

THE 12 PRINCIPLES OF COLLABORATION™

Guidelines for Designing Internet Services that Support Group Collaboration

This white paper draws upon principles that underlie the growth of social systems to identify the web functionality needed to support the development of online social systems. The 12 principles presented here offer a strong model for designing Internet services that support online group collaboration. The paper provides practical guidelines for planning collaborative online (Internet, Intranet and Extranet) services that facilitate social aspects of group formation, team collaboration, and knowledge exchange across worldwide groups.

Collaborative Internet services can help organizations increase employee productivity, grow partner effectiveness and build customer loyalty. Read this paper to learn how to maximize the intellectual capital within your commercial, government or social services organization.

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J. C. R. Licklider and Robert Taylor asked, “What will online interactive communities be like?” As research directors for the U.S. Department of Defense’s Advanced Research Projects Agency in 1968, Licklider and Taylor set in motion the creation of the first such community, the ARPANET. They were exploring a brand new type of group dynamic and how people would benefit from it: the incredible networking capabilities of online media and the new ways they enable people to be together. We are only just beginning to understand and capitalize on this venue.

“A powerful global conversation has begun ... As a direct result, markets are getting smarter and getting smarter faster than most companies. These markets are conversations. Most corporations ... only know how to talk in the soothing, humorless monotone of the mission statement, marketing brochure, a your-call-is-important-to-us busy signal ... They will only sound human when they empower real human beings to speak on their behalf.” (*The Cluetrain Manifesto*)



In 1968, Licklider and Taylor envisioned a new way to achieve an ancient human imperative. We are social creatures. We use every means available to come together, communicate and build communities. Forming and maintaining communities has been a basic human activity since time began; it is part of how we survive, thrive, and evolve. Now, over thirty years after Licklider and Taylor’s first efforts, the Internet is a powerful and ever-present mechanism enabling us to work toward common goals together, to learn, share, amuse, debate, console, trade with, and enlighten each other. Yet we are just beginning to understand its full potential.

It’s easy to imagine that on- and offline communities are so different that they are nearly impossible to compare. What about the lack of body language? The tools? The differences of scale? How can communicating in bits and bytes possibly be the same as the sensory immediacy of in-the-flesh contact?

While the mechanisms for on- and offline communities may be different, the underlying framework for human interaction is the same. Web communities need the same qualities of trust and identity, clarity of purpose, boundaries and comfort zones as any other. While an online community’s meeting space may be virtual, its members’ desire to band together with like-minded others are as real as the keyboards, computers, and monitors they use to interact.

What, then, makes online interaction so different, and web communities so compelling? The answer lies in the nature of the information exchanged, and the vastly extended reach of those exchanges. The Internet enhances the connections and knowledge sharing among a co-located group, and it extends the group’s connections to others who would normally be shut out because of time or geography or simply their place in the organizational structure. Online spaces cost less than video conferencing and similar technologies, with much greater convenience and accessibility. They expand the amount of information and knowledge that can be exchanged and at the same time contract the bandwidth required to transmit it. And the software required comes with every computer you buy.

Rich, thriving communities tap into the most valuable resource available — the collective intelligence and activities of the people participating — to enhance productivity throughout the group, no matter who or where its members are. This is the most powerful benefit of web communities, allowing people across the hall or around the world to collaborate and cooperate in ways never before possible.

THE 12 PRINCIPLES OF COLLABORATION™:

A better way to define and encourage web communities

Web-enabled communities are referred to by different names, including any-to-many networks and group-forming networks. In general, community services are those interaction services (applications of purpose, identity, reputation, message boards), managed by site facilitators, which allow users to communicate with each other or to create something that other users can see. Current thinking about online communities focuses almost exclusively on the interaction services, rather than on the synergies that result from using these tools. But communities, like people, are more than their tools. Community, as we address it, refers to the integration of the interactive services and applications, the staff and organization required to produce and manage the service, the frameworks specifying the purpose of the service, the groups for whom it is intended, and the terms under which it is offered. To more fully understand and capitalize on the group potential we need a more complete framework for talking about community, one that addresses the underlying dynamics of communities and encompasses all collaborative efforts whether they exist on- or offline. The 12 Principles of Collaboration™ provides this framework.

The 12 Principles – Purpose, Identity, Reputation, Governance, Communication, Groups, Environment, Boundaries, Trust, Exchange, Expression, and History – were developed by Cynthia Typaldos of RealCommunities (now part of Mongoose Technology, Inc.) and were featured in *FastCompany* magazine. This white paper will explore the 12 Principles of Collaboration in more depth, with an emphasis on articulating ways to grow successful any-to-many networks. We will focus on the principles of collaboration and see how these ideas help define and drive the development of successful web communities. Finally, we will examine how web communities are proving valuable in corporate intranet and extranet environments as well as on the Internet.

U.S. corporations spend over \$50 billion annually for formal employee training and at least as much again for informal training and team-building activities. Much of this investment is focused on increasing communication and collaboration among the individuals making up the teams, departments and organizations within those enterprises. Thoughtfully planned collaborative applications can be used to dramatically enhance these ventures. Collaborative applications are used to cultivate relationships among portal constituents. These person-to-person web services facilitate group formation, enhance team collaboration, and empower knowledge exchange between employees, customers, partners, and suppliers worldwide. Collaborative applications help organizations capture and retain intellectual capital, reduce employee turnover, increase team productivity, and build customer loyalty. Collaborative services connect people together to meet shared goals, both professionally and socially in much more fulfilling ways than were ever before possible.

SECTION ONE:

The evolution and growing importance of web communities

FROM CONTENT TO COMMERCE TO COMMUNITY: HOW THE WEB EVOLVED

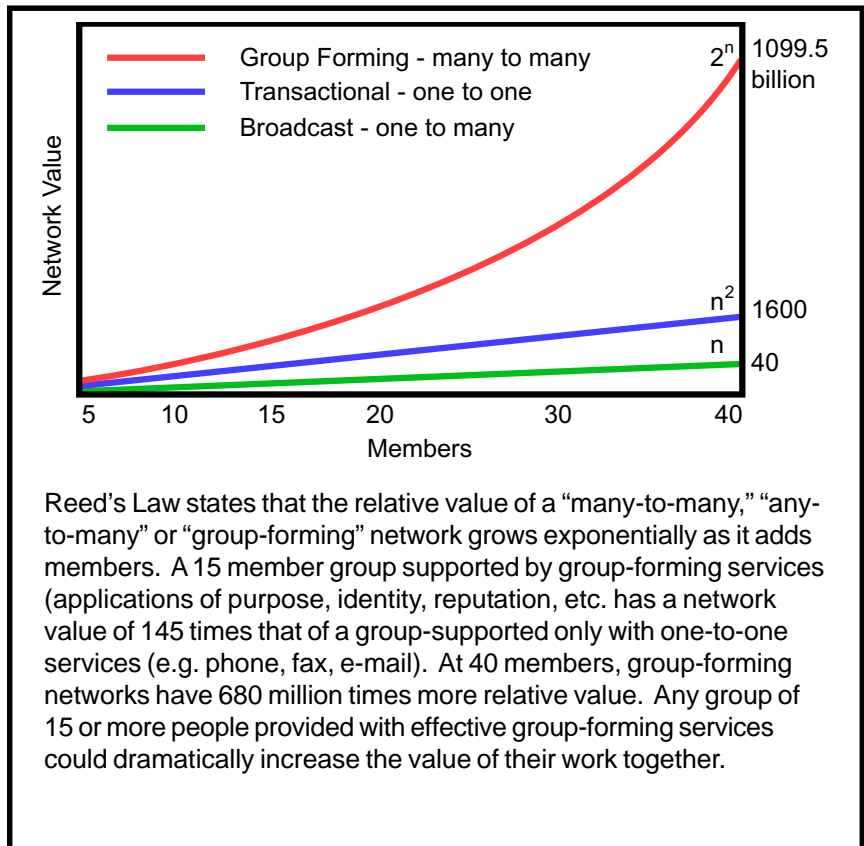
Originally, the web was seen as the world's greatest encyclopedia, a means of storing and sharing information that was unparalleled in human history. Content was king, and most application development focused on better ways to publish all that information online. Early web adopters copied broadcast business models from television and other popular media and success was measured in hit-rates, or how many users saw that business's pages. Many corporate intranets are still trapped in this mindset today.

As the web developed, savvy developers began to see more commercial possibilities. Instead of envisioning the web as a vast storehouse of collected knowledge and information, they saw it as a twenty-four hour shopping mall, unbounded by geographical limitations or time constraints. E-commerce applications like catalog servers and transaction software moved to the forefront, and consumer-marketing methods from the brick-and-mortar world were translated into web commerce strategies. Now, with so much information and merchandise available online, there's been another shift in how we view the web. In the United States, the growth of the web — the number of new users getting online — flattened and competition in most market segments intensified. E-businesses are now compelled to focus more on customer retention and brand loyalty. Similarly, intranets and extranets must be justified as more than just corporate content resources. As the web evolves, the key metric for measuring site

success is shifting from the number of registered users or page views to repeat visits and transactions. Site organizers in all three arenas — Internet, intranet, and extranet — have begun to realize that what brings people back and makes them want to belong is the ability to interact with other people who share their interests or needs. Early research indicates that site users who participate in community services return nine times more often than those who don't. Among sites with communities available, community users generate as many as two-thirds of transactions.

