

**FOR PUBLIC
RELEASE**

6 network presence

**harnessing the flow of
marketing, customer feedback,
and knowledge**

**Today, your company's success depends on how well it
builds its network presence in three key domains:**

- **Marketing**, which is now mainly about influencing the flow of messages through consumer networks
- **Customer feedback loops**, which tightly link a company and its customers, enabling them together to constantly create more value
- **Work processes and knowledge**, which flow through the networks of workers within and beyond the firm

J.R.R. Tolkien's epic saga of Middle Earth, *The Lord of the Rings*, was first published in 1954, accumulating tens of millions of copies in sales during the coming decades.¹ As the foundation for a vast subculture, and an entire associated industry of fantasy books and games, the book still plays an important role in many people's lives. When New Line Cinema, a division of AOL Time Warner, began work on *The Lord of the Rings* film trilogy, which would be the first to use digital technologies to bring the books to life, it recognized the value of tapping the existing communities of die-hard fans. Other film studios have closed down fan Web sites so they can control marketing, including a different division of AOL in the case of the Harry Potter films, but New Line decided to work actively with the more than 400 existing fan sites.

The keys were maintaining an official film Web site so exciting that other sites would publicize its activities and providing fan sites with their own material to keep their audience returning and interested in the films. When New Line's *LordoftheRings.net* was launched almost three years before the first film's launch, sporting not much more than early notes and sketches, it attracted several hundred thousand hits on the first day. Since then, the Web site has been consistently updated and will continue to be until the last film of the trilogy is released on video in 2004. The wide network of fan sites ensures that any major releases on the site, such as short clips on the film's making, are quickly accessed. The first movie trailer was downloaded 1.7 million times in its first day on the site.² This successful film promotion drew on how deeply people are connected today, how they spread news through their personal networks, and how communities of like-minded people gather to share information.

Just for a moment, think of how you fit into the global networks. You are at the center of a vast network of connections with other people, consisting of everyone you have ever known and communicated with. As a consumer, most of the messages that contribute to your buying decisions come from this network, from the people that are in some way part of your life. As a worker, your ability to connect usefully with people inside and outside your firm is increasingly the foundation of your ability to create value. Everyone you touch in your life is at the center of their own rich set of connections, together weaving the immense web of humanity.

Within the networks that constitute society, communities emerge that feel they have something in common, something that draws them together. These communities can be based around an

interest like *The Lord of the Rings*, values such as ecological activism, or professional expertise like wastewater engineering. Whatever it is that brings people together, the result is that each member knows what others find interesting and will actively pass on and exchange information. There is a sense of affiliation that leads to sharing, and even from self-interest, people know that those who add value to communities tend to get back a lot more in return as others provide them with useful information and insights. John Hagel and Arthur Armstrong first brought home the business implications of Internet-enabled customer communities in their book *Net Gain*.³ Communities have become even more important today because they are so central to global information-sharing activities, but it is also essential to understand that they are just a subset of the personal connections that constitute the global networks. Nurturing communities of workers and customers are invaluable management practices, as you will see. However, this is just part of the picture.

In an economy based on the flow of information and ideas through networks, a company *is* its presence in these networks. There are three primary aspects to a company's network presence. *Marketing* is now primarily concerned with the flow of messages between networks of consumers. Companies must build *customer feedback loops* that connect them closely with their customers and allow them to enhance the value they offer. Within companies, *work processes and knowledge* flow through the networks that connect workers. These three key domains to companies' network presence are illustrated in Figure 6-1.

These three domains are deeply related. Marketing is oriented to both existing and potential customers, while customer feedback is focused on creating more value for current customers. The connection of useful knowledge with its application within organizations is how this value is created. In order to achieve a more powerful presence in the networks, companies must address all three issues. The three related sets of action points companies must implement to build their network presence are shown in Table 6-1.

MARKETING IN THE NETWORKS

You may have once opened your email to find a movie depicting a bear fishing in a pristine mountain river. After the bear catches a large salmon, a man comes up and in unarmed combat demolishes

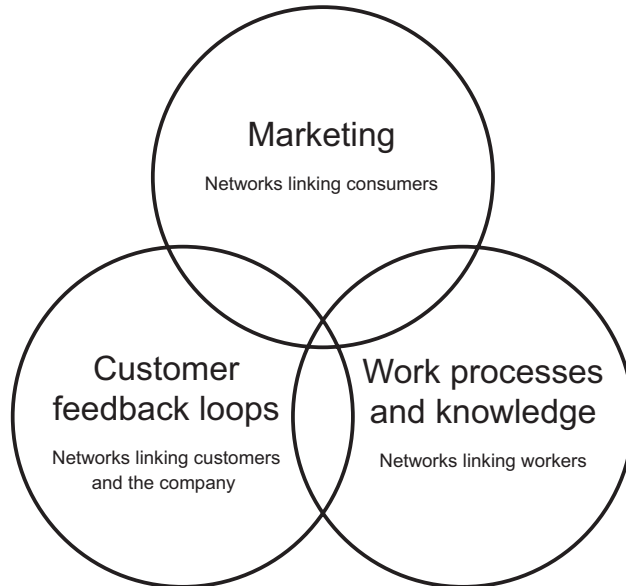


Figure 6-1 A firm's network presence covers three key domains.

the bear, running off with the fish, leaving the logo of British canned food maker John West. Leo Burnett in London had created the humorous ad for television, and apparently simply posted a compressed video of the ad on an industry Web site for feedback. Viewers immediately emailed it to their friends, sparking a flurry of distribution that was estimated to reach 15 million people within 24 hours. The award-winning commercial had a far bigger impact through its free email distribution than its expensive television screening.

