Virtual communities – why and how are they studied

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We are entering a time when technological development seems to overwhelm us all in almost every area of our lives. One of the most expansive fields is the new global communication network known as Cyberspace or the Net. Cyberspace makes new ways to meet, to communicate, to work, to shop, and to live possible. It is a development which will take time to understand and to include in our everyday conception of what it means to live in a society and in a world.

It is of no surprise to find a global interest in the study of this new world. Governments and companies all around the globe are spending money and energy in their pursuit of knowledge on how to turn this technology into something contributing to their goals.

One of the new concepts emerging in relation to this new world, to Cyberspace, is *Virtual Communities*. It is concept formed to describe some of the new social "life forms" we are starting to see in Cyberspace. Virtual Communities does not cover all these new "life forms" and definitely not all interesting aspects of Cyberspace but it is one of the most interesting phenomena's in Cyberspace and it is the concept we focus on in this paper.

Cyberspace attracts a lot of researchers from almost every academic field. It seems as if this new world raises interesting questions to everybody and also puts our old questions in a new perspective. In this paper we will try to describe what kind of research is going on and also discuss why this research is important to the future of our society.

What is a Virtual Community?

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,

neighborhood, town, etc.) or organizational belonging (schools, churches, sports, hobbies, etc.) (Schuler, 1996; Rheingold, 1993; Smith & Kollock, 1997; Jones, 1995; Lapachet, 1995).

The concept "virtual" implies that some of the traditional properties of a community is no longer a part of the "real" world. Instead that property is only virtual, which means that it looks, sounds or feels "as if" it were real but is not (Coyne, 1995; Benedict, 1991). It is a very difficult concept and easily leads to subtle and difficult philosophical distinctions not comprehensible to the lay man. We will use the concepts only as a label on such social communities made possible by the existence of Cyberspace. Whether or not one or many properties are truly virtual we will not discuss here.

So, basically a virtual community is a group of people trying to achieve something as a group of people that are using new information technology as a mean. So far there are no good definitions of these new social structures emerging in cyberspace. It is of course difficult to come up with good definitions when the technology used is all the time changing and developing. That is why the study of virtual communities up till now has largely been an explorative adventure. We still have to keep this explorative mind open and approach these new objects of study without being to bound by our preconceptions and definitions if we want to cope with the "moving target" driven by both technological developement and social inventiveness.

Why is it necessary to study virtual communities?

It seems that even if the interest of research on virtual communities is large, the overall quality and depth of the research can be questioned. One reason for this is of course time. It takes time to build research projects, it takes time to ask the right kind of questions, it takes time to formulate interesting hypothesis and to adapt research methods to this new field of study (Wellman, 1997; Parks, 1996). It also takes time for the scientific community to relate to each other in a way that makes any kind of progress possible. This has not yet happened. There are a few examples of research conferences and journals devoting focusing on research on cyberspace[1]. These attempts are still very fragmented and diversed.

The easiest answer to why it is important to study Virtual Communities is related to the fact that cyberspace is growing. This may not seem very important but it implies many questions concerning the future society. Some of

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1 Some examples are the conference ”Earth to Avatars” on Virtual Worlds, ICIS96 with the theme ”Electronic communities”.

these questions are: why is this happening and what does it mean to society as a whole, who will be part o this development, who will decide the future development of Cyberspace, will cyberspace be incorporated in the traditional society?

Virtual Communities are maybe virtual in some sense but they are not something outside our traditional societies. Virtual communities are true parts of our society and as such also part of the ongoing change and evolution of society. Even if we believe that a Virtual Community is nothing more than a group of people using the same "news"-group, or meeting around a collection of homepages, or communicating through a "mailing list", we can not easily predict how these "simple" technical systems will influence the way society is structured and how that structure will change (Schuler, 1996).

The speed by which people are drawn into cyberspace is amazing. It may constitute one of the fastest changes in our society today, even if the importance of this change is not in relation to the number of people involved. There are, so far, no dominating theories explaining the dynamics or the direction of this change. But there is an enormous need of knowledge and understanding of this change and it is important to try to move our understanding of Virtual Communities forward. It is not only a question of understanding the migration into cyberspace but also a question of how this change will affect traditional societies, our ways to perceive communities, what is means to be a citizen, what is means to societal structures founded on money, power and knowledge.

The "consumers" of such knowledge are many. We can find them among those who actively take part in this change, and among those who are scared and frightened of the changes, and also among those who have the responsibility for designing and planning the future of our society. Our perspective in this paper is the perspective of our common future "real" and "virtual" society. It is the perspective of policy makers, of politicians, of everyone involved in the process of creating the future society.

