



Virtual communities: implications for companies

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1 Introduction

The Internet is changing the way we work, relax, interact ... it is changing the way we live. The virtual community is one of the new ways of interaction that has been made possible by the Internet. Capture, storage, dissemination and generation of (new) information occur quickly and effectively in virtual communities because the Internet enables synchronous and asynchronous communication in different ways. Virtual communities are expected to evolve into a strategically important business model. They therefore have certain implications for companies. On the one hand, there are benefits and opportunities: companies can enhance customer service and customer relations and more easily disseminate information and virtual communities can also act as forums for knowledge sharing, learning and collaboration. On the other hand, virtual communities can be used to disseminate negative information about a company that can harm its reputation, leading to loss of customers. The implication is that companies have to take note of virtual communities and determine how they can use virtual communities to their advantage as well as minimize the risks posed by virtual communities.

In this article virtual communities and the implications they have for companies are explored. A literature study was conducted and the problem examined by attempting to find answers to the following questions:

- What is a virtual community?
- What types of virtual community exist?

- What are the requirements for establishing a virtual community?
- What are the potential benefits that virtual communities can offer companies?
- What are the potential risks posed to companies by virtual communities?

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2 What is a virtual community?

Different definitions of virtual communities exist in the literature on. Some definitions are very rigid, while others are more flexible. According to Kardaras (2003), a virtual community is a multidisciplinary concept (used in sociology, information science, knowledge management and education), which is the reason for the variety of definitions. The following definitions are some of the more important ones:

Barnatt and Romm *et al.* (in Kardaras 2003) describe a virtual community as a group of people who communicate with each other via electronic media such as the Internet. They share common interests, and their geographical location, physical location, physical interaction or ethnic origin does not impose any constraints for the formation of the community.

According to Preece (in Kardaras 2003) a virtual community consists of:

- *People* who interact socially as they strive to satisfy their own needs or perform social roles, such as leading or moderating;
- a shared *purpose*, such as an interest, need, information exchange or service that provides a reason for the community;
- *policies* in the form of tacit assumptions, protocols, rules and laws that guide people's interactions; and
- *computer systems* to support and mediate social interaction and facilitate a sense of togetherness.

Rheingold (in London 1997) defines virtual communities as groups of people linked not by geography but by their participation in computer networks. They share many of the characteristics of people in ordinary communities, yet have no face-to-face contact, are not bound by the constraints of time or place, and use computers to communicate with one another. Rheingold's definition is a restricted one as it completely excludes face-to-face communication.

Willain and Cothrel (in Lueg 2001) use the term 'online communities' and define them as groups of people who engage in many-to-many interactions online and form wherever people with common interests are able to interact. The term 'community' is used in a more general sense than in sociological research where sharing beliefs or a feeling of belonging to the same community is considered essential for viewing a social group as a community.

Kyrnin (2003) uses the WWWebster Dictionary definition of community to define the concept 'virtual community': the main requirement for a community is that people share common interests; therefore anyone who visits a particular Web site is part of the community of that Web site. This is a very broad definition, and does not include the important requirement of regular visitors who interact with one another and participate in information sharing.

It is clear that the recurring themes in most of the definitions are groups of people, regular communication, electronic networks as a means of interaction, and the sharing of ideas and information on a topic of shared interest. For the purposes of this research, the concept

'virtual community' includes both communities whose members meet only online but sometimes also face-to-face, as well as communities that meet only online.

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3 Virtual community types

From the various definitions of virtual communities, it is clear that communication, and therefore sharing and 'trading' of information, is the whole point of being part of a virtual community. Different types of virtual communities can be identified, based either on the people that make up the communities, or the purpose for which the community is created. According to *Virtual communities and low-tech tools: lessons learned at the World Bank* (2003), the motivation in creating and sustaining virtual communities differs widely. The following are some of the types of virtual communities that exist. This is not an exhaustive list and it is important to note that one virtual community can include elements of more than one type of community. The different types listed here give a better idea of who can be potential members of a virtual community and how and why these communities exist.