**ANY-TO-MANY COMMUNICATION:
WHAT MAKES WEB COMMUNITIES UNIQUE**

The concept of networks is as old as human interaction. The simplest is the one-to-many, or broadcast, network. Publishing and television are the classic examples. Information on these networks flows one-way from a central supplier. More valuable are one-to-one, also called transactional, networks — like telephone and fax — which connect individuals with each other and allow information (or products or services) to travel in both directions. With the help of applications that promote the creation and the enhancement of groups, the Internet facilitates the most valuable kind of network: any-to-many networks. Online, information flows among groups of people, “which allows network members to form and maintain communicating groups. Examples of group-forming networks, or GFNs, include online communities, business-to-business exchanges, and buyer cartels.” (Reed, 2001)

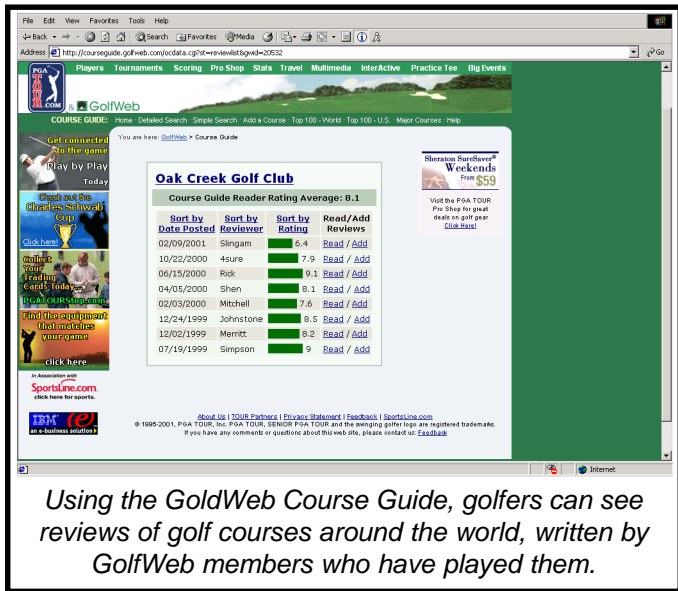


For these any-to-many networks, the more people who are involved, the more valuable the networks become for each individual user and for the organizations deploying them. Economists refer to the exponential leap in value as the *network effect*. In essence, the more people connected to a network, the more useful it becomes.

One of the best examples of the network effect in action is the fax machine. When the fax was first developed, it was a real breakthrough, but it was not yet a useful technology. Since almost no one had a fax machine, there wasn't really anyone to fax things to. As more people set up fax machines, the technology became more useful. This is represented by Metcalfe's Law, which states that, in a one-to-one, or transactional network, if the number of network members (in this case, the number of people who own fax machines) equals *n*, the value of the network grows proportional to *n*².

Metcalfe's Law, however, vastly understates the potential value of any-to-many community building networks. In a February 2001 article in *Harvard Business Review*, David Reed presented “Reed's Law”: a next generation of Metcalfe's value of the network law:

Let's say you have a GFN with n members. If you add up all the potential two-person groups, three-person groups, and so on that those members could possibly form, the number of possible groups equals 2^n . So the value of a GFN increases exponentially, in proportion to 2^n . (Reed, 2001)



Using the GoldWeb Course Guide, golfers can see reviews of golf courses around the world, written by GolfWeb members who have played them.

This rule has profound implications for human interaction. Consider a group of fifteen people; if they are using fax machines and telephone, the value of their network is proportional to 15^2 or 225. If they use e-mail, message boards and other group support tools, the value of their network could approach a factor of 2^{15} or 32,768!!

A current example of this principle is GolfWeb, a Sportsline.com site dedicated to golfers. One of the most active areas of GolfWeb is the "Course Guide," a golf course database, which constantly grows in value as members add reviews of courses they have played. Over time the system has accumulated (from people who have played

them in all kinds of weather and in every season) detailed information on almost every golf course in the world. According to Craig Rosenshein, Director of Enterprise Production for Sportsline.com, "Users add as much, if not more, value to the product as they get from it."

At GolfWeb, or any such web community, you have immediate, useful access to member-generated content. The community is helpful because others provide their input and comments, reflecting experience that can be very valuable to you. In turn, any ideas, reviews or recommendations you offer also add to the value of the network for others. The any-to-many network effect is a powerful phenomenon for both community organizers and community members. As a member, you get the benefit of more wisdom, more input, and more potential for meaningful, purposeful interaction. For organizers, these enhanced relationships increase the number of members, as well as retention.

Organizations have long recognized the value of tightly knit social relationships and networks. Forming these networks is often a primary goal of scheduling off-site meetings and communication initiatives, and it is a driving force for attendance at industry and professional conferences. Conference organizers encourage the growth of groups of industry professionals in order to reap the results of the group relationships, including more topics, more speakers and general expansion of the market segment. But the value of most conference-formed groups is often very short-lived. Time, geography, or hierarchies quickly splinter them; conversations are forgotten and ideas are lost.

With asynchronous any-to-many communication, everyone can see what everyone else is sharing and respond as they choose. Those responses are then available for everyone to see. Any-to-many communication is one of the web's greatest strengths and most differentiating capabilities. As web services evolve and online community development becomes more deliberate and purposeful, those communities where experience and knowledge is shared any-to-many will take on an ever more powerful context online. Such communities truly leverage the collaborative power of the web, both for the individuals who come together online and the organizations that facilitate those connections.

COMMUNITIES MUST BE PURPOSEFUL AND FOCUSED

Because people come together for a reason, members in a community need to have something in common. But the common thread that links them can't be just anything: they must be similar in ways that matter. It's not enough to share something with a group of members. The shared element has to mean something; it has to provide enough of a hook to bring people together.

In a real-world example of this principle, a prominent financial institution tried to build an online community based around its checking account holders. Predictably, this attempt at community failed. Having a checking account makes you similar to other account holders, but not in ways that matter. Similarly, when homepage aggregators offered users free homepages, they touted these sites as evidence of online community. However, merely presenting homepages was not enough to build a community, because there was no real interaction or shared purpose between the homepage creators.

So, what makes a group of people into a community? "Individuals usually come together to form communities in which they recognize common purposes, values, and visions." (Figallo, 1998) Whether online or off, all communities have two things: a purpose, and a membership able to accomplish things through the community. While this core purpose may shift and evolve over time, there has to be an ongoing reason that brings people together and keeps them coming back. Whether primarily based on transactions, general or professional interests, social relationships, or some blend of two or more of these elements, all successful web communities must be purposeful.

While a purpose is necessary for any sort of community, online communities must pay special attention to how members can best accomplish their purpose online. Carefully selected tools and applications must be available so members can do whatever it is they've come together to do. We call these "applications of purpose" — things like Q&A, Experience Sharing, and Reviews. A Q&A application allows many knowledge-based communities to get their questions answered. Experience Sharing applications put people with specific experience or expertise in touch with each other for anything from a quick consult to an ongoing mentor/coaching relationship. Member-written reviews of products or services (for example, the GolfWeb Course Guide) benefit the whole community. Specific applications of purpose might be portfolio management tools for an investment community, or weight tracker for a weight loss community. Like the community itself, the tools available must have a purpose beyond their own existence, one that furthers the shared goals and purpose of the community members.

ONLINE COMMUNITY IS MORE THAN A COLLECTION OF TOOLS

When looking at web communities, the tendency is to focus on the tools — chat, discussion boards and e-mail — that enable online communication. It's important not to confuse the communication tools with the community itself. As previously discussed, online communities share the same dynamics as real-world communities, even though they exist in a digital rather than a physical medium. They must satisfy the same human needs online as in the real world. While there are some differences due to the unique properties of the online realm, the underlying human needs are the same.

We think in terms of tools because it's so difficult to capture and reproduce the evanescent spark that fuels human interaction, whether it's online or in person. How do you write a marketing plan or a web strategy that builds in the essence of what it means to be human?

Web tools are evolving quickly, but most community applications are still just getting past the two-virtual-tin-cans-tied-together-with-string phase. Because the available tools have been so primitive, community builders have had to design around their shortcomings, creating a piecemeal, tool-driven solution to a set of complex human needs. Decisions are often based on what technology is available, instead of what would best promote the user's ease of expression.

Another outcome of the tools-based approach is that facilitators have had to do a lot with a little. Today’s community producers are charged with developing and facilitating online communities, and they’ve done heroic things trying to turn disparate tools into vibrant communities. Unfortunately, because many of today’s community tools are not yet up to the task, these visionaries are often consumed with low-level policing and tools management tasks, which diminish their ability to act as caretakers of the community vision. Yet we know that “... social networks grow from the personal interactions of human beings over time, as well as from the technological infrastructure that connects those humans. This means that growing a successful online social network requires social know-how as well as technical expertise.” (Kimball and Rheingold, 2000) As technology options evolve and grow richer, the organizers of communities require fewer policing and tools management resources, leaving them budget for the socially skilled resources who can draw out the inherent value in the network of people.

REAL COMMUNITIES IMPACT THE BOTTOM LINE

Successful providers of online services know that profits in these businesses are governed by the same principles as in brick-and-mortar businesses. To make profits, web services must compensate for the cost of acquiring and keeping customers. One highly successful online company expressed this need as an equation.

$$\text{Net} = [(\text{Revenue} - \text{Cost}) * \text{Life}] - \text{Cost}$$

Profit/Loss
Avg/Customer
Avg/Customer
Of Customer
Acquiring Customer

While it was originally written to apply to commercial B2C online services, the Web Service Equation applies equally well to B2B or B2E services. Creation of a corporate community requires the same staff skills required to build a successful public online service: technology integrators, system administrators, webmasters, as well as a producer and community manager. In a knowledge management intranet effort, the “customers” would be the knowledge worker employees accessing the service. Thus, the *revenue* factor would be the value received by the organization; in this case, expanded financial or revenue generation capacities, such as inventing a new product or getting one to market six months faster than average, cost reductions, etc. Likewise, the *average cost/customer* would be the per employee cost of delivering the service on an ongoing basis (staffing, operational, and maintenance costs); the *life of customer* would represent the average tenure of knowledge workers in the company or the life of the project if it is a project-specific service; and the *cost of acquiring the customer* would cover the training and promotion costs around the introduction of the new features and systems.

Using the example above, it becomes clear that people-based web information systems are inherently more cost-effective than content- or data-based systems. In content only systems, the burdens of content creation, training, and promotion lie exclusively with the service provider. The addition of people through community services positively influences all of the four factors in the Web Service ROI Equation: value produced, cost per customer, life of the customer, and the cost of acquiring customers.

