

Virtual communities

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Abstract

This article presents a classification model for virtual communities. Virtual communities may be classified as being commercial or non-commercial. This classification is made from the organisers' purpose and identity. The description of the model attempts to show the differences between different types of virtual communities from a common point of view. The model makes no attempt to exactly define the criteria for the community at any given stage but rather shows the differences, which exist, in virtual communities and their different functions. The model describes a theoretical reality that will be used as a basis for further discussion.

Keywords: virtual communities, electronic commerce, virtual organisation, classification

BRT Keywords: BD, BB, BA, AB

Introduction

The building of the Internet from its predecessors the ARPA and DARPA networks have supported a paradox. This paradox is contained within the system and the users' perception of the same. While the networks were designed as advanced communicative tools they have long been perceived as something larger (Dahlbom et al. 1993). The Internet quickly became a place which quickly became known as cyberspace (Gibson, 1984). With the concept of communication as place the users communicating online readily formed peer groups which they soon identified as being as important as their real world surroundings. The next logical step was to start talking about virtual communities.

Where human activity goes researchers will soon follow. It was not long before the virtual communities were being explored and studied as examples of new human behaviour. The commercialisation of the net was frowned upon but the progress has been inevitable. There was no controlling the new communication.

The purpose of this article is to identify and classify different classes of virtual communities from an economic perspective, from the organiser's point of view, as opposed to the user. The paper also places the virtual communities into an economic context. There are theories about commercial and non-commercial virtual communities but they are rarely examined from a common organisational perspective.

The studies, which have been done this far, have mostly concentrated on user behaviour and methods of interaction. Very little has been done on the reasons behind the creation and development of virtual communities. To approach these reasons an economic classification must be undertaken. The purpose of this paper is threefold: To suggest a

method for such an analysis, to study the actual virtual communities and their positioning according to the method and to further develop the method of classification to be better able to more subtly classify virtual communities.

The community concept

Man is a social being and as such has always found it necessary to form groups and alliances for protection and pleasure. With each new form of social order the alliances have adapted and new groupings have been formed, the information revolution has not been an exception, (Apgar, 1998). With the advance of the computer as a communicative tool man has adapted to this new medium and accepted this tool into his social repertoire. The birth of computer networks and the Internet brought about a new such alliance that has become known by the metaphor of the virtual community. The image of the community as a gathering banding together for a common interest comes from Hobbes (1651) who felt that the only way to survive in a hostile environment is to ally oneself with others whom share a common goal. The Internet today is a complex environment where the individual can easily lose footing. But for whatever reason they are created a virtual community is first of all a social grouping (Croon et al, 1998)

"A virtual community is first of all a social entity. It is a number of people who relate to one another by the use of a specific technology. In a traditional society we often see communities as something evoked by geographic closeness (village, neighbourhood, town, etc.) or organisational belonging (schools, churches, sports, hobbies, etc.)"

While most people agree intuitively on what a virtual community is. The merging of technology and social structures is a complex phenomenon to describe. Most definitions of virtual communities are based on the concept of the traditional community. One of the more complex issues to be resolved is whether the www is a form of communication or a place. Writers such as Benedict (1991) lean to the latter;

"Cyberspace is a globally networked, computer-sustained, computer-accessed, and computer-generated, multidimensional, artificial, or "virtual reality". In this reality, to which every computer is a window, seen or heard objects are neither physical nor, necessarily, representations of physical objects but are, rather, in form, character and action, made up of data, of pure information."

This view of the www as a place or space is better suited to the metaphor of the virtual community. Those writers who would prefer to see the www as a mode of communication argue that the virtual community does not exist in the real world, but since the virtual community is built on interpersonal relationships, communication and interaction in a virtual environment it is a definite part of a concrete reality. The virtual becomes physical since the members are people who exist and function in the physical, traditional world. Rheingold (1994) advocates the communicative aspects of virtual communities.

"a group of people who may or may not meet one another face to face, and who exchange words and ideas through the mediation of computer bulletin boards and networks."

