

# ONLINE COMMUNITIES AND OC BUILDING – A REVIEW OF DEFINITIONS AND BEST PRACTICES

Martin Christof Kindsmüller

*Institute for Multimedia & Interactive Systems, University of Lübeck  
Ratzeburger Allee 160, D-23538 Lübeck, Germany, mck@imis.uni-luebeck.de*

Jan G. Milz

*INSTANT Communities GmbH  
Karlstraße 19, D-22085 Hamburg, Germany, jm@sixgroups.com*

## ABSTRACT

After a short introduction into the history of online communities, the two main naming conventions (online community versus virtual community) are critically discussed. Then four important definitions of online/virtual communities are reviewed in contrast. A collection of best practices in regard to design principles and success factors for online community building completes the paper.

## KEYWORDS

Online communities, online community building, review, best practices, definitions, design principles

## 1. INTRODUCTION

In the days of the ubiquitous World Wide Web it might seem surprising that the first computer based online communities are much older than the WWW and even older than the Internet itself. In fact the first online communities emerged at a time when ARPANET — the most important origin of the Internet — was still restricted to a few primarily military-funded institutions. Most researches in the domain of online communities regard the computerized bulletin board systems (CBBS, BBS, “The Well”, FidoNet) of the late 1970s and early 1980s as the first exponents of computer based online communities (Christensen & Suess, 1978; Rheingold, 2000). These systems followed the idea of a thumbtack bulletin board hosted electronically on a computer. Other users (at this time mostly computer hobbyists) were able to connect with their home computers via a dial-up modem connection and could “pin” messages to a shared “board”. The BBS turned into an online community when participants started to respond to the messages electronically and created – in doing so – ongoing discussions. In the early days most of the topics discussed were computer related because only computer hobbyists owned home computers and modems. But soon the topics of the discussions on these boards broadened.

Now, more than 30 years later, almost all online communities are using the Internet as a carrier and most of them are web-based, which means that they are using HTTP as a protocol for transportation purposes and a combination of XHTML, CSS and JavaScript for presentation purposes. Over the years some efforts have been made to define the phenomenon *online community* and to summarize design principles and best practices. This paper aims to review the most important of these efforts and to derive some conclusions.

Before being able to define the phenomenon, it has to be named. In the scientific literature there are two naming conventions: *online community* (e.g. Preece, 2000; Kindsmüller et al., 2009) and *virtual community* (e.g. Rheingold, 1994; 2000). As Milz recently stated both naming conventions are equally used in the scientific literature: a keywords search in the ACM Digital Library generated 10,365 hits for *virtual community* and 11,496 hits for *online community* (Milz, 2009; p. 16). Going back to the origins of these terms Rheingold (2000) describes “*being virtual*” as user interactions that are not affected by the body in the sense that there is no influence of appearance, sex, age or nationality. According to Rheingold (1994) virtual is the opposite of the physical world (often stated as IRL for *in real life*). Representatives of the term *online*

*community* state that this term denotes the character of the community more accurately: community members are interacting *online* as opposed to *face-to-face*. Kindsmüller et al. (2009) declines the term *virtual community* as being “*too unspecific, because it includes other communities that only exist virtually* [as opposed to real], *whereas, an online community [...] is always a real community in the sense that community members know that they are a part of their community*”. In the reminder of this paper we prefer the term *online community*, but regard both terms overall as synonymous as they focus on different aspects of the same broader concept.

## 2. DEFINITIONS

As already seen in the discussion of the naming convention *online community* versus *virtual community*, it seems to be difficult to narrow down the whole concept to one term. This is even more difficult when attempting to narrow down the concept to one commonly accepted definition. The definitions that follow are all written from a socio-technical perspective (cf. Susman, 1983). Each provides a different point of view. This wide scope is needed to be able to derive all the design principles and critical success factors for online communities and online community building.

### 2.1 Definition by Rheingold (1993)

According to Rheingold, *virtual communities* are *cultural aggregations*, which emerge as soon as enough people meet often enough in *cyberspace*. He defines cyberspace as the space in which words, relationships, data, prosperity and power is manifested by people through computer mediated communication (CMC). Therefore Rheingold (1993, p. 57) defines *virtual community* as “[...] *a group of people who may or may not meet one another face-to-face, and who exchange words and ideas through the mediation of computer bulletin boards and networks*”. The basic principles are people meeting and exchanging something in a virtual space (*cyberspace*).

