Sociability and Usability for Contribution based on Situated Informal Learning and Consensus Knowledge Building in Online Communities

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Abstract

This paper presents the results from a study on issues for sociability and usability for legitimate peripheral participation in online communities. Informal learning is considered to occur within the individual in a self-organized way and within the community as consensus knowledge building. A catalogue for usability and sociability evaluation criteria was developed, in order to identify the twofold informal learning as well as consensus knowledge building, to investigate sociability and usability supporting contribution and evaluate the evaluation criteria. Fourteen Greek teachers with a special interest in ICT in Education participated in the study. The findings identified and described mechanisms and strategies for legitimate peripheral participation with contribution as the target as well supported the usability evaluation criteria for online communities.

1 Introduction

Just before the age of Ubiquitous Computing, with the increasing demand for global as well as national cooperation of specialists, communities continuously evolve. People form online communities for information and skills acquisition as well as issues relevant to their interests (Lakhani & von Hippel, 2000). Online communities of practice and communities of special interest (Preece, 2004) usually blend both off and online synergetic activities. The members in such communities share the characteristics of joint enterprise, mutual engagement and shared repertoire (Wenger, 1998). Mutual engagement refers to members’ interaction not only for doing their work towards common goals but to clarify, define, and evolve practices. Shared repertoire refers to the methods, the tools, the techniques, terminology, stories, language and behavioural patterns used as the cultural context of their work. As such, learning occurs in situ. Salomon (1993) suggested that the introduction of computers realizes an important potential: turning learning from a process of simple assimilation into a process of active construction. Engagement in social practice is the fundamental process by which members learn and so become who they are as they pursue shared goals over time (Wenger, 1998). This process is called legitimate peripheral participation (Lave & Wenger, 1991). LLP is a decentred model where a specialist field would contain different levels en route for newcomers’ engagement and practice; levels of engagement are depended on many factors, both external and internal to the individual. Peripheral members drift into the center as their interests are stirred. In online communities, some of the members act as invisible observers of the synergetic activities and never seem to cross the threshold of observation. Lurking is legitimate, therefore can be classified as legitimate peripheral participation. Carroll & Rosson (1996), refer to lurkers-to-posters ratios 100:1, and Preece from 46% to 82% (2000). Up to now, only one project on lurking and communities of practice explored the meaning of ‘legitimate peripheral participants’ in a CoP (McDonald et. al, 2003) as a multi-process phenomenon with a centripetal direction. Newcomers engage in more information seeking than established contributors (Ahuja & Galvin, 2003). In addition, research exists on the factors that enhance legitimate peripheral participation and the necessary level of engagement as contribution in online communities based on informal learning. Lastly, specific usability evaluation criteria for online communities are considered to be absent.

2 Legitimate Peripheral Participation for Informal Learning and Consensus Knowledge Building

Social learning theory posits that people learn from observing other people in social contexts (Merriam and Caffarella 1991: 134). Observational learning is related to modeling: observing based on attention and retention suggests coding information that serves as a guide for action. (Bandura 1977: 22). Situated learning (Lave &

Wenger, 1991) was based on Observational Learning, as the authors tried to involve social contexts as situations of co-participation. ‘Rather than asking what kind of cognitive processes and conceptual structures are involved, they ask what kinds of social engagements provide the proper context for learning to take place’ (p. 14). Learning involves engagement in CoP and full participation requires action on behalf of newcomers. This social process includes the learning of knowledgeable skills (p. 29). The participants are exposed to real life situations, in specific time and space, and the learning that occurs in shared environments is “fundamentally situated in contexts of activity” (Brown et al., 1989; Lave & Wenger, 1991), since it occurs “in naturalistic settings” (Suchman, 1987; Lave, 1988). Real situations are central in situated learning, as the environmental characteristics are of the authentic context and activities, expert performance and modeling, multiple roles and perspectives, collaborative construction of knowledge, reflection, articulation and integrated assessment in tasks (Herrington and Oliver, 1995). Internalization and externalization (Miyake, 1997) are suggested to be part of a broader self-directed approach (SOLOS, Self-Organized Learning by Observation in Social contexts, Lambropoulos, 2004) situated in social contexts. They are two cognitive processes that involve ‘learning as increasing participation in communities of practice concerns the whole person acting in the world’ (Lave and Wenger 1991: 49). The crossroads for internalization and externalization is engagement and contribution where contribution is the final target of LPP. Engagement is directed from the periphery to the centre of activity, which suggests that legitimate peripheral participation is the process from registering in the community, developing relationships with the other members, exchanging information and ultimately engaging and helping the community. Identity is related to learning as ‘an evolving, continuously renewed set of relations’ (Wenger, 1999).