This means that the virtual community is supported by a certain infrastructure¹ that supports meetings and communication other than the traditional face to face communication. Examples of tools used today to build virtual communities are: Internet relay chat, e-mail, e-mail lists, databases, virtual reality applications and homepages. This paper does not intend to discuss the different kinds of infrastructures available to build a virtual community. This paper does not treat the efficiency or necessity of these tools.

¹ For the purpose of this paper infrastructure refers to either Internet, Extranet or Intranet while the tools refer to the applications employed on these platforms.

We recognise the need for IT tools in sustaining and developing the virtual community but feel that descriptive analysis of the tools and infrastructure they work upon are outside the focus of this paper. It is important to mention that there are several tools available. More are being developed and the virtual community can use numerous combinations of these tools.

In the same way as our present infrastructure affects our everyday lives, the tools used in building and supporting a virtual community will affect the community and its communication in a numerous ways. A common thread for the tools is their function, which is, to promote the development of swift, asynchronous and timeless communication.

We have stated that for a virtual community to work it must have a functioning, effective infrastructure. Most of the infrastructures fit into three groups. Internet, Extranet or Intranet. These three levels of infrastructure depend upon the level of access and the telecommunications technology used by the virtual community.

Another important building block for the virtual community is active membership. In the traditional geographic community this was not an important issue since membership was based upon a physical presence. This presence is shown and seen in the virtual community only through communication. If a member does not communicate his membership may be questioned. The level of participation depends upon the traditions in the different virtual communities. To be a member of a virtual community is to be committed and active on a voluntary basis. The activity criteria effectively excludes those who hover around the periphery of the community only observing but not communicating from being seen as members (Valtersson, 1996). A virtual community can be either open or closed to new members depending upon what the organiser wants with the community.

A closely related phenomenon to the virtual community is the community of practice (Brown, 1998). A community of practice is based on three fundamentals (Wenger, 1998): joint enterprise, mutual engagement and shared repertoire. Wenger's criteria can also be used when determining the content of virtual communities. Wenger points out that the repertoire has to be shared, that the members of the community should be able to recapture what has been said in former discussions. This concept of history is very important in a virtual community as well and it is easily supported with information technology.

In short virtual community must fulfil certain criteria. The communication is based in a digital environment, it is built on active membership which leads to member generated substance, it is built around the common interests of the members and the virtual community has a history that its members have access to. To be able to do this there are tools and infrastructures that support this in a proper way.

Classifications of non-commercial virtual communities

Virtual communities have been studied previously. Often the purpose of the studies has been to observe the new forms of social interaction supported by new technology. The focus of this paper is different. This paper observes the phenomena of virtual communities and attempts to put the different social groups into their economic context. Another important difference is that the paper attempts to the classification from the creators or controllers point of view. This is because virtual communities are quickly becoming an important resource for economic activity both on and off the www. The growth of online activity and economic commerce makes understanding the economics of virtual communities especially important.

As said in the introduction there have been a lot of studies done on virtual communities from the Gemeinschaft perspective. Depending on what function a virtual

community has it can be classified into different groups. Croon et al.(1998) have classified four different, more or less, non-commercial virtual communities.

- Community networks
- The professional society
- The personal society
- The third place

Community networks are owned by a (geographical) community and the purpose of the community is to increase the citizen influence on the local decision making process and to encourage the citizens to take part in what is being decided in their community. Community networks are to be thought of as interactive information systems that support interaction and communication among people within a geographical area. This type of virtual community then supports a two-way communication between government and citizens. An example of this kind of virtual community is The Los Angeles Free-Net that is a volunteer non-profit organisation dedicated to bringing people together, providing community information, and offering Internet access (<http://www.lafn.org/>).

In the professional society the member participates openly rather than anonymously. It is a virtual community in which a member participates for professional reasons. This type of virtual community is based on trust. The trust is built on previous personal relationships between members and the fact that they belong to the same company etc. In this type of virtual community there is usually a chairman or a moderator who is responsible for the virtual community. To give an example of a professional virtual community there is the ISWorld, (<http://www.isworld.org/>) who think of them self as “A vision of information systems scholars harnessing the Internet for the creation and dissemination of information systems knowledge.”