A meme is the cultural equivalent of a gene: an idea, belief, or behavior that has a life of its own and spreads from one person to another by how it influences its carriers.

belief, or behavior that has a life of its own and spreads from one person to another by how it influences its carriers. A catchy jingle that people hum, virus hoaxes that ask to be sent on, and flared trousers coming back in style are all memes. Perhaps the best example is the idea of the meme itself. Coined in 1976 by evolutionary biologist Richard Dawkins to help explain his ideas, it rapidly took

One of the most useful tools to understand the new world of marketing is the idea of the meme. A meme is the cultural equivalent of a gene: an idea,

Table 6-1 Action Steps to Building Network Presence

Building Network Presence
<p>Marketing</p> <ol style="list-style-type: none"> 1. Design for propagation. 2. Foster network effects. 3. Create interaction. 4. Choose fertile territory. <p>Customer feedback loops</p> <ol style="list-style-type: none"> 1. Monitor customer communities. 2. Get faster, richer feedback... and use it. 3. Involve customers in innovation. 4. Use input for customization. <p>Work processes and knowledge</p> <ol style="list-style-type: none"> 1. Identify and empower network hubs. 2. Nurture communities of specialists. 3. Create adaptive systems. 4. Develop a collaborative culture. 5. Foster external networks.

on a life of its own, spawning millions of conversations, a small library of books, scholarly journals, and now many hundreds of Web sites. All ideas that flow through the networks, including marketing messages, are memes. Their breeding grounds are people's minds, and they spread from one mind to another by speech, behavior, and, increasingly, digital communication. Just like genes or anything living, some are more successful than others.

We know that the propagation of ideas has become immensely easier. Memes have never before had the potential to spread so fast to so many people. It's as if rabbits could suddenly breed with any other rabbit around the world and produce offspring in seconds. This certainly is a great leap forward for rabbitkind. However, to continue the analogy, rabbits are not the only animals that can now breed prolifically. Suddenly, every animal has the ability to create a massive population overnight. All of these animals may be able to procreate

Today only the very fittest memes thrive, though if they do they can almost literally conquer the world. The rest die ignominiously.

almost infinitely, but in a world of limited resources, only a few will survive. In the case of memes, their common living territory is people's minds. This, fortunately or unfortu-

nately, is a limited space. With a million memes—and more every day—trying to come to roost in our minds each day, only a few will succeed, let alone motivate us to pass the meme on to others. Certainly, memes have the potential to propagate incredibly fast and wide, but the competition is remorseless. Today only the very fittest memes thrive, though if they do they can almost literally conquer the world. The rest die ignominiously.

This is the world in which marketers live today. Their ideas have the potential to be immensely successful, accessing tens of millions across the globe, yet it is far harder for them to be heard at all, usually stifled before infancy by the vast population of competing messages. Designing memes for marketing success requires paying attention to four key success factors.

1. Design for propagation.

The Wall Street Journal, no less, expressed its admiration for the smooth disco dancing moves of President George Bush, as shown in the popular interactive software “Dancing Bush.” The clip's designer, *Miniclip.com*, makes interactive games using Flash software, which are around a tenth of the size of short video files. This makes it easy for the majority of Internet users that still use dial-up access to access the clip or forward it to friends.

Now almost any interesting information, video, music, or game can be passed on to others with minimal effort. It is by now standard practice to put “Email this to a friend” buttons on Web sites, allowing people to spread the word at the click of a button. Recommend-It's free referral service is used on more than 140,000 Web sites, enabling Webmasters to incorporate the feature easily. Visitors can spread the word about the site and enter promotions, and all the while the Web site earns revenue for each person who uses Recommend-It's services from its referral.

Because it has become so easy to forward messages, the primary issue has become how to motivate people to pass something on. Movies, as in the John West example, have successfully spread because they can be very entertaining, but attention spans are short, especially in the demographics usually targeted by this kind of marketing.

Zeitgeist—a word neatly stolen from German—means “the spirit of the times.” As the pace of cultural change accelerates, the job of marketers is precisely to tap the zeitgeist and to create messages that people feel represent the cutting-edge of society and culture.

Flat Eric was a marketing phenomenon unleashed by Levi’s Europe. Three brief television advertisements showed an outsized yellow sock puppet dancing to techno music in a car. The Internet version of the movies spread like wildfire, a cult movement was created, the Flat Eric single reached number one in the UK and Germany, and Flat Eric went on to take Japan by storm, despite the advertisements not being screened there. Levi’s UK advertising agency Bartle Bogle Hegarty, in its regular trawling of underground art, had seen a short movie created for \$2,000 by French director Quentin Dupieux, decided it had street credibility, re-created it as an advertisement that barely referred to Levi’s, and saw it spread like wildfire.