3.1 Communities based on the particulars of its members

Kardaras (2003) name a few types of virtual communities based on the people that make up their memberships:

- Age-related virtual communities can be targeted at older people or youths (e.g. www.elderweb.com and www.youthactivism.com)
- Gender-related communities, such as www.oxygen.com for women
- Virtual communities reflecting real communities. In the UK some cities and villages have developed virtual communities where people can exchange ideas, discuss their problems and express needs with respect to the place where they live (e.g. www.mymanchester.com).

3.2 Virtual communities based on purpose

Armstrong and Hagel (in Kardaras 2003) argue that there are four community types that reflect consumer needs:

- Communities of *transactions* facilitate the need for buying and selling of products and services or exchange of information. The members of the community are encouraged to communicate with each other in order to engage in transaction. The 'Virtual Vineyards', for example, is a community that allows participants to buy and sell wine from small vineyards.
- Communities of *interest* bring together people with a common preoccupation about a topic, for example sports, cars, food and art. These communities involve a higher degree of interpersonal communication than the communities of transaction. Such communities can be 'revenge' Websites, such as McSpotlight, which provides negative information about McDonalds, and The Living Wages, which provides negative information about Nike (Lueg 2001). Other communities of interest, such as the e-mail forum for Mercedes Benz enthusiasts (Easley n.d.) provide mostly positive information about products and, if negative information is provided, the aim is to improve the products or service.
- Communities of *fantasy* support the need for interpersonal interactions, games and social experimentation in artificial environments. ESPNNet is a community that allows its members to play games or even create their own games.
- Communities of *relationship* bring people with related experiences together for

mutual support. Such a virtual community is www.ivillage.com, which facilitates discussion among women about medical issues.

Armstrong and Hagel (in Kardaras 2003) believe that for a community to be really successful, elements of all the above types should be present so that all the needs of the consumer can be satisfied.

3.3 Communities of practice

A community of practice (CoP) is a special type of community normally associated with work. Morland (2003) defines CoPs as informal networks of people engaged in a particular profession, occupation, or job function that actively seek to work more effectively and to understand their work more fully. The key to the success of these communities, and the formal organizations within which they operate, is that they are helpful. Members share their practical knowledge and information with other members because the results are useful and personally gratifying.

The concept of a CoP was first introduced by Lave and Wenger in 1991 (Kimble 2001). Their CoP was not a virtual community, but they defined it as 'a set of relations among person, activity and world, over time and in relation with other tangential and overlapping CoPs'. In such a community, a newcomer learns from old-timers by being allowed to participate in certain tasks that relate to the practice of the community. Over time the newcomer moves from peripheral to full participation. Lave and Wenger regard a CoP as an intrinsic condition for the existence of knowledge. In the global economy, Lave and Wenger's concept of the CoP has evolved as more and more organizations function in a distributed international environment. In many cases CoPs have become virtual. Kimball and Rheingold (2000) argue that a well-tuned online social network can enhance a company's collective knowledge and sharpen its ability to act on what people know in time to be effective. They believe that this kind of community is critical for a company.

3.4 Customer communities

Customer communities are communities created by companies to create better customer relationships and to better disseminate information about their products and services. According to Kyrnin (2003), building a community on the company Web site gives visitors the chance to interact and feel part of something. These connections build a network between people: they like interacting with other people with similar interests and so will keep coming back. According to *Online virtual communities* (n.d.) building virtual communities online is one mechanism for keeping in touch with customers and allowing customers to keep in touch with each other to gain insights such as best practice, or to solve each other's problems.

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4 Requirements for virtual communities

Preece's definition (Kardaras 2003) spells out the requirements for the building of a virtual community: people, a common purpose, policies and computer networks. To these four requirements a fifth, namely content, can be added.