![Figure 1: The Eyeball of Participation (from the Lurkers’ Project; McDonald et. al, 2003)](image)

### 2.1 Situated Learning in Online Communities

The stand out characteristic of situated cognition and learning is the placement of individual learning within the larger physical and social context of interactions and culturally constructed tools and meanings. Social and individual are not different levels of study but inexorably interconnected as all learning is learning ‘in situ’ (Suchman, 1993). ‘Situated’ … does not imply that something is concrete and particular, or that is not generalizable, or not imaginary. It implies that a given social practice is multiply interconnected with other aspects of ongoing social processes in activity systems at many levels of particularity and generality (Lave, 1991:84). According to Lave, knowing, learning and cognition are social constructions, expressed in actions of people interacting communities. Community Knowledge Building is connected to situated cognition and learning following the notion of distribution of knowledge (Papert, 1991; Resnick, 1996) in a specific shared context as necessarily situated. Thought and reasoning cannot exist without the Other and dialogue is the conduit of communication: “Inherently social activities in which talk and social interactions are not a means … but also how they engage in thinking … discourse is cognition is discourse … one is unimaginable without the other” (Resnick et al., 1991:2). Such, language is a paramount concept in the situated theory approach. According to Gee (1997:255-256) discourses are sociocultural co-ordinations of people, objects (props), ways of talking, acting, interacting, thinking, valuing, and (sometimes) writing and reading that allow the display and recognition of socially significant identities. Soller et al (2002) defined a knowledge sharing episode as: ‘…a series of conversational contributions (utterances) and actions (e.g. on a shared workspace) that begins when one group member introduces new knowledge into the group conversation, and ends when discussion of the new knowledge ceases. New knowledge is defined as knowledge that is unknown to at least one group member other than the knowledge sharer...’ (Soller et al.,2002:128). A primary ability involved in the transfer of learning in situ is that which allows the learners to identify similarities between the new or novel situation and previous situations and a common way of describing this process is ‘generalisation’ or in this context Consensus Knowledge Building. Salomon and Perkins (1989) refer to this concept as ‘abstraction’, that is ‘the extraction or identification unit of material in a situation or behaviour’. Abstraction provides a bridge from one context to
Informal Learning and Consensus Knowledge Building Situated in Online Communities

Livingston (2000) indicated that informal learning includes anything you do to gain knowledge, skill or understanding from learning about anything that interests the individual outside of formal or organized courses occurred either individually or collectively. He stresses the fact that 'the centrality of their tacit knowledge to the production and reproduction of society has typically been unrecognized both by others and by these people themselves'. According to McGivney, V. (1999) informal learning is learning that takes place outside a dedicated learning environment and which arises from the activities and interests of individuals or groups, but which may not be recognised as learning. Livingston suggested that the basic terms of informal learning (e.g., objectives, content, means and processes of acquisition, duration, evaluation of outcomes, applications) are determined by the individuals and groups that choose to engage in it. He uses the terms explicit and implicit knowledge as found in Claxton, (1998:31). Livingston stresses the importance of the collective aspects of informal learning - the social engagement with others - as an integral part of any actual knowledge acquisition process. In addition, he suggests that 'much of the most important learning adults do occurs in these moments of transition which provoke a concentrated period of informal learning'. Everyday learning is not considered to be part of the education and the educational system. In informal learning, formal education is used as a tool the individual uses in action. As such, it contradicts slow and ineffectual formal learning that appears more as a military service. Formal educational characteristics are based on repetition, imitation, thinking in circles, educational design patterns rooted in the curricula as well as fixed educational toolkits (e.g., Computer-Assisted Language Learning, Learning Objects).

