Taxonomy of Online Communities: Ownership and Value Propositions

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Abstract

This paper focuses on online communities and describes how they can be differentiated from other Internet supported group interactions. A definition of an online community is given and three specific generic types are identified. These types are defined by the community ownership models based on the value proposition for the owners. The value proposition for members is strongly influenced by the ownership model as facilities and opportunities for interaction are structured by the site owners. Where online communities offer fulfillment of specific needs, people participate and become members. Additional benefits will enhance the value of membership and encourage retention and There appear to be greater interactivity. significant benefits to be gained from online communities for businesses, NGOs and other community organizations as well as individuals as owners and members. Identifying the different types of communities and their characteristics is an important stage in developing greater understanding of how virtual communities can contribute to businesses, healthcare, community needs and a myriad of other contexts.

1. Introduction

Recently, a plethora of research projects have been conducted regarding the use of the Internet to support the interactions of groups. Many terms have arisen which are employed to describe this process. The objective of this manuscript is to provide an overview of the terms which have been employed and to present a description of Internet supported group interactions. The focus of the manuscript will be

to define "online community" and provide a differentiation from other Internet supported group interactions.

The establishment of an online community may potentially provide benefits to owners and members. The online community may contribute to the goals of the business or government organization. Member involvement may be enhanced through participation. An understanding of the aspects associated with ownership and member participation will assist many organizations to extract the full potential from online communities.

This manuscript discusses definitions of "Online Communities" gleaned from many sources. Then further context is provided through the presentation of two frameworks for member participation in online communities. The literature review is organized by member roles and general purpose of online communities. Three generic types of online communities are identified and described in the following section. Some comments about future trends are included. Finally, conclusions are presented.

2. Defining Online Community

Many terms exist to describe group interactions supported by the Internet. Generic terms in use include "learning communities", "thematic groups", "collaborative knowledge networks", which create value by facilitating trust of members and innovative ideas. The use of the Internet has allowed the concept of virtual to be added to these terms so that members may be geographically dispersed. Other terms that have been employed include the following:

- Virtual community [1] and [2] which integrates content and communication via computer mediated space.
- Virtual settlement [3] which includes virtual community, but adds concepts surrounding the idea of interactivity and sustained membership.
- Open Source. Online communities exist for the development of shared software.
 These communities are referred to as "open source" [4]; and [5].
- Community of Practice [6] and [7]
 "...a group of people who share common concerns, problems, or passions for a domain, and who deepen their knowledge and expertise through interaction on an ongoing basis". [6]. The domain of this group relates to highly specialized and shared [8] expertise. The interaction does not necessarily incorporate the use of the Internet.

While there is some overlap between the different terms, there are distinct differences in the range activities and motivations. To identify these differences we have drawn a definition from the work of many researchers including [3], [9], [10], and [11].

Rheingold [11] argues that communities are social aggregations that emerge when enough people form personal relationships through discussion. His maintained work underpinned the ways in which others define a community in the virtual sphere. Preece [9] uses both Rheingold's view of a physical community and develops further meaning from Hillery's work on community within the physical environment. She adds computer systems to the criteria of social interaction. Other researchers contribute a shared space or location, and common obligations and responsibilities [3]. The development of business communities has added further factors that influence possible definitions of an online community, but do not obviate the need for the community members to share a common interest [12]. We therefore define an online community as:

A group of people that share a common interest and who communicate through a virtual space supported by computer mediated communications with the following conditions:

A minimum level of interactivity
A variety of communicators

A minimum level of sustained membership

While a common definition is helpful to outline the scope of the subject of investigation, it is also important to note what does not fit within the definition. Thus, the following terms are presented with a view to discussing how they do not fit within the definition of an online community. All of the following terms are facilitated by some form of computer mediated communication.

A static web site simply presents information in a non-interactive manner and therefore cannot be said to represent an online community.

E-commerce employs the Internet as a form of product and service distribution channel. This form of marketing does not meet the first three conditions of the above definition of an online community. Further, E-business, which incorporates E-commerce plus the provision of back-office support, also does not meet the necessary conditions for an online community.

Additionally, there are a number of Internet services that for lack of ongoing and sustained membership do not represent an online community. These types of services include E-commerce book sellers which incorporate reviews; Customer customer Relationship Management systems which incorporate the ability for customers to share experiences; and life partner matching services.

Social networks, such as "blogs" come close to being considered online communities [13]; for example www.fealty.net. However, as the example shows, they are primarily a one way presentation of information without the component of sharing information. There is not necessarily the discussion of mutually beneficial ideas for the community as a whole.

3. Literature Review

Turner and Fisher [14] identified four roles for those who are involved in online communities. First, "Questioners" are those

individuals who actively participate. Ouestioners may post queries and comments; or they may be silent searchers. This latter term is also known as Lurker [15]. Second, an "Answer Person" is one who is a highly active and influential advocate. Third, a "Community Manager" takes on the administrative duties facilitating the governing of the community. This term is also known as gatekeeper [16]. Fourth, "Moguls" are highly esteemed technical and content experts capable of answering the most complex questions.

