

On the Creation of Social Capital in a Virtual Community: A Case Study

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Abstract

Considering the social dimensions of the Internet the concept of virtual communities has emerged as a concept describing a certain kind of computer-mediated communication. This article answers the question of what kind of added value is generated for the participants of a Swedish spoken virtual community, which gathers primarily journalists. The added value of participating in this virtual community is interpreted as a relatively high amount of social capital. Such an interpretation implies that the participants create and maintain trust between each other. This interpretation is also coherent to the ideal of the Internet as empowering the users.

Keywords: Virtual community, social capital, computer-mediated communication, Internet, trust.

BRT Keywords: HB, GB, BD

Introduction

The Internet can be described as a huge infrastructure of interconnected computers in a non-hierarchical network, all with the same communication protocol, which makes it possible to exchange information regardless of computer platform. From a user's perspective, however, the Internet is better described as a social technology, generating virtual places where people can go and communicate with others.

From the early days of the Internet people continually have developed the technological infrastructure to enhance communication. Electronic mail, Bulletin Board Systems and Newsgroups were developed in the seventies for communication both individually and in larger groups.

And then we have seen Multi User Dungeons for role play, Internet Relay Chat for synchronous communication, and in the nineties, when the technology has been refined with regard to computer graphics, the appearance of virtual worlds, both two-dimensional (e.g. The Palace) and three-dimensional (e.g. ActiveWorlds).

In the nineties we also start to talk about this computer-mediated communication not only as communication, but also as a way to create virtual communities – people are gathered together at different places in Cyberspace to which they come back for sharing

parts of their lives with others. These virtual places can be created with e.g. mailing lists, Newsgroups, chat channels, Bulletin Board Systems, MUD's, and virtual worlds. (See e.g. Rheingold 1993; Rheingold 1994; Baym 1995a; Baym 1995b; Jones 1995; Reid 1995; Turkle 1995; Bromberg 1996; Schuler 1996; Turkle 1996; Croon 1997; Curtis 1997; Tepper 1997; Croon & Ågren 1998; Horn 1998; Ågren 1998; Donath 1999; Wellman & Gulia 1999.)

Taking these people seriously one research interest is to understand the reason behind participating in virtual communities. This is also the purpose of this article fulfilled by answering the question: Does participation in virtual communities generate any added value for the participants, and, if so, how can this value be described? This question is answered by a case study; an interpretation of a Swedish mailing list (which I call a virtual community) which gathers primarily journalists and other people who in a broad sense work with information and publishing.

The paper is organized as follows: In the next section the mailing list and the study is described. Then I discuss different criteria for regarding this mailing list a virtual community. After this I show how social capital is created in this virtual community. The paper ends with some conclusions.

The Mailing List and the Study

The mailing list is a public list, which gathers journalists and other people with interests in information and publishing. The language on the list is Swedish and the purpose of this list is to be a forum for exchanging concrete tips, discussing working methods with emphasis on investigative journalism, and discussing fundamental issues concerning journalism and freedom of speech.

The rules of the list prohibits attacks on individuals, commercial advertising, mass posting (i.e. spam), laconic comments, too general contributions to debates, and meta discussions. Participants are also encouraged to write short, and they are forbidden to attach files to the list. The numbers of participants are not at all stable; during my study, which was conducted between February and December 1997, it varied between 1 200 and 1 500. All the mail to the list was collected during this time: 2 494 mail in 265 days, which makes an average of 9,4 mail per day. In table one below some statistics are showed.

	Men	Women	Undetermined sex	Total
Number of postings	2124	336	34	2494
Share of posting %	85,2	13,4	1,4	100
Number of starting threads	330	63	2	395
Share of starting threads %	83,5	15,9	0,5	99,9
Number of individuals who posted at least once	376	97	16	489
Share of individuals who posted at least once	76,9	19,8	3,3	100

Table 1. Quantitative data about the mailing list.

With undetermined sex I mean those mail where I could not determine the senders' sex; some mail did not have a person as sender (an organization could be a sender) and other mail have senders with net aliases. A started thread is defined as a posting which is not an answer to another posting, and to which at least one person responds. As we can see there is a clear dominance of males on the list, both if we look at the number of postings and at the number of starting threads: about 85 % in both cases.

