

Literature Review and Annotated Bibliography on Online Communities

Social Economy and Sustainability, Subnode 6 (Communications)

Submitted by Pat Shanahan to Ivan Emke
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Reflections on the Literature Review

The literature review focuses on evaluations of online communities. The purpose of this literature review is to help inform the analysis of the online communities within the Voluntary Gateway. In total this literature review consisted of 32 articles. By studying online community evaluation techniques we may add to the depth and breadth of the study of the Voluntary Gateway. Even though the online communities that were being studied in the individual articles are designed differently than the Voluntary Gateway, the techniques used for their analysis are interchangeable. The information that I have gathered for this summary lead to what I feel are five important points to consider when evaluating online communities.

1. To begin there is the issue of methodology and research techniques found in the literature. These techniques were typically ethnographic and their purposes were to acquire as much rich data as possible concerning their research topic. Research collection techniques included using Avatars to personify the moods of the members, analyzing script language, non verbal cues, server data, interviews, surveys,

participant observation, getting experimental groups and testing through series of emails and think-aloud protocols.

2. The focus of the research studies included a range of specific topics. Some of the articles focused on the nature of contributions to the online communities, and others included the social roles members abide by, understanding the types of participation, trust between members within the community and the relationships between members. The authors designed the layout of the articles in a variety of ways. Some were very scientific and organized in a fashion with topic headings such as hypotheses and discussion. Other articles were designed in manner which tied topics and ideas together. All of the articles examined an area of an online community and offered a variety of findings and conclusions.
3. Articles often introduced specific theories and concepts, such as lurkers, social capital, social loafing, values, and media richness theory. The concepts used in the articles were either used to support or refute the claims of the researcher. Using these ideas we are able to compare, contrast and inspire findings of the analysis of the Voluntary Gateway. We can use some of the concepts and theories discussed in these articles to help us develop our research of the Voluntary Gateway.
4. Those articles which outline specific hypotheses and questions are most useful in determining how to approach the study of the Voluntary Gateway. For example, one article ([A typology of Online Communities and Community Supporting Platforms](#) by Katarina Stanoevska-Slabeva and Beat Schmid) include questions such as: How can we choose the right mix of technology? What is appropriate for which type of community? How can we incorporate support for community building in available

software for platforms for example in the area of e-commerce or online learning?

Katarina and Beat discuss the interaction between the amount of technology and the type of interaction that might occur. Perhaps the people using the online community do not have an adequate computer or they do not know how to use the state of the art technology. The value that we can take from these questions is that the amount of technology required for an online community varies by the individual user. This knowledge is also valuable because problems with the Voluntary Gateway could be because of the amount of technology used to facilitate the community, or it could relate to more idiosyncratic personal factors.

5. There is a regular discussion in the literature on the value of increasing participation in online communities. The main concern in these articles seems to focus on the issue of under-contribution. This issue involves members of a community who both enter the community and do not participate (lurking) or they do not enter the community at all. An important part of increasing participation in communities is to understand why people participate in the first place. This idea is covered in the literature as well. One author (Jonathan Bishop) feels that there are three principles which are important to increase participation: the actor must be driven to act out of their own personal desire to do so; an actor's desire to act is limited by their goals, plans, values, beliefs and interests; and an actor will act based on how they perceive their environment. Bishop applies these principles to explain why people participate in online communities. I think the level of participation will be an important topic to consider for the online communities related to the Gateway.

The preceding comments were made because these were the ideas that I felt were important to include in a summary of this literature review. If I were to make some general claims of the material that I covered it would be that all of the articles are concerned with improving, thus justifying the existence of online communities. The articles tend to be very specific as to its issues and how to resolve them. There are many competing and complementary ideas of what an online community is and should be. There is no one definition of an online community. The articles also give a sense of the importance of knowing what social needs are required from the group. These needs will help guide analyses of online communities. If there is one issue with the literature it is that it out dates itself rather quickly. This is due in part to the rapid change in technologies. Such issues require a constant mutation of available research techniques in order to have a fair evaluation of online communities. The purpose of all of these articles seems to be to make the online community experience better for those involved. For the purpose of the analysis of the Voluntary Gateway this literature review should be used as a guide to inspire a more indepth and comprehensive analysis.