Marketers are now engaged in a battle to create more virulent memes than anyone else. This is far more art than science because the cultural environment is changing so quickly. Something that excites people one day may seem boring a month later. Creativity in marketing—and an associated ability to be on the edge of trends—is becoming more, rather than less, important in the networks. In Chapter 11, I look at the future of the propagation and filtering of marketing messages.

2. Foster network effects.

Let’s say you receive an email that says “You’ve Got Cash!” All you need to do is open a free no-obligation account, and you can claim the payment. It’s a pretty easy decision to make. Paypal, a company that enables anyone with an email address to send money electronically, has designed a business model that has acquired more than 16 million users with almost no traditional marketing or advertising.

Paypal—which was acquired in mid 2002 by eBay— is trying to create the dominant network for Internet payments. It’s a classic example of network effects. People will tend to use whichever system is used by most other people. Paypal has to make it easy and worthwhile for users to sign up for its payment system and spread the word. It got started with a straightforward proposition for potential users: Sign up for an account, and we’ll pay you \$10. Initial subscriptions were healthy, but not earth-shattering. Then, participants in online auction site eBay came across Paypal, realized it was the easiest way to make payments online, and by using it introduced it to

others who were regularly sending money to many people. In early 2000, Paypal's user base grew by 7 percent to 10 percent every day.

Since then, Paypal has reduced the payment for user registration to \$5 and introduced conditions that help ensure that the user will be profitable. It also runs a user-referral scheme, whereby whoever introduces someone who is eligible for the \$5 bonus also receives \$5. Certainly one perspective on Paypal's initiatives is that it is implementing aggressive pricing models to build the network, but the whole structure of its business model is based on exploiting network effects to their fullest. eBay's acquisition of Paypal shortly after the payments company went public shows its intent to build further on its own network-based business model.

Any information-based product or service has potential network effects, and marketers need to take full advantage of these. Companies need to assess precisely how their customers may benefit as the network grows larger. Out of this can emerge a multitude of potential strategies to engage customers in promotion on your behalf. . . and their own. You must communicate effectively to users the benefits of building the network and also make it easy for them to do so. A simple example is how cell phone providers offer extremely low rates for calls to subscribers on the same network. Customers will actively want to get their friends to use the same mobile provider because it means they will have to pay less for their calls. The users of Apple computers have always understood the importance of spreading the word, and Apple has done what it can to help them. Guy Kawasaki's job as Chief Evangelist at Apple was largely to assist the missionary efforts of its customers. One user designed a "Made With Macintosh" logo to be placed on Web sites, clearly explaining to Mac users why they should want to promote the platform proactively in this way.

3. Create interaction.

If you watch MTV, how often do you wish you could put on your own choice of music? If you live in Europe, you can. Viewers do the programming on MTV's VideoClash. The audience uses voice telephone, mobile text messaging, or the MTV Web site to vote on what music video should be played next, so even the producers don't know which video will be broadcast until 15 seconds before it goes on screen. The great success of the initial program in the United Kingdom has resulted in VideoClash being rolled out in local language versions across Europe.

The new game is creating interaction. Increased interaction between you and consumers results in a stronger brand presence, additional marketing opportunities, and more information about your current and potential customers. At the same time, the more interaction that there is between your customers, especially if it's related to your offerings, the more likely positive messages will spread. The more that your target market is connected, the better for you.

Instant messaging and text messaging are at the vanguard of how the flow of messages is changing. In early 2002, there were already well over 75 million users of instant messaging in the United States alone, and the number looks set to soar as the technology becomes integrated into Web sites. Instant messaging "buddy lists" that show people's chat friends are now starting to include automated conversationalists. Activebuddy is helping companies like eBay and *Ellegirl* magazine to create instant messaging buddies that interact with their customers by answering questions and chatting. Another firm, Facetime, is helping companies like Dell and FAO Schwartz to use instant messaging to communicate with their customers.

In Europe, text messaging is now part of everyday life for many people. A few marketers are trying to send advertising messages to consumers' mobile phones, but this is more likely to turn people off than attract them. However, it creates a new medium for interaction. A UK campaign for Cadbury's chocolates put a code number on the wrapper of 65 million chocolate bars. Customers sent a text message of the code for a chance of winning major prizes, bringing a wide-ranging response of people who not only provided their mobile phone number, but also yielded extremely detailed information on distribution and consumption previously unavailable to manufacturers.⁴

4. Choose fertile territory.

Research in Motion (RIM) was a relatively unknown Canadian company in early 1999, when it launched what it believed had the potential to be a hot product—a mobile pager and email device called the BlackBerry. It didn't have the budget for a massive advertising campaign, as many of its peers were undertaking at the time, so it sought to tap the opinion makers in its target community. RIM recruited around 50 "wireless email evangelists," whose job was to visit Fortune 500 companies and set up BlackBerry pilot programs that offered free trial pagers. These evangelists focused on accessing mobile professionals, such as salespeople, consultants, and staff in the companies' IT departments, because they knew that these were

the ones likely both to take to the device and spread the word to their peers.⁵

Because messages increasingly spread by word of mouth, marketing campaigns need to be designed to tap those groups that are most likely to spread the word and be influential in the target market. Sometimes the relevant communities will be obvious, for example, in marketing baby products. In other cases, it may be necessary to tap related groups. Wherever possible, you want to gear your promotions to the people who are the most connected, both technologically and socially. Absolut Vodka initially focused on the San Francisco gay community in its U.S. promotions because it is a well-connected trend-setting scene, not because it was the target market.⁶

