



Blogs as Virtual Communities: Identifying a Sense of Community in the Julie/Julia Project

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Researchers, practitioners, and the media have used the term virtual community to refer to vastly different computer-mediated communication (CMC) groups. EBay, a soap opera newsgroup, The WELL, a website for wristwatch enthusiasts, and more have all been referred to as virtual communities (Baym, 1995; Boyd, 2002; Rheingold, 1993; Rothaermel & Sugiyama, 2001). Should blogs be considered virtual communities, too?

To answer this question, we must understand, first, why virtual communities are considered important, and, second, what the characteristics of a virtual community are. Then, we must determine if at least some blogs have these characteristics.

Why are Virtual Communities Important?

The term "virtual community" is used quite frequently. Some definitions of virtual community have become so broad that they essentially refer to any CMC group (Bieber, Engelbart, Furuta, & Hiltz, 2002; Evans, Wedande, Ralston, & van 't Hul, 2001; Falk, 1999; Kardaras, Karakostas, & Papathanassiou, 2003). Some community analysts might argue that calling any online group a virtual community represents yet another example of the overuse of the term "community" to the point that concept has lost any real meaning (Harris, 1999).

But why does this overuse exist? What is so important about being a virtual "community" that all these CMC groups claim to be one? The answer to this question is twofold. First, virtual communities are considered important for social reasons. As CMC groups initially became popular, community activists argued that they would help replace the relationships lost as people became more isolated from their neighbors (Rheingold, 1993; Schuler, 1996). Some researchers even argued that virtual communities could allow people to connect with others from around the world who share similar interests (Wellman & Guilia, 1999) This would not necessarily create a global village, but it would expand a person's village around the globe (Hampton & Wellman, 2001). As people became more connected with others through these virtual communities, they would reap the benefits of social relationships with like minded others.

More locally, researchers have argued that virtual communities can increase involvement within people's face-to-face communities by increasing democratic participation and other community activism (Bakardjieva & Feenberg, 2002; Blanchard & Horan, 1998; Schuler, 1996). Some researchers have even empirically shown that participation in virtual communities can increase participation in face-to-face communities (Blanchard, in press; Wellman, Haase, Witte, & Hampton, 2001). So there are arguments for and evidence of the positive social effects of virtual community participation.

A second, more practical, reason for the importance of virtual communities relates to the CMC group's sustainability. The term "community" implies an emotionally positive effect to which even critics of the use of the term agree (Harris, 1999). Information science professionals and

psychologists argue that this positive emotion creates an intrinsically rewarding reason to continue participation in the group (Kuo, 2003; Whitworth & De Moor, 2003). When participants experience feelings of community, they are more likely to increase or maintain their participation in the virtual communities. Additionally, the lack of this feeling among participants may be the key to explaining the frequent demise of many CMC groups. A virtual community, therefore, is more likely to be self-sustaining than a "regular" virtual group, and sustainability is a goal important to both for the sponsors and the participants of any particular virtual group.

Overall, then, virtual communities have both social and practical importance. The key, however, is that not all virtual groups are virtual communities. The next sections will describe the characteristics of a virtual community and then examine whether the newest form of popular virtual groupings, blogs, demonstrate at least some of these characteristics.

What are Virtual Communities?

Jones (1997) argues that researchers need to differentiate between the technology on which the virtual group exists and the actual virtual community. Jones (1997) proposes, and others concur (Liu, 1999; Nocera, 2002), that we should first consider the *virtual settlement* within which virtual communities exist. Jones defines virtual settlements as the virtual place in which people interact. He uses the analogy of archaeology to develop his model: archaeologists understand a village by understanding the cultural artifacts (e.g., arrowheads, pots, etc.) that they find. Similarly, Jones argues that we can understand virtual communities by understanding the artifacts of its virtual settlement: its postings, structure and content.