The personal society focuses on inter-personal relations rather than personal relations to a group. In a personal virtual community only the organiser knows all the other people in the virtual community, in this way the virtual community is built around one person. The subjects discussed in this type of virtual community are feelings, personal thoughts, problems related to work and so on. A purpose/goal for a virtual community like this could be to maintain a contact with people that one would not be communicating with if this type of virtual community did not exist. The primary interest is not to meet new people. One type of this virtual community is address-book-based communication. Here membership is subjectively defined as the content of an address book or even as the phone book in a mobile telephone. It has an organiser who knows all the people in the community.

The third place virtual community is a place to come into contact with new and old friends. This is a neutral ground where there is no hierarchy between the participants. The communication is respectful, governed by norms, there is a subject and the communication is democratic and playful in nature. This type of virtual community is always open and there is always the possibility to meet someone that you know. It is a little bit like going to the local pub. One example of this type of virtual community is The Well. The organisers of The Well sees it like this, “ The WELL is an online gathering place like no other – remarkably uninhibited, intelligent, and iconoclastic. For fourteen years, it's been a literate watering hole for thinkers from all walks of life, be they artists, journalists, programmers, educators or activists. These WELL members return to The WELL, often daily, to engage in discussion, swap information, express their convictions and greet their friends in online forums known as Conferences.”

Classification of commercial virtual community

Another type of virtual community, which reflects the Gesellschaft perspective, is the community with a commercial purpose, the purpose of making a profit for its organiser and

in some cases its members. The people, organiser and members, in this type of community, are not anonymous. They tend to appear with their real names.

This type of community can be a platform for consumer power, (Kelly, 1998). The members in the community gain on that they will have a better starting point for negotiation with the seller. The seller gains a market that is interested in what he has to offer. The organiser of the community is selling the “market”. One definition of commercial virtual communities given by Armstrong et al (1997) is:

1. Distinctive focus as to membership
2. Integration of content and communication
3. Emphasis on member-generated content
4. Choice among competing vendors
5. Commercially motivated community organisers

According to Armstrong et al. all these five criteria must be fulfilled for a commercial virtual community to exist. The member’s communication creates the core of the community’s assets. The organiser of the community plays a key role since without this role the community could not exist and the goal for the organiser is to make a profit on the virtual community.

It is hard to find virtual communities that fully fill all the five criteria. One example that has adopted to 1, 4, and 5 is www.bokfynd.nu. At www.bokfynd.nu members can compare prices of books, choose among competitive vendors and it is a commercially motivated organiser.

The new classification of virtual communities

The community concept has long been discussed and used as a theoretical instrument in understanding social relationships and change (Tönnies 1988, Asplund 1991). The typical view is to observe pre-modern society as a *Gemeinschaft* where work and personal relations are the central defining factors. With the transition into the industrial society there is a transition to a *Gesellschaft*-society based amongst other things on more impersonal relationships between people and a focus on capital, production and economic thought. Social psychologists like Asplund have stressed the point that *Gemeinschaft*-*Gesellschaft* should be seen as a reference point and not as an absolute progression from one point to another. *Gemeinschaft* and *Gesellschaft* always co-exist and it becomes more a question of perspective in using one or another when defining a relationship. Commerce has traditionally been thought of as the typical expression of *Gesellschaft* but community relationships, *Gemeinschaft*, have continued to be important even in the industrial society. The growth of information technology has been heralded as the promoter of community i.e. non-commercial and based upon personal relationships. This is true of the research around MUDs, Usenets, discussion groups etc, which have elaborated on community based theories (ex. Rheingold 1994, Holmes ed. 1997). With the concepts of *Gemeinschaft* and *Gesellschaft*, and the way it is thought of by Asplund, there is a theoretical background to the concept of the virtual community and its function as a place to socialise, learn and to do business in.