### 2.2 Definition by Hagel and Armstrong (1997)

Hagel and Armstrong (1997, p. 7) define *virtual communities* as “[...] *computer-mediated spaces where there is a potential for an integration of content and communication with an emphasis on member-generated content*”. This definition focuses on the virtual space and its potential for online community activity. This position is closely related to McGraths (1984) group concept, which is characterized by the potential of interaction of its members. In addition to that, Hagel and Armstrong highlight the content that is generated by the members as a mean of their community membership.

### 2.3 Definition by Preece (2000)

Another well known definition comes from Preece (2000, p. 10). An *online community* consists of:

- “*People, who interact socially as they strive to satisfy their own needs or perform special roles, such as leading or moderating.*”
- *A shared purpose, such as an interest, need, information exchange, or service that provides a reason for the community.*
- *Policies, in the form of tacit assumptions, rituals, protocols, rules, and laws that guide people’s interaction.*
- *Computer Systems, to support and mediate social interactions and facilitate a sense of togetherness.”*

Preece gives a very detailed definition that encompasses people and their needs, which act socially and interact in a computer-mediated manner. They are guided by policies and roles, follow a shared purpose, and facilitate a sense of togetherness. Preece focuses on the users and the purpose of an online community. People with needs and goals are the actors in a socio-technical system that follows a certain purpose.

## 2.4 Definition by Kindsmüller et al. (2009)

A considerably shorter definition is given by Kindsmüller et al. (2009, p. 2899). They refer to *online community* as a: “[...] *voluntary group of users who partake actively in a certain computer-mediated service*”. As Kindsmüller et al., (2009) relate their definition closely to the one from Preece (2000); it is obvious that they basically agree with Preece. Nevertheless they add *voluntary dedication of the users* – a point that wasn’t mentioned in Preece’s definition. The voluntariness disqualifies any kind of compulsion or forced participation and has a strong influence on the assured privacy and anonymity that a carrier system for an online community has to provide.

## 3. ONLINE COMMUNITY BUILDING

One reason for the failure of many online community building projects is the assumption that an online community develops on its own, after the carrier system is successfully developed and deployed (Preece, 2000, p. 207). The success is defined by social factors as well as the technical possibilities of the carrier system. The main goal of an online community system is to foster interaction amongst its members. The adequate way of interacting is derived from the purpose of the community and the needs of its members. The carrier system on its own is not sufficient to generate a successful online community, but good usability can make a successful community even more successful (De Souza & Preece, 2004). The remainder of this paper consists of a collection of best practices for successful online community building. This collection was derived from a review of the scientific literature with a focus on the authors that were responsible for the above-mentioned four basic definitions.

### 3.1 Design Principles

Online communities are inherently dynamic and develop constantly (De Souza & Preece, 2004). Therefore, an online community should not be regarded as an entity, but as an ongoing process. As Kindsmüller et al. (2009, p. 2901) stated “*Recipe-based fabrication of online communities is, at least, a bold venture if not an illusionary enterprise. Social relationships and group momentum are particularly hard to predict*”. According to Rheingold (2000), online communities grow organically and tend to follow their own rules. Therefore, controlling efforts always have to be readjusted to the current group context and dynamics. Even if there are no fixed rules that can be followed, there are some more abstract design principles that can be consulted. Kim (2000) gives three of these basic design principles for online community building as follow;

- (1) *Design for growth and change*: Because it is difficult to predict the development of an online community, Kim recommends starting with a simple and focused system. The system should be able to grow organically. Complexity should be added iteratively according to the needs of the community members.
- (2) *Create and maintain feedback loops*: Community building should be regarded as co-evolution of the community members, community management and the community carrier system developers. Frequent user feedback helps to understand the needs of the users and to feed these needs into the design and development process.
- (3) *Empower your members over time*: To allow for a strong and self improving community culture, it is important that over the course of time the influence of the community members should outbalance the influence of the community management.

### 3.2 Critical Success Factors

This collection of critical success factors summarizes best practices found by Kollock (1998), Lazar and Preece (2002), and Kindsmüller et al. (2009).