Annotated Bibliography

Alem, Leila., Simon Kravis. "Design and Evaluation of an Online Learning Community: A Case Study at CSIRO. SigGroup Bulletin 25.1(2004):20-24.

The topic of this article concerns the development and evaluation of a successful online community. The purpose of this article is to investigate how the organization is impacted as a result of the introduction of an online community. To evaluate the community, they used a web based questionnaire as well as data they acquired from online discussions between members. The researchers feel that moderation is a requirement in the online community for it to function. This article is helpful to the analysis of the Voluntary Gateway because it provides ideas on how to improve online discussion.

Ba, Sulin. "Establishing online trust through a community responsibility system." Decision Support Systems. 21(2001): 323-336.

The topic of this article is concerned with preserving the anonymity of online transactions. The researcher argues that by using community based online social structures, anonymity can be secured and trust can be acquired. The researcher uses a theory called a Game Theory which indicates two things. First, members of a community can enforce behavior contracts. This means that to be part of a community one is pressured to act under the rules of that community. Second, disciplinary action will be taken if behavior does not adhere to the rules of the group. These two things exist to create trust amongst the group and other groups. This article will be helpful to the analysis of the Voluntary Gateway because of its analysis of trust. Whether it is trusting people with money or information, trust is still required within an online community.

Beenen Gerard., Kimberly Ling, Xiaoqing Wang, Klarissa Chang, Dan Frankowshi, Paul Resnick, Robert E. Kraut. "Using Social Psychology to Motivate Contributions to Online Communities." Proceedings of ACM CSCW 2004 Conference on Computer Supported Cooperative Work. New York: 2004.

The topic of this article concerns people who under contribution within an online community. The main concern of the article is to motivate people to increase contribute to the online community. The researchers have several hypotheses that they considered in this article. One of which is that MovieLens (the online community analyzed) members will rate more movies when the uniqueness of their contributions is brought to their attention. The research involved a series of emails sent to a variety of test groups. The actions that the groups took after receiving the emails was what interested the researchers. One result discovered was that when someone has a goal, they contribute more than someone who has no goals. The authors use the theories social loafing and the collective effort model to assist them with their study. This article can be helpful to the analysis of the Voluntary Gateway by shedding light on how people there contribute.

Bishop, Jonathan. "Factors shaping the form and participation in virtual communities." 19 May 2007 <<http://www.jonathanbishop.com/Web/Projects/Publications/default.asp?MID=2&NID=62>> 22 May 2007.

The topic of this article concerns the creation of communities on the internet. The researcher refers to the idea of the internet being a broad community and individuals being able to create sub-communities within it. The researcher refers to relationships over the internet as non-organic. He asks himself two questions in this article. First, is it possible for non-organic relationships to sustain? Second he asks what is it that makes people want to continue a relationship that is not physical? Through out the article the researcher suggests several substantiated reasons why virtual communities work. One of these reasons is that people will come together if there is a common purpose, value and vision. This article will help with the analysis of the Voluntary Gateway through its discussion of sub-communities. A question to be considered here is what are the implications of sub-communities in the Voluntary Gateway?

Bishop, Jonathan. "Increasing participation in online communities: A framework for human-computer interaction." Computers in Human Behavior 23(2007): 1881-1893.

The topic of this paper is concerned with understanding why people contribute to online communities. The researcher wants a broader understanding of why people contribute to these communities. He describes what drives individuals to contribute to the communities through a conceptual framework. This framework evaluates such concepts as desires, cognitions and interpretations. The researcher relied heavily on other literature to support his claims. He concludes with several suggestions, one of which is to change from a needs-based understanding of why people participate in online communities to a desire-based one. This document is helpful to the analysis of the Voluntary Gateway because it helps to understand why people in our online community participate. This knowledge will help the Gateway tend to the areas necessary to maximize contribution.

