# **Recognition and Participation in a Virtual Community**

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#### Abstract

Although recognition counts among the numerous factors that contribute towards the success of virtual communities, it has received little attention in both academic and practitioner studies. Adopting the Theory of Information Sharing as the conceptual foundation, this interpretive case study examines the effect of recognition on participation in a virtual community for Academic Dress. Results indicate that there exist three different forms of perceived recognition in a virtual community, namely identity, expertise and tangible recognition. The study also highlights that a link exists across these forms of recognition, their effects, and participation. Implications for community organizers and researchers are discussed.

### 1. Introduction

The notion of 'virtual community' was first suggested by Rheingold [37] as "social aggregations of people carrying out public discussion long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace". Since then, there has been growing interest on the subject as virtual community is widely regarded as an Internet phenomenon that will bring about immense social as well as commercial impacts [15]. Electronic commerce practitioners and researchers also began to leverage the virtual community's unique capability of connecting people who share a common interest, for economic reasons.

Despite the implementation of virtual communities in various forms, Preece [35] noted that there has been little attention on understanding what makes a virtual

community successful. Success in a virtual community could be manifested through the level of participation, which can be understood as the number of participants and the number of messages posted in the community [35]. Likewise, Ridings et al. [38] mentioned that there is limited knowledge on what motivates people to use virtual communities. Studies that have examined success factors, commonly focused on trust, anonymity and sense of community. Little research appears to be done on the effect of members' recognition on participation in a non-commercial virtual community. Thus, this study adopts a process model approach [32] to examine the effects of recognition on participation in a non-commercial virtual community with the overriding objective of contributing towards the understanding and theorizing of virtual community success.

The next section reviews literature examining the success factors of virtual community and is followed by the conceptual foundations adopted for this study. After presenting the case background, the research methodology for this study will be introduced. Next, the analysis of the case findings will be discussed and in conclusion, the implications of this study to both research and practice will be drawn, with an examination of its limitation and opportunities for future research.

## 2. Success Factors of Virtual Community

Extant literature examining the success factors of virtual community have largely focused on factors such as trust, anonymity and sense of community. Numerous authors have stressed the importance of trust for a virtual community to flourish [11,42]. This is because when members place trust on one another, they are more likely to open up and participate in the

community. The ability to maintain anonymity is a key characteristic of many virtual communities [19]. Andrews [1] suggested that the ability to hide one's true identity through the use of pseudonyms would encourage participation in virtual community. Receiving recognition, either in the form of status or financial reward, also encourage participation in virtual community [1,8,16]. A strong sense of community and the ability to identify with the virtual community have also been found to enhance the likelihood of members' contribution and participation in a community [6,8,16,26].

# 3. Conceptual Foundations

# 3.1. Theory of Information Sharing & Social Exchange Theory

This study is primarily based on the Theory of Information Sharing [9]. Formulated through the study of the attitudes and norms that affect information sharing in organizations, the Theory of Information Sharing has its roots in the Social Exchange Theory.

Social Exchange Theory [24] is based on the notion that people review and weigh their relationships in terms of costs and rewards [47] and unlike economic exchange, which focuses on economic capital such as goods and money, social exchange focuses on the exchange of social capital such as power and trust [7]. Costs are those elements in the relationship that have negative value to a person and rewards are those that have positive value to a person. People will strive to minimize costs and maximize rewards and then base the likelihood of developing a relationship with someone on perceived possible outcomes.

Originally, Social Exchange Theory did not concern the exchange of knowledge and information [21]. Through the Theory of Information Sharing, Constant et al. [9] contextualized Social Exchange Theory to the organizational context of information exchange. Subsequently, Jarvenpaa and Staples [21,22,40] extended the Theory of Information Sharing to study the determinants that affected the use of collaborative electronic media for information sharing within the organizational boundary. Though both studies were primarily organizational-oriented, the study by Constant et al. [9] did go beyond the organizational boundary to include "organizationally remote strangers".

In agreement with Jarvenpaa and Staples [21] that information sharing is likely to be context dependent, this research contextualizes the Theory of Information Sharing to the social-oriented nature of a virtual community. The approach is justifiable since the

Theory of Information Sharing has its roots in the sociology-based Theory of Social Exchange.