4.1 People

Potential members of virtual communities are concerned with the following issues (Romm *et al.* in Kardaras 2003): Do they want to join the community? Will they find the

technological environment, the services and the functionality they need in order to meet their expectations? The implication is that people will have to be attracted to a virtual community. According to *Virtual communities...* (2003), a virtual community can comprise thousands of members. However, if no members actively contribute to the information base, the number becomes meaningless. A successful community must have, at its core, a 'critical mass' of active members who contribute on a regular basis, ask new questions and stimulate discussion and learning. According to *Virtual Communities...* (2003), online discussion is at the center of any community because it ensures a constant flow of communication. Open debate from a diverse range of participants promotes trust and learning and serves as a forum for questions and answers. In this regard, a coordinator or facilitator can play a valuable role. This person is responsible for addressing inquiries, encouraging participation, animating discussion, exercising leadership, and so on. Without an effective, energetic and diplomatic facilitator, it is very unlikely that a virtual community can succeed.

4.2 Common purpose

Once the community has grown, the members are concerned with the community's influence on their external environment. According to *Virtual Communities...* (2003), a virtual community is not created artificially, but is usually formed informally due to a perceived need and a desire to exchange knowledge. The topic should be relevant and sufficiently focused. What is critical is how the topic relates to members' daily work and whether it helps them to solve problems they encounter. Without a sense of purpose and relevance, members will leave the community. Mole (1999) stresses the importance of mutual benefits of participation. Both the individual user and the community as a whole benefit from active participation. Benefits can relate to things such as the provision of information, interactive customer care and product pricing.

4.3 Policies

Once members have joined the community, they are concerned with the language and politics of the community as well as with the relationships among the members (Romm *et al.* in Kardaras 2003). Policy concerns include issues, such as accepted behaviour from newsgroup members. Lueg (2001) explains, for example, that members of virtual communities share certain attitudes, such as expecting participants to newsgroups to behave according to the Usenet netiquette and its rules of good conduct.

4.4 Computer networks

Computer networks and the different ways in which they allow members to interact are, of course, a *sine qua non* for virtual communities. In this section, different mechanisms for interaction and information sharing are discussed.

4.4.1 Online discussion forums

Web-based communities are the most sophisticated mechanisms for building an online community and are often the simplest for end-users (*Online virtual communities* n.d.). The underlying features of a Web-based community are a database, a discussion forum and resources. The database is needed to record users' registration and allows users to update their profiles, potentially with space for the users to advertise and promote themselves. A discussion forum is where users post comments, queries and questions. Documents, links and resources that are of interest to the general community and its users are added.

Real-time forums can be chat rooms or Web casts (*Online virtual communities* n.d.). Padula (2001) defines the chat room as a conversation in real time that allows interactive,

synchronous exchange of messages. One person writes a message and receives an answer immediately on his or her screen. Usually, no control is exercised over who participates or the subject discussed. Nor does any trace remain of the messages exchanged in a chat session. Web-based chat rooms offer the benefit of bringing instant interactivity to a Website. They also offer more anonymity than a bulletin board. Readers can come into a chat room, give themselves any name they like and talk to other people with similar interests. Chat rooms are less formal than bulletin boards, and allow more freedom.

4.4.2 E-mail groups

E-mail groups are formed by taking a list of people and using e-mail to build and communicate discussions between them. To ensure that each member of the discussion is invisible to the others, a special program, called a list-bot, can be used to handle the mailing. There are also Web-based solutions, however (*Online virtual communities* n.d.). The downside of e-mail groups is that they can become too large for a real discussion. Everyone on the circulation list gets all the e-mails in the discussion, which can result in information overload. Also, if there are several threads to a conversation it is difficult to keep track of which comment goes with which discussion. As a result, e-mail groups are now used more for the dissemination of newsletters with return of information passing to a central moderator or editor, rather than to the whole list continually (*Online virtual communities* n.d.).