Marketing is increasingly about spreading messages within broad communities of consumers, who may or may not be customers. It is designed to generate positive impressions, attract interest, and hopefully create customers. After they are customers, the critical network is the one that connects them with the company. Here I explore how to create customer feedback loops.

BUILDING CUSTOMER FEEDBACK LOOPS

Consumer expectations have soared over the last years. In a world of digital connections, customers take for granted virtually immediate responses to their problems and desires. For the last few years, companies have been working hard to improve their service response by creating new service delivery channels, building sophisticated automated response systems, and enhancing call center processes. The intent is to respond to customers' issues quickly and efficiently.

What companies now need to do is to close the loop. This means using feedback to change *how* things are done. What customers tell you should result not just in fixing a problem or trying to keep them happy, but actually in enhancing services, products, and their delivery, and swiftly getting feedback on those changes. This creates a living cycle that builds powerful relationships, and a level of value to customers that can be hard to equal.

Applying customer feedback to improving how business is done is not new. What *is* new is how communication technologies enable companies to integrate input and feedback so quickly that the customers become deeply involved in the company's core processes. This tight customer feedback loop is illustrated in Figure 6-2.

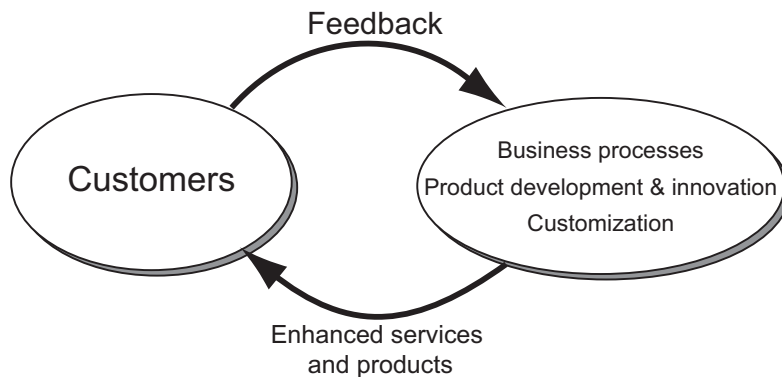


Figure 6-2 Customer feedback loops.

The heart of the issue is how customer feedback is used. It's easy today to gather feedback quickly and effectively through Internet focus groups and by monitoring online discussions. However, unless that input is applied to make things different, it is wasted. It is only when customers' feedback results in changes that they can notice that there is a true customer feedback loop rather than simply a response to complaints. There are four key steps in bringing these customer feedback loops to life, and in the process creating true competitive advantage.

1. Monitor customer communities.

Many people who would never have complained to a company are happy to express their thoughts on *PlanetFeedback.com*, a Web site where consumers can share their experiences and views. It's easier and less confrontational than writing a letter or making a telephone call, consumers feel that their voices are heard because at least their peers will read their opinions, and they understand the power of numbers in attracting the attention of corporations. In a typical story on a similar Australian Web site, aptly named *notgood-enough.com*, one user found the manufacturer of a faulty heater responded with alacrity when his complaint was posted in a public forum after getting no answer to letters and emails.

The new forms of dialogue that have emerged in the Internet age present a massive opportunity for companies to gain a deeper insight into their customers' views and opinions. Chat and discussion

forums are the new agoras—public, open spaces in which everyone can hear what others are saying and join in with their own thoughts. The proliferation of these means that far more of the world of customer interaction is visible, but it is harder to monitor everything that is going on. Companies like eWatch, a division of PR Newswire, scan public activity on the Internet and report to their clients on any references to their company and products. However, these services are promoted mainly as a means of identifying and dealing with negative messages. For example, eWatch also offers services such as getting forum hosts to delete messages and tracking down anonymous posters. There may be times when these are useful, but monitoring what is being said about the company is far more than a public relations tool. It should be one of the primary inputs into everything the company does and how it tries to continually improve what it does. *Staples.com* has a service improvement team that uses feedback directly from customers as well as from third-party monitoring sources to enhance the Web site and service.⁷

Customer communities often provide the best source of direct input because participants expect the company to be monitoring discussion, and are more likely to make constructive comments. Unfortunately, quite a few customer forums provide customers with a chance to interact, but their comments are either left unread or are not acted on in any form. This is a big missed opportunity.