# 3.2. Recognition & Participation in Virtual Community

Various forms of social exchanges have been identified to be at work in virtual community [14,42]. Participation in a virtual community, especially in a special interest group (SIG) based virtual community which center on a particular subject, often requires members to contribute and seek knowledge and information on a subject. Thus participation in a virtual community can be viewed as a form of information sharing and knowledge exchange [38,44]. Participation, for this study, is defined as posting and responding to messages and other electronic media that have been shared in the virtual community.

Trust has been identified as one of the most important factors that influence the level of participation in a virtual community [2,20,23,38]. Another factor that has been noted to effect participation is recognition. Andrews [1] noted that both financial as well as non-financial rewards could be used as forms of recognition to encourage participation in a virtual community. Butler et al. [8] also noted that the visibility gained through participation in virtual communities provides recognition for a person's expertise on a subject and gives rise to psychic payoffs such as self-efficacy and self-esteem. Hars and Ou [16] identified peer recognition, derived from the desire for fame and selfesteem, as a form of extrinsic reward for participating in virtual communities dedicated to open source programming. Although all of the above-mentioned studies allude to recognition as one of the contributing factors for the success of a virtual community, its effect on participation remains largely under-studied empirically.

# 4. Case Background

"I started the e-group as I hoped I might find others who shared what must be a rather arcane interest."...Founder, Academic Dress virtual community.

The virtual community on academic dress (http://groups.yahoo.com/group/academic\_dress/) was founded on 10<sup>th</sup> July 1999 on the Yahoo! Groups, with the founder as the only member. By June 2000, the membership of the group grew to over 60 with the number of message postings standing at 719. The virtual community subsequently spun off into a physical society for the academical study of academic dress. After three months of deliberation, the Burgon

Society (named in commemoration of Dean Burgon, the only person to have a shape of academic hood named after him) was formally established in October 2000. By this time, the membership grew to over 70 and the message postings between June to October 2000 were 752. Despite the fact that the Burgon Society has its origin in the academic dress virtual community, the relationship between the Burgon Society and the virtual community was informal as membership to the virtual community was not restricted to members of the Burgon Society.

At the time of this research, the virtual community has grown to more than 300 members and has almost 9,000 messages, not including the numerous photographs and files uploaded onto the virtual community folders (Figure 1). As large membership base and large number of posted messages are indications of a virtual community's success [35], the success of this virtual community is thus evidenced. The crown jewel of its accomplishments is marked by the formation of the Burgon Society. This is indeed a rare feat among virtual communities, more so for a virtual community of an arcane interest such as academic dress.

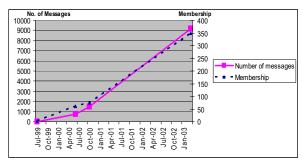


Figure 1. Growth of the academic dress virtual community

Hence, this virtual community provides a good context for the objectives of this study. Moreover, the academic dress virtual community, unlike many others, possesses both tangible as well as intangible forms of recognitions, appropriate for this study. Tangible recognition exists in the form of the Burgon Society Fellowship, which may be earned by conducting research on academic dress or by holding key appointments in the society. Intangible recognitions that may be observed in the virtual community could include visibility and peer-recognition [8,16].

### 5. Research Methodology

The tight interweave between the phenomenon of the 'effect of recognition' and the context of 'virtual community' in this study led to the choice of a case study methodology in accordance with Yin [48] that the unique feature of the case study approach is its ability to investigate a contemporary phenomenon within its real-life context, especially when the boundary between them is not clearly evident. An interpretive case study approach [43] was adopted for the purpose of this research for two primary reasons. Firstly, the deficiency of literature on the effects of recognition in a virtual community resulted in a shortage of studies to provide for theoretically sound constructs to carry out a positivist case study or a survey. For the same reason, this research can be classified as an exploratory case study [48]. An interpretive approach provides for a higher degree of openness towards the field data that leads to richer analysis and identification of new issues [43], appropriate in exploratory studies. Nevertheless, to strengthen the rigor of this research, existing literature on Social Exchange Theory, Theory of Information Sharing and virtual community was used to guide the analysis of the data, in line with the recommendations of literature [12,43,48] on the use of theories to guide the design and analysis of case study research. The entire research process adhered to a case study protocol to increase its reliability [48]. In addition, the ethical guidelines outlined by King [25] were observed when reporting the results of this study.