According to Padula (2001), one of the benefits of e-mail groups is that members can send messages in asynchronous mode to other people or programs, which means that messages received in the electronic mailbox can be read at a later (more convenient) time. *Virtual Communities...* (2003) lists other benefits of e-mail-based discussion, namely that the low-tech nature of mailing lists means that a greater number of people, particularly in developing countries, are able to access them. Those who are unable to participate in Web-based discussion due to connectivity issues often have e-mail accounts and can send messages to mailing lists. Mailing lists are easy to create. They use relatively simple software and are thus more reliable from a technical point of view. The barriers to participation are smaller than with other tools. Mailing lists in the development community have gained credibility over the years as effective knowledge sharing tools and can establish communities by themselves.

4.4.3 Newsgroups

Padula (2001) describes a newsgroup as a permanent electronic conference in which people with a particular common interest participate. Messages sent to a newsgroup differ from e-mail, as they are not addressed to a single individual but are posted for a certain period of time on a virtual bulletin board. Here anyone who wants to can read and comment on them. According to *Online virtual communities* n.d.), newsgroups are the oldest forum for public discussion on the Internet, yet awareness of newsgroups is relatively low among the Internet-using public. The most common fully public forums are available on Usenet. Using these newsgroups requires access to a news server from an ISP, and a news reader (Outlook has a built-in news reader). From a marketing point of view, these requirements can be a bit too technical for typical users. Also one does not get the same level of information or control about who views what as is possible in other virtual communities. It is, however, possible to access newsgroups via the Web. Companies can implement their own, more private newsgroups by creating their own corporate news server on the Internet. Customers can then access these news servers to contribute to discussions in much the same way they would for normal Usenet newsgroups.

4.4.4 Newsletters

Newsletters are, of course, nothing new, but according to Kyrnin (2003) can be a good way to keep your readers informed about a site. Newsletters can be used to talk about new features, explain exciting changes to the site, or just give good information.

4.4.5 Calendars

According to Kyrnin (2003), the online calendar is an often-overlooked community builder. The calendar can be as simple as a list of events and their dates and times, or very complex. Calendars are an invaluable tool for building community, as they allow members to find out what's happening. Events like the chat room schedule, guest authors, or forum topics to be discussed should be listed, as well as events outside the Website.

Some or all of the various communication mechanisms can be used to create and serve a virtual community. Kimble (2001) found in their case study of an IT-related CoP based in the UK and the US that communication between members of the CoP was maintained via e-mail, voice mail, telephone, video link and Microsoft NetMeeting. The development of relationships is essential to a CoP and participation is necessary to develop the relationships. Participation may be a difficult aspect to maintain in a distributed environment, but it is possible with the optimal use of the various electronic communication mechanisms.

4.5 Content

Mole (1999) regards 'precisely tailored content' as a crucial element of building a Web-based virtual community. This is content that is relevant and useful and directed at the real needs and interest of community members. Lueg (2001) explains that virtual communities maintain shared artifacts, such as a list of answers to frequently asked questions (FAQs), and a Web site that is used as a central repository for information. Shared artifacts become part of the 'organizational memory' of a community. In this way both information and knowledge sharing can be observed.

In their case study of an IT-related CoP, Kimble (2001) found that a shared information artifact (or artifacts) is very important to a CoP and can be put to a range of uses. It can serve as a catalyst for collaboration. It can be the focus of meetings and discussions and thereby highlight a range of issues and problems. It can be used for planning and coordination of work and it can also be used as a communication tool. It becomes a new artifact (new information) when everyone's inputs have been worked into the final draft. Padula (2001) argue that the document or information artifact itself becomes a channel of information.

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5 Benefits of virtual communities

Virtual communities present certain benefits and opportunities to their members and to their 'host' organizations. The following are the most important benefits:

5.1 There are no geographical barriers

Virtual communities connect people and build relationships across boundaries of geography or discipline by creating an online social space for people who are geographically dispersed (Kimball and Rheingold 2000).