Butler, Brian S. "Working Paper Series: When is a Group Not a Group: An Empirical Examination of Metaphors for Online Social Structure." Diss. University of Pittsburgh, 1999.

The topic of this paper is concerned with the analysis of the impact that networked social structures (online communities) has on the physical society. The researchers focus on e-mail based Internet listservs for their research. One part of their research includes comparisons of other online communities with what they feel social structures should look like. Two social structures that they analyze are small groups and voluntary associations. The analysis of the Voluntary Gateway is helped by this article because it is a social structure of its own which can be compared to the social structures presented here.

De Souza, Clarissa Sieckenius, Jenny Preece. "A framework for analyzing and understanding online communities." Interacting with Computers 16.3 (2004): 579-610.

The topic of this article concerns how technology is able to create and maintain social activity. The researchers offer a guide to how technology is able to accomplish such a feat as maintaining social activity. The researchers offer key factors in an online community. These factors are people, purposes, policies and software. Also there are two factors which impact its success. These are sociability and usability. The researchers make several conclusions. One of which is a statement on the practical use of their framework. They insist that it should be used for communication between the computer software and its users and computer-mediated communication among the users. This article is helpful to the analysis of the Voluntary Gateway because the framework can be used for further analysis.

Hammond, Michael. "Issues associated with participation in on line forums – the case of the communicative learner." Education and Information Technologies: 4.4 (1999) 353-367.

The topic of this article concerns the learning capabilities that online forums (communities) provide. The researcher here is concerned with the practical application of the online forums. The researcher investigates three case studies and used members of the community to gather data. One discovery that the researcher finds is that asynchronous discussion both encourages and discourages participation. One problem with online forums is that the forum organizer has less control over the group interaction than in face to face. This article provides issues with learning in online forums. Knowledge of as many issues as possible will only increase the depth of any analysis performed on the Voluntary Gateway.

Hessan, Diane., Julie Wittes Schlack. "Online Communities: Public vs. Private?" Brandweek 47.20 (2006): 24.

The topic of the article concerns the issue of online communities being public or private. This article debates the value of either. They argue that private communities create greater trust and personal accountability than public ones. They also argue that the online community creates the ability to develop relationships which will benefit the company. One issue which straddles the boundary is that of trust. Will people be more trusting in public or private online community settings? This article is useful in considering the boundary between what is private and what is public.

Johnson. Christopher, M., "A survey of current research on online communities of practice." Internet and Higher Education. 4 (2001): 45-60.

The topic of this article concerns a literature review of what he calls online communities of practice. The purpose of this article is to perform a literature review on online communities to search for trends in research. The author asks several questions to guide his research. One of these questions concerns the concepts that comprise a community of practice. The author focuses on case studies. The researcher makes a distinction between virtual communities and communities of practice. The main difference being that communities of practice are what emerges from the design of virtual communities. This article is useful to the analysis of the Voluntary Gateway for comparison and research structure techniques.

Kim, Amy Jo. "Subgroups: Clans, Clubs and Committees." Community building on the Web. Berkeley, California: Peachpit Press, 2000: 309-330.

The topic of this article concerns the intimate relationship in small communities and how to preserve it when the communities grow. The main way to resolve this issue is to create sub-groups. These sub groups, according to Kim will help solidify relationships in the communities because its members have things in common. Parts of the Voluntary Gateway are divided into sub groups, therefore I feel it is important to consider this literature during its evaluation.

Lampe, Cliff., Erik Johnston. "Follow the slash dot: Effects of Feedback on New Members in an Online Community." Proceedings of the 2005 international ACM SIGGROUP conference on Supporting group work, Sanibel Island, Florida: Association for Computing Machinery, 2005.