As this study focuses on the individuals' perception of the effects of recognition on their participation in the virtual community, the unit of analysis was at the level of individual members of the virtual community. An initial qualitative survey was administered to all members of the virtual community in end February 2003. The data collected from the survey provided a preliminary understanding of the issues involved in the case and also provided a means to identify potential informants, with whom follow-up interviews, lasting for about an hour each, were conducted. The potential informants were selected based on the quality and richness of their survey responses. Table 1 shows the background information of all the respondents.

Due to the membership size of the virtual community and their geographical distribution (from New Zealand to the United States), both the qualitative survey and the interviews were conducted via electronic means. The survey was sent to all members of the virtual community through email and the interviews were conducted via real-time online chatrooms. Similar approach of data collection through

electronic based interviews and archived posting was adopted in another study on virtual community [44]. Guidelines recommended in Mann and Stewart [28] and Zhang [49] on conducting such electronic interviews and surveys were observed in this study. Besides data from the surveys and interviews, other sources of evidence were also obtained from the Burgon Society web site and the archived postings of the virtual community, thus further increasing the rigor of the study through multiple sources of evidence [48].

Table 1. Background information of all survey respondents

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\*: Informant

N/A: Not Available

## 6. Data Analysis

As this is an interpretive study, the codes were derived through iterative content analysis of the data from the surveys and the interviews, with the guidance of existing theories. Coding and pattern matching (Table 2) were then conducted to sort and classify the data. To further substantiate the findings, triangulation with the archives of posted messages was done. Figure 2 shows the resultant model from the data analysis.

#### 6.1. Recognition

Recognition could exist in different forms in a virtual community. At the most basic level, it means members recognizing other members' names in postings. At a higher level, recognition occurs when members create a reputation for themselves through their postings [6]. Being visible in the cyberspace has been found to be a prerequisite to participation in a

virtual community [4]. Rheingold [37], in his discussion of the WELL lists the desire for status and prestige as some of the key motivations of individuals' participation in virtual community.

Table 2. Pattern matching

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Informant	1	2	3	4	5			
Identity	<b>√</b>	-	✓	✓	<b>√</b>			
Expertise	<b>√</b>	✓	✓	✓	×			
Tangible	<b>√</b>	-	✓	×	-			
Recognition								
Sense of	-	<b>√</b>	<b>√</b>	<b>√</b>	×			
Community								
Obligation	-	<b>✓</b>	-	<b>√</b>	$\checkmark$			
Self-Efficacy	✓	<b>√</b>	✓	✓	-			
Self-Esteem	-	✓	✓	×	✓			

- ✓: Factor was mentioned by informant as important in effecting participation
- x: Factor was mentioned by informant as not important in effecting participation
- -: Factor was not specifically mentioned by informant

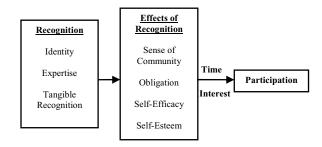


Figure 2. A process model of recognition on virtual community participation

Donath [11] reported that frequent contributors to a virtual community create a strong impression on other members who get familiar with these postings and hence place high regard on the contributor's reliability and personality. This reinforces the member's self-identity in the group. Smith and Kollock [39] also noted the importance of identity on participation in virtual communities. In this study, the importance of being recognized as an individual in the virtual community was indicated by most of the informants. To them, recognition was important to the establishment of *self-esteem* and *self-efficacy*.

"... I suppose if I received no 'recognition' then I would not feel that my postings were 'useful' or 'interesting' to others."

Most informants also felt that they have an *identity* in the group and that other members felt their presence. When their past contributions were recognized by other members, it helped affirm them as members of the

group, and affords them a sense of being a person online.

"... I like to be recognized as an individual, as ...[I] would think everyone would."

"...it is nice that some of the members regard you as a person rather than simply an anonymous reader....I like to be recognized as an individual."

"If I was in a conversation with a fairly large group of people, I would feel recognized or identifiable if others engaged me in the conversation and were engaged by me."

Interestingly, some of the informants pointed out that having an online identity made them more conscious of their postings as they would not want to post something "stupid". Hence, possessing an identity affects the quality of participation positively. Furthermore, members that have a strong identity would also create a reputation for themselves, thus enhancing their *self-esteem* [18].