5.2 Cost barriers are broken down

Virtual communities bring together people in a cost-effective manner. Instead of organizing expensive face-to-face conferences, workshops and courses, an organization can achieve many of the same goals by linking participants electronically to each other and to a wealth of online resources (*Virtual Communities...*2003).

5.3 Barriers to communication are broken down

People who should be talking to one another because their interests intersect often do not communicate because they are in different parts of the world, on different floors, or in different departments. Online discourse structures discussion according to interests and affinities. Asynchronous conversations cross communication borders of other kinds. The quiet people who might never have something to contribute in a face-to-face meeting, given time to compose their thoughts with nobody watching them while they do it, can influence discussion they might not have joined before (Kimball and Rheingold 2000).

5.4 Knowledge sharing and learning

According to *Virtual communities...* (2003) virtual communities have the ability to focus knowledge sharing and learning. If group members have enough in common and if the topic directly relates to their work, a level of trust is created which results in greater depth and value of individual exchanges. According to Kimball and Rheingold (2000), virtual communities can promote knowledge sharing, learning and innovation in the following ways:

- Virtual communities provide an ongoing context for knowledge exchange that can be far more effective than memoranda.
- Through participation in virtual communities, a company can multiply its intellectual capital by the power of social capital, because the virtual community can help reduce social friction and encourage social cohesion.
- Virtual communities can promote innovation. When groups get turned on by what they can do online, they go beyond problem-solving and start inventing together.
- Discussion in the virtual community can lead to the creation of a community memory for group deliberation and brainstorming that stimulates the capture of ideas and facilitates finding information when it is needed.
- Participation in virtual community discussion can help improve the way individuals think collectively, so that they will move from knowledge-sharing to collective knowing.
- Virtual communities allow companies to turn training into a continuous process, and one that is not divorced from normal business processes.
- Through virtual communities, companies can attract and retain the best employees by providing access to social capital that is only available within the organization.

5.5 Enhance the impact of face-to-face events

According to *Virtual Communities...* (2003), virtual communities complement and enhance the impact of face-to-face events and provide the backbone of more focused communities of practice. Many participants and organizers of conferences and workshops discover that, once the live events end, interactions between group members generally cease as well. Some have found that an online discussion and interactive Web sites are capable of keeping participants connected and engaged on an ongoing basis, particularly during periods between the live events.

5.6 Branding

Barnatt (in Kardaras 2003) believes that companies that build virtual communities will have the opportunity to be established as a leading online brand. Customer loyalty to the business that hosts a virtual community is expected to rise. The anarchy of the Internet may lead customers to join a virtual community, which can then be seen as a virtual 'home' where people can join and trust other members' friendship, their information and advice.

5.7 Competitive advantage

Virtual communities will allow organizations that have succeeded in developing the critical mass for their online community to raise entry barriers for their competitors. It will become more difficult for customers to join and trust another community than the one they approve of and belong to. New customers can be attracted regardless of their geographical location or demographical status even if they are not receiving the messages of the advertising campaigns of the organization. Communication with other members of the community will replace advertising and it will raise their interest for available products and services (Barnatt in Kardaras 2003).

5.8 Enhanced customer relationships and marketing through effective dissemination of information

According to *Online virtual communities* (n.d.), when used effectively, virtual communities can be an excellent way of building dialogue with customers from a marketing point of view. Barnatt (in Kardaras 2003) believes that since virtual communities encourage communication, companies will benefit from the exchange of 'word of mouth' experiences, opinions and ideas among its members. Therefore, good as well as bad practice will spread quickly, thus helping companies to learn more about their customers and companies will be able to improve, customize and differentiate their services. Virtual communities are expected to become a place where members (customers) will share credible information and knowledge associated with products. Virtual communities can potentially facilitate marketing, as they will enable companies to promote life styles to their customers, creating demand for new products and services (Barnatt in Kardaras 2003).

