Think again about Bill Gates. Schmoozing didn't connect Mary Gates with IBM's Akers; rather, their trust, exchange of private information, and access to each other's diverse skills were by-products of their work on the same nonprofit board—a shared activity. Any executive can participate in and benefit from a variety of shared activities, including sports teams, community service ventures, interdepartmental initiatives, voluntary associations, for-profit boards, cross-functional teams, and charitable foundations.

The secret to understanding the power of shared activities in building networks begins with recognizing that not all

shared activities are equally potent. Like Gates and Akers's work on a nonprofit board, activities that evoke passion in participants, necessitate interdependence, and have something at stake are more likely to produce networks like Paul Revere's. Someone who cares passionately about an activity will find a way to fit it into his or her busy schedule. And reliance on others to get the job done can build trust quickly, even among diverse individuals. Finally, having something at stake—competing for a prize, breaking a personal record, or achieving a long-term goal—provides opportunities for celebration and commiseration, both of which generate bonds of loyalty that sustain a relationship over time. Consequently, in terms of building your network, an independent activity such as running won't help you nearly as much as joining a running club. And you'll form the strongest ties with other runners in a club when you train with them for a race.

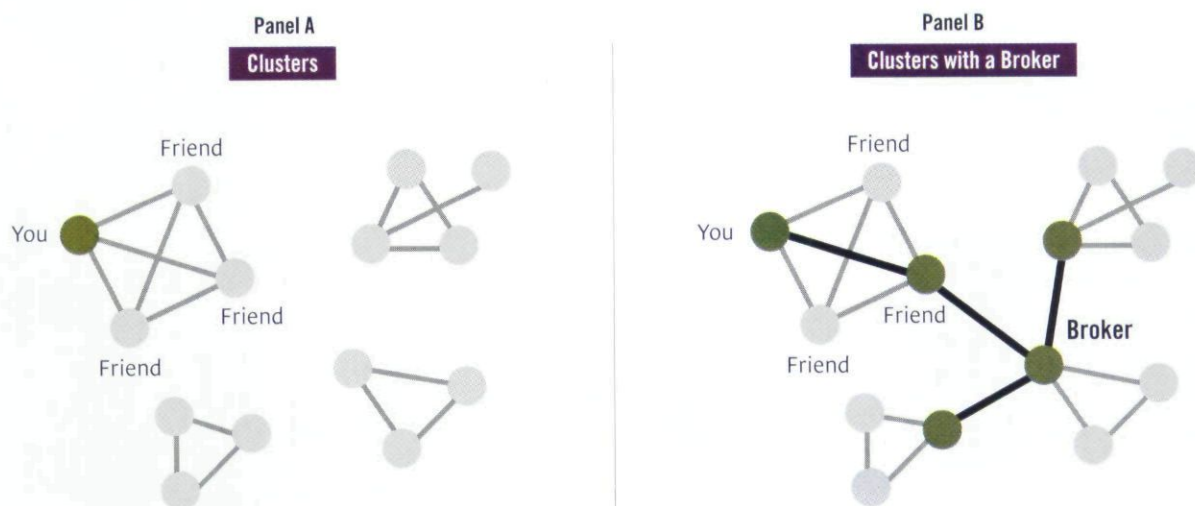
Shared activities bring together a cross-section of disparate individuals around a common point of interest, instead of connecting similar individuals

with shared backgrounds. They let you observe your contacts in a wide range of situations. Participation in a shared activity allows for unscripted behaviors and natural responses to unexpected events—things that rarely show up during business lunches or office meetings, where impressions are managed and presentations are carefully rehearsed. Moreover, because these responses are spontaneous, they are more likely to be perceived as genuine, stable attributes of character that apply not only to the current activity but to other pursuits as well, including commercial endeavors. And because the opportunities for celebration and commiseration generate bonds of loyalty, these diverse individuals can enjoy close working relationships that they might not otherwise have formed.

Todd Reding, a client development executive for nonprofit firms, has witnessed the benefits of shared activities firsthand. Whenever he can, he meets with potential donors through shared activities that are outside a typical business setting. In one instance, Reding expressed interest in a potential donor's

The Importance of Brokers in Companies

Panel A shows that social networks are typically separate clusters—friends of friends are also friends with one another, and they share similarities with the creator of the network, creating what we call an echo chamber. Friendship clusters within companies are no different from friendship clusters outside work. But Panel B shows how brokers within companies can connect the specialized pools of knowledge by linking independent clusters together—giving every member of each cluster better access to other parts of the companywide network.



passion for competitive waterskiing. The donor invited Reding to try it himself, then spent several hours coaching him through a challenging slalom course, shortening the rope to the boat after each run so that Reding's turns became sharper and faster. Despite the differences in their backgrounds, the men

revealing. The interaction made them both more vulnerable but also generated opportunities to demonstrate their trustworthiness to each other. Soon Weeks found himself mediating between the executive and others in the company. "They know I'm the one who understands how he works," Weeks concluded.

To build a network rich in social capital, cultivate powerful brokers who aren't in positions of formal authority – the places where everyone else looks.

quickly began to trust each other as they observed their reactions to unexpected events and shared the emotional roller coaster of failing – and then getting it right.

Shared activities also forge ties between diverse individuals by changing their usual patterns of interaction, letting them break out of their prescribed business roles of subordinate, relationship manager, aide, finance whiz, cognoscente, or president and stand out from the crowd. Reding's "I can step up to a challenge" actions distinguished him from other development executives, and the potential donor was able to see aspects of Reding's character that he felt were critical for putting his investment to proper use. Similarly, the donor's increased trust in Reding prompted the donor to reveal personal experiences that helped Reding revise his original proposal and secure a contribution.