This paper recognises four different types of virtual communities. Common to all four types, presented below, are that they all contain a large amount of information. Both the information which is created by the members and transferred to the community and the information about the members which can be organised and collected by agents and be used in creating profiles. This information has been recognised as a valuable commercial asset, (Armstrong et al, 1997). The sensitive nature of this data is a concern and many countries are enacting data protection directives to prevent the misuse of personal information. This issue is very important to virtual communities but falls outside the scope of this paper.

| | Non-Profit | Profit |
|--------------------|-------------------|---------------|
| Company | Forum | Shop |
| Non-Company | Club | Bazaar |

Figure 1. Virtual Communities seen from the perspective of an organiser with a commercial or non-commercial motive.

The classification of virtual communities in accordance with the criteria set in this paper requires a methodical structure. The model (see figure 1) we use defines four hypothetically perfect virtual communities. Real virtual communities will then be used to exemplify these classifications. In reality virtual communities will not always fulfil the criteria set in the model and they are to be seen as examples used in clarification of the model. This model should be used as a starting point in discussion rather than giving the ultimate description of existing virtual communities. The inconsistency between the model and reality will be discussed further on in the discussion section of this paper.

In the study of virtual communities several theories and models have been developed. These classifications and descriptions have been developed individually of each other and lack a common approach to the phenomena. The development of uniform classification would enable the comparison of the different types of virtual communities. The model presented in this paper is not an amalgamation of previous research or classification but it is a fresh approach to the problem.

The classification begins with the division of virtual communities into two groups; non-profit and profit. This refers to the motives of the virtual community organiser. This is an attempt to find the underlying motives for investing time and money into building a community. Non-profit, in figure 1, implies that the motive/purpose of the organiser of the virtual community is not economic profit. This does not necessarily mean that the virtual community will not generate some type of profit for the organiser or its members. Profit, in figure 1, implies that the virtual community has the clear purpose of generating an economic profit for the organiser and in some cases, its members.

This model also attempts to define the level of classical economic organisation in which the virtual community and its organiser has its setting. This classification is seen in our division into the groups' non-company and company. The company label in the figure is being defined in part from a legal point of view, in an attempt to describe the level of established legal organisation. The axis "company – non-company" is an attempt to define the legal and organisational infrastructure in which the virtual community is embedded. This definition is built on two levels. The first level attempts to locate a legal corporate entity. The law of the land in which the virtual community has its home defines these entities. This is obviously an impossible task, which the law solves by using simplified models; the model used depends on the law in the particular company. While this may seem complex the determination of whether a company is a legal corporate entity or not according to national law is not too difficult. The rules governing the

definitions of corporations is fairly clear in national legislation. This evaluation alone will not capture all forms of companies since the law only recognises specifically defined structures as being corporate entities. Large groups, which will often be excluded, are co-operations between different firms, which are located in different countries. This scenario is not uncommon in a virtual environment. To capture the other group of entities which are corporate but will not fit into the legal description we apply an organisational test. This test looks for co-operative structures between companies, which may be based on instruments such as contracts or joint ventures. Even without these structures there may be a corporate co-operation through common trade practice.

As previously mentioned virtual communities are divided into four groups. These groups are given a name. This name is used to facilitate the discussion of virtual communities and should not be seen as a definitive description. The names are an attempt to reflect the setting in which the types of communities best fit.

1. The Forum - Non-profit & Company
2. The Club - Non-profit & Non-company
3. The Shop - Profit & Company
4. The Bazaar - Profit & Non-Company

The Forum

The membership in this virtual community is based upon employment in a company. This a discussion area. The important feature of this community is that despite the forum has corporate backing it is not used as a profit-crating tool. The purpose of the organiser for developing this tool is not intuitive since corporate organisms rarely act without profit. The Forum is used by corporations as an employee meeting place or virtual coffee room, to create an environment for informal information sharing. The Forum also promotes corporate culture and enhances corporate loyalty.

While the infrastructure base could be any of the three most often the Forum is an Intranet within the company. Membership is therefore limited to employees. This is an important factor since this type of virtual community is closely linked to the company there is a risk that the development of the community will be greatly effected by corporate policy and the members career ambitions. This will affect the development of a free discussions.