5.9 Implications for companies

Kardaras (2003) believes that virtual communities may become an important business model. It has been shown that there are certain important benefits to be gained from both communities of practice within and outside of the company, and communities of practice involving customers and potential customers. Establishing such virtual communities can lead to competitive advantage. Obviously, companies will want to reap the benefits of this new technology. Companies will have to determine the feasibility of establishing communities of practice within the company to enhance employee performance, learning, knowledge sharing and innovation, and then plan how to create such communities. This will be of particular importance for companies whose employees are distributed through different geographical locations. Companies will also have to determine the feasibility of building online customer communities and the communication channels to be utilized. This will have implications for the company Web site and the IT staff's workload. A facilitator for the online community will also have to be appointed.

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6 Risks of virtual communities to businesses

6.1 Risks posed by fast and easy dissemination of information

According to Kozinets (1999), virtual communities structured around consumer interest have been growing rapidly. Lueg (2001) explains that the Internet has enabled a variety of business-independent online communities which may 'disseminate at the speed of light information about companies, their products, their bright sides, and their dark spots'. A virtual community, such as a newsgroup, will typically share information and experiences about a particular topic, which may be a specific company or type of product. Lueg (2001) cites the example of a fastfood newsgroup, for example. Participants are normally well connected in terms of electronic communication so that information can be distributed rapidly among the different participants. Participants in one virtual community do not, however, keep the information within the community but typically share it with real world family, friends and colleagues. They also communicate it to members of other virtual communities through the use of other online communication channels such as email, mailing lists, chats and newsgroups. Members of these communities, in turn, share it with their family, friends and colleagues. This means that positive and negative information as well as rumours can be disseminated rapidly to a very large audience. The discussions conducted by members of virtual communities can normally be found by regular search engines such as Google and Altavista. These search engines preserve information for years and have empowered casual users to find information that was published almost anywhere on the Internet.

Thus information sharing in virtual communities implies that threatening activities that are based on the virtually unrestricted dissemination of information are becoming more and more important. Examples of information that may be disseminated are rumours, gossip, urban legends and purposely false information.

Easley (n.d.) agrees with Lueg that consumers commonly discuss the purchase, use and disposition of products in the marketplace. In virtual communities of the generic-product category, this type of discussion is the norm. Members talk a lot about a company's products and service, and they tell others about it too, both online and offline. A long-held assumption about word-of-mouth communication is that every dissatisfied customer will tell seven to ten others about their dissatisfaction. With electronic media that transfer information instantaneously and are geographically unlimited, a dissatisfied customer can 'mass broadcast' (Easley n.d.) his or her dissatisfaction. Further, the ease-of-use associated with e-mail forums makes complaining about, as well as complimenting, a company an essentially effortless task.

6.2 Implications for companies

Companies cannot control information dissemination in online communities but they can react to the fact that more and more of their real world customers are members of online communities as well (Lueg 2001). Easley (n.d.) believes that companies should, at the very least, monitor what is being said about them. This can be done by participating in a virtual community where the organisation's products or services, or similar products or services are discussed. Lueg (2001) agrees that companies may have a chance to establish communication with online communities in order to prevent damage and to actually improve their services. There are also companies such as CyberAlert and IntelliSeek that offer tools for searching the Web and other information sources to find out what is being said about a company and its products and to identify potentially damaging rumours. However, the effectiveness of these tools has not yet been proven (Lueg 2001). Another tactic is for a company to form its own virtual community prior to others in the marketplace and by so doing better manage word-of-mouth information about the company and its products and services.

7 Conclusion

Virtual communities consist of people with a shared purpose who communicate and share information by means of electronic networks. Virtual communities are part of the information age and the information economy. Because of the ease and speed with which information can be disseminated through virtual communities, they present both opportunities and threats to companies. The implications for companies are that they must exploit the opportunities by creating virtual communities of practice and customer communities. Although companies cannot control information dissemination in online communities, they can minimize the risks to their reputation by making sure they know what is being said about their products and services, and by participating in online communities.

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