Jones (1997) proposes that a virtual settlement exists when there are a) a minimal number of b) public interactions c) with a variety of communicators in which d) there is a minimal level of sustained membership over a period of time. Additionally, Jones (1997) submits that even though virtual communities and virtual settlements are conceptually separate, if one finds a virtual settlement, then one has found a virtual community. He adds that the feelings and social relationships that develop within the virtual settlement help distinguish a virtual community from a virtual group.

Although Jones (1997) regards these feelings as important, he does not provide much insight into their nature. Blanchard and Markus (2003), however, do focus on these feelings, defining them as a psychological *sense of community*. They go further than Jones and argue that sense of community is an essential characteristic of virtual communities. Essentially, virtual settlements are necessary, but not sufficient conditions for a virtual community. It is the sense of community that distinguishes virtual communities from mere virtual groups.

What is Sense of Community?

Sense of community (SOC) has been the focus for face-to-face (FtF) community researchers for some time. McMillan and Chavis (1986) have the most well-regarded and well-researched conceptualization of SOC. They define SOC as consisting of the following four characteristics:

- Feelings of membership: Feelings of belonging to, and identifying with, the community;
- Feelings of influence: Feelings of having influence on, and being influenced by, the community;
- Integration and fulfillment of needs: Feelings of being supported by others in the community while also supporting them; and
- Shared emotional connection: Feelings of relationships, shared history, and a "spirit" of community.

Many researchers have adopted this conceptualization of SOC (e.g., García, Giuliani, & Wiesenfeld, 1999; Zaff & Devlin, 1998). Other researchers have modified the SOC measure with varying degrees of success (e.g., Burroughs & Eby, 1998; Hughey, Speer, & Peterson, 1999). Still others have created their own measure of SOC (Royal & Rossi, 1999; Schuster, 1998; Skjæveland, Gärling, & Mæland, 1996). Even McMillan (1996) later reconceptualized SOC to include more of the "spirit" and "art" of communities. Nonetheless, McMillan and Chavis's definition is considered the strongest (Chipuer & Pretty, 1999). Chipuer and Pretty have even criticized these and other researchers' continual redefinitions of the SOC concept, arguing that such efforts do not build on the theoretical strengths of McMillan and Chavis's model of SOC.

Research on SOC in virtual communities has not been as prolific. However, some researchers have reported findings similar to what has been reported in FtF SOC. They report the existence of:

- Membership, boundaries, belonging, and group symbols (Baym, 1995, 1997; Curtis, 1997; Greer, 2000; Herring, 1999; Kollock & Smith, 1996; Markus, Manville, & Agres, 2000; Phillips, 1996);
- Influence, in terms of enforcing and challenging norms (Baym, 1997; Kollock & Smith, 1996; Markus, 1994a, 1994b; McLaughlin, 1995; Pliskin, 1997);
- Exchange of support among members (Baym, 1995, 1997; Greer, 2000; Preece, 1999; Rheingold, 1993);
- Shared emotional connections among members (Greer, 2000; Preece, 1999; Rheingold, 1993).

So there is evidence that SOC exists in virtual communities. And there are arguments that SOC is essential to distinguish virtual communities from mere virtual groups. Is it, therefore, possible for blogs to be virtual communities?

Can Blogs Be Virtual Communities?

To answer this question, we must first determine if blogs have the characteristics of a virtual settlement and then determine what their sense of community is. Blogs, or weblogs, are interactive webpages in which the blog owner, or author, posts regular updates. Blogs can be about a particular topic, current events, or personal thoughts and expression, much like that of a personal journal. As information is updated, it is added to the "top" of the blog.

In addition to the space where the primary information is updated, there may be places for readers to post comments about the blog entries or to email the blog author. This creates two opportunities for interaction on the blog for the readers: one with the blog author and one with other readers.

Additionally, blogs can have links to other Internet sites. Sometimes these are links to online newspaper articles or other traditional media. In other instances, these are links to websites to which the author refers in his/her entries (e.g., restaurants, stores and other people's homepages). Often, there are lists of other blogs that the blog author reads, a technological feature called a "blogroll." Blogs can develop networks of blogrolls which refer to each other. That is, Blog A lists Blog B, C, and D in a blogroll. Blog B lists Blogs, A, D, and F in a blogroll and Blog C lists Blog A, B, F and E in a blogroll, etc..