2. Get faster, richer feedback . . . and use it.

Procter & Gamble now does almost half of its product tests and focus groups online, allowing it to get feedback on new product trials within a few days rather than months. Every one of the more than 250 brands within the company's vast empire of consumer products regularly runs focus groups, so the shift results not just in cost savings but also, probably more important, a substantial acceleration in the feedback and product development process.⁸ In a similar vein, every day eBay emails thousands of customers that have been in touch with the company within the previous 24 hours to invite them to respond to a detailed satisfaction survey. Companies can now swiftly get far more detailed feedback from their customers. The obvious first step is to take advantage of communication technologies to tap that faster, richer feedback. The initial problem is that there is now often far too much information. In addition, business processes must change in order to take advantage of the new wealth of feedback.

Clearly, one of the richest channels for customer feedback is a company's salesforce. The challenge is taking the immense wealth of information potentially available and making it useful and actionable, without disturbing salespeople from their primary duties. Companies can get their salespeople to contribute ideas or snippets of information into an online system. This is only worthwhile if a streamlined filtering mechanism is in place to ensure action is taken, but this also means that salespeople can be rewarded for valuable contributions. Innovation processes such as the BT Ideas systems referred to in Chapter 5 can be adapted to tap customer feedback. One company provides a different topic each week for its salespeople to focus on in gathering customer feedback.

In technology product development, traditionally alpha testing is an early stage process performed inside the company, while beta testing gathers feedback on a prerelease version from potential customers. It is now possible to get input rapidly from a very broad range of external beta testers, but doing this effectively is becoming an enormous job. BetaSphere, a company that provides software and services to incorporate customer input into product development, has attracted clients such as Palm, Cisco, HP, and Federal Express. These companies need to recruit a broad and representative range of testers; work with them to ensure they are providing useful, timely information; and collate their input into reports that developers can apply directly in enhancing products. Taking full advantage of the new possibilities of information flows requires applying effective processes. In addition to making beta testing far more valuable, the development of the networks means that even very early stage alpha testing can include customers. This is exactly what IBM's alphaWorks unit does, as described in Chapter 5. Customer involvement can shift from product development to innovation, generating the ideas that drive a business.

3. Involve customers in innovation.

United Parcel Service (UPS) regularly visits its largest clients, sending teams that include product development, strategy, and innovation executives, as well as the account manager, to meet its clients' senior management for up to a day, presenting and discussing forthcoming UPS initiatives. Everything from recently launched products through to very early stage concepts are brought to the table to see what may strike a chord with the clients. In one of these sessions with Gateway, UPS proposed the idea of merging goods in transit. This meant that

UPS would put together the shipments from all of Gateway's suppliers as they were being transported to result in regular deliveries of all the required goods for production, rather than a multitude of uncoordinated parcels coming into the dock. Gateway expressed enthusiasm for the idea, worked with UPS to refine the concept and implementation, and was the first to adopt this new service that was subsequently offered across all of UPS's major clients.

The challenge for companies today is to find effective ways of involving their customers in the innovation process, rather than simply seeking feedback or market testing along the way.

Customers always have been and always will be the greatest source of innovation. That doesn't mean that companies can simply ask their customers what they want and give it to them.

Innovation stems from the interaction between a company and its customers, bringing different perspectives together both to come up with novel ideas and to develop them into a useful form. The challenge for companies today is to find effective ways of involving their customers in the innovation process, rather than simply seeking feedback or market testing along the way. The potential power of this is unleashed in a networked world. British consultancy KSBR works with major firms such as Lloyds TSB to identify customers who have complained vocally. It asks these customers to develop ideas to help the companies improve their service and gets them to present their ideas to company executives in highly interactive forums or on video. KSBR finds that most customers who complain have very constructive ideas and actively want to help companies to perform better.

Lucas Arts asked its customers to help develop its game Star Wars Galaxies. A year before the planned release date, the developers launched a Web site specifically to get broad participation in the design process. As the game was developed, updates were posted to the site, participants were asked their opinions on design issues, and the lead designers answered questions from the community. Die-hard fans were able to debate issues dear to their heart, such as whether any player should have the ability to achieve the ultimate Star Wars gaming ambition—to become a Jedi Knight. Clearly the exercise was valuable for its promotional value, but just as important, it resulted in an award-winning, top-quality game that was truly designed from the perspective of the user.⁹

In Chapter 5, you saw how open source software demonstrates the power of customer innovation, as well as the distinction between

idea generation and development. This helps frame how you can involve your customers in innovation. Focus on getting ideas directly from customers, as well as gaining insights that will spark your own ideas. Actively engage in dialogues about their needs and issues. Get designers and product developers, not just marketers, to interact directly with customers. Also, design development processes that involve customers throughout. Customer testing is not enough. You have to get them involved earlier. That is what creates winning products and services.

4. Use input for customization.

The product designers who spend a day at GE Plastics' Customer Innovation Center in Selkirk, New York, can leave the premises not only having developed the exact color and effects they require for a new product, but toting home in their luggage an initial batch of color resin and sample plastic parts in their very own custom color. If the library of 20,000 standard colors isn't sufficient, customers can create a new one, within a few minutes produce plastic samples to view under a range of lighting conditions, and then, if they have brought plastic molds, can evaluate how their own product looks in the selected color. For those who prefer to avoid leaving the office, an online service allows a similar interactive process for color development, producing small lots of the customer-designed color within 48 hours. The customer colors are held in the system, and an extranet gives customers a secure way to share color information with third-party designers and manufacturers.¹⁰

Billions are spent annually doing customer surveys, yet many of these focus mainly on asking customers how satisfied they are with different aspects of service. This feedback certainly can be useful, but far more valuable is applying information directly to customizing service and products. Consider how you can build this approach into your business model, as GE Plastics has done.