The topic of this article concerns how new users adjust to online communities. This article examines the relationship between old and new members of an online community. The researchers argue that when a new user enters the community their contributions can be both beneficial and harmful. The authors use several questions to assist with this study. One of those questions concerns how new users behave when they first enter an established online community? One issue with new members is that they may violate normal behavior already established in the community. To get participants for the study the researchers put a request to complete a survey on the main page of the online community. The authors also analyzed data collected from the server. This article is helpful to the analysis of the Voluntary Gateway because it contributes to understanding the difference between seasoned and new members and how they interact.

Lampe Cliff., Paul Resnick. "Slash(dot) and Burn: Distributed Moderation in a Large Online Conversation Space." Proceedings of the SIGCHI conference on Human factors in computing systems. Vienna, Austria: ACM, 2004.

The topic of this article concerns the moderation of conversation spaces within an online community. The researchers consider several problems concerning moderation, one of which is under provision. They researched this article primarily by looking for patterns in usage logs provided by the online community. They also performed interviews. Two findings which reflected problems with the moderation on the community are that incorrect moderations were often not corrected and that it took a long time for good comments to be identified. The Voluntary Gateway benefits from this article because the analysis of moderation can be used for its benefit.

Ludford, Pamela J., Dan Cosley, Dan Frankowski, Loren Terveen. "Think Different: Increasing Online Community Participation Using Uniqueness and Group Dissimilarity." Proceedings of the SIGCHI conference on Human factors in computing systems. New York (2004).

The topic of this article concerns inspiring participation within online communities. The researchers focus on the lack of visible postings within the online community. One theory that they have is that contribution is low because of the lack of social structures which are necessary to maintain contribution. The researchers used email to entice people to participate in the research. During the study the researchers would send the participants a variety of carefully worded emails in order to see if they altered the contribution of the recipient in the community. One conclusion that they reached is that community members liked receiving information about the unique perspective they brought to the group and participated more because of it. This article is helpful because it provides yet another perspective on under-contribution and how it can be changed.

Maloney-Krichmar, D., Jenny Preece “An ethnographic study of an online health support community.” Duquense Ethnography Conference. Philadelphia: (2003).

The topic of this article concerns online health communities. More specifically it is concerned with finding out what role the online community plays in the lives of its members. The article is also concerned with documenting social interaction that occurs in the community. The article addressed several issues. One of which is that it provided a deeper understanding of online group dynamics. This article is helpful to the analysis of the Voluntary Gateway because it can be used to help assess social interaction in the Gateway.

Maloney-Krichmar, D., Kevin J. Eckert, and Jennifer Preece. “A critique of an ethnographic approach to the study of an online health support community: Advantages, disadvantages, and lessons learned.” Draft. Duquense Ethnography Conference. Philadelphia: (2003).

This article concerns the critical analysis of the named article. They are evaluating the arguments made by the author of the article. They organize this critique through the advantages and disadvantages of using an ethnographic research approach to an analysis of an online community. They argue that one advantage of using the ethnographic approach was that it provided a theoretical framework which made data collection easier. One problem with the study that should have been improved upon is that face-to-face interviews were not carried out. Online interviews were used instead. This article is helpful to the analysis of the Voluntary Gateway because it provides extra perspective on the named article. However, the fact that two of the authors of the original article are named in the critique may subtract from its credibility.

Maloney-Krichmar, D., Jenny Preece. “A Multilevel Analysis of Sociability, Usability, and Community Dynamics in an Online Health Community.” ACM Transactions on Computer-Human Interaction 12.2(2005):201-232.

The topic of this article concerns the analysis of an online health community. The researchers wish to develop an in-depth understanding of how people interact and relate to one another in an online community and how that affects the individual's off-line life. This study took place over a two and a half year period. One year after the initial analysis, the researchers studied the same members so that they could compare participation over an amount of time. They used tools such as observation, interviewing a literature review and participant observation. One result was that developing and sustaining an online community is not dependent on current technology. I think it is important generally to understand how people interact in order to maximize how they will benefit from interactions. It is here where I feel this article will most benefit the analysis of the Voluntary Gateway.