From these characteristics, is it possible that a blog could be a virtual settlement? Some researchers would argue "no." From the definition, virtual settlements need *public* interaction among a minimal number of participants. On a blog, instead of the many-to-many communication found in much group CMC, there tends to be a one-to-many form of communication from the author to the readers, especially on the main blog page.

Readers who wish to read the comments or to comment themselves may have to move off the main page onto a separate space for comments. Some blogs don't even have a place for comments. Thus, from Jones's (1997) perspective, the lack of public interaction would preclude a blog from being a virtual settlement and, thus, from being a virtual community.

Others might argue that at least some blogs could be virtual settlements. Despite there being no place for public interaction directly on the main page of the blog, blogs *do* offer interactivity. Blogs are regularly updated. So the author is clearly interacting, through updating, with the audience. In addition, there is clearly an audience as indicated by the presence of comments. Even if the readers do not comment, blog authors may know people are reading because of the number of "hits" or visits to their blog site as reported through their blog software.

In addition, although the main page of the blog is based on a one-to-many interaction, the blog author may interact individually with his or her readers. This may occur through private email, thereby creating private online interactions between the blog author and the readers. Some blog authors even reference comments and emails from their readers within their blog entries publicly opening up the interaction to the rest of the participants. By definition, it would appear that blog authors are aware of and writing to their audience. Thus, for the blog author in particular, there is interactivity.

There is also interaction between blogs authors through blogrolls, the lists of other blogs that the blog author reads. Readers can see which blogs the author fancies and click on a link to go to the blog site. Blogrolls provide a link between blogs, inter-connecting them. Additionally, through the blog's software, blogrolls allow the recipients of the link to notice 1) that they have been added to someone's blogroll and 2) to identify who added them. Occasionally, the recipients of a blogroll link will then add the referring blog to their own blogroll.

Blog authors will also refer to other blogs in their posts. They may refer to something the other blog author wrote about or simply encourage the readers to "check this blog out." Thus, blogs create a social network between themselves through their references links to each other.

Finally, although comments may not be stored on the main blog page, they are nevertheless included in a public space for many-to-many communication. Commenters can communicate with the blog author and each other, and readers can review these interactions. Thus, blogs with active comments can have spaces for public interactions.

Is there something special about those who choose to comment and those who do not? Those who choose not to read or respond to comments in blogs are most similar to lurkers in other virtual communities. Lurkers are members of a virtual community who regularly participate by reading messages but do not contribute to the conversation. They are generally viewed negatively by many researchers because they do not actively contribute to the virtual community (Kollock & Smith, 1996). Nonetheless, lurkers may comprise the vast majority of participants of a virtual community (Blanchard & Markus, 2003). Additionally, Blanchard and Markus (2003) report that lurkers do have a clear sense of community within the virtual community, although it is weaker than that of the more active members. It seems reasonable to expect that non-commenters in a blog would be similar.

We can conclude, then, that some blogs, especially active, popular and highly referenced blogs, may fit Jones's (1997) definition of a virtual settlement. They meet the requirements of having a minimal level of public interactions. These interactions, however, are not nearly as public as other forms of CMC-based virtual settlements. There is evidence of a sustained number of members shown by the presence of regular commenters, a stable number of daily hits, and links in blogrolls. Thus, a blog could be a virtual settlement. But, can it have a sense of virtual community?

Case Study of a Blog

To answer this question, I examined a very active blog, the [Julie/Julia Project](#). *The Julie/Julia Project* follows the blog author, Julie Powell, as she cooks her way through Julia Child's book *Mastering the Art of French Cooking* in one year[1]. This blog was hosted on [Salon.com's blogs](#) and was regularly one of the most popular blogs[2].

The blog covers topics such as the difficulties of cooking in a small, un-air-conditioned kitchen, buying "offal" for some of the book's more exotic recipes, eating new foods, and generally the triumphs and tribulations of cooking, living and working in New York City. The blog is entertaining, profane, informative, and very, very, funny.