Many companies have missed much of the potential value in how they have implemented CRM systems. These systems can only ever be as valuable as the information they contain. As firms gather information on all of their interactions with customers, they can learn a great deal on how to service them better and what sorts of offers they are likely to accept. However, whether you interact with your customers online, through call centers, or through dedicated salespeople, you have an opportunity to ask them questions. So

given your customers' limited attention span, what few questions do you want to ask them?

Rather than asking your customers whether they are satisfied with your service, try asking questions that will enable you to customize what you do for them. In Chapter 4, you saw how this kind of approach can be applied in high-value services relationships, but it is just as relevant in every industry. Depending on your business, you might ask what communication channels they prefer, whether they prefer a large typeface, what operating system they use, or what is the configuration of their loading docks. Customers recognize that this sort of information enables you to provide them with better service, so they are usually very open. The trick is designing your CRM system so that it can both accept this sort of information and can apply it directly to customized service. If the system is designed with this in mind, it can prompt customers or relationship staff for the information and then immediately demonstrate to customers that you are listening to them by using it to enhance service directly. This can do an immense amount in making them more open to sharing information with you, creating loyalty, building rich customer feedback loops, and uncovering far more revenue-generating opportunities.

Customer feedback loops link the people inside an organization with the most important people outside: the customers. However, in order to be able to respond effectively and to create the service levels and innovation that will delight customers, the workers in a company themselves need to be closely networked. Let us examine the flow of knowledge and work within organizations.

THE FLOW OF WORK AND KNOWLEDGE

While a Shell affiliate was developing an oil well near Damascus, a drilling tool became stuck near the surface of the well. The cable had snapped, wrapping around the tool and making it unable to be moved in any direction. No one at the facility or in the local Shell country operations knew how to fix the problem. At the same time as considering whether they would have to abandon the well, they promptly sent a message to Shell's Global Network covering expertise in well operations. The person with the greatest experience in the field was usually located in the Netherlands, but was currently in Bangladesh. After being contacted and put in touch with the local well-drilling team, he was able to run simulations

and suggest different equipment to use, enabling the tool to be freed and the well to resume production.¹¹

How do you connect knowledge with its application? Every company confronts the same issue. However, Shell provides a particularly pointed example, with 81,000 people around the world, each developing highly refined expertise that can be of value across the organization. Shell has focused on developing networks of experts in a wide range of domains. It also collects documents and models that can be valuable to others around the world, but it recognizes that in the case of highly specialized knowledge, it is most valuable simply to connect people. Shell Exploration has developed three core global networks focused on technical disciplines, as well as a number of other ones covering business issues, such as procurement and competitive intelligence. The basic functionality of the systems is to allow anyone to post questions and get responses from anywhere in the world for possible solutions, or who or what might provide an answer. Often users find that others have already asked similar questions and can find the answers posted. In many cases, the exchange simply helps the people who have a problem to identify those that have the relevant knowledge, and they can then continue discussions by email, telephone, or if necessary by travel. Another initiative called Global Consultancy provides a “yellow pages” directory of leading subject experts throughout Shell’s worldwide operations that can be contacted and brought in for short-term assignments to different locations and divisions.¹²

The challenge of accessing and applying knowledge within organizations can be met through two main approaches. People’s knowledge can be embedded into documents, models, and software so that many others can use it, and staff can be connected directly to others with relevant experience so they can apply their knowledge to a specific issue.¹³ These two strategies—sometimes called “collections and connections”—are relevant to every business. However, increasingly, providing connections to others is becoming the dominant tool. One reason is that, in today’s business environment, innovation is essential. Following processes effectively is important, but the greatest value is created by enhancing how things are done, and this is almost always a complex, collaborative task.

As you saw early in this chapter, communities are a subset of networks. The idea of “communities of practice,” which bring together the practitioners of a technical or work domain into collaborative groups, has recently attracted enormous management attention. In a

business world increasingly based on applying specialist knowledge, this must be a primary emphasis, but it is easy to overlook the reality that most work today is multidisciplinary. As a result it is frequently the connections made across fields that are the most valuable. Building communities focused on specialist topics is invaluable, but what is more important is the bigger picture of creating a deeply networked organization. Managers must take five key steps.

1. Identify and empower network hubs.

Look at just about any kind of network you can think of—for example, the Internet or social connections—and you will see that a relatively small number of “hubs” account for the majority of connections. In the case of companies, there are always a few particularly widely connected people who not only know what is happening and who have expertise in their own division, but who also have valuable contacts in other parts of the organization or other locations. These people are the hubs who make the organization a network.