People like their *expertise* and knowledge to be used and acknowledged [33]. When knowledge is perceived to be owned by the individual as expertise, people are more likely to exchange their knowledge for 'intangible' returns such as self-esteem, self-efficacy [9,21,44]. This is especially the case if the needed expertise that one has is in a specialized area and very few in the group possesses it [41]. Knowledge is also an important component of self-efficacy and personal self-image [44]. Thus, possession of the required expertise has a positive effect on participation [41,45]. Informants reported that being recognized as an expert in the group also increases their self-esteem, which motivates them to participate further.

"...being knowledgeable gives me the self-confidence I need to make statements rather than just ask questions."

It has been found that tangible rewards and recognitions encourage people to share their knowledge with others [1,16]. However, the effect of tangible reward, as a form of tangible recognition, on participation received mixed responses from the informants. It appears that the perceived effect depends on whether one views the existence of the physical society as separate from the virtual community. If it is regarded as separate, then the tangible recognition in the form of the Burgon Society Fellowship would not have much impact on participation in the group. Notwithstanding, informants pointed out that knowing other members through the Burgon Society keeps online discussions more focused. It was also found that possessing the Fellowship is likely to increase online participation as it affirms ones' status of being an expert.

"..getting a FBS [Fellowship of the Burgon Society] will establish me further as an expert in a particular topic in the field."

Data from the archive of posted messages also confirmed these findings. Among the respondents who possess the Fellowship, only one of them reflected a low number of posted messages (see Table 1) as he views the Burgon Society and the Academic Dress virtual community as separate.

"The Fellowship of the Burgon Society - or indeed membership, I would regard as separate [from the Academic Dress virtual community]. .....I would think that because the two ([virtual] group and society) are separate, fellowship wouldn't have much - or indeed any - impact on participation in the group."

## **6.2.** Effects of Recognition

Members with a strong identity that was derived from a particular group are likely to identify themselves with the group [36]. This sense of identity with the group results in members' perceiving a sense of community. Hars and Ou [16] found that programmers who identify themselves as members of the open-source virtual community are more willing to contribute towards the benefit of other members in the virtual community. The forging of a sense of community is facilitated by the group having similar demographics and it being a group focused on a specific area of interest [6]. McMillian and Chavis [31] suggested that fulfillment of community member's needs in the form of recognition such as status in the group (e.g expertise [41]) also contributes to a perceived sense of community. Most of the informants indicated that they perceived a sense of community in the group. There is evidence to show that being recognized as an individual forges a sense of community in the academic dress virtual community:

"...having [my] past contribution recognized...helped to affirm me as a member of the group....to be quoted, or asked to comment on something, is a good way to show acceptance [by other members]."

"It was gratifying to think that someone had found a contribution of mine helpful. It made me feel accepted and comfortable as a member of the group."

"It is gratifying when you strike a chord with other group members. It affirms your sense of belonging to the group."

Numerous studies have found that being recognized as an expert is likely to motivate members to increase their contribution and participation in the community [8,41,45]. This is especially so in an online special interest group in which the topic of discussion is focused and a knowledgeable member might feel obliged to provide responses [13]. This was noted by some of the informants, expressing that expertise

induces an *obligation* to respond to postings that are in their area of expertise. Some of the informants also noted that having previously gained from others in the community induces a sense of obligation.

"...was pleased to be able to contribute something personal to the work of the group by helping an individual member; especially as I feel I have gained much from the group myself."

Self-efficacy is the belief that one has the capability to perform a particular behavior. Perceiving a sense of self-efficacy leading to regular and high quality contribution to the group helps a person to believe that he/she has an impact on the group. This also supports his/her self-image as an efficacious person [3]. Informants indicated that having the necessary expertise enhances their self-efficacy, leading to higher participation.

"if I had the knowledge, or even an opinion or a hint that might progress the conversation, then I would very likely volunteer it."

Generally, the informants felt that having a sense of *self-efficacy* is important to participation in the group and being recognized for the effort of their past postings spurs them to contribute further since it strengthens their belief that they can make a significant impact on the group.

"...when someone takes my point and elaborates on it, I feel recognized for my effort and it lets me know that I have the ability to advance the conversation"

Informants also noted that expertise is strongly related to self-efficacy and that experts participate actively in the group only if they feel that they can contribute to the ongoing discussions, they are also mindful not to generate postings unrelated to the topic.

"...if I don't think I can contribute anything, or I have no questions to ask, I would not take an active role."