Millen, David R. "Community Portals and Collective Goods: Conversation Archives as an Information Resource." Proceedings of the 33rd Hawaii International Conference on System Sciences. (2000).

The topic of this article concerns discovering the value of online communities. The researcher specifically looked at the feature which allows a member to store information in an archive for future use. This researcher focused upon a community of news reporters to support his research. The researcher uses the archival records to support his claims. One tool that he uses for analysis is called a conversation map. This map helps to show multiple dimensions of the conversation in the same data set. The use of the conversation map will prove to be useful in the analysis of the Voluntary Gateway.

Millen, David R., John F. Patterson. "Stimulating Social Engagement in a Community Network." Proceedings of the 2002 ACM conference on Computer supported cooperative work. (2002): 306-313.

The topic of this article concerns what drives people to interact with an online community. The researchers are interested in finding the factors that affect social engagement in these online communities. They do this by studying three areas. First are design elements in the community, second they distributed a survey and analyzed it and third they analyzed conversation content in the community. One conclusion that they make is that one way to stimulate activity is for the community facilitator to guide conversation. This article will be helpful for the analysis of the Voluntary Gateway because maximum contribution rates are always important to any online community therefore this article can help facilitate this need.

Nolker, Robert D., and Lina Zhou. "Social Computing and Weighting to Identify Member Roles in Online Communities." Proceeding of the 2005 IEEE/WIC/ACM International Conference on Web Intelligence (WI'05). (2005): 87-93.

The topic of this article concerns identifying the roles of key members in an online community. Identifying these roles is important when supporting the needs of an online community. This paper proposes an approach to identifying roles and the members attached to them through the use of social network analysis and membership weighting. To go about analyzing this, they classify conversation into different classifications, two of which are one-way conversation and two-way conversations. They then assessed the impact that these role players have on the online community. They focused their research on open discussion boards. They developed some conclusions. One of which is that they found two roles that are crucial in maintaining 'critical mass' in the community, one is leader and the other is motivator. Their research approach was evaluated against a baseline created using network analysis tools on the volume and frequency data for the group. This article can be useful to the analysis of the Voluntary Gateway because it can help identify or at least determine if there are any of these roles present.

Preece, Jenny. "Assessing Needs and Evaluating Communities" Online Communities: Designing Usability, Supporting Sociability. West Sussex: John Wiley & Sons, Ltd., 2000: 300-344.

The topic of this article concerns the details involved in evaluating online communities. Preece stresses the importance of considering social needs as well as usability needs within the online community. Preece discusses general ethnographic research information. Preece mentions five approaches to evaluating an online community. Two of these approaches are Surveys, done either by questionnaires or interviews and observation. This article is an important guide to the analysis of the Voluntary Gateway.

Preece, Jenny. "Sociability and usability in online communities: determining and measuring success." Behaviour & Information Technology. 20.5(2001): 347-356.

The topic of this article concerns the usability of online communities for people who use both high and low band with connections. The researcher is therefore concerned with determining the criteria that determines success within online communities. To measure such success they use two concepts. The concepts are sociability and usability. The researcher concludes with some measure of success for each. Two successful measures for sociability are number of participants and trustworthiness. This article provides measures to determine success of online communities that is useful to the analysis of the Voluntary Gateway.

Prestipino Marco, Felix-Robinson Aschoff, and Gerhard Schwabe. "How up-to-date are Online Tourism Communities? An Empirical Evaluation of Commercial and Non-commercial Information Quality." Proceedings of the 40th Hawaii Conference on Systems Sciences. 2007.