The Club

The name is chosen to connote a gathering of people with a common interest. The interest may or may not be the focus of the club. The social aspects are more important in this virtual community than in most of the others. This type of virtual community can, due to their lack of economic basis and profit goals, easily be mistaken for a non-profit organisation. The differences quickly become apparent after a brief examination. This type of virtual community lacks the hierarchical organisation, which appear in any form of company. The community is organised by one or more enthusiast and is built around a member interest. The motive for having this type of community is that the members and the organisers would like a free forum for communication, exchanging opinions within the framework for the community and to be able to find information in the area of interest. The people who participate in this type of community share the same interest as the organiser does. The membership is based on issues such as, social interaction, knowledge sharing, competitive advantages, or discussion forums. This type of virtual community can use all types of infrastructure but is more common in least controlled environments. The infrastructure in use will effect membership levels and content.

The Shop

This is a mix of company and profit. The idea of the Shop is that the ratio between buyers and seller is disproportionate. In most cases either the selling or buying position is controlled by only one organisation. This type of community is an example of a common idea of electronic commerce. The organiser is a company and the motive for the virtual community is to make an economical profit. There are three different kinds of organisers. It is the existing company who wants to start selling goods, service and so on via Internet and wants to support this with a virtual community. The other type of a commercial virtual community is the one that knows what its members wants and sell this information to someone who is interested in the information for a commercial reason. The third type of organiser is the new web based company that only exists on the web and has no existents in the real world. This type of virtual community is usually found on Internet and on Extranets. Depending on the type of infrastructure this community will attract different types of members.

Since the Shop is based on corporate organisation and ideals it faces the same problems and concerns of members as the forum does with certain additions. The obvious profit motives of the Shop make developing and sustaining a community difficult.

The Bazaar

The Bazaar is an interesting place since it is a meeting place for buyers and sellers. The main difference between the Bazaar and the Shop is that the Bazaar lacks the control by any organisation. The organiser of this type of virtual community is not a company. The purpose for the organisers of this type of virtual community is to create a profit for all, members and the organiser. This type of virtual community attracts members that wants a platform from which they can do business, work, get information and socialise. This type of virtual community is to be found on the Internet but can also be created with other infrastructures. This type of virtual community also knows what its members wants and the organiser can sell this information to someone, who is interested in the information for a commercial reason, as the organiser can do in the *Shop* community. As always the infrastructure will effect the level and freedom of communication involved.

Discussion

The classification system we present in this paper is designed to get a better overview of the different virtual communities that exist and to view them from a common perspective. The main difference between our model and previous theories on virtual communities is that this new model uses a common perspective when looking at the phenomenon of virtual communities. This is what Asplund point out when he is discussing the concepts of *Gemeinschaft* and *Gesellschaft*, that the non-commercial and commercial virtual communities are not to be seen as absolute progression from one point to another but rather as reference points. We do this by naming the reference points non-profit and profit. The same thing counts for the concept of company and non-company.

Gathering and observing virtual communities under a common perspective promotes the study of virtual communities since the communities can then be studied according to a similar set of criteria. This comparative aspect was something that other models have not accounted for and theories did not support.

Another important aspect is that if there is a clear description of what criteria a virtual community has to fulfil. Once these have been established this information can be used to classify virtual communities in time. This classification can then be used to study the development and change in virtual communities. This means that the model may be

used to see if virtual communities change. This is a function that the former models do not support.

The ability to classify virtual communities and to study their ability to change or adapt over time is important. The first important issue in this is the fact that the classifications are not watertight. This means that the virtual community can occupy two or more quarters of figure 1 simultaneously. An example of this would be a virtual community that is both part of the *Shop* and the *Club*. The issues this raises to organisation and membership rights are important but fall outside the scope of this paper but will be the focus of future research.

Another important reason for our classification and the focus of the future is the ability of the community to be better orientated towards its members. This is an issue, which is closely connected to the movement of virtual communities with our matrix in figure 1. The traditional capitalist economy is based upon the concept of the *Shop*. This traditional wisdom is being questioned and the web-based economy is having an impact on these changes. From the organisers perspective the virtual community must be aware of its position in the matrix and must be prepared to work towards the position within the matrix, which is best, suited to the communities needs.