- Active employee participants create content (experience shared, contacts and reviews provided, best practices documented) which supports other employees. This lowers the average cost per employee and increases the value (revenue) of the service to the organization.
- Employees who are active in the community establish reputations through the online services. This activity has several results. Highly reputed employees become more committed to using and supporting proliferation of the system. They tell others about it, thereby lowering the cost of training and promotion of the system’s services. Another result is more employee camaraderie (what offsite meetings try to achieve) and a stronger bond to the organization. These dynamics contribute to increasing the average customer life and decreasing the average cost of customer acquisition.

While data to support these assertions is still rare, we believe that smart companies will recognize the value of adding applications to their information systems that enhance team collaboration and cultivate relationships among constituents and begin proving that the ROIs are in fact much higher with people included. Such applications increase the productivity of the participants and thereby the organization by capturing and retaining intellectual capital, reducing employee turnover, and building customer loyalty. In evaluating community investments, consider the incremental value that community components will add to an existing or planned web service in terms of insights and stronger relationships. Develop ways to quantitatively evaluate measures such as performance differences (cycle times, retention rates, employee satisfaction figures, etc.) between community participants and non-participants to assess the incremental value of the service. (Cothrel, 1999)

BUILDING BETTER RELATIONSHIPS AND BETTER SITES

Although online communities have thrived since the earliest days of distributed computing, only now, after five years of rapid expansion of web technologies and services, can we finally begin to see the tremendous value the web's digital environment can bring to group interactions. Providing group-forming network services helps people build more and stronger relationships with others in working toward shared goals, whether those others are coworkers and business associates or friends and family located locally or around the world. More and more web services, from private corporate intranets to commercial B2B exchanges to public Internet services, are enhancing user participation by adding interactive tools to enable targeted groups of users to share a common purpose online.

Community, as defined by collaboration toward shared goals, is more than merely an aggregation of users, or a collection of communication tools. It's time to reclaim the full implication and potential of these collaborative groups. Next, we will explore the 12 Principles of Civilization in depth and see how these ideas provide a framework for creating the web communities of tomorrow that will more closely approach the 2ⁿ total network value Reed proposes.

SECTION TWO:

Thinking outside the web: The 12 Principles of Collaboration



Although it exists online, a web community is first and foremost a human association. To best identify the necessary elements for building such community, it's vital to look at the study of human interaction. The 12 Principles are based on sociological principles and offer a framework for creating and sustaining vibrant web communities. These principles are also a tool to help community producers remain rooted in their community vision while making strategic or tactical decisions. Finally, they provide a methodology for figuring out community functionality priorities.

The 12 Principles provide a common vocabulary and a broad vision for what any successful community requires. Only by viewing community through the lens of human interaction can we begin to see how technology choices facilitate or hinder online community-building efforts. Once we've established the underlying human qualities that drive our coming together online, the 12 Principles give us a unifying view of the otherwise disparate technologies required to support and enable such online communities.

These principles are ordered in two groups: The first six relate to the underlying human needs and expectations inherent in any community, while the final six focus on the framework and structures that must exist to ensure a group's viability and success. None of these principles exists in a vacuum; each relates to and depends on the other factors. For instance, without identity and reputation, there can be no trust. In many cases, each principle stems from the previous principles. Thus, identity grows out of shared purpose. A person who accurately answers many questions, say in a developer support community employing a Q&A application, might build an identity as a helpful Java expert. Reputation flows from identity and participation in the community purpose (e.g., answering questions) and trust builds from reputation. The end result is that questions asked by less experienced Java developers and directed at the Java experts become a profit-enhancing avenue for the organization and its clients. The clients of the organization receive better information and service from the Java experts and novices. The organization's training curve and costs are reduced, management gains insight into the strengths and weaknesses of the individual developers, camaraderie between employees is strengthened, and the clients are happier customers.

- 1) **Purpose:** We have a shared goal or interest.
- 2) **Identity:** We know who's who.
- 3) **Reputation:** We recognize and build status based on our actions.
- 4) **Governance:** We agree that our behavior can be regulated according to shared or stated values.
- 5) **Communication:** We have ways to share information and ideas.

- 6) **Groups:** We can relate to each other in smaller numbers.
- 7) **Environment:** We interact in a shared space that is appropriate to our goals.
- 8) **Boundaries:** We know who belongs and who doesn't.
- 9) **Trust:** We know with whom we're dealing and that it's safe to do so.
- 10) **Exchange:** We can trade knowledge, support, goods, services, and ideas.
- 11) **Expression:** We have a group identity and know what other members are doing. We can easily indicate our preferences and opinions.
- 12) **History:** We can look back over our history and track our evolution.

In the following pages, we will examine each of the 12 Principles in detail, including their meaning for humans in community, and the tools required to facilitate its expression online. We will also look at examples from sites that have effectively expressed one or more of these principles.

THE FIRST PRINCIPLE: PURPOSE THE COLLABORATIVE GROUP PERFORMS A NECESSARY AND USEFUL FUNCTION FOR MEMBERS



Imagine we are part of a web community. Why are we here? What are we coming together to accomplish? Why do people join, come back regularly, and contribute? Every community needs a purpose. According to Figallo, a “community should be a practical and useful thing for people to join.” Hagel and Armstrong refer to communities needing “distinctive focus.” However you define it, an online community must have a reason to exist. There should be a specific and identified core interest that draws people to an online group; sharing a common purpose is the best first step to building a loyal community of members. An online community will fail if there is not a compelling reason for people to come together.

Within a web community, purpose is no longer just an individual pursuit; it becomes the group's activity, its reason for being. It is vital to tap into this collective — or “community-enabled” — purpose, rather than focusing on individual goals alone. A web community thrives and grows if it enables members to fulfill purpose and accomplish those goals that require other members to participate. This collaborative purpose is one of the web's major strengths as a means of building collaborative groups. Implementing purpose together drives stickiness and generates increasing network effects.

But how do communities implement purpose online? Because they exist in digital space, web communities must rely on a broad range of tools and applications to help members accomplish goals. Like the community, its tools must have a purpose beyond their own existence. Community tools should be “applications of purpose,” carefully selected to

Mongoose RealCommunities Experience™, a mentoring application, provides users with a clear purpose: to help others resolve issues or find others to answer your questions.

support the goals and enable the accomplishments of the members of the collaborative groups. Such tools can include member-generated content from others who have relevant experience or knowledge; communication tools like chat or discussion boards; functionality such as calculators or group calendars; or applications that provide mentoring, recommendations, expert advice, or opinions. Whether the goal is to become a more knowledgeable individual investor, hone management skills under the guidance of a mentor, or grow an indoor herb garden, the tools available should support the community's purpose.

To truly enable members to accomplish their goals, communication and tracking tools should be tied together, instead of trying to force-fit member purpose to a static communication tool. An application of purpose — one that helps members accomplish goals — is more than a tool. It is an integrated approach to providing user functionality that combines many of the elements that make a community into a community. For instance, a gardening community might feature an application of purpose that does a variety of things, such as:

- Link a member's identity information and his or her location with climate information, zone maps, plant selection recommendations, and more.
- Provide planting calendars, almanacs, seed catalogs, and other tools.
- Offer a dynamically-generated journal function for tracking progress and alerting the member of frost dangers or ideal harvest windows.
- Provide a context-sensitive means to form relationships with other members who have knowledge or experience in growing similar kinds of plants in similar conditions.
- Facilitate groups of members who are all trying to do the same thing by giving them tools to help each other, such as sending e-mail alerts so group members can help each other remember critical tasks or find bargains.

THE SECOND PRINCIPLE: IDENTITY MEMBERS CAN IDENTIFY EACH OTHER AND BUILD RELATIONSHIPS



Who are you dealing with? Have you dealt with this person before? Can you know the member as an individual, not just as part of the group? In any community, we want to know who's who. But

since web-based communities rely on words on a screen, traditional sensory cues are missing. We can't look at the person and see his body language. We can't hear the sincerity, or lack of it, in her voice. We can't watch how a person interacts with other members of the group.

The only way for an online community to thrive is by providing ways for members to identify themselves to each other. The challenge is to present a useful picture of each member that's consistent, current, and complete. Every participant must have a persistent yet dynamic identity. Often this takes the form of a unique member profile. In most cases, such identities are permission-based, dynamically-generated, and updated according to the member's behavior on the site. This makes clear to everyone which member is responsible for any given post or action.

The screenshot shows a web browser window displaying a user profile for 'Patrick' on the HP IT Resource Center. The profile includes the following information:

- Basic Information:**
 - country: USA
 - personal quote: It's a dirty job -- But somebody said I had to do it!
 - company: RME Petroleum Co.
 - certification: HP-UX System Administration ; BrainBench Master Unix Administration (General Unix, Sun Solaris, HP-UX)
 - member since: November 19, 1996
 - last contribution date: August 10, 2001
 - This member has assigned points to 225 of 225 responses to his/her questions.
- Forum Points:** Total Points: 5430
- Area of Expertise:**
 - hp-ux
 - general
 - ignite-ux
 - LVM

Below the screenshot, a caption reads: *HP IT Resource Center user profiles give users access to helpful information about others.*

While members don't need to reveal their true offline names or addresses, they must adopt a consistent and recognizable identity in the community.

Who are these people in relationship to your group's purpose? What can they add to the discussion? How often do they visit the website and how actively do they participate? What is their status and do other members trust them? How have they treated other members of the community? What topics or areas of the site do they find most interesting? These are the things members want to know about each other. The key elements to building a member's online identity include:

Dynamic, self-generated member identity — the member typically creates an identity with core information such as username and an e-mail address. The member may also set preferences and include information that they may or may not choose to reveal to others on the site. Community participants need to be aware of how they are representing themselves. This identity information is dynamically updated and enriched as the member participates in the community activities. So if a member is active in the style and beauty channel, but not in the money channel, this would be dynamically noted within the member's identity.

A signature trail left by the member linking each contribution or action — so others in a community can know members by what they say and do. This "personal history trail" helps encourage responsible behavior and deter troublemakers. This could include links to the last ten messages posted or the last five product recommendations.