The ten most frequent posters are all male. They posted 587 mail together, which is 23,5 % of the total number of postings. These are for sure this list's regulars. The ten most frequent female posters contributed with 132 mail, which is 5,3 % of the total number of postings. During the period of the study 489 different persons posted at least once to the list, which means that more than half of the list participants were lurkers, i.e. reading only participants.

The methodology used in this study is a qualitative observation study. This means that I was a non-participative observer in the mailing list and that I analyze the collected data by means of interpretation and reflection, not by means of quantitative analysis. The interpretations are focusing on two questions: 1) Is it possible to conceive the list as a virtual community? 2) What is the added value of participating?

To be an invisible observer without participating on the list, studying people's conversation in a mailing list without the participants' knowledge or permission gives rise to concerns on research ethics. When human subjects are studied some ethical guidelines are important: The researcher shall treat individuals as autonomous agents, the researcher shall not do harm to the individuals and the researcher shall treat the individuals equally fair. These guidelines are normally applied by informed consent, i.e. the researcher informs the participants of the study and about the potential risks of participating, and the researcher must have an agreement from the participants before the study (Thomas 1996).

Obviously I did not get an informed consent in my study. But is that necessary when a public list is studied? Sudweeks & Rafaeli claim it is impossible to get hundreds of strangers to agree.

"We view public discourse on CMC as just that: public. Analysis of such content, where individuals', institutions', and lists' identities are shielded, is not subject to 'Human Subject' restraints. Such study is more akin to the study of tombstone epitaphs, graffiti, or letters to the editor. Personal? – yes. Private? – no." (Sudweeks & Rafaeli 1996, p. 121.)

Paccagnella (1998) puts it in a similar way, but goes one step further by claiming that researchers have a right to research in public places.

"Keeping in mind the fact that we're talking about a public conference, that is accessible by anyone and where every message is written for the very purpose of being read and discussed, the solution adopted here is to recognize that together with the right to personal privacy, there exists also a right to research, which in this case is nothing more than a right to observe and reflect on what is observed." (Paccagnella 1998, p. 133.)

The list I have studied is a public list, the list's history is saved in a database and accessible to anyone, and the participants are aware of that their messages to the list can be read by anyone at anytime. These are the main reasons why I did not ask for informed consent before the study began. The mail posted to this list is personal (the participants express individuals opinions) but not private (the participants direct their mail to a large number of people). However, to protect the privacy of the participants I mention neither the mailing list by its name, nor the participants by their name.

The Mailing List as a Virtual Community

A virtual community is never defined by the specific technology used, but rather by the users' activities and preconceptions of their activities. Stone (1991) defines a virtual community as:

“... incontrovertible social spaces in which people still meet face-to-face, but under new definitions of both 'meet' and 'face' (...) Virtual communities [are] passage points for collections of common beliefs and practices that united people who were physically separated.” (Stone 1991, p. 85.)

Rheingold defines a virtual community as:

“Social aggregations that emerge from the Net when enough people carry on those public discussions long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace.” (Rheingold 1994, p. 5.)

Using only these (vague) definitions the mailing list definitely is a virtual community – a passage for physically diffused journalists' collection of common beliefs and practices regarding journalism carrying on public discussions with a strong human feeling forming personal relationships.

An important event in the history of virtual communities is the change of the participants' conceptions of *CommuniTree* – a virtual community based on a BBS that started 1978 in California. They understood themselves not as readers of a bulletin board, but as people conducting a social act; making conversations in a specific space almost in real time (Stone 1995). The participants of the mailing list I have studied are a bit hesitant, though. On the one hand they consider the list a newspaper where anyone can publish a letter to the editor when they discuss e.g. copyright issues, and on the other hand they consider the list a community when they discuss their relation to each other on the list.

One of the most striking sign for interpreting the list as a virtual community is the participants' ongoing (but forbidden) meta-discussion about how the participants shall behave toward each other – that is, what social norms to be followed on the list. The normative discussions concern, for instance, how to answer mail (if the answers should be sent in private to the sender, or if the answers should be public), that it is important that the physical person behind a mail is recognizable (i.e. anonymity is not socially accepted), and how participants try to stop other participants to discuss topics that reach beyond the purpose of the list.

The list has two list polices who are the two list owners; two journalists who once started the list. They do not intervene much as list polices. Less than ten interventions was made, mostly to tell participants to stop a specific thread where the topic is far beyond the purpose of the list. One strong intervention was made, however, when one person breaks the rules frequently with a cannonade of mail to the list. After a couple of public warnings the list police put the person in jail for one month – that is, the person's access to the list was cut off. And after one month the person was back on the list.