The topic of this article concerns a comparison between information found in an online community and information found in printed media. They are looking for reasons to justify online communities as a place to retrieve reliable information. They consider whether or not the online community is updated in a timely and accurate manner compared to the printed media. Some attributes of timeliness are Up-to-dateness, speed, time-to-publish and accessibility. They look at each guide and assess the information based on the criteria they chose outlined in the article. They offer some conclusions of online communities which are both positive and negative. One positive conclusion is that information online can have such features as up-to-date weather. One negative conclusion is that the online information does not really have guidelines for quality where as the printed information does. They ultimately reject their hypothesis that online tourism community have a higher up-to-dateness than the printed travel guide however it is at least on the same level. This article is helpful to the Voluntary Gateway because it provides us with a measure to gauge online versus offline content.

Quan-Haase, Anabel. "Trends in Online Learning Communities." SigGroup Bulletin 25.1(2004):2-6.

The topic of this article concerns the trends of using online communities to either support teaching or to replace the classroom. This researcher is studying online communities because of the important role that they play in distance education. Some questions that the researcher is interested in concern the nature of online learning, the types of learning promoted by distance education, the challenges inherent in distance education, and the ways in which distant education can be improved. The researcher is focusing on why people turn to online learning, how it fits into their everyday lives, what types of learning occur and how, what types of communities are formed, and how design and technology influence the learning process. The researcher uses case studies to develop these questions. Several conclusions are made. One of which is that it is not enough for an online environment to serve the needs of students. This document is helpful because of its consideration of how online communities can be used as a place of learning. Such considerations can be helpful in applying educational practices, such as training to the Voluntary Gateway.

Rashid, Al Mamunur., Kimberly Ling, Regina D. Tassone, Paul resnick, Robert Kraut, John Riedl. "Motivating Participation by Displaying the Value of Contribution." Proceedings of ACM CHI 2006 Conference on Human Factors in Computing Systems. New York (2006).

The topic of this article concerns contribution to online communities. The researchers focus on the value of contribution to the community. They feel that the amount someone will contribute depends on the value they feel their contribution is worth. The purpose of this article is to find ways to encourage participation in the online community. One theory that the researchers use is the Collective Effort Model theory. They created 4 experimental groups and 1 control group to test their hypotheses. One conclusion that the researchers discover is when they highlighted how much the individual identifies with the group and how much the group would benefit, their contribution increased. This article is helpful to the analysis of the Voluntary Gateway it provides another perspective on contribution. The more perspectives that are available on an issue, the better prepared we are to accurately analyze it.

Reyes Pablo., Pierre Tchounikine. "Redefining the Turn-Taking Notion in Mediated Communication of Virtual Learning Communities." Intelligent tutoring systems: 7th International conference, ITS 2004, Maceio, Alagoas, Brazil, August 30-September 3, 2004: Proceedings. Ed. Lester James C., Rosa Maria Vicari, and Fabio Paraguacu. Berlin: Springer, 2004. 295-304.

The topic of this article concerns an evaluation of the concept of taking turns commenting on discussion boards in the online community. The researchers feel that there are some problems with the current notion of turn-taking in the virtual environment. They propose redefinition of the concept and renaming it to a session. In the article the researchers define session. They approach this research in a quantitative fashion. They analyze different threaded conversations in different newsgroups. They conclude with the finding that the new idea of a session uncovers new temporal behaviors in the virtual

environment. Through these behaviors, they can improve the use of threads in these virtual environments. This article is helpful to the analysis of the Voluntary Gateway because it uses threads to facilitate conversations.

Smith, Marc A. "Invisible Crowds in Cyberspace: Mapping the Social Structure of the Usenet." Communities in Cyberspace. Mark A. Smith and Peter Kollock, eds. Oxford: Routledge (1998), 195-219.

The topic of this article concerns the lack of data on individual groups and social structures within usenets. A usenet is an online community, but it perhaps has less features than the Voluntary Gateway. The main feature of a usenet is a bulletin board which shares news and discussions. The researcher here is interested in using a program that he developed called Netscan to gather streams of messages and organizes that information into a database. The researcher provides some statistical information acquired from his program throughout the article. This article provides an interesting methodology for analyzing online communities. Even though the Netscan software may be out of date, perhaps there is similar software, or software that can be written that can perform similar tasks on the Voluntary Gateway.