Maslow [30] identified self-esteem to be a result of the gratification of one's needs and Orr [34] observed that helping others and sharing knowledge can increase self-esteem. Since being recognized as an expert is a form of recognition, it is also likely to increase member's self-esteem. Hars and Ou [16] highlighted that peer recognition in the form of feedback has a positive effect as it indicates to the member that others are using their contributions. Such feedback mechanism is self-reinforcing as it encourages the member to expend additional effort, which in turn attracts more favorable feedback. Most informants have responded that they do feel a sense of boosted self-esteem when they are recognized as a member of the group or get positive feedback on their

postings. When asked if being knowledgeable increases their self-esteem, a member noted that posting in the group is not merely for the sake of increasing one's self-esteem but rather for the joy of intellectual exchange. This indicates that recognition could lead to a form of higher order effect than self-esteem, probably approaching that of self-actualization, defined as the fulfillment and realization of the self and its creative faculty, providing a sense of accomplishment [17, 30].

#### 6.3. Participation

Sense of community, obligation, self-efficacy and self-esteem, being effects of recognition; have been shown to impact upon participation in a virtual community. All informants revealed that their participation in the virtual community was mainly for information and knowledge exchange. However, the extent of participation was found to be moderated by the availability of *time* and the *interest* level on the topic being discussed. Participation in virtual communities can be time consuming [44]. These include the time expended in contributing knowledge [10,33,44] and using new technologies [21,44]. This finding is consistent with the results of other study [45]. Though informants have the motivation and will to participate, lack of time deters them from doing so.

"...as long as I have time to participate and there are interesting topics discussed, I expect I will participate."

"...time pressure etc may mean that I would be unable to [respond to postings]."

"....questions required swift answers which motivated me to post when otherwise I might not have done so due to pressure of work."

However, members are willing to spend time if they perceive benefits in doing so. Thus, time is seen as an investment for personal gain, through participation in the virtual community [29,44]. One member remarked:

"It's reassuring to see that other people are interested in what I post and by reassuring I mean, the time I spend in the group has a benefit. Benefit to me is having somewhere I can ask a question."

Wasko and colleagues [44,45] found that people participate in electronic communication for discussion and debates around topics of interest. This study has also revealed that most informants participate more actively when the discussions are related to their area of interest.

"...there are times when it's [certain postings] more interesting than others to me..."

#### 7. Discussions

# 7.1. Theory of Information Sharing

According to the Theory of Information Sharing, information as expertise belongs to a special category of information that contributes towards the formation of a person's identity and the sharing of this expertise arises from the need for self-expression [9]. Thus, as a form of self-expression, sharing expertise can give personal benefits such as heightening of self-esteem and pride, increase sense of self-efficacy, increase personal identity within the group, and gaining of respect and reputation [9]. This is consistent with the result of this study, where informants share their expertise because it makes them feel self-efficacious and boosts their self-esteem. Furthermore, this study also shows that participation is influenced by the informants' perception of self-efficacy on the topic in discussion. Wasko and Faraj [44] have also found that a lack of self-efficacy deters participation. In accordance with the Theory of Information Sharing, all informants revealed that their participation was mainly for information and knowledge exchange. Thus, the resultant model of this study (Figure 2) is aligned with the Theory of Information Sharing; demonstrating that the Theory of Information Sharing is applicable in a social-oriented context of virtual community.

#### 7.2. Identity versus Anonymity

Andrews [1] and Hummel and Lechner [19] have reported that the ability to remain anonymous encourages participation in virtual community. However, on the contrary, this study has found that providing an identity to the members encourages their participation. Thus, there appears to be a contradiction between existing literature and the findings of this study. Nevertheless, on further inspection of the previous studies, possible resolutions to these conflicts are apparent.

In Andrews [1], ensuring the personal privacy of members through anonymity was suggested as a strategy for the creation of a successful virtual community. However, the recommendation was based on a study of "one highly resistant audience" where special efforts are required to mitigate their resistance. One possible explanation could be that the academic dress virtual community does not fall under the category of being a "highly resistant" virtual community. This may not be unfounded as the rapid growth and development of the virtual community provides testimony for this. Furthermore, the existence of a physical entity, in the form of the Burgon Society, may have helped to elevate the level of trust in this

virtual community, as it has been observed that physical entities command a higher level of trust than virtual entities [5,27]. Thus, given the existence of trust, the need for anonymity diminishes.