Context-sensitive views of the member — so different members can access different views of a member's profile, depending on permission level, their relationship to that member, i.e., membership in subgroups, or what part of the site they're in. So, if a member looks up another member in the product development channel, past activity and contributions in that channel would be highlighted and would be different than if that same member profile were seen in the marketing channel.

Ability to browse and search for members based on various criteria — members can look for other members who share characteristics. This is key to enabling members to share knowledge, build relationships, collaborate, and do things together. So, if a member wants to search for others who are experts on a certain product, he could search by channel, location or activity around that product.

Phil Agre of UCLA has pointed out that in the real world, we generally have the ability to control how much of ourselves we choose to disclose to others. Likewise, online collaborative applications must balance the conflicting values of anonymity and disclosure as well as the interests of all participants in online transactions. One of the most important ways to assess the value of an online service is to evaluate its ability to represent users' identities in ways that are effective and satisfying.

THE THIRD PRINCIPLE: REPUTATION

MEMBERS HAVE A REPUTATION BASED ON THEIR ACTIVITY AND THE EXPRESSED OPINIONS OF OTHERS



As the Internet expands and the number of interpersonal interactions increases exponentially, the ability to judge someone's character and reliability becomes increasingly important. Participants need ways to know how reliable or knowledgeable another member is. This allows them to act on advice with some expectation of its quality and without the community organizer acting as a reviewer or the police. Reputation lies at the juncture between identity and trust and influences behavior in several ways. Reputation measures give members a way to evaluate each other, so they know whom to trust, or whom not to trust. It helps people form the best alliances to get the desired information; the desire to have a good reputation discourages bad behavior and encourages members to request feedback from others to build their reputation.

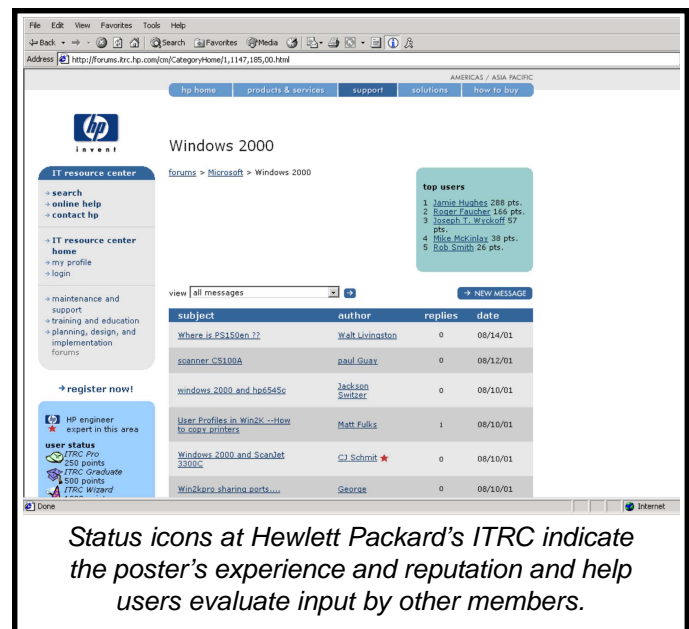
Knowing where you — and those with whom you are dealing — stand is important in any community. In the real world, physical appearance generally conveys a lot of information about age, gender, and strength. Social status is also conveyed by our manner of dress, hairstyles, accents, etc. Online, these characteristics are missing. Thus, what matters in online communities is less “who you are” than “what you do.” Participants develop reputations based on their words and their actions. This becomes a critical element of identity. As people spend more time in the community, they also leave “trails” that record their behavior — where they go online, what they look at, what transactions they undertake. As databases get built up that store this data, it becomes another kind of reputation.

Meg Whitman, CEO of eBay, has said that the founders’ integration of seller feedback into the eBay service is one of the key reasons for its extraordinary success. This feedback allows users to develop trust and credibility and fosters a sense of a healthy, safe environment to conduct commerce. Hewlett Packard’s IT Resource Center links 500,000 IT professionals and HP engineers in an online community, in order to “solve problems, exchange ideas, and learn lessons” from each other. Members can rate responses based on how successfully they addressed the problem. Members thus earn points for successfully answering others’ questions, and those points become a clear sign of the member’s reputation, both in a given area and across the whole community. Top-rated members are prominently highlighted on the community homepage, providing added incentives to active and helpful community participation. Lessened training costs and shortened learning curves equate to better profit margins for HP and better service for the clients using their products and services.

Online, visual cues often alert members about the hierarchy and ratings of other members, allowing visitors a way to sort the high from the low quality member-generated content which might include corporate plans and reports, reviews of products or services, answers to questions, etc. These cues also help community organizers determine who and what the participants like and dislike, so these opinions can be reflected back to the group in expression. This automates the process of helping new members to identify and initiate relationships that are more likely to be satisfying. This is especially important since the quality of initial interaction in the community is the major reason newly registered members convert to regulars.

It is vital to balance privacy issues, while revealing enough pertinent information about a member’s status so the site becomes more useful. Each member should be able to gain status through expertise and appropriate behavior, as defined by the community vision. Reputation can be based on many things, including participation level, number and quality of contributions, or role in the organization. This encourages repeat visits and strong participation, as well as ensuring that appropriate behavior occurs over time, every time. Some of the main ways that reputation status can be granted and seen within a community include:

- Icons that show levels of achievement — appearing anywhere the member’s name appears.
- Status based on the feedback of others — such as the number of other members who recommend a member.
- How many contributions the member makes to the community (e.g., answers, reviews, etc.) — often, status and popularity are reflected through making many well-received contributions.



THE FOURTH PRINCIPLE: GOVERNANCE

MEMBER BEHAVIOR IS REGULATED ACCORDING TO GROUP VALUES



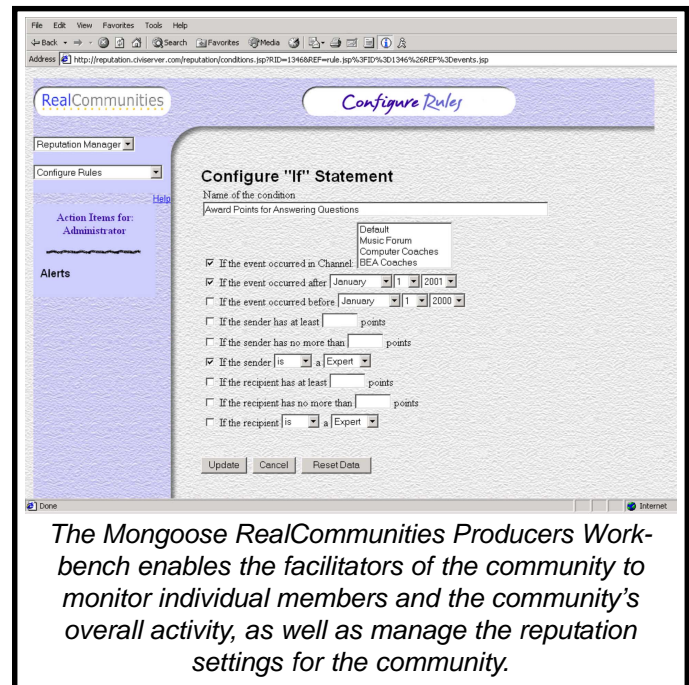
Members of every group need a clear sense of what they can and cannot do: who calls the shots, who makes the rules, how incidents are handled, and who does the handling. Communities need to have tools that fit with the level and type of governance they want. For instance, if users are in charge, then they need the tools that let them be in charge.

On the web, community governance is really about self-governance. Given the scale of large and popular web communities, it is important that members take responsibility for their own behavior and have the administrative tools to self-govern in different situations. Self-governance is more efficient, scaleable, and community-friendly than reporting infractions to the community producer who then acts as the community police. Obviously, there is a key link between reputation and governance: the better your reputation, the more say you have in how the community runs.

Some of the key elements of online governance include:

- Community standards posted and enforced.
- Clearly stated rules for communication.
- Self-governing features, such as allowing members to silence or expel other members.
- Hosted activities where the moderator or host acts to maintain community standards.
- Feedback and reward mechanisms.

The style of each community drives the type of governance it has. A closed and hierarchical intranet community might feature a greater degree of centralized control than a public Internet community. But no matter what kind of community is planned, it must be managed and governed. Whether it's community management, setting standards and rules, or allocating responsibilities to defined members, without some form of governance, few communities will grow or survive.



THE FIFTH PRINCIPLE: COMMUNICATION

MEMBERS MUST BE ABLE TO INTERACT WITH EACH OTHER



In order for a community to exist, members must be able to communicate with each other. Any type of interaction, whether it occurs on- or offline, involves communication of some sort. Pioneering sociologist MacIver (1937), in his study of real world communities, stated that, "Without communication there can be no community, and the life of the community revolves around the points where communication is most intense."

In web communities, how members communicate is a primary concern for both organizers and members. One of the key factors in the success of an online community is the richness of possible communication vehicles and choices for members. On the web, communication centers on various tools that enable both synchronous, or real-time, and asynchronous, or delayed, communication. These tools include:

- E-mail and newsletters
- Discussion groups/message boards
- Chat (open or with a guest speaker)
- Instant messaging
- Phone / voice
- Face-to-face
- Data/image file sharing
- Product or service opinion and recommendations

The ability of current web communication tools to help communities connect has lagged behind each member's desire to communicate. But as bandwidth and technology improve, new vehicles for communication will be developed and existing ones will become more viable.

Not all tools are effective on every site. Selecting communication tools depends on the context of the site itself and the audience it hopes to attract. Often, asynchronous methods, such as message boards or document repositories, work best when information needs to be organized and archived. Synchronous methods like chat and Instant Messaging can be good for quick questions or casual interchanges, but for these services to be most effective in business communities, the people should already have established a connection through e-mail or phone or in person. So, while chat may be popular on a teen site, it will not be broadly useful in a professional knowledge management community. There, discussion boards may be more useful. Applications like instant messaging strike a balance that may help distributed team members collaborating on a project. Instead of providing maximum variety in communication tools, it's usually best to offer a couple of appropriate options that work well and are easily accessible from all areas of the site.