Watson (1997) claims that there are three important factors that create the participants' image of a virtual community: Sincerity, intimacy and norms. Discussions about and creation of norms has already been mentioned as explicit signs of conceiving the list as a community. One sign of sincerity is that the participants seemed to rely to each other and that some participants demanded explicitly that no one should be allowed to be anonymous. The intimacy between participants could be observed especially when agreement was set after a discussion or when participants showed empathy and tried to

help colleagues with problems.

Beside these three factors Watson (1997) says that both physical and virtual communities establish their goals and common values in the very same way – by a similar communicative process. When hesitating whether a virtual forum for communication – like a mailing list – is a community or not the existence of a discussion about goals and common values is a good sign.

To conclude this section: Every social structure – both in the physical and virtual world – is determined by how and if the participants imagine it as a community. Communities, Anderson (1983, p. 15) claims, “... are to be distinguished, not by their falsity/genuineness, but by the style in which they are imagined.” With this follows that an important factor when determining if a certain kind of computer-mediated communication should be considered a community is how the participants imagine their activities.

One of the main differences between physical and virtual communities concern the role of technology. The imagination of a large physical community – e.g. a nation – is maintained with technology. The early inventions of the printed word together with the technology for distributing it by books and papers, and the late invention of media technology as radio, television and computer networks makes it easier for every citizen to imagine the nation. The role of the technology in virtual communities, on the other hand, is to create the very place where a community can appear. Metaphorically the technology becomes an arena where communities can grow rather than being an instrument for maintaining the imagination of a community.

The Added Value of Participation: Social Capital

The reason for participating in the virtual community in this case study can be derived from the purpose of the list: Exchanging concrete tips, discussing working methods within journalism, and discussing fundamental issues concerning journalism and freedom of speech. It might seem plausible for a journalist to participate in a list with this purpose. But how can the benefit from participation in such activities be formulated?

The activities that have been observed in the virtual community are interpreted as professional development. By professional development I mean contributions to other participants, and contributions to debates that strengthens the individual in his profession in the physical world. This is done by the creation of an important amount of social capital.

When Robert D Putnam made his extensive study of Italian democracy, one of his conclusions was that in those regions of Italy where democracy was well developed and the civic engagement was strong, there were also a high amount of social capital among citizens. (Putnam 1992.) Social capital has been in focus in several articles by Putnam (see Putnam 1993; 1995; 1996). In Putnam (1995) he suggests further research areas for social capital, and one of these suggestions has connections to my study.

“What will be the impact, for example, of electronic networks on social capital? My hunch is that meeting in an electronic forum is not the equivalent of meeting in a bowling alley – or even in a saloon – but hard empirical research is needed.” (Putnam 1995, p. 76.)

My interpretation of Putnam’s interest in electronic networks is that he considers people’s meetings in the physical world a necessity for the creation of social capital. Putnam’s question becomes then if virtual meetings can have the same quality as physical

meetings. The assumption behind my study is a bit different, though. Many virtual meetings – e.g. the meetings in the virtual community I have studied – can not be compared to meetings in the physical world, because those meetings would never have occurred in the physical world due to the physical distance between people. So, to me the comparison between physical and virtual meetings is not as important as to understand to what extent it is possible at all to create social capital in a virtual community, and how this can be done.

Putnam is the researcher who have made the concept of social capital well-known by his study of Italian democracy, but it was the sociologist James Coleman (1988a; 1988b; 1990) who developed the theory of social capital. Social capital is basically a resource for individuals and appears in people's relations created in social structures.

Like other forms of capital – physical, financial, human – social capital is productive – some goals can be achieved easier with this form of capital than without it. Physical capital is tools, machines and other production instruments, which can change and shape different kinds of material. Financial capital is money or other security paper and can be transformed into e.g. production instruments or services. Human capital is people's knowledge and skill that can be used to make new actions possible. Social capital, finally, is created when the relations between people are changing in a way that certain actions are promoted.

Unlike other forms of capital social capital can not be controlled or possessed, because it exists only in the relation to other people. If the relation dies, the capital is blown by the wind. Social capital exists principally in four different forms; all of them can, but must not, appear in the same social structure. These are a) Information potential, b) Norms, c) Authority relations and d) Obligations and expectations. Each form facilitates some kind of action, which can not be realized without it. In the following I will show how these forms of social capital is created in the virtual community.