It's great to have an online system that lists the resumes and experience of every person in the company. Yellow pages initiatives of this kind, similar to that described in the previous Shell example, are often one of the first in any internal knowledge sharing program because they're relatively easy to implement and can have immediate benefits. However, they by no means reduce the importance of network hubs in connecting people. Having a personal introduction often makes a tremendous difference. Someone calling you because they've seen your name on a database is likely to elicit a different response than if they say they're calling on the suggestion of a trusted mutual contact. One of the reasons is that knowledge networks are in effect marketplaces. You trade your knowledge for other benefits, largely the ability to draw on others when needed. The more that social networks are involved in this process, the more readily the company can become an effective knowledge market. In addition, the network hubs know who really is the best in their field, who is likely to help, and how best to approach them—all information that is never shown on a database. In addition to providing online means of connecting people, companies need to identify the people who are already acting as network hubs and help them to be better at this invaluable function.

BP Amoco actively develops individuals who are well-connected across the organization. Employees contact these widely connected

hubs when they need to access expertise and resources, but don't know where to find them in their far-flung organization. The managers of these network hubs try to ensure they have the time available to fulfill this role in addition to their normal responsibilities. Connecting people becomes an informal part of their jobs.¹⁴ Many firms now use network analysis software to identify who are the network hubs for valuable information flow and use this to nurture people in these roles or to promote better working structures. Deloitte Touche Tohmatsu Australia has used network analysis for some of its service lines to identify which people are the most useful in winning business and the most generous with their ideas, time, and contacts. This helps individual practice groups and partners to develop more effective strategies for working within the broader firm.

2. Nurture communities of specialists.

Montgomery Watson Harza is one of the world's largest environmental and infrastructure engineering firms, engaged in projects such as building the world's biggest centrifuge to treat digested biosolids (let's keep that in engineering-speak) for the City of Los Angeles, and constructing wastewater treatment facilities for an Intel chip plant in China. Because its work depends on highly specialized engineers spread across more than 30 countries, it has placed a strong emphasis on developing focused knowledge communities. Its initial work concentrated on identifying those groups who already had substantial useful interaction and providing them with the tools and resources to work more effectively. For each identified community, a knowledge leader was chosen, who commands the respect of his or her peers, has the necessary social skills to form cohesive and productive groups, and, very important, has personal ties to key knowledge leaders, especially in other regions of the world. These nominated leaders are given both classroom and online training courses on how to run effective communities, and are supported by dedicated staff in their community leadership roles. Technology plays an important role in being able to intermediate communication, but the role of face-to-face contact is clearly recognized. Community members are provided with the budgets to meet regularly to complement their online activities.

Even though nurturing communities of specialists is only one element of creating the effective flow of knowledge and work in an organization, this often provides an essential linchpin for all efforts

to build knowledge networking. The affiliation felt by people who have a common field of expertise or practice can be very powerful. They usually want both to learn from their peers and to share their knowledge actively. These initial networks can help to seed broader based initiatives and collaboration.

Organizations should begin by identifying the informal communities, that is, the groups that communicate and get together for no other reason than because they find it a valuable part of their work and personal development. They often don't think of themselves as communities, but they're likely to be quietly doing marvelous things for the organization. If a community is already thriving, allow it to continue, but offer resources such as communication tools, recognition, and possibly a formalization of its role. Because most workers are short of time, it can be very useful to make it part of key members' job descriptions to participate in internal communities.

One of the most important success factors for communities is leadership. The reality is that effective groups are almost always centered around a person or small group who moderates, encourages, connects, seeks resources, and generally makes a disparate and often distributed group cohesive. There is a clear set of skills required, and training in community leadership for those who are nominated or fall into that role is invaluable. At the same time, good leadership requires respect from the community members. Schlumberger, a large oil services company, has placed a strong emphasis on connecting its technical experts and field engineers in communities. Community leaders are formally elected by the members, ensuring that the leaders are trusted by their peers and are virtually always well-connected. The voting turnout for community leaders exceeds 50 percent, reflecting the importance members place on the issue.¹⁵

3. Create adaptive systems.

Too much structure in trying to enhance internal networks and collaboration usually results in the unforeseeable—and most valuable—interactions never happening. On the other hand, allowing things to happen by themselves usually means that very little happens. How can you tread the delicate boundary between creating enabling structures and ways of working without stifling the unpredictably useful connections from emerging?

Eli Lilly's Research and Development group has implemented an internal collaboration system designed by CompanyWay, a start-up

that applies to collaboration the principles of how swarms of insects can demonstrate organized behavior. The system allows a broad range of participants to propose ideas, add comments, and assess the value of each others' ideas and comments. As discussion on a particular topic proceeds, the groups' collective judgment is applied to determining whether to pursue or abandon the idea, and how best to modify and apply it. Over time, the contributors whose comments are consistently rated highly by their peers gain privileges in the discussions. Throughout the process, participants are allocated credit points depending on how their contributions are assessed. One of the most useful aspects of Eli Lilly's implementation of the system is that a number of users who were not formal experts made some of the most valuable contributions, as assessed by the group. Ideas are the true currency, and leaders emerge through the quality of their input rather than their titles or qualifications.