THE SIXTH PRINCIPLE: GROUPS MEMBERS CAN SEGMENT THEMSELVES ACCORDING TO SPECIFIC INTERESTS OR TASKS



People in communities naturally organize themselves into smaller subgroups.

Forming groups is a necessary and organic process — it's what humans do. All communities have groups within them that focus on some subset of the community's purpose or otherwise segment the membership of the community. It's how we get things done.

The larger and more diverse a community is, the more the groups drive its behavior and actions. People accomplish specific community goals more efficiently in small, manageable groups. Within an online community this tendency to group and regroup must be respected and facilitated. Technology that enables

The Motley Fool

Stocks A to Z / Stocks S

Board Name	Ticker	Last	Total
Starbucks Corporation	SBUX	8/12/01 9:06 AM	12652
Starmedia Network, Inc.	STFM	8/11/01 1:47 PM	208
Starwood Financial, Inc.	SFI	7/29/01 6:16 PM	23
Starwood Lodging Trust	HOT	6/16/01 9:44 AM	104
State Street Corporation	STT	7/24/01 1:43 PM	73
Statool ASA	STO	6/19/01 12:20 PM	4
Stet Technologies, Inc.	STTX	6/6/01 9:16 PM	14
Stedpage Inc.	STCS	7/25/01 6:19 PM	68
Stensys	STCL	7/25/01 11:50 PM	103
Stens Corporation	STC	7/21/01 9:10 PM	137
Steven Madden, Ltd.	SHOO	7/17/01 4:57 PM	118
Stewart & Stevenson Sys.	SSSS	7/22/01 8:10 PM	13
Stewart Enterprises, Inc.	STEL	8/10/01 12:43 PM	150
Stifel Financial Corp.	SF	7/30/01 9:01 AM	1
Shilwater Mining Company	SWC	8/8/01 10:23 PM	144
Shilwell Financial, Inc.	SV	8/3/01 5:23 AM	121
STM Wireless, Inc.	STMI	8/7/01 5:41 PM	16
STMicrollectronics	STM	7/1/01 8:22 PM	47
Storage USA, Inc.	SUS	8/9/01 5:42 PM	10

Motley Fool's message boards enable users to find relevant topics and to communicate with other members.

FAST COMPANY .COM

Unassociated Cell

COMPANY OF FRIENDS Unassociated

- Unassociated
 - my local cell
 - other members
 - discussions
 - calendar
 - notes
 - group email
- testidonly
 - my personal page
 - edit my profile
 - invite a friend
 - coordinators
- CoF
 - CoF HOME

FastCompany's Company of Friends helps members form cells in their local areas for meetings and networking.

individuals to create, join, and participate in purpose-oriented groups is key to making communities more useful and compelling. Web-based communities must enable groups of members to have a group identity, a group place with clear privileges, ways to administer group rules, and access to tools to implement joint purpose.

Admission into groups gives people a sense of belonging that stems from the common interest and focus they have with the other members. Sometimes these groups are fixed, other times they're flexible and dynamic — they form, split, merge, and end. Often, these groups engender spin-offs or sub-groups. The community facilitators, members, or both may define the groups; but groups are usually formed with a specific purpose in mind. Groups can be public or private. Some last a long time, while others are very short term.

THE SEVENTH PRINCIPLE: ENVIRONMENT A SYNERGISTIC ENVIRONMENT HELPS MEMBERS ACHIEVE THEIR PURPOSE



While an online community does not share geographical meeting space, it does happen in a digital environment, just like in the real world, that environment affects each member's experience of the group. All web communities exist within the framework of an online environment. To be effective, that environment — the cyber town hall or recreation center — must be well thought out and integrated so the way it looks and navigates, and the types of content, commerce, and functionality it offers, reflects the community and its goals and values.

Every community is different and functions best in an appropriate environment, tailored to its specific needs and style. But, just as real-world meeting spaces share certain characteristics that make them more welcoming and useful — clearly marked entrances and exits, access to parking and transportation, enough room for everyone — successful web sites must provide a relevant and consistent experience for their users. Some of the key elements of a successful, synergistic online environment include:

- Seamless and intuitive navigation throughout the site.
- An easy-to-use and consistent interface across all areas.
- A cohesive and recognizable style that crosses all areas, including the design and layout, the types of content and commerce offered, and the user functionality provided.
- Lots of relevant content and applications linked in context and easy to access, search, navigate, and use.
- Mechanisms to maintain community standards — such as an appropriate profanity filter or restrictions on HTML and member-generated content.
- An appropriate business model that fits within the community's purpose.

The screenshot shows the Amazon.com homepage. At the top, there's a navigation bar with 'amazon.com' and links for 'VIEW CART', 'WISHLIST', and 'YOUR ACCOUNT'. Below that is a secondary navigation bar with categories like 'INTERNATIONAL', 'TOP SELLERS', 'FRIENDS & FAVORITES', 'FREE E-CARDS', and 'FRIDAY SALE'. A yellow banner reads 'Back to School, Back to Work'. The main content area features a search bar, a 'Hello' message, and a 'LOWER PRICES!' promotion with a 'SAVE 30% OR MORE on books over \$20' offer. There are also sections for 'Top Sellers in Toys & Games' and 'New Releases'. The bottom of the page has a footer with 'Internet'.

No matter what you are buying on Amazon, the Amazon look, feel, tools, and content create a cohesive environment.

THE EIGHTH PRINCIPLE: BOUNDARIES

THE COMMUNITY KNOWS WHY IT EXISTS AND WHO IS OUTSIDE AND INSIDE



Within any community, there must be a clear definition of who can be a member, as well as an understanding of who isn't, or can't be, a member. Within an online community there are many boundary issues — the mechanisms that screen potential members, definitions of what membership means, password protection, and rules on whether non-members can access various (or any) parts of the site. Without such clearly drawn boundaries, there is no incentive to become a member and no ability to control access based on membership.

Boundaries aren't just in place between members and non-members: They come in many varieties and layers within a community and are often linked to reputation. Some sites reward long-time, active members by allowing them special privileges, such as attending exclusive presentations or having access to privileged content. Boundaries are also important in creating and managing groups and sub-groups — a natural happening in any community. For example, if members create a space for project collaboration they have the right to choose which team members can join, what privileges they have, and the mechanisms used to administer these boundaries.

Some of the chief elements of boundaries in an online community include:

- Registration to participate — so that members are clearly distinguished from non-members.
- Restricted access for non-members — for instance, limited access to tools or parts of the site.
- Limits to who can be a member — these could be as simple as anyone who registers, or as complex as those with offline contractual relationships.
- Identification of member-generated content.
- Public, semi-private, and private areas with clearly posted boundaries— for instance, in a semi-public area, non-members may be able to view content, but not post.

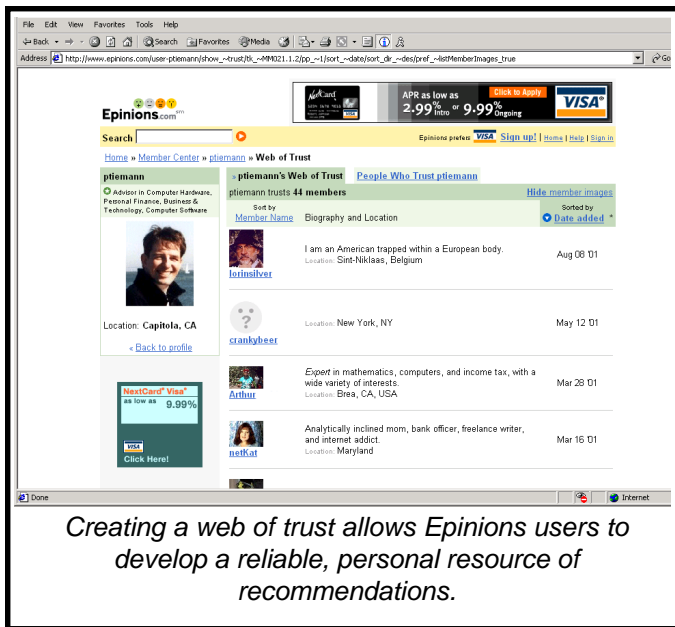
THE NINTH PRINCIPLE: TRUST

MEMBERS MUST BE ABLE TO BUILD TRUST OVER TIME WITH OTHER MEMBERS AND THE GROUP ORGANIZERS



Without trust, a collaborative group cannot function. Members must be able to tell whether — and how much — they can trust other members. And everyone needs to trust that those who run the community will not abuse or exploit their personal information. Trust is built over time and must be earned both by members and by facilitators. Sociologists have researched trust in groups extensively and have identified that multiple positive interactions, comprehensive understanding of the individual's identity, and concurring opinions of other trustworthy members are key to gaining trust in other people.

The screenshot shows the homepage of The Wall Street Journal website. At the top, there is a navigation bar with the WSJ logo and the text "THE WALL STREET JOURNAL." Below this, a banner reads "The best way to see WSJ.com is to experience it for yourself - FREE for two weeks." with a "Sign Up Now! Free Trial" button. The main content area is divided into several sections: "Personalized E-Mail" (Get daily headlines plus links to full articles on companies you care about), "What's News" (Read the latest news from the global editions of The Wall Street Journal. Also search for articles or set up personal news folders.), "Portfolios" (Keep tabs on your investments - in minutes, set up multiple portfolios and get alerts when news breaks on a company you track!), and "Briefing Books". A large "WSJ" watermark is visible in the background. Below the screenshot, a caption reads: "The Wall Street Journal entices non-members with free content, but reserves its deepest content for its members. Users must pass the login gate to access the content."



Building trust increases group efficiency and enables conflict resolution. As Figallo states, “Trust is the social lubricant that makes community possible.” There are two different kinds of trust inherent in a web community: trust between members, facilitators, and organizers and trust between the members themselves.

In an online community, members want to trust that their private information is safe and that no one can impersonate them, and that the community organizers will use their access to personal information responsibly. As much as possible, the act and consequences of divulging personal information should be under the member’s control. This breeds trust between the members and the site organizers and facilitators.