Information Potential

With information potential means the inbuilt potential for transferring information in social relations. Information is important for an individual's or a group's decision upon what action to take in different situation. To participate in different social structures involves an increased possibility to access more information. The cost is, of course, time and attention. (Coleman 1990.)

One of the most frequent activities in the virtual community regarding information potential is interpreted as *questions and answers* – journalists who have a concrete problem formulate a question to the community and get normally several answers that help to solve the problem. Examples of problems are getting access to documents at different authorities, finding relevant people to interview on specific topics, free lancers wanting help with e.g. photographing, and so on. It seems as everyone with a problem got appropriate help from the list; there is no sign telling me differently.

Another activity in the virtual community is interpreted as *general knowledge development*. This is mail with no other purpose than to inform the other participants in the community about things that seem to be relevant in their profession – e.g. links on the web to new laws or law propositions that concern journalism, or information about how information technology can be of help to journalistic research, or notices about seminars and lectures concerning journalism in a broad sense.

This form of social capital increases the journalists' knowledge about a lot of aspects that facilitates the participants' work in the physical world both on a short and on

a long term basis.

Norms

A norm exists, according to Coleman (1990, p. 242), “when the socially defined right to control the action is held not by the actor but by others”. Norms tell people what actions are reasonable and correct (and the opposite, of course). Norms are created for specific purposes – those who creates a norm experience benefits when it is observed and disadvantages when it is violated. Effective norms – that is, norms that people observe – inhibit crime, for instance, and make it possible for people to take a walk at night without fear. Such norms increase people’s social capital – people get a resource, which makes a certain action possible (taking a walk in the night).

There are two kinds of norm creating activities in the virtual community: One concerns the norms of behavior within the virtual community, which is discussed in the former section. The other concerns the creation of norms for professional journalism in the physical world.

I divide the latter kind of norm creation into three areas: What is good *product quality*, the limits of journalists’ *responsibility*, and *general values* for journalists. Discussions about good product quality often point toward concrete critic of the tabloids and how the journalists in those papers describe news. Other discussions are about journalist’s lack of knowledge; how some news presented in television or papers are apparently false. One example was some ignorant reporting in Swedish media of the cloning of the sheep Dolly.

The norm creating discussions about the responsibility of journalists concern the complicated border between reporting incidents that happens without the presence of media, and incidents that eventually are created by media. A lot of self-critic threads was spun around the death of Princess Diana – are the paparazzi responsible for her death?, or are the consumers of such magazines responsible?, or is every journalist guilty by association because of media’s coverage of Diana and other celebrities?

The discussions about general values are very heterogeneous. They are about anything, from the bad language in the papers to the question about journalists’ neutrality and if an explicit standpoint in a specific issue might decrease a journalist’s credibility or not.

By either participate in the very specific debates about journalistic norms or just passively reading the debate the participants of the virtual community creates a social capital that is useful. By getting arguments and concepts from normative discussions about e.g. quality of media products journalists might feel more secure in their role as journalists; more secure about what other – sometimes well known and skillful – colleagues see as, perhaps not good products, but definitely bad media products. And this form of social capital would facilitate the professional action of any individual journalist.

Authority Relations

Authority is by Coleman (1990, p. 66) defined as: “One actor has authority over another in some domain of action when the first holds the right to direct the actions of the second in that domain.” If actor A gives actor B the right to control some activities – that is, authority – B will have social capital available. And if several actors give B right to control increases B’s social capital. However, the social capital also increase for the other participants in the social structure – to give one person authority might lead to the solving

of some problems that would not be solved without a common authority.

There was only one event in the virtual community during the time of study I could interpret as creating authority relations as a form of social capital. During the time of my study a law against possession of child pornography material was proposed in Sweden. This law was highly debated in newspapers and other media, and of course also in this virtual community. The participants decided to create an appeal against this law proposition, mainly because they considered it violating the constitutional law of freedom of speech, and that such a law would make any journalist that try to do research and report about child pornography a criminal.

Several participants in the community ask one specific participant, who is described as a person with both credibility and knowledge about the topic, to formulate a text against this law proposition that everyone on the list can agree upon. This participant agrees and the text is published on a web site where also any journalist can write his or her name. After the publishing of the text the author gets a lot of encouraging comments from other participants in the community.