What makes Cyberspace develop

Every new technology makes us ask the question of what or who determine how that new technology is to be used and how it will further develop. Traditionally there are some different and well known answers to that question. We have among these answers the idea of *technological determinism* and the idea of the *social construction of technology*. These two ideas promote two explanations of what drives technological use in society (Mitcham, 1995; Sclove, 1995; Feenberg & Hannay, 1995).

In the case of cyberspace it is still very difficult to tell what is actually happening. We can see forces competing in the field of the basic technological structure and functionality of cyberspace. We can also see forces struggling over social rules and structures forming the use context for the technology.

These forces consists of economical interests such as large software and telecommunication companies, governmental and international organizations, but also of the individual user. In the midst of this we can also find all those Virtual Communities already existing struggling for some specific issue about Cyberspace use and development. These struggles are on such issues as: standards versus open systems, freedom of speech versus integrity, local versus global, ownership, copyright, etc. And this is only a few. The continuos exploration and creation of cyberspace will probably create more and more issues of concerns in the years to come. We are still only in the beginning.

Cyberspace is not in the hand of one actor or one interest. It is a large technical infrastructure based on local ownership of computer power and the agreement of certain protocols and standards. It is, so far, almost impossible to think of Cyberspace as something "designable", at least as one big system with distinct properties. Still, Cyberspace is nothing else but a designed and redesigned system – it is an artifact. It is in the creation of this technical infrastructure, in the new software, and in the new smart solutions that the structure, functionality and future of Cyberspace is formed. It is maybe not an overall conscious design, and it is definitely not a design guided by a single idea or a plan. It is a *techtonic* design, which is a design where disparate ideas are constantly formed into new functions, new structures, new protocols which are added to the existing system. A techtonic design will or can come up with a working system but it is a system without a guiding principle or a design format[2].

Since Cyberspace does not have one single designer we might instead think of an invisible and very abstract designer formed by all those individuals, companies, organization and governments trying to take part in the ongoing design and redesign of Cyberspace. This makes Cyberspace into almost a living complex entity – to complex and vast to portrait in one theory. Cyberspace must probably, in the same way as our real reality, be explained and understood from many perspectives. Where each and every examination of Cyberspace must be guided by the specific purpose of that study.

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2 A presentation and discussion of the concepts *techtonic* and *format* can be found in Stolterman (1997).

In the research today this is not always understood. Cyberspace seem to have the same effect on people as a new and unexplored continent. Explorers travel through the landscape and take their stories back home, and tell these stories as a true and complete description of the continent. These stories becomes the data upon which theories about the continent is formed. Stories like that are of course very valuable since they reveal new insights about the new continent but they do not give us the whole picture.

What kind of research

It is possible to divide present research on Virtual Communities into some quite distinct categories based on the perspective and purpose used in the studies. The purpose with a categorization of this research is a way to form an overview of the work done so far, which might be of help to anyone who want to enter the field.

Categories can be built on many variables. In the following we do not try to be very consistent and apply the same variables to every category. The categories are too different for that to be valuable. Instead our purpose is only to give an image, a portrait, of some of the larger movements possible to find today in this field.

Some of the variables we do use are basic *perspective* (how cyberspace and virtual communities are understood), *purpose* (create knowledge, influence development), *approach* (research, technical development, activists work), *customer* (who is a possible ”user” of the results), and *who* (i.e. who is behind the work and with what background).

The design perspective. A lot of people working at universities, research centers, software companies or as individuals are creating software which constantly adds new functionality and features to Cyberspace. The purpose behind their work is diverse, some of them are researchers and write about their work in academic writings but a lot of them are "true" designers with the only purpose to design and construct, either for money or for pleasure. This is a very important group, often neglected in the discussions of the research on Virtual Communities. It is a group not seeing themselves as doing research and not even contributing to the development of knowledge about cyberspace, only as designers of a new world. Their basic perspective is that cyberspace is to be built by anyone who want to be part of that enterprise. Everybody ”using” or living in cyberspace and in virtual communities are customers of the results from this group. The results make the technology possible to use and are maybe the most

important definer of our future possibilities to use the new technology in our society.