The *Julie/Julia Project* is an active blog with posts nearly every weekday and some weekends. Readers commented quite often and as the project progressed; comments would number in the dozens. People would discuss the topics in the blog as well as Julia Child, problems with cooking, and the frustrations of living in New York City.

The *Julie/Julia Project* was receiving over 7,000 hits per day during its most popular period. The author and the blog were even featured on mainstream media like the CBS evening news, the CBS Early show, the Los Angeles and the New York Times. Clearly, this was a very active and popular blog, but does it classify as a virtual community?

Is it a Virtual Settlement?

To answer this question, we must first determine if the *Julie/Julia Project* is a virtual settlement. During its one year existence, [the Julie/Julia Project](#) had regular updates on most weekdays and also on many weekends. It was a very popular blog with hundreds and then thousands of daily hits. There were frequent comments by readers. Julie would sometimes respond to the comments; other commenters would also respond to each others' comments. The *Julie/Julia Project* did not have a blogroll; the author did not indicate what other blogs (if any) she read. However, many other blogs and web sites had links to her blog. Thus, the *Julie/Julia Project* is a virtual settlement.

What Is its Sense of Community?

To examine the *Julie/Julia Project's* sense of community, a web survey was conducted of the blog readers. The survey was conducted in the eleventh month of the blog's existence. At that point, the *Julie/Julia Project* was receiving nearly 7,500 hits per day. These hits do not each account for individual readers of the blog, as they also represent multiple visits from individual readers. Nonetheless, they do reveal a high volume of traffic to the blog.

The survey included measures adapted from McMillan and Chavis's (1986) sense of community measure. References to neighborhoods were changed to reflect the context of the blog (see Chipuer & Pretty, 1999). Sample items included "Other readers and I want the same thing from this blog," "I think this is a good blog to read" and "I recognize the names of most readers who post comments on this blog." Responses ranged from 1=strongly disagree to 5=strongly agree.

In order to assess interactivity, survey items also asked respondents how many months they read had been reading the blog, how frequently they read it, how frequently they read the comments and how frequently they posted comments. The frequency variables ranged from 0=Never, 1=Rarely, 2=Occasionally, to 3=Quite a lot. Demographic information was also asked including age, gender, and whether the respondents were blog authors themselves. In addition

to the quantitative questions, respondents were asked open ended questions about why they read about the *Julie/Julia Project* and what they felt about it.

To survey readers, I contacted Julie Powell who agreed to participate in the study. She posted a link to the web survey twice over a one week period. She also encouraged readers to fill out the survey.

Results

A total of 501 participants responded to the survey. 81% of the respondents were female at an average age of 38 years of age (SD=11.4).

In order to examine sense of community, the individual items from the scale were combined into a sense of community measure (Cronbach's $\alpha = .72$). Descriptive analyses and correlations were then run on the measures. See Table 1.

Sense of community is reliably correlated to all of the demographic variables and each of the four predictors. However, the magnitude of the sense of community measure itself is at a moderate level.

Table 1: Descriptive Analyses

Measure	Mean (SD)	1	2	3	4	5	6	7
1. Sense of Community	3.12 (0.50)							
2. Age	37.0 (11.4)	.11*						
3. Gender	0.81 (0.39)	.10*	-.15*					
4. Own blog	0.18 (0.38)	-.12*	-.24**	-.01				
5. How long reading	5.92 (3.45)	.16***	.07	-.01	-.01			
6. How often read	2.84 (0.40)	.36***	.02	.11*	-.02	.10*		
7. Read comments	1.84 (1.04)	.51***	.16**	.06	-.18*	.08	.32**	
8. Post Comments	0.44 (0.70)	.35***	.10*	.02	.10*	.14*	.19**	.45*

Note: Gender is binary coded with women=1; Own Blog is binary coded with owning a blog=1. N=501. * $p < .05$, ** $p < .01$, *** $p < .001$

To test which of these measures most effectively explains sense of community, sense of community was regressed on each of the variables in a two step hierarchical regression. First, the demographic variables (age, gender and owning a blog) were entered and then the predictor variables were entered. Table 2 lists the results.