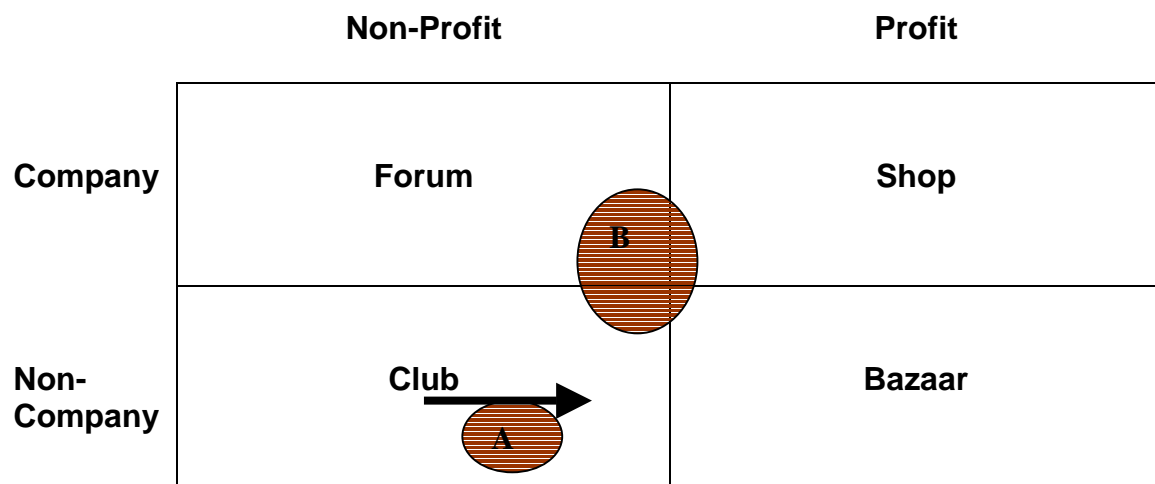


Figure 2. Movements in Virtual Communities

Virtual communities are all about new social networks or the impact of information technology on social interaction. This article also presents a theoretical model for virtual communities that can be used to describe a virtual community's development. It is possible for a virtual community to start of as a *Club* and to end up as a *Bazaar* (example A in figure 2) virtual community and of course it can find other ways as well to develop. Previous models are concentrated on investigating one type of virtual communities and then miss out that a virtual community can shift in function. This model does not describe why a virtual community goes from one stage to another, but rather when it does so. The effects of the evolution of virtual communities on members, organisations and communication will be the focus of future research. What the model shows is that a virtual community can be a dynamic place and then not necessary has to be a static place as they are described in previous models. They are dynamic in the sense of that the can shift in the type of organiser and purpose.

Another important issue of great concern when studying virtual communities from an economic perspective is the actual classification. This paper has described the classification criteria but has treated virtual communities as fixed in one section of the

matrix. This is not necessarily so. Virtual communities can be overlapping in two or more areas of the matrix. Example B in figure 2 shows a virtual community that contains activities in all four sections of the matrix. This division may be possible for the organiser but before this phenomenon is developed it is advisable to study the level of membership activity in the different sections. While the organisers' motives and corporate structures may be the same the members may not share the impressions that they are part of the same community. In this sense the model is a tool with once help we can see the different focus a virtual community can have and if there is a mix in purpose and organisers.

Conclusions

The model presented is new in the sense that it looks upon virtual communities from a uniform perspective, economical purpose and who the organiser is. By doing this it makes it possible to see that a virtual community can be a dynamic phenomenon in the sense of shift in economical purpose and organiser. Another way of using the model is to have as a tool for investigating what different kind of focus a virtual community has.

With this model the authors add to the discussion of classifying virtual communities a new way of looking at virtual communities and there potential for business. We say that a virtual community does not have to start of as a *Shop* or a *Bazaar* to become a commercial community. A non-commercial community can have commercial elements hidden within the community that can be hard to spot if one dose not have the right kind of tool to point it out with.

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