- *Good Usability* enables more activity and ideally makes the system more fun to use. If users already fail in the registering process there will be few new members.

- *Responsible Moderation* enhances community activity and minimizes harmful behavior. Rojo and Ragsdale (1997) show that an active moderator can, to some extent, compensate for the lack of active members in an online community.
- *A Reason to talk about*: Community Members need a reason for communication which relates to shared experiences, interests or goals. Without this *common ground* no community activity will develop.
- *System Availability*: If your carrier system is not available or not responding fast enough your community will not develop.
- *Find the right barrier to membership*: The hurdles for registering and participating have to be adjusted thoroughly. They have to be low enough to get easily involved, but high enough to keep out troublemakers.
- *Community-Centered Design*: Community members should be involved in the design processes.
- *Identifiability and System Memory*: The identifiability of members enhances the responsibility for their contributions. *Personal histories* derived from the system memory enhance social relationships between members.
- *Reciprocity*: People are willing to help or cooperate with others if they can expect a future quid pro quo.
- *Reputation and Stickiness*: A *reputation system* is a collected feedback history of the behavior of a member in order to manage trust between people that have not interacted with each other before (Resnick et al., 2000). The reputation is an important part of an online identity of a member and enhances the *stickiness* (loyalty). This can be improved by showing an aggregated history of activities on the members' profiles.

Considering these critical success factors can help to build and maintain stable online communities. In all cases, it is not the technology it is the people that make an online community work. Employing the most advanced methods and technologies is neither sufficient nor, as early BBS approaches show, necessary to assure the building of a stable online community. People tend to make creative use of technology by using it in other ways than were originally intended by the designers.

## REFERENCES

- Christensen, W., & Suess, R. 1978. Hobbyist computerized bulletin board. *Byte Magazine*, Vol. 3, No. 11, pp. 150-158.
- De Souza, C. S. & Preece, J. 2004. A framework for analyzing and understanding online communities. *Interacting with Computers*. Vol. 16, No. 3, pp. 579-610.
- Hagel, J. & Armstrong, A.G. 1997. *Net gain: Expanding markets through virtual communities*. Boston: Harvard Business School Press.
- Kim, A. J. 2000. *Community building on the Web*. Berkeley, CA: Peachpit Press.
- Kindsmüller, M.C. Melzer, A., Mentler, T. 2009. Online Communities and Online Community Building. In: M. Khosrow-Pour (ed.), *Encyclopedia of Information Science and Technology*, 2nd Edition. Hershey, PA: Information Science Publishing, pp. 2899-2905.
- Kollock, P. 1998. Design principles for online communities. *PC Update*, Vol. 15, No. 5, pp. 58-60.
- Lazar, J. & Preece, J. 2002. Social Considerations in Online Communities: Usability, Sociability, and Success Factors. In: H. v. Oostendorp (ed.), *Cognition in the Digital World*. Mahwah, NJ: Lawrence Erlbaum, pp. 118-137.
- McGrath, J. E. 1984. *Groups: interaction and performance*. Englewood Cliffs, NJ: Prentice-Hall.
- Milz, J.G. 2009. *Instant-Online-Communities*. Thesis at the Department of Computer Science, University of Hamburg.
- Preece, J. 2000. *Online communities: Designing usability and supporting sociability*. Chichester, UK: Wiley & Sons.
- Resnick, P., Kuwabara, K., Zeckhauser, R., Friedman, E. 2000. Reputation systems. *Communications of the ACM*, Vol. 43, No. 12, pp. 45-48.
- Rheingold, H. 1994. A slice of life in my virtual community. In L. M. Harasim (ed.), *Global networks: Computers and international communication*. Cambridge, MA: MIT Press, pp. 57-80.
- Rheingold, H. 2000. *The virtual community: Homesteading on the electronic frontier*. Cambridge, MA: MIT Press.
- Rojo, A., & Ragsdale, R. G. 1997. A process perspective on participation in scholarly electronic forums. *Science Communication*, Vol. 18, No. 4, pp. 320-341.
- Susman, G.I., 1983. Action Research - A sociotechnical perspective, In: G. Morgan (Ed.), *Beyond Method*. London, UK: Sage Publications, pp. 95-113.