Table 2: Regression of variables predicting Sense of community (N=481)

Variable	B	SE B	β
Step 1			
Age	.01	.00	.14**
Gender	.00	.08	.05
Own blog	-.00	.08	-.01
Step 2			
Age	.00	.00	.08
Gender	.00	.07	.01
Own blog	-.00	.08	-.01
How long reading	.00	.01	.17***

How often reading	.33	.08	.20***
How often read comments	.01	.03	.11*
How often post to comments	.14	.04	.15**

Note: Model Adj for the final model is R-Squared=.16***, R-Squared Change=.15***, *p<.05, **p<.01, *** p<.001

From this analysis, length of time and frequency of reading the blog are the strongest predictors of sense of community. Reading and posting to comments also predict sense of community, but not as strongly. The demographic variables do not account for any of the sense of community variance once the predictor variables have been entered.

Discussion

Is the *Julie/Julia Project* a virtual community? It is certainly a virtual settlement. However, from the results of this study, the members reported a moderate sense of community at best. On a 5-point scale, the average sense of community measure was a little bit about 3, around neutral. Although the measure itself represented a moderate sense of community, comments revealed very strong and very positive feelings the blog:

"[I read because the *Julie/Julia Project* is] (a)bsolutely the finest reading entertainment I have found. Julie is a skilled writer, I love her style. Her sense of humor aligns with mine."

"I am impressed by her dedication to such a huge undertaking. I find her writing extraordinarily accessible, entertaining, funny. She is able to express a fully realized personality in her writing about food, her life, her difficulties and triumphs in this project. I also enjoy her descriptions of the bizarre things she has to cook and eat. Sweetbreads and brains - looking forward to that."

"[I read because I like] 1) To see how julie deals with problems/life similiar (sic) to mine. 2) I develeoped (sic) some sort of attachment to julie, some what like a one sided friendship, i care w hat (sic) happens to her, what she's thinking (this also goes for (in a much lesser degree) for the comment posters)."

"I love her style, the subject matter, the self-selected glimpse of another person's life, the interaction of her long-time friends with the newcomers/ 'complete strangers' who have joined in over time. I have a great many people from her generation who I consider to be my friends in 'real life' and she and her buddies seem like a group of young folks with whom I would be comfortable 'hanging out' sometime and would have a great deal of fun (even though I neither smoke, nor drink vodka tonics! ;) Her blog is a sure fire 'upper' to start the morning, and the interplay of comments that can spin off and build on each other as the day goes on, I find fascinating."

Some respondents did believe that [the *Julie/Julia Project*](#) was a virtual community:

"J/JP is an example of human search for growth and emergence, reflecting both highs and lows common among humans. It attracts like-minded folks who are 'foodies' and/or seeking and sharing similar experience of human emergence; for this reason it feels like it attracts and creates a community of its own."

"I do think there is a community, but just like in real life, I am one of the people who rarely says anything. I am an observer."

However, many others did not:

"No, it doesn't feel like a community for me. It's not very interactive (sic) - I mostly just come to read Julie's latest post, and very rarely make a comment if I have something valuable to say."

"I don't consider it a community; instead, I enjoy reading Julie's entries. Ultimately, the only thing that everyone who reads the blog has in common is that we like to read Julia's fabulous entries."

"The project is entertainment to me. It sort of seems like a community, but just one I am looking at from the outside. A lot of Julie's actual friends make a lot of the comments. I haven't had much response to any of my comments."

The qualitative responses reinforce the survey results that despite really liking [*the Julie/Julia Project*](#) most people did not consider it a community in a "traditional" sense, a sense of community to which this measure was particularly focused.