The creation of this authority relation is a form of social capital that supports every participant in the community who is positive to the appeal against the law proposition (which seems to be a majority of the visible participants of the community). Participants can as a collective show their dissociation and as individuals also write own articles in the physical world with support of the text written by the authority – and thereby take better action against those who support the law proposition.

Obligations and Expectations

Say that person A does something (good) for person B and trusts B to reciprocate another time, an expectation in A (that B will reciprocate) and an obligation in B (to reciprocate when A needs it) to keep this trust is then established. More trust in a social structure means more good activities done for each other, without the necessity of immediate reciprocity (Coleman 1990). By this Coleman compares this form of social capital with financial capital – person A can have a “credit slip” of expectations that A can use when needed.

There are two critical factors to this form of social capital: The level of trust to the other individuals in the social structure (the higher the trust the more favors I can do without expecting immediate reciprocity), and the actual extent of obligations (social structures with more unutilized obligations have more social capital than others) (Coleman 1990).

By just observing the virtual community leads to the problem of understanding the level of trust. Can I ascribe the participants trust in their conversations? Is it possible to interpret obligations and expectations? No one, of course, expresses obligations and expectations in an explicit way.

I interpret a high level of trust within this community. Many answers to the kind of questions I reported in the subsection *Information Potential* above are posted directly to the participant who asked the question, but some answers are always posted to the community. Almost no questions are left with no answer from anyone; on the contrary, participants often get a lot of answers (sometimes more than they need) to their questions. And participants often send gratitudes to the community for the help they get. And the fact that participants keep on sending questions on the list is a sign of trust to the answers – “in this particular virtual community there are a lot of competent people with answers to most questions”, they seem to think.

Only a few times I noticed that a participant did not get any answer to a question, so the participant did send the question one more time, and then the answers was sent from the community. This willingness of answering questions and the repeated questions if no answer appears are interpreted as a strong feeling of obligation with the participants to answer questions, and as the participants do expect answers from the community to their questions.

Conclusions

The most important factor of social capital is in one way the hardest one to observe, but in another way easy to interpret: trust. Every one of these four forms of social capital is dependent on trust. No information will be exchanged, no norms will be observed, no authorities will be created, and no expectations and obligations will exist without trust between the participants.

It would be rational both to spend time helping others in the virtual community, and to not do so. If an individual trust others to give help to solve his or hers problems when they can, to observe norms and so on, it is rational to do the same. Everyone wins. But if this individual do not trust others to be helpful and altruistic it is rational not to be helpful and altruistic. Without trust, then, a virtual community like this goes into a social trap – everyone’s situation gets worse, even if everyone knows that everyone would be better off if they would be helpful and altruistic. Without trust this mailing list would transform from being a virtual community to either non-existence or just being a simple bulletin board.

There are, however, some aspects that make trust in virtual communities particular. First, an individual must trust an aggregate of more or less unknown people (remember that in this community only about a third of the participants had ever posted to the list), and not individuals. Second, an individual must trust people that he or she most likely never has met in the physical world. Even for an experienced Internet user a virtual environment of any kind is a bit of an insecure territory, especially with the knowledge of the (sub)culture of people acting under net aliases, that is, avatars. Third, which goes beyond the study in this article, in some virtual environments the user can not be sure if he or she is communicating with a human or with software (e.g. a bot or an intelligent agent), which adds another dimension to trust in virtual environments.

This conclusion, gaining social capital that is useful in the participants’ professions in the physical world, is one important reason why participate at all in this virtual community. It also fits well with the understanding of the Internet as a powerful computer network with the potential to empower the users.

The conclusion gives by hand further questions regarding social capital and trust in virtual communities. The virtual community in this case study is an “authentic” virtual community – that is, the participants are acting under the same identity as in the physical world (with a few exceptions). Is it possible to gain social capital in virtual communities where people appear as avatars, e.g. in MUD’s or virtual worlds? And who gains the social capital, the avatar or the physical person behind the avatar? Stone (1995) illustrates how an avatar in a virtual community gains something that can be interpreted as social capital, but a social capital that is inaccessible for the individual who controls the avatar.

How do we establish trust in virtual communities of avatars? Are we establishing trust only to the avatar, and not to the physical person behind the avatar? Is the social capital the avatar might gain only useful within the virtual community, and not in the

physical world where the human being behind the avatar lives? Or can the social capital be transferred from the avatar to the physical person?

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