The networks are alive, so we need to treat them as living systems, allowing behaviors to emerge rather than imposing rigid structures. When ants forage for food, they lay down a pheromone trail. When they are in new territory, they walk around more or less randomly, but when they stumble across food, they will take it back to the nest and return for more. Because ants will tend to follow paths that have stronger pheromone trails—that is, have been walked along by more ants—other ants will discover the path and go to the food, further reinforcing the path and bringing other ants to take the spoils. What the ants are doing is actually collaborative filtering, in which the best discoveries of individuals are made known to the group. Building these principles into collaborative systems, as CompanyWay and others are doing, creates dynamic ways for the intelligence of groups to emerge.

4. Develop a collaborative culture.

In 2000 Buckman Laboratories was named the Most Admired Knowledge Enterprise. It could bask briefly in the accolades, but it had been a long hard slog, and it's by no means over. As chairman Bob Buckman noted, 90 percent of the work in building its famous knowledge-sharing capabilities was in shifting the company's culture. Its online knowledge-sharing system, called K'Netix, is world-class, but as anyone who has worked to implement collaborative systems knows, the technology is the easy part.

In the early 1990s, Bob Buckman in his then role as CEO played a leading role in transforming the company's culture. The bold move to make information openly available at all levels of the firm was embraced by some, but many middle managers were unenthusiastic, while others were openly hostile, going so far as to forbid their staff to participate in the systems. Without initially providing explicit rewards or censures, it began to become apparent to staff that those who actively shared their knowledge gained better opportunities, whereas the recalcitrants stagnated in their careers and were sometimes visited by the chairman for a quiet word. Continued initiatives including a knowledge-sharing conference helped to cement the message over time, but perhaps most important was the obvious positive impact of the evolving culture on the success of the firm. Many Buckman employees refer to the firm's code of ethics to provide a clear direction for their daily work. The new CEO Steve Buckman led an 18-month effort to bring together input from across the company to develop a simple list of guiding principles. Management sees the code as a foundation for building the culture the company requires to succeed.¹⁶

Buckman Laboratories' experience illustrates many of the issues of building a collaborative culture. Enabling connections between staff is of little use unless they are willing to collaborate by sharing knowledge and actively working together. Whatever a company's current situation, it needs to improve collaboration in order to succeed in a hyper-networked economy. There are no silver bullets, just an ongoing commitment to basics. There is no substitute for clear leadership. If those at the top of the firm continually reaffirm the importance of effective collaboration, this provides a platform for change. Messages need to be repeated and consistent. All communication programs should be designed to convey the importance of collaboration, and remuneration and recognition programs must reflect personal contributions. Many firms, for example, Siemens, Xerox, and IBM Global Services, have implemented processes to reward people depending on how much they contribute to knowledge systems, but these are easily abused and don't change underlying attitudes. Collaboration in some form must be a component of employee assessment, and even more important, promotion opportunities must be linked to behaviors. One uncooperative person progressing successfully in a career can undo the benefits of an entire communication program. However, the crux of the issue is people realizing that their ability to do their own jobs well depends on

effective collaboration from others, which in turn relies on how well they contribute.

5. Foster external networks.

When Bristol-Myers Squibb, a \$16 billion pharmaceutical company, examined the relative success of its research divisions, it found that its oncology division had performed especially well for an extended period. The major difference between the researchers in this division and those in others—and the likely reason for the better performance—was the span and richness of their networks and interaction outside the organization.¹⁷ Other pharmaceutical firms, such as GlaxoSmithKline, have also placed an emphasis on building active communities and interaction beyond the boundaries of the organization.

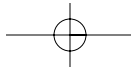
Any firm that doesn't actively nurture connections with the broader community of its clients, suppliers, partners—and even competitors—risks isolation from the vital flow of information and ideas through the economy. No firm today is self-sufficient in knowledge and ideas. Specialists must engage with others outside the firm. As you saw in Chapter 3, work processes are now often distributed across several companies. Those who work together within that process are a community, whether they recognize it or not.

Every effort should be made to get your staff to actively engage outside your company. Provide the communication tools for your specialists to create communities with their peers. Encourage staff to get involved with academic groups through teaching or research. Sponsor informal gatherings with the primary intent of building useful dialogue within your broader community. Assisting company alumni associations can help build broad external connections for the firm, among other benefits. It has always been important to hire people with strong personal networks and the ability to form wide connections, but this is now becoming a dominant factor in staff selection.

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VITAL CONNECTIONS: CHAPTER 6

In Part 2 of this book, I examined how organizations change as the networks come to life. As the boundaries between companies blur,



firms must demonstrate leadership with their partners and within their industry. Relationships can quickly grow deeper and broader in a digital world, but the constraining factors are trust and attention. Innovation is increasingly a collaborative discipline, creating a whole new world of intellectual property issues. Today, an organization *is* its presence in the flow of information and ideas, in which marketing, customer feedback loops, and knowledge must all be connected in rich networks.

In Part 3, I examine how strategy is evolving. Business is now conducted in the flow economy, which is the convergence of every industry that is driven by the flow of information and ideas. The distribution of digital content, including entertainment and high-value information, is quickly shifting, while the world of services is already an intrinsic part of the flow economy. Finally, I examine the strategies that individuals must take to participate successfully in the living networks.