Armstrong and Hagel [17] determined that members of online communities participated for the following reasons:

- Transactional: purchasing products or services
- Interest-based: exchange of information
- Fantasy: game playing
- Relationship: creation of an emotional bond

Hersberger et al [18] outline a sequential tiered series of actions performed by members of online communities. These tiers are described as follows:

Tier 1: Foundational building blocks

This tier forms the base of what constitutes a community. Four sets of building blocks included. are First. membership indicates acceptance by and identification with a group; which is initiated participation in the group; involving the use of a common set of symbols; resulting in a sense of emotional and physical safety. Second, influence is reciprocal between the individual and the group. While group influence leads to conformity through establishment and maintenance of norms, the level of an individual's influence on the group will lead to a feeling of belonging. Third, integration and fulfillment suggests that integrated more individual is within the group the higher will be their sense of fulfillment. Fourth, shared emotional connections involve the identification and participation in the history of the group, which is based on a perceived common purpose.

Tier 2: Social networks as information networks

This tier incorporates the concept of "tie strength". Strong ties exist in close relationships where new information is easily and frequently shared. Weak ties involve more informal social contacts.

Tier 3: Information exchange

This tier analyzes the evolution of virtual communities through models of information need, seeking, and exchange. The dynamic relationships within a group are dependent upon the reciprocal exchange of information.

Tier 4: Information sharing

This tier involves acquiring and sharing information which includes storing, recalling, associating, and disseminating information.

Stockdale [19] describes the members' needs that may be addressed by their participation in an online community. These needs are described as follows:

Functional

This involves the need to search for information that is easy to access and reliably accurate.

Psychological

This involves the need to address the desire for emotional support.

Social

This involves the need to be a member of and be accepted by a group.

Hedonic

This involves the need to enjoy interacting with other group members.

So, actions are taken in response to addressing needs. As needs are successfully addressed membership will be sustained and a sense of community will be established. The end

result will be a community in the traditional sense in that there will exist a group of individuals with a common purpose. But, the community will be "online" as it is facilitated through the use of computer technology and telecommunications.

Online communities have established for many business purposes. For example, online communities exist for fiction writers [20] while O'Sullivan [21] reported on the use of hosted Internet forums for the promotion of arts organizations. The latter contends these forums add value through informing, involving, and providing an interface for members. He employs the term "brand communities" and defines it as, "...specialized non-geographically bound community, based on a structured set of social relationships among admirers of a brand". [21].

Farquhar and Rowley [22] investigated online consumer communities. They determined that each business should develop a contingency model for conducting their own community building activities.

Mayzlin [23] discusses an interesting marketing technique called "promotional chat" where firms disguise their promotions on the Internet as consumer recommendations. Because promoters and consumers are indistinguishable on the Internet, this form of marketing is possible.

Fuller et al [24] investigated how members of online communities are involved in new product development. They determined that community based innovation (CBI) provides a promising resource to a company's innovation process.

The above literature regarding online communities suggests they may be categorized by types which relate to ownership and value proposition. Ownership here is regarded as where the website resides and who are the main initiator and organizer of the online community. Nonnecke et al [16] refer to this person as the "Community Manager". The value proposition relates to why an owner would initiate an online community; and why a member would join, participate, and remain an active member over a sustained period of time.

4. Analysis of Online Communities

The previous discussion has outlined the actions taken by participating members of online communities and the needs that are addressed in response to these actions. In general, there are three types of online communities. Table 1 shows how the three types of online communities differ.

Table 1. Types of Online Communities

Online	Ownership	Value
Community		Proposition
Business	Business	Revenue
Sponsored		
Socially	Individual or Group	Personal
Constructed		Motivation
Volunteer Oriented	Organization	Mixed

The remainder of this section presents a discussion of the various components of Table 1 above.

4.1 Types of Online Communities - Ownership

The three types of online communities identified in Table 1 have been organized according to the ownership of the sites. Ownership models include business sponsored, volunteer oriented or community based, and socially constructed or peer to peer communities. The motivations for creating the communities appear to vary in these models:

Business sponsored online communities are established for the benefit of an enterprise organization. The purpose might be related to customer relationship management, branding, or simply gathering product or service feedback from customers. Lonely Planet (www.lonelyplanet.com) and other traveler/tourism sites enhance their brand and gather product (tourist information) in the form contributions from members. Various source open sites (www.propellerheads.se) provide members with the opportunity to contribute to the further development of software resources thereby gaining product enhancement and feedback. A combination of branding, customer relationship management, product feedback development ideas and facilities can sometimes be found in one site as is the case with Lego (www.lego.com). In all cases the owner of the site is the business.

Socially constructed online communities may also be referred to as Peer to Peer. The online community is

constructed by one or a number of persons to support a specific interest group for purely social, general information, or specific information related to, for instance health related issues such as BCANS, a breast cancer support group (www.bcans.ca). Peer to peer communities may evolve beyond the individual and move to a business sponsored model. For example, the long established 'news for nerds' community of Slashdot (www.slashdot) began as a peer community but has subsequently been bought by a business interest.