Benjamin Weeks (not his real name), an executive at a life insurance company, has learned how to turn work situations into shared activities to manage upward relationships. Weeks, originally trained as a litigator, used his communication skills to write speeches for one of his company's more senior executives. Through this shared activity, Weeks and the executive moved away from the standard superior-subordinate relationship and formed a closer bond, sharing the highs and lows of their work. As they collaborated on the speeches, they learned about each other's "blind spots and boundaries," as Weeks says, perhaps without even realizing what they were

In essence, the shared activities principle offers the benefits of the self-similarity and proximity principles without their downside – creating a redundant and inefficient network.

Go for Broke(rs)

Returning to your work sheet, take a look at the names of your brokers in the center column. It's important to determine who your brokers are so you can discover what activities bring you into contact with them and how you can further develop those ties. Perhaps the individuals you listed are not obviously powerful broker candidates like CEOs or partners at law firms, but you can reach them and they are well connected to clusters outside your current circles.

Now examine the people listed multiple times in the first column and think about how you met them. The exhibit "How to Map Your Network" displays a partial list of coauthor Brian Uzzi's personal networks and suggests that Steve Alltop is an important broker; he connected Uzzi to Northwestern University's Greg Duncan and Henry Bienen. How did Alltop and Uzzi meet? Not in a business setting but as partners in an unexpected pickup game of squash – a shared activity. After that first encounter and a couple of follow-up rounds, Alltop asked Uzzi to substitute for him in other squash games. That's when Uzzi met Bienen and Duncan, both of whom now figure largely in Uzzi's career.

Indeed Alltop, who is a senior lecturer of music and who also conducts the

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Case Study: How to Fix a Networking Slump

Everyone experiences a lull at some point in his or her career. One way to jump-start your resurgence is to examine your social network for clues about how to get back on track.

Margy Stratton had hit her slump and knew something had to change. A vice president at a manufacturing company, Stratton had been logging more and more hours in her office, but didn't feel like her career was improving. In fact, things seemed to be getting worse. She had stopped getting calls about the kind of projects that she cared deeply about and that energized her creativity at work. She felt disconnected from the community.

When Stratton filled out our network work sheet, she saw interesting patterns emerge. First, she recognized that many of the names in the left-hand column were board members from nonprofit organizations she had been involved with. However, she had stepped down from two of her three board positions 18 months ago, to be more visible at work.

One look at the center column revealed Stratton's broker; Corina Johnson's (not her real name) name appeared in nearly one-third of the spaces. Johnson was dynamic and seemed to know everyone. She was the kind of person it was impossible to say no to—which is how she recruited Stratton for the fine arts board. She had introduced Stratton to lots of people, from members of other boards to the best nanny that Stratton had ever hired. Furthermore, Johnson was a broker of quality as well as quantity, introducing Stratton to business associates who could truly help her career. But it had been more than a year since they had spent time together; Stratton realized that she'd been neglecting her most powerful superconnector.

The right-hand column of Stratton's work sheet showed that she had also served as a broker for others. Stratton had often introduced people to one another across boards, and her key shared activity, her involvement in several boards, had made her feel well connected. That confidence had made her more resourceful in creating links among the people she knew and in winning their gratitude. Now that Stratton understands the importance of her shared activities, she is planning to revitalize her network and galvanize her career.

Northwestern University symphony orchestra, turned out to be a *superconnector*—a powerful broker who shares his diverse contacts. As conductor, he attends most major university events, from professional-school graduations to welcoming events for important donors and celebrity guests. Essentially, Alltop's occupation is one big shared activity, and this—not his level of formal power in the organization—accounts for his broad, diverse network.

To build a network rich in social capital, cultivate powerful brokers who aren't in positions of formal authority—the places where everyone else looks. For example, a crucial superconnector

in Todd Reding's network was Pete Barnette (not his real name), an attorney he met through their joint links to a nonprofit board. Barnette was responsible for many of Reding's important business contacts in various locations, such as Chicago, Iowa, and Arkansas.


We've often been asked if a broker should be told of his or her role once an executive is aware of it. On one hand, telling a person that he is disproportionately important to your network could alter the relational dynamics. The broker might feel used or might want something in return that you cannot give. On the other hand, a disclosure could deepen the relationship by revealing

gratitude and sincerity, which, in our estimation, is the best principle of action in a network.

When Reding meets brokers like Barnette, he openly tells them that he appreciates their assistance in making new contacts. The brokers are always flattered and willing to help, he says. Similarly, Uzzi's revelation to Alltop that he was a superconnector turned into concrete business implications for Alltop. With new knowledge about how networks operate, Alltop decided to accept an offer to become conductor of the Cheyenne Symphony Orchestra in Wyoming. He took the position not only because it was a great opportunity for him, but also because many of the CSO's musicians worked for other major orchestras in the off-season. Alltop realized that the connections he could make through the CSO could get his name on those other groups' radar screens. After two years in Cheyenne, Alltop's network paid off. Though he hadn't learned special new pieces of music or become more musically talented, he was invited to conduct a weeklong classical music festival in Bologna, Italy—a festival that attracts journalists, photographers, and radio and TV coverage—thus extending his reach even farther.

Research shows that if you create your networks with trust, diversity, and brokerage, you can raise your level of information from *what* you know to *who* you know.

...

More than 100 years ago, Ralph Waldo Emerson reportedly declared during a lecture, "If a man can write a better book, preach a better sermon, or make a better mousetrap than his neighbor, though he build his house in the woods, the world will make a beaten path to his door." But Emerson was only half right. Creativity and insight are certainly important, but without an effective network, you may never spark your imagination, reinvent yourself, or declare your sensational news to the world. 

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