As for encouraging trust between members, because the digital medium does not offer the traditional cues of appearance or directly observable behavior, software mechanisms must be built in so members can reveal themselves to others incrementally, as trust is earned. And since most people do not want to reveal more about themselves than another is willing to reveal to them, tools that enable “reciprocal disclosure” are necessary.

Trust grows out of identity and is the basis for reputation. Key elements of online trust include:

- Letting members build trust over time.
- Posting clear policies regarding privacy and online actions and abiding by them.
- Allowing different levels of privacy so members can reveal more about themselves as they get to know each other.
- Providing experts with certifications and detailed profiles so members are able to trust that “experts” have the qualifications they claim.
- Allowing member verification of profiles.
- Hands-off management that garners more trust and encourages greater self-governance than interfering or policing management.

Trust is a central issue in developing successful online socially oriented services. Successful service organizers work hard to earn the trust of the participants. If participants feel exploited they will move away from the interactive services, or never approach them in the first place. The presence of community trust is essential to creating online those “great good places” that sociologist Ray Oldenburg described in his study of community institutions, like bars, clubs, and parks — places which provide a friendly environment for people to meet as equals.

THE TENTH PRINCIPLE: EXCHANGE

THE COLLABORATIVE GROUP RECOGNIZES AN EXCHANGE OF VALUE, FROM KNOWLEDGE AND IDEAS TO GOODS AND SERVICES



Many people join communities because they hope to exchange something they have, whether it's expertise, experiences, or services, for something that other members have. These exchanges can be one-to-one (such as when you give someone who has answered your question feedback that improves her reputation in the community) or one-to-many (for instance, running an online seminar on sales strategies you have used).

There are three major benefits to these types of online exchanges:

- Such exchanges provide a marketplace of members who share a common purpose and who might therefore reasonably be expected to place similar values on things.
- Exchanges also provide a vehicle for checking the reputation and trustworthiness between parties considering an increased level of trust, or perhaps an invitation to group membership.
- Finally, exchanges provide “currency” based on a member’s standing within the collaborative group. For example, in a knowledge-based community, members who have achieved a reputation as an expert in that knowledge area have a lot of “currency” or “social capital” for exchange with other members of the group. Communities are marketplaces for knowledge and human attention. (See the Suggested Readings for detailed insights into the knowledge and attention market economics phenomena.)

An essential value of the community is that it can be a marketplace in which both tangible and intangible commodities are traded and brokered.

The screenshot shows an eBay search results page for 'Table Lamps'. The page features the eBay logo, navigation links, and a search bar. Below the search bar, there are several featured items with their prices and bids. The items listed include:

Status	Featured Items - Current	Price	Bids	Ends PDI
🏠	HEAVY FLUORESCENCE BRASS SLAG GLASS LAMP	\$99.00	-	Aug-19 14:
🏠	SIGNED MISSION SLAG GLASS LAMP PERFECT W@W!	\$99.00	-	Aug-19 13:
🏠	ELEGANT GLASS CHESS SET BLUE GREAT GIFT!	\$29.99	-	Aug-21 01:
🏠	DECO ART NOUVEAU FIGURAL LAMP W/GREAT GLOBE	\$50.00	1	Aug-16 17:
🏠	SALE NEW DALE TIFFANY TAZ & BUGS BUNNY LAMP	\$69.95	-	Aug-19 14:
🏠	1840's French Dore Oil Lamp RARE and ELEGANT	\$1900.00	-	Aug-18 20:
🏠	Arts and Crafts Brass Mission Table Lamp - NR	\$21.49	7	Aug-17 13:

Below the table, there is a caption: *Community exchanges can involve physical property, like the goods traded on eBay ...*

The screenshot shows the website 'THE CODE PROJECT' with a search bar and a list of DLLs. The website has a navigation menu and a search bar. The list of DLLs is as follows:

Title/Description	Author	Updated
Display Loaded Modules v1.5	Emmanuel Kirtmann	9 Feb 2003
A Debugging Tool for Application using Multiple DLLs		Advanced
HookImportFunctionByName v1.0	PJ Naughton	4 Mar 2000
A class to hook any imported function call made by your app.		
How to share a data segment in a DLL	Phil McGahan	18 Jan 2000
Using #pragma statements to share variables in a DLL		
How to do run-time (or explicit) linking of C++ plug-in components and objects	Gert Bodaardt	3 Jan 2001
Extending the functionality of your programs using explicit linking		
DLL Tips	xcoloko	5 Oct 2000
Tips for writing Dynamic Link Libraries		Beginner
Dynamic DLL Loading	Zoran M. Todorovic	30 Dec 1999
How to dynamically load a DLL		
Determining the version number of a DLL or Executable	Eran Yariv and Kenneth Lea	11 Jan 2000
A class that allows you to determine the version of a DLL or EXE at run-time		

Below the table, there is a caption: *... or intellectual property, like the source code exchanged at The Code Project.*

THE ELEVENTH PRINCIPLE: EXPRESSION

THE COLLABORATIVE GROUP HAS A RECOGNIZABLE PERSONALITY; MEMBERS ARE AWARE OF WHAT OTHER MEMBERS ARE DOING



What's new in the community? What's hot and what's not? What are the members interested in now? Just as each individual member has an identity, every community has a shared sense of self. This "soul" or "personality" is an essential part of the community, and can be seen through the ways that members communicate and how they express themselves. If the concept of environment is how things work within a community, then expression is how things feel. If identity is how we know the individual, then expression is how we understand the group.

Expression conveys the pulse of the community: what's happening at any given time, who's hot, what topics are under discussion, which articles are being read, who's reaching his/her goals. This is especially important for first-time members. Unless they see a high-level snapshot of community activity, they might conclude that the community has nothing to offer them, that nothing's going on.

While the principle of environment refers to more permanent things, such as the style and tone of the community, expression is current, immediate, and constantly changing. A successful community expresses itself by:

- Profiling popular or currently "hot" users so other members know what they're doing.
- Polling the community and reflecting user opinion throughout site — what the community as a whole thinks is currently important.
- Posting the most recent contributions to demonstrate activity.
- Posting event schedules and current activity levels.

Just as the community must find expression of its heart and soul, so must its participants. In face-to-face encounters, "*expression* refers to gestures, facial expressions [and] vocalizations," as opposed to *communication*, which is "the use of language ... for the intentional transmission of a 'message.'" (See Geise, 1998) Expression and communication happen simultaneously in real-world interactions. Text-based media such as e-mail, message boards, and instant messaging, however, are good at facilitating interpersonal communications, but are not natively well-suited to "expression."

While most business communication tends to be seen as rational and productivity-oriented, there are places where emotion can play an important role. Team building and creative collaboration are two examples of activities that generally require a high emotional bandwidth, and have therefore, primarily been carried out in person. Even so, there is ample evidence that strong emotional bonds can be formed through online encounters. It is not at all unusual for people who have initially met online to form professional or social relationships that carry over into the real world. Participants in active groups commonly organize events that enable them to meet face-to-face. For

The screenshot shows a web browser window displaying the Abuzz website. The page title is "Top Interactions in Abuzz". On the left, there is a sidebar with a search bar and a list of categories including Arts, Careers, Cities, Entertainment, Health, Home, News, People and Culture, Personal Finance, Running a Business, Science, Sports and Fitness, Technology, Travel, and General. The main content area lists several interactions with their titles, dates, and user avatars. The first interaction is titled "Heat, humidity and creativity" and has a 5-star rating. The second is "stem cell research" and the third is "work". Below the list, there is a caption: "Abuzz displays the top interactions in each category and overall to highlight community activity and values."

example, participants in SeniorNet, an online community of older adults, have organized a regular series of “bashes” held in different cities around the country.

Interactive services that enhance the ability to express emotions also enhance interpersonal communications, which, in turn, improves remote collaborations and leads participants to greater stakeholder investment in their online groups. Similarly, participants must be sensitive to this emotional component of communications and learn to manage it appropriately.

THE TWELFTH PRINCIPLE: HISTORY THE COLLABORATIVE GROUP REMEMBERS WHAT HAS HAPPENED; IT REACTS AND CHANGES IN RESPONSE



A sense of history is vital for an evolving online community and has been described as a community’s glue. To get the full value of a growing community, that community needs ways to remember. An archive of member-generated content adds value, increasing the pool of available information and guiding further development. Some elements of online history include:

- An archive of old contributions, with the best member-generated content highlighted or excerpted.
- A sense of past and history.

eBay Bid History for
Ericsson G4628 Mobile Telephone & Accessories (Item # 1257664453)

Currently: \$21.50 First bid: \$9.99
Quantity: 1 # of bids: 12
Time left: **Auction has ended.**
Started: Jul-21-01 17:38:01 PDT
Ends: Jul-28-01 17:38:01 PDT
Seller (Rating): [blaudh1](#) (76) ★

[View page with email addresses.](#) (Accessible by Seller only) [Learn more.](#)

Bidding History (Highest bids first)		
User ID	Bid Amount	Date of Bid
dntc@vwinet.com.au (1)	\$21.50	Jul-28-01 17:37:09 PDT
gof1949 (0) 	\$21.00	Jul-28-01 17:33:26 PDT
dntc@vwinet.com.au (1)	\$20.50	Jul-28-01 17:33:32 PDT
gof1949 (0) 	\$20.00	Jul-28-01 07:22:04 PDT
dntc@vwinet.com.au (1)	\$17.00	Jul-28-01 17:36:58 PDT

Bid histories on eBay provide information about both products and community members who buy and sell these products.

Open-source development communities provide an excellent example of the importance of this principle. Every open-source project has a “credit list” or “history file” attached. Any programmer contributing to the code becomes an eternal part of the project’s history file. Programmers who do consistent significant work naturally develop a *reputation* based on that work and on their *identity* in the open-source community. Other developers then know to *trust* their advice. All of this, based on the project’s *history*, helps to advance the *purpose* of the community — the development of stable, bug-free code.

While member-generated content should be eternal, since it represents the collective wisdom of the group, individual transgressions should have a statute of limitations. Members should be able to redeem themselves, because a successful community learns from its mistakes and from its members. A community also remembers its members, even if they drift out of contact. Identity should be persistent; the community should have a way of remembering who that person is and what he or she did in the past.