Volunteer oriented online communities are more complex regarding ownership. There are many different versions of ownership models which impact upon the design and behaviour of the online community. There are two generic ownership models as follows:

NGO/Charity

This online community is constructed for an interest group mainly related to issues for the public good. This may include general health issues or aspects related to fundraising. In the case of OZMS (www.ozms.org) the focus of this Australian community is on peer support for people with multiple sclerosis. In contrast, CharityChannel

(www.charitychannel.com) takes a broader focus and attracts members who are committed to any form of charity work.

Community Based Organization (CBO)

This online community is created by local teams or interest groups, such as sports clubs; legal aid; or citizen groups, with interests in political issues, gender matters, or ecological activities. There are a wide variety of communities in this group including Manchester United supporters

(<u>www.communitymanutd.com</u>), environmentalists

(www.greenpeace.com) and air traffic enthusiasts (www.vatsim.net). There are also examples of regional community newsletter sites moving towards the virtual community model (www.mysouthwest.com.au).

4.2 Community Influences - value proposition

The influences of ownership of online communities are visible in the value proposition for owners and for members. That is, the reason for the existence of the online community and why members would join and maintain their membership appears to be strongly influenced by the ownership. The value propositions of revenue, personal motivation, and a combination of the two are discussed.

Value Proposition - Owners

The value proposition for business sponsored online communities is ultimately revenue. This may take the form of information that contributes to improved customer service, or may be related to a marketing strategy to enhance corporate or brand reputation. New product development may be based on information about customer preferences. Further, there may be an advantage obtained from gathering information from customers with specific expertise.

The value proposition for socially constructed online communities is somewhat more complicated because of the more complex ownership models. For example, the motivation for Peer to Peer may be self-esteem. The individual or group owners may gain fulfillment by being recognized as providing a knowledge repository, distributing information, and being thought leaders.

The value proposition for volunteer oriented online communities may combine the revenue aspect of business sponsored and the self-esteem issue for socially constructed online communities. Thus, the owners of NGO/Charity and CBOs may perform their duties as part of a formal position within these entities. However, in general, these individuals may work for these organizations because of a desire to associate their self-esteem with the mission of the entity.

Value Proposition – Members

Members of business sponsored online communities will buy-in to a product or service

through using it or through the esteem associated with knowledge of the service. Members will become involved and remain so with the online community because of the reciprocal exchange of information regarding the product or service.

Members of socially constructed online communities will join and remain for various reasons. To begin a person may join because they are seeking information about a topic of interest, such as health information, or the activities of a sports club. The member will remain because they gain emotional support or fulfillment from the exchange of information with other members.

Members of volunteer oriented online communities may become involved in the online community because it is part of their job or because they identify personally with the issue being addressed by the organization.

In general, while membership results in meeting the needs of individuals, there are also other benefits that may be gained. The advocacy role has been found in socially constructed online communities with a common interest that can be addressed by collective action. There may be a freeing of self expression in a relatively anonymous environment where no one has an obvious personal agenda. Finally, there may be a feeling of spirituality in the form of peace and self worth from contributing to a perceived noble cause.

5. FUTURE TRENDS

The origin of online communities is often said to lie in the Usenet groups of the pre-Web world of the Internet. The desire to communicate ideas, interests and experiences with others has been facilitated by the Web. The Usenet groups have grown into more interactive communities. This has led to an increase in interest, types, and membership of online communities and what some see to be the exploitation of them by commercial interests.

It is increasingly difficult to identify peer to peer communities as they compete with more professionally constructed communities that are better funded and managed. There has been a significant increase in the number of business sponsored communities with more evidence that firms are building on the techniques of targeted marketing to maximize the benefits of this form of customer interaction.

The potential of communities in the notfor-profit sector is as yet, not fully exploited. Local councils could make more use of the Internet to connect with their population to promote inclusive action. For example, they could promote events in sports clubs, schools, and community clubs while offering discussion boards for council actions, local businesses and the general population. Charities and other volunteer organizations are beginning to be more active in this area, but are not yet using the potential of these communities to the full, often because they have not identified their value propositions.

6. CONCLUSIONS

The purpose of this manuscript was to review the existing terms and frameworks employed for describing online communities in order to identify generic types and their characteristics. Within the definition of an online community given in this study, three specific groups of online communities are identified. These are defined by the ownership models of the sites and based on the value proposition for those owners. These models strongly influence the profile of community members as people seek fulfillment of specific needs from their participation in a site. Continued membership requires not only that the value proposition for members offers need fulfillment, but also that further benefits can be gained.

There appear to be significant benefits to be gained from online communities for businesses, NGOs and other organizations and individuals as owners and members. Examining the different types of communities their characteristics identifying in manuscript is an important stage in developing understanding how virtual greater of communities can contribute to businesses, healthcare, community needs and a myriad of other contexts.

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