Stanoevska-Slabeva, Katarina., and Beat F. Schmid. "A Typology of Online Communities and Community Supporting Platforms." Proceedings of the 34th Hawaii International Conference of System Sciences. 2001.

The topic of this article concerns the growing importance of online communities and how important it is to have guidelines of how to establish and manage a successful community. Needless to say this paper aims to provide such guidelines. They mention some distinguishing features of online communities. One of which is strong social relationships between participants. Two questions they consider are: how can we choose the right mix of technology? And what is appropriate for which type of community? One of the theories that were used is the media reference model which provides a guideline for answering the question how to build a medium by identifying the required services. The authors get into much detail about online communities and what they should look like and how they should work. They argue that there are two crucial elements necessary for an online community. One is the association of community participants, here called agents and the other is the enabling of an electronic medium. This article is useful because it provides a ready example of how to create an online community. It will help with the evaluation of our own.

Takahashi Masamichi., Masakazu Fujimoto, and Nobuhiro Yamasaki. "The Active Lurker: Influence of an In-house Online Community on its Outside Environment." ACM SigGroup Bulletin 24.1 (2003): 1-10.

The topic of this article is concerned with understanding how to evaluate, manage and coordinate the online communities in an effort to change how people contribute to them. They are focusing on people who do not post to the community, just observe. These people are known as lurkers. The authors use interviews and questionnaires to

accomplish their research. From the interviews, they surmised five factors that characterize the classification of participants. Two of these characterizations are attitude towards information handling and the awareness of the existence of others. One conclusion they discuss is that shifting a lurker to a poster is not always an important way to make an online community valuable. This article can be helpful to the analysis of the Voluntary Gateway as part of a discussion on how to manage and evaluate an online community.

Takahashi, Toru., Yasuhiro Katagiri. "TelMeA2003: Social Summarization in Online Communities." CHI 2003: New Horizons April 5-10(2003): 928-929.

The topic of this article concerns the methodology used for analyzing online communities. The authors want to find an alternative to content based methods. They are proposing a new method for structuring and summarizing information being created and exchanged in online communities. They use the theory social summarization to achieve this goal. To show that this method works, they apply it to three types of analysis. First they apply it to personified media such as avatars, second they analyze the non-verbal cues made by the participants and third they analyze scripts. They conclude with implications of social summarization. One of which is that it is easily implemental, as it doesn't demand extra steps for data collection, nor does it require elaborative text analysis. This article will be useful to the analysis of the voluntary gateway because it provides alternative methodology that can use, thus increasing the depth and thoroughness of the analysis.

Thomas, Sue. "The Tools of Online Community: The First Five Years of the trace Online Writing Centre." Creativity and Cognition: Proceedings of the 5th conference on Creativity & cognition (2005): 63-70.

The topic of this article concerns the development and evaluation of an online writing centre called trAce. The author begins the article by discussing how trAce came into existence. The author then discusses how they implemented the online community. The author does run into what she calls unexpected developments. One of these developments is that the necessity for a more personalized teaching approach encouraged us to create innovative training and support systems. Another development is that they developed a different understanding of the needs of the East Midlands literary community. The article continues with some discussion about other aspects of the online community such as its accessibility and training. This article helps our analysis because it provides a reference to how others have created and funded such projects.

Wellman, Barry. "Computer Networks as Social Networks." Science. 293(2001): 2031-2034.

The topic of this article concerns the social event that is human computer interaction. The researcher argues that when computers link people their relationships become computer-supported social networks. In this article the researcher reports on two developments. The first report was on community networks on and offline and the

second was on the access to knowledge. The researcher focuses on the transition from group-based to networked societies. The researcher considers a couple of question during the closing of the article. One of which is, how do people work together in large, sprawling, networked organizations where they are simultaneously members of multiple, transitory, physically dispersed teams? This article is helpful for the analysis of the Voluntary Gateway. It is helpful because of its conceptual consideration of what the function of the Gateway.