The common denominator of the 12 Principles is *people*. In looking at online community services, we are exploring the human dimension of cyberspace. Most fundamentally, the Internet is a tool for human-to-human communication and expression. Collaborative groups are teams of humans working together. When seen in this light, organizational uses for human-centered cyberspace services are endless.

SECTION THREE:

Enhance and extend relationships

Ford Motor Company's Enterprise Information Management (EIM) Group encourages engineers to share knowledge, collaborate in work groups, and find knowledge using the company's intranet. Ford's community improves the speed, quality and cost efficiency of new product development and provides Ford's engineers access to more than 500,000 engineering documents. "We think innovation occurs in the context of communities of practice, and the intranet can get the information to wherever those communities are happening," explains Stevie Cote, head of the EIM. (Sloan Management Review, 2000)

Proctor & Gamble's corporate digital branding group has extended their offline advisory panels to their redesigned web site and community. The new focus is on shifting their site from online brochure-ware to a consumer-based hub providing their customers with new avenues for feedback to the company. "Last year, we were successful by being the loudest shouters," says P&G's Greg Icenhower. "This year, we'll succeed by being the best listeners." (Interactive Public Relations, January 2001)

As these examples demonstrate, online community building networks have moved out of their infancy — they're not just for websites anymore. Online community is now a valid and necessary business tool for companies that want to tap into their intellectual capital, regardless of revenue model.

Every organization exists as a function of all of its relationships with its stakeholders. Companies need to look seriously at how any-to-many networks can extend and expand the benefit the company derives from these worldwide relationships. By leveraging those applications that enhance the relationships between its constituents, facilitate group formation and enhance team collaboration, companies can maintain exponentially more stakeholder relationships than with traditional media. These stakeholders, or community "participants," may be employees of the company's distribution partners (B2B), end users and potential customers (B2C) or knowledge workers and employees of the company (B2E). Community services connect participants with the information they need, with each other, and with a rapid-response support network. This maximizes existing relationships, promotes new ones, and saves businesses time, money, and resources through collaborative efforts. Whether they build, sponsor, or participate in them, a company's community efforts and tools will have a considerable positive influence on their bottom line — both Reed's Law and the Web Services Equation in Section 1 illustrate this point dramatically.

CRM: RELATIONSHIPS WITH CUSTOMERS

It's not whether you have problems but how well you respond to them that builds loyalty among customers.
- Tom Peters

- A national business periodical provides community services to readers who share interest in the topics covered by the magazine.
- A Northwestern consulting group provides a virtual community for industrialists, consultants, and academicians interested in technology and group process issues.
- An HMO provides community tools to aid customer service for their network members.
- A Midwestern ad agency provides its clients a community organizing force. (Examples from Cothrel, 1999 and Bressler, 2000)

Recent research shows that 45% of firms today are considering or piloting CRM projects and 37% have installations underway or completed. A typical Global 3500 firm's three year spending on CRM will top \$75 million. (B.Chatham, Forrester Research, March 2001) These firms are creating or improving interactive services that streamline staff functions and that provide customers with access to the company and each other because they recognize a basic truth: healthy customer relationships have a direct and measurable impact on the bottom line.

Through 2004, 55% of CRM and e-CRM initiatives will fail to meet measurable benefit objectives. (W. Close, The Gartner Group, December 2000) Successful efforts will provide tools and services — expert finders, shared knowledge, experience, recommendations and collaboration — that *communicate* with the customers, allow them to form *groups*, and support their *exchange* and *expression*. By supporting customer use of the product, businesses create and support critical relationships as well.

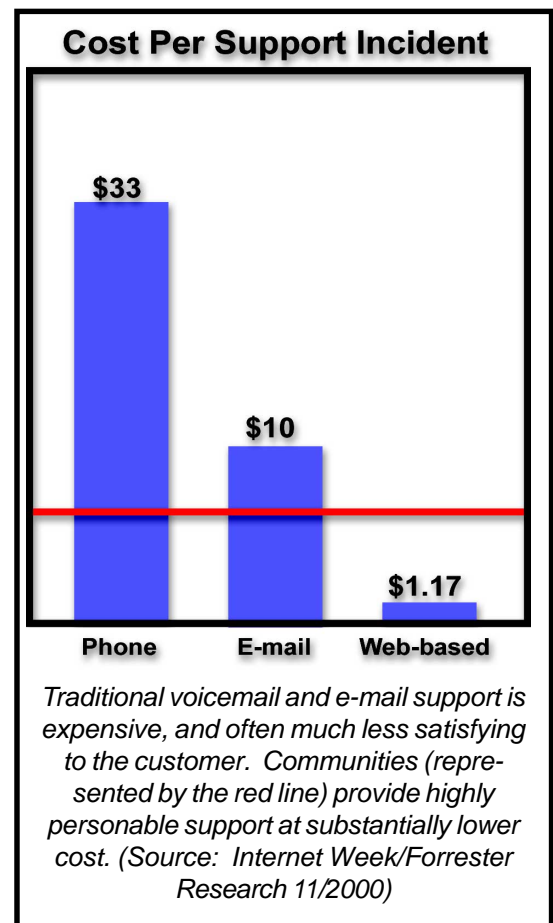
Traditional voicemail and e-mail customer contacts are expensive, time-consuming, and often frustrating for the customer. Many customers avoid these avenues, preferring to solve their problems by consulting with peers or internal help systems. As a result, the volume of contacts that reach the supplier often represents a very small portion of the actual demand. (Oxton, 2001) Companies thus not only lose an opportunity to cultivate invaluable relationships with their customers, but also access to a massive well of feedback and information about how their products are being used.

Any-to-many networks provide unprecedented opportunities to help customers find experts and solve problems faster, and at the same time decrease costs and increase the information available to the company.

IPlanet message boards act as a surrogate help line for many customers; executives estimate that each message board answer saves \$50-\$100 over a tech support call. (Wall Street Journal, 2001) Kaiser Permanente extended their traditional customer services, such as medical information and nurses' lines, to the web, helping members take charge of their health care decisions. To support their passionately enthusiastic Land Rover owners, Ford offers special driving schools, tours, and more, all supported through their site's Owner's Centre. There are definite *boundaries* (a VIN is required to enter), and the community provides these customers with an *environment* where they can form *groups*, *communicate* with each other, develop *identity*, *reputation*, and *history*. All the while, Ford supports a strong relationship with these customers and benefits from their loyalty and their feedback regarding the product.

Where communities enable and encourage customers to collaborate with each other, they also have a direct impact on the bottom line. According to Futurize Now, "Customers in communities who are seeking or engaged in relationships with other customers have dramatically higher levels of profitability." (2000)

While building any-to-many networks is a great opportunity, companies can also benefit from sponsoring and participating in third-party organized communities. TiVo, for instance, actively supports the independently



sponsored TiVo Community (run by AVS forums, <http://www.tivocommunity.com>) via ad banners. For at least two TiVo employees, part of their official job responsibilities is to monitor and respond to queries on these boards.

Before web communities, companies had limited or expensive means of gathering information from their customers. Today, web-enabled communities have dramatically lowered the cost of gathering market data; they allow companies to collect information from customers throughout the decision making process and the life of the product. And, as part of the data gathering, companies also have the opportunity to build stronger relationships and encourage future purchases.

MARKETING AND SALES

Loyalty to a company is based on respect. And that respect is based on how the company has conducted itself in conversations with the market. - The Cluetrain Manifesto

- A tools company provides community for field sales personnel, technical representatives, managers, and dealers.
- A major telecommunications company has shown 50% longer subscription rates from community participants.
- An electronics manufacturer provides online education to its community of customers. (Examples from Cothrel, 1999 and Bressler, 2000)

Widely available CRM communities such as those described above can provide pre-sales purchase decision support by turning a company's avid users into a volunteer sales force. Prospective customers can review discussions and content, ask pre-sales questions, and feel comfortable about their decision before paying, which increases customer satisfaction both before and after the purchase. In short, a company's participation in online conversations can have a drastic effect on their reputation with customers. Levine, et.al. in *The Cluetrain Manifesto* noted powerful evidence of this in one online developer community:

Symantec had one person virtually living in the public support newsgroups. He responded to questions, fielded tech support requests, and generally got himself known as a very straight shooter about Symantec's products. He was only one person, but he was almost single-handedly responsible for the developer communities positive take on Symantec. He wasn't there to promote, but strictly to assist. He gave honest answers to hard questions, acknowledged product shortcomings, and painted an honest, open picture of the product's strengths and weaknesses. **The developer community's collective opinion of Symantec soared.** (Emphasis added)

Active community participation strengthens customer relationships and builds loyalty, sometimes even before the purchase occurs. Early data indicates that, of sites with online communities, active community users visit nine times more often than occasional users (increasing brand exposure) and are twice as likely to develop a long-term relationship with the company. This converts transactional customers to relationship customers — loyal customers who buy based on positive overall experience with the brand/company — with a direct influence on revenues. Bain and Company reports, "Average Customer Profitability is almost double when focus is on the relationship with the company rather than convenience or price." (2000) Among companies with communities available, community users generate as much as two-thirds of their sales.

In addition to customer support, any-to-many networks link sales people with company resources as well as each other, and provide access to an untapped well of information. In 1998, Ace Hardware Corporation's commercial and industrial sales group set up an online support network for their independent sales force. One member posted a

difficult problem: companies were refusing to buy Ace paint because he couldn't offer a "direct-to-metal paint product." A paint developer suggested he get the competitor's paint analyzed, which revealed that Ace paint was superior to the competitor's direct-to-metal offering and resulted in a "very lucrative contract." (Wall Street Journal, 2001) Similar communities could easily benefit — for instance, manufacturers of appliances, electronics, or any complex product and their retail distributors. A free flow of information creates a more knowledgeable sales force that benefits everyone: the sales people, the manufacturers, and the consumer.