The explorer perspective. The most frequent type of "empirical" studies are stories told by people being members of different virtual communities or as cyberspace ”travelers”, a kind anecdotal approach. There are a lot of them "out there" on the Net. This is the "travelers" description of the new continent only with the purpose to tell about their experiences to anyone who is interested. These texts often focus on the very subjective feelings and experiences of being part of this new "world". It also deals with the similarities and differences between our everyday reality and the "reality" of Cyberspace. Even if it is hard to label these texts as research they form, so far, the basic written material for almost all other studies and reflections on the nature of virtual communities.

The backgrounds of these "explorers" are probably not a good sample of ordinary citizens. This makes it, of course, difficult to draw conclusions from their findings. The validity and generality of the stories can be questioned. But these "studies" do have a great value as a first introduction to the field and as an easy way to reach a large number of first hand "case studies". The most famous text in this category is Rhiengold (1993).

The "cultural studies" perspective. There is a large body of literature on Cyberspace and Virtual Communities written by people in the tradition of cultural studies. These texts are often in a language related to postmodernistic philosophy and contemporary ideas in cultural studies. The basic perspective of these authors seem to be a fascination by the new medium – especially by the relation between the real and the virtual, between body and mind. And by the escape from the physical into a new virtual world where identity and personality is challenged by the new possibilities to leave the body. The purpose with this work is to give a cultural interpretation of a new part of society. It is done by writing and sometimes by conducting experiments where cultural events take place in cyberspace or in virtual communities.

These studies are seldom based on real empirical work or on traditional theoretical academic writings. The texts are often demanding to the reader and are also often found together with more artistic interpretations of Cyberspace. The background of these authors may be found in many different fields. It is not a coherent group in the sense that they have the same background or practice, instead a common interest in certain philosophical and psychological ideas combined with a close relation to artistic experiences bring them together. Some

recent books in this category are (Brook & Boal, 1995; Dery, 1994; Hershman Leason, 1996).

The activists perspective A lot of the real work in the area of virtual communities has not been done by researchers or companies but by people acting as activists in their own community. A number of Community Networks has been established over the last years (some of them have been around for a long time, see Schuler, 1996). The basic perspective is to use cyberspace and its possibilities to increase societal involvement and citizen activities in our communities. The approach is very practical in that it often consists of attempts to create and build electronic communities where the technology is brought to people in a simple way. Often also without any or at least very limited costs to the individual citizen. To involve the individual citizen in the continuos development of our existing but also of new communities are the purpose. These Community Networks has not been recognized in the cyberspace ”hype” in these last years, even if they been around for a long time and have maybe the best knowledge, so far, on what makes virtual communities possible and what hinders them. One reason behind this might be that these Networks has not been fast in the acceptance of new technology and are maybe not as ”hot” as some of the new virtual communities based on the newest technology possible.

The academic perspective. There are of course a body of traditional studies on virtual Communities made by researchers from preferably the social sciences, such as sociology, psychology, anthropology and communication studies. It is also possible to find studies from information systems and computer science. These studies have the traditional purpose of academic studies which is to find and/or develop knowledge on a specific aspect of reality. The perspective differs though and the most obvious difference is between studies aimed at knowledge that might be used in the future design of cyberspace and of virtual communities and studies with the goal to explain and critically examine the development of society.

The approaches used in the category is diverse in the same way as traditional research is diverse. There are examples (though few) of empirical sociological studies (Wellman, 1997; Parks, 1996; Smith & Kollock, 1997). There are examples of case studies where depth and interpretation of a specific case is in focus (Turkle, 1995; Smith, 1994; Wickre, 1995). We can also find some writings that have had some impact, writings that can not be labels empirical or theoretical in the traditional way. They are more philosophical and sometimes quite speculative (Coyne, 1995; Stefnik, 1996; Mitchell, 1995; Benedict, 1991).

What needs to be done

All the work described above is slowly creating a many pictures of how we can understand cyberspace and virtual communities. But we will not get one picture. The goals and purposes of the work done are too disparate and there are too little cross referencing between the different categories in order to create a solid and well grounded arena for a broad understanding of what is happening and how that will affect our society. All the small pieces are, of course, needed, and we need even more in the future, but we also need attempts were all this knowledge is put into context (if not action). Maybe the history of the Community Networks have some contributions that might be valuable to everybody in the field (Schuler, 1996).

More recognition of each others work and a better way of framing and naming important questions is maybe the most important issue today. The naming and framing must be there if we will be able to relate to work in other fields dealing with the same basic question but in a different way.

The question of how virtual communities will affect our lives and our future society is a questions of such importance that all possible ideas must be explored and examined. There are decision makers, politicians, and citizens out there waiting for guidance on how to approach this new part of our society.

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