In understanding where feelings of community could potentially develop, the regression analysis reveals that it is frequency of reading the blog as well as reading and posting to the comments that contributes to members' sense of community. This result holds in many of the comments in which members' reported feeling a sense of community:

"It's definitely a community. The comments show that."

"Julie's humorous escapade has become my workday morning coffee fix. Absolute community can be found in the comments, from dedicated readers to newbies. We all thank Julie for something: the cooking tips to the life commentary."

Those members who felt that [*the Julie/Julia Project*](#) was a community did so because of their participation in the comments.

The results of this study have implications both for virtual settlements and our understanding of sense of community in virtual communities. First, the *Julie/Julia Project* does appear to be a virtual settlement. However, it is limited in the amount of public interaction which may occur more frequently in other forms of group CMC. Public interaction occurs only in the comments section of this and most other blogs. It is telling that members who participated in the comments section of the blog had a higher sense of community.

But is it a virtual community? Using a traditional measure of FtF sense of community, for the most part, it is not. However, for a vocal and active minority of the respondents, it is. For these members, social connections were made and emotional attachments were established. But for the majority of participants, particularly those who did not read or contribute to the comments (i.e., the blog lurkers), it was not a virtual community.

This finding is quite different from Blanchard and Markus' (2003) finding that lurkers have a clear, albeit weaker, sense of community in other virtual communities. One reason for this difference may lie in the CMC technology. In most other virtual communities, lurkers *have* to participate by reading most of the other participants' communications. In a blog, lurkers only *have* to read the blog author's postings to participate and can easily bypass everyone else's communications.

As was argued previously, being a virtual community is important for sustainability. It is worth noting that at the end of the blog author Julie's endeavors to cook her way through the cookbook, she stopped her blog posting. Although several participants tried to create an online

group for fans of the [the Julie/Julia Project](#) to interact, it failed. The [Julie/Julia Project](#) was not self-sustaining. It depended heavily on Julie to succeed.

These findings have implications for our understanding of the importance of sense of community in determining whether or not a virtual group can be correctly called a virtual *community*. The [Julie/Julia Project](#) was described as "[wildly popular](#)." It was uniformly liked to a great degree by the survey respondents. This is one of the few blogs that has crossed over to mainstream media. The [Julie/Julia Project](#) was a highly successful blog.

Yet, it lacked a large enough group of people who considered it a virtual community. Without a critical mass of engaged, connected, and attached participants, its survival depended primarily on the blog author alone. Clearly, there must be a large enough subset of the members who have a strong enough sense of community for a virtual group to cross over to a virtual community.

Blogs, because of their technical features, may have some particular challenges in creating a critical mass of participants with a sense of community. Their main challenge may be in providing public spaces for member interaction. Comments may take a greater importance to blog authors who wish to develop virtual communities. Additionally, blogrolls (which [the Julie/Julia Project](#) did not have) could increase public interactions by increasing interactions between different blogs.

Interactive blogrolls connecting blogs with highly active comments' sections may create communities of blogs who share an audience. If this interlinking of blogs develops around particular topics, it is possible that a sense of community may develop and be shared *between* these interactive blogs. This will decrease the dependence of the virtual community on any one blog author and increase the chances of viability for the virtual blog community as a whole. We should then expect to see the benefits in terms of increased social relationships and sustainability that we see in other CMC groups and technological forms of virtual communities.

The sense of community concept as it has been traditionally formulated does not allow us to take that scenario into consideration. We can only expect that CMC technologies are going to continue to evolve and that groups that interact on these technologies will continue to evolve with them. As Sarason (1986) has argued, sense of community is unique to the community in which it develops. In order for us to use the sense of community concept to effectively discriminate between mere groups and true communities, the construct must be flexible enough to accommodate it.

Blogs are the newest popular form of group CMC technology. As shown by the participants who expressed a sense of community within [the Julie/Julia Project](#) , blogs have the potential to evolve into socially beneficial, self-sustaining virtual communities. Future studies of blogs as virtual communities should continue to assess not only members' sense of community, but also how members adapt to and modify the CMC technology to meet their needs in developing a vibrant virtual community.

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