Online communities are also a prime opportunity for loyalty programs. Savvy radio stations are already using these tools to increase ratings (and thus advertising revenues) by awarding points to listeners for tuning in and for participating in online activities. These points can then be used toward things like concert tickets and merchandise. Other potential markets for incentive programs like these include grocery store club cardholders (communities for sharing recipes and shopping tips could award purchase discounts redeemed through the card) and electronics consumers (distribution chains could offer support communities for personal electronics, encourage communities, and offer special deals to members). Programs like these — similar to the highly successful airline mileage programs — are a proven road to creating and keeping relationship customers, who then spread the word about the products and services they love.

KNOWLEDGE MANAGEMENT: COLLABORATION AND COMMUNITIES OF PRACTICE

An organization's ability to learn, and translate that learning into action rapidly, is the ultimate competitive advantage. - Jack Welch, Chairman GE

- A major oil company uses community to unite company TQM experts scattered across the globe.
- A major computer manufacturer organizes a community for worldwide employees using CAD tools.
- A consultancy organizes its independent contributors in an online community.
- Risk measurement experts throughout a global insurance company share knowledge in their online community.
- A global telecom provides community access to all company employees, emphasizing how intranets are transforming their company and industry.
- The wine industry of Northern California organizes and shares knowledge via an online community.
- A Nordic IT conglomerate clusters its subsidiary company into communities.
(Examples from Cothrel, 1999 and Bressler, 2000)

The intellectual capital of any organization is one of its biggest untapped resources. "If only HP knew what HP knows," a famous statement by its CEO, Lew Platt, applies equally well to any organization. "How do groups of people work together to create breakout ideas?" asks John Seeley Brown of Xerox. He has identified community as one of the four fundamental driving forces contributing to innovation today. "Companies have to learn faster than anyone else, share the results of that learning across the enterprise, and constantly foster the development and sharing of new knowledge." (Harvard Business School, 2001) In a global economy with a highly distributed workforce, the ability to connect with other knowledge workers who may have already answered your questions can make the difference in cost-savings, production capability, and even sales. As Kenneth Derr, former CEO and Chairman of Chevron Corp., remarked, "Every day a better idea goes unused is a missed opportunity. Companies that can rapidly put better formulas to use globally will have an advantage." any-to-many networks provide this advantage.

Texas Instruments Inc. Semiconductor Group (SCG) in Dallas sent 132 employees to a fifteen-day process improvement-training course. These employees then became “a worldwide network of mentors, guiding and training the rest of the corporation in a variety of new best-practice methods.” Empowering other employees in addition to the trainees to initiate changes in company processes enabled the entire company to benefit from the trainee’s knowledge. As a result, on-time deliveries shot up 83%, order fulfillment cycle time dropped 50%, and inventory was reduced by millions of dollars. “Manufacturing cycle times dropped by 65%, customer returns by 70%, and product parts-per-million defect levels by 65%.” TI estimated the savings at over \$1 billion. (Quality Magazine, 1997)

Almost every major organization has at least a document repository, even if it is only a set of shared directories on a network. But such “communities” share knowledge only when the users already know that it exists and that it is there. A truly useful KM (knowledge management) system allows participants with a common *purpose* to share and retrieve knowledge they didn’t even know existed in the organization: lessons learned, best practices, technical developments and reusable code, and more.

Sun Microsystems’ Java Center Organization works with end users, systems integrators, and Sun groups on Java design and implementation. They have senior members in 15 countries, and their Java Center boasts a core of well over 100 programmers with *reputations* for being the best of the best. These members *communicate* with Sun and each other, *exchanging* ideas and assisting in complex development and improvement efforts. More than 1000 others either work with them or take advantage of their knowledge. (Williams & Cothrel in Sloan Management Review, 2000)

Communities of practice such as these release knowledge workers from the restrictions of geography, providing access to a wealth of experience and knowledge sharing among global employees. That knowledge can benefit new product development, cost-saving projects, etc. The more participants, the more valuable the network becomes, approaching Reed’s 2ⁿ value.

Expert locators provide access to experience as it is needed — a kind of “just-in-time” consulting or mentoring service. At Siemens, salespeople in Malaysia did not have the expertise needed to build a crucial proposal for a \$3 million contract. Through their ShareNet community, they found a team in Denmark that had done a nearly identical project. By *exchanging* information with the Danish team, the Malaysian group won the contract. Overall, Siemens credits the tool with adding over \$120 million in sales. (Business Week, 2001)

More formal community-enabled experience systems provide opportunities for unconventional mentoring relationships. Jack Welch, retired Chairman of General Electric, has an Internet tutor who teaches him how to operate in the new, electronic world. (Washington Post, 2000) Traditionally, experience sharing has been a hierarchical phenomenon, operating from the top down. Any-to-many networks allow knowledge to flow in any direction.

Defect management, materials cost control, and product revisions are well-known challenges to efficient supply chain management. Any-to-many networks provide a wealth of opportunities for purchasers, engineers, quality and manufacturing personnel to collaborate and share knowledge with each other. In addition, virtual spaces can replace the sense of automation and anonymity that has overcome external business transactions (between and among vendors, suppliers, and customers) in recent years. A typical manufacturing operation, for instance, has many events to monitor — parts deliveries, manufacturing-progress, supply status. Reputation management software can monitor these events and set in motion appropriate actions, according to defined business rules. When a key shipment is delayed, shorted, or damaged, traditional ERP systems will note the deviation, and may even produce data if custom reports are designed. However it still relies on people to notice the error and take action. Reputation systems can take this a step further by, for example, sending e-mails to a designated *group* of people (vendor, buyer, materials manager) and create an instantaneous web *environment* for those people to collaborate

around this new issue. It can also use the *history* of deviations and responses to create, over time, a quantitative vendor, or product, *reputation*.

Communities of practice can also provide unexpected wells of learning for new members, even though a large proportion of the members may never actively contribute. In creating a community of geologists for Shell, organizers interviewed these “lurkers” and discovered “most had been with the organization less than two years. They were using the community to learn about a branch of geology new to them by listening to world class experts discuss leading-edge problems.” (McDermott, 1998)

The intangible benefits of knowledge management networks and communities of practice translate into real, measurable benefits to the bottom line. According to the American Productivity and Quality Center (<http://www.apqc.org>), companies running communities of practice experience half the employee turnover of companies that do not.

CONCLUSION

“The notion of community has been at the heart of the Internet since its inception.” (Armstrong and Hagel, 1996) Long relegated to erudite scientific communities or frivolous entertainment, online communities are finally being recognized for what they are — a powerful tool for extending and expanding the connections humans need to conduct business, learn, and grow.

How do you facilitate group formation and enhance team collaboration that helps to build your community? Begin by launching a focused set of interactive services targeted towards supporting a specific group with a common purpose. Evaluate the numbers and the type(s) of people who use those services and the benefits they derive from them so that you learn step-by-step how to build value from these services. When selecting a starting place, choose a community that is well defined to ensure your early success, then expand to other domains. Keep in mind that the people quickest to adopt and use these systems are the younger members of organizations who are more facile with the medium. Practice community building internally in order to accumulate a knowledge base before risking your organizational identity and reputation with external customer-interface applications.

One important mission of the group pioneering interactive services within a company will be to grow that company’s knowledge base and expand staff training and learning in this emerging field. One way to accomplish this is to create a community of community developers within your organization chartered to facilitate the social aspects of community building and build organizational knowledge about how, within that specific company’s culture, to implement these communities. Regardless of the direction chosen, the sooner your organization begins building its internal knowledge of what works and what doesn’t, the stronger will be your social infrastructure. Over time the high-return applications for these services will become evident.

Tomorrow’s web communities will be based not on transactions, but on relationships. They will grow out of programs and relationships that already exist, connecting sales and manufacturing organizations with distributors and customers, learners with mentors, co-workers and team members with each other. Successful communities will be built around the same 12 Principles that govern real-world communities, and successful community developers will provide a solution composed of applications that support and advance the goals of their members. Most effective business collaborations require that the interactions between the collaborating parties be managed. Mongoose provides robust software tools based on the 12 Principles of Collaboration for developing and managing online interaction services.

To learn more about the 12 Principles and how to use community tools to extend and expand the relationships important to your organization, please visit <http://www.mongosetech.com>.

AFTERWORD

If you want to begin applying the 12 Principles to enhance and extend your company's stakeholder communities, Mongoose offers the following programs to assist you:

Community Opportunities Assessment Program

Mongoose can help you identify the prospective audiences in your organization and help select the most promising opportunities. We will provide a written proposal detailing a timeline and resource requirements plan for the best community opportunity as well as summary plans for the other community opportunities we identify.

Pilot Development

Using the overview proposal provided from the Community Opportunities Assessment (described above), Mongoose will develop and host a pilot implementation targeted to one group. The pilot will include a framework of the critical functionality and a clean user interface around that functionality. (Your organization will provide the content required to support the creation of the pilot.) These pilot projects are quite cost effective with measurable ROI (return on investment) and can be implemented for less than \$50,000.00 entry costs.

Implementation Proposal and Project Plan of A Fully Deployed Group-Forming Service

Once your pilot service is enabled, Mongoose can develop and execute a deployment plan designed to maximize user acceptance and participation. We will gather data from the operation of the pilot prototype with real users and design the service, including the technology and operational requirements. Mongoose can also support and mentor your IT staff or a third party SI in building the service. Mongoose will develop operational and staffing plans for the group services, consult on the marketing and promotion, and support and mentor the operation and promotional launch of the service.

To learn more about the services we can offer, write to sales@mongoosetech.com or visit our site at <http://www.mongoosetech.com>.

ACKNOWLEDGEMENTS

The basis of this whitepaper is Cynthia Typaldos's work on the sociological investigation of the 12 Principles of Community™. However, many others contributed significantly to the current and original releases, including DeAnna Burghart, Tony Christopher, Melissa Koch, James Taylor, and Sylvia Typaldos.

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SUGGESTED READINGS

Below are some additional references discussing various aspects of Community Building which you may find interesting. In addition to the readings below, you may want to join RealCommunities' founder Cynthia Typaldos's web communities mailing list at <http://groups.yahoo.com/group/webcommunities>.

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