Hummel and Lechner [19] addressed anonymity from two aspects: privacy protection and identification of members; and rated their use in five different genres of virtual communities, namely games, special interest, B2B, B2C and C2C. The use of privacy protection was found to be less prominent in virtual communities for special interest than in games and B2C communities. Identification of members was also found to be most prominent in virtual communities for special interest than the other genres. Therefore, the findings of this study, i.e. identity of members in the virtual community encourages participation, does not conflict with Hummel and Lechner [19] as the academic dress virtual community belongs to the special interest genre.

In view of the above, Andrews's [1] statement that "the design of an online community and the strategies used to draw people into that community might vary dramatically depending upon age characteristics as well as attitudes, beliefs and behavior toward the Internet" ought to be stressed. In addition, the genre of the virtual community [19] will also have to be taken into consideration when assessing the design and strategies for virtual communities.

Moreover, Wasko and Teigland [45] also stated that virtual communities that support the identification of individuals are more likely to succeed than those where participants are anonymous.

### 7.3. Tangible Recognition

Tangible recognition has also been observed to promote participation in virtual community [1,16]. Andrews [1] suggested providing financial and non-financial rewards to members who actively participate in the development of virtual community as a form of recognition. In their study of virtual communities for open source programming, Hars and Ou [16] found that external rewards, such as financial revenues, are motivators of participation.

From this study, it was found that tangible recognition affirms one's status in the virtual community. However, this study also demonstrated a possible moderating factor on the effectiveness of tangible recognition for inducing participation. Based on the findings, it was found that only those informants who viewed the Burgon Society and the virtual community as intertwined would notice a positive influence of tangible recognition on their participation. Thus, when administering tangible recognition to induce participation, care has to be taken in ensuring

that members of the virtual community perceive the recognition as originating from the virtual community.

# 7.4. A Process Model of Recognition on Virtual Community Participation

It was mentioned earlier that a process model approach was adopted for this interpretive case study. The resultant process model, as shown in Figure 2, illustrates the different forms of recognition in a virtual community, i.e. identity, expertise and tangible recognition. The effects of these forms of recognition include sense of community, obligation, self-efficacy and self-esteem. These effects in turn encourage participation through the moderation of time and interest on the topic of discussion. It is to be noted that it is not the intention of this study to map each variable individually to the effects, but rather to consider them in totality so as to afford a general view of the complex phenomenon of the effects that recognition has on participation.

Prior studies have observed how each variable affects participation individually. It has also been observed that identity give rise to a sense of community. However, it has not been demonstrated that a link across these variables existed. Based on the findings of this study, it has been shown that such a link actually exists. However, more research needs to be done to further explore this relationship. The discovery of such linkages was partly made possible by the adoption of the process model approach and facilitated by the interpretive stance taken in this study.

# 8. Conclusions

It should be noted that the results of this study is not intended to be generalized as it primarily aims to contribute towards theorizing [46], which is the process of theory development. This is also part of the reason for adopting the case study methodology to examine a single virtual community. However, the use of electronic media for interviewing informants has some limitations. Apart from yielding data that are not as rich as those from face-to-face interviews, the use of electronic media may have restricted those less I.T.-savvy from participating in this research. Nevertheless, it is opined that being members of a virtual community would imply a considerable degree of I.T. competency.

The identification of the different types of recognition and the related effects can aid practitioners to align their rewards and recognitions to better enhance participation. Specifically, when administering rewards and recognition, the importance of individual perceptions, time and interest should also be taken into consideration.

Using an interpretive case study approach, this study addresses the gaps in virtual community literature by examining how recognition effects online participation. Through applying the Theory of Information Sharing, this study identified three forms of recognition, i.e. identification, expertise and tangible recognition. The case provided evidence that these forms of recognition result in increased self-esteem, increased self-efficacy, heightened sense of obligation and sense of community and will ultimately lead to an increase in participation. A main contribution of the study is the derivation of a process model for the forms of recognition, their effects and participation within a virtual community. It has also sets the stage for future research on the effects of recognition in virtual community. Moreover, the study has contextualized the Theory of Information Sharing to the social setting of a virtual community. Building on this study, future research can certainly advance the current state of knowledge on the social dynamics in virtual community.

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