In informal learning, the concept of consensus is a process for reaching group decisions and it is not a hierarchical control structure where much of the energy of the community goes into maintaining control. Community knowledge building involves choice processes by the individuals whose purpose is to find an option and make a decision. Consensus has a dynamic perspective and is a major goal of group decision making and knowledge building, 'a full and unanimous agreement' (Löwer, 1985). The most important aspect of this learning is the identification of the process and the environment at once. This indicates a process of cooperation and interaction among the community members. As a result, Consensus Knowledge Building derived from Informal Learning and describes the following processes for both the individual and the community: (a) being aware of the situation, identification of the framework; (b) description of the situation/environment; (c) description of problems and provision of solutions and suggestions; (d) participation in the process of changing the previous environment. This framework might provide an initial canvas for Informal Learning and Consensus Knowledge Building assessment and validation.

As a result, Informal Learning and Consensus Knowledge Building are considered to be process-based instead of facts-based learning and they:

- are based on intimate relationships between the individual and the environment on a daily basis;
- are the place where both the inside and the outside world meet not based on ideational but factual events, as the result of deep understanding;
- go beyond fragment finding and carries the joy of learning itself without any motive;
- are the environment where profit and goals are not the issues since all actions are incomplete and weaved in Life-long learning framework.

Engeström’s (1987) ‘expansive’ learning model for assessment methodologies reflects the ability of the individual to (a) question established facts; (b) define and clarify problems; (c) cooperate and find possible solutions; (d) approach unexpected problems; and (e) formulate and implement solutions. Although Informal Learning and Consensus Knowledge Building have been identified as significant as formal learning in this paper, there is great difficulty on validating them since any alteration of the known formal education patterns is suggesting chaos and confusion. However, our model tries to expand Engeström’s proposition, referring to the ability of the individual and the community to: (i) be aware of the situation, identification of the context; (ii) describe the context without subjective projections; (iii) work-in-process; (iv) describe of problems and provide of solutions and suggestions in a collective way; (v) suggest new ideas based on collaboration and brainstorming – community knowledge building; and (vi) participate in the process of changing the previous environment by implementing previous suggestions.

A person's life within the community tends to be centripetal as it is important to move closer to mastery of the task. Learning Practice refers to the following activities: Problem solving, information seeking, seeking experience, Reusing assets, Coordination and synergy, Discussing developments, Documentation projects, Visits, Mapping knowledge and identifying gaps. Kearsley and Shneiderman (1999) suggested that engagement in learning requires technology that could facilitate engagement in ways which are difficult to achieve otherwise.

3 Indicators for Sociability and Usability for Legitimate Peripheral Participation in Online Communities: Building Consensus Knowledge via Informal Learning

Usability is a measure of quality of user’s experience when interacting with a system. Usability can be defined in terms of effectiveness, efficiency, and satisfaction (ISO FDIS 9241-11, 1997). Usability for online communities is translated in navigation, access, information design and dialogue support. Muller-Prothmann and Siedentorf (2003) developed a usability evaluation criteria catalogue for online knowledge communities. Based on this research, our attempt was to develop sociability and usability evaluation criteria considering three views: the developer’s, the user’s and the researcher’s. Muller-Prothmann and Siedentorf (2003) developed the usability catalogue based on (a) the facility-types and technical components human factors (Shneiderman, 1992) in Usability Design for Online Knowledge Communities (ACM’s SIG in HCI (SIGHCI) and IFIP’s Task Group of HCI - GigaMobile, 2002); (b) Wenger’s suggestions (2001); and (c) Preece’s (2000) three building blocks of usability. Our aim is to amend this model in order to support legitimate peripheral participation process in online communities combining sociability and usability (Preece, 2000). In addition, we introduce the evaluator’s tools for ‘Live Research’ in online communities’ groupz-ware in order to support the Darwinian nature of communities. The suggested research methodological approaches to support the model are Social Network Analysis, Time-series Design and Discourse Analysis. As such, the criteria were developed as following:

A. Sociability: People, Purposes, Practices - Management of the Community, (code S)
   A1. Sociological aspects
   1. Identity: Shared sense of identity, purposes (code S-ID)
   2. Relations: continuing mutual relationships – harmonious or conflicting (regular, work-related interactions); A widespread and shared awareness of each others’ competencies, strengths, shortcomings and contributions (code S-REL)
   3. Language: common stories, legends, lore, “inside” jokes; a shared, evolving language (e.g., special terms, jargon, "shortcuts" such as acronyms, etc.); perspectives reflected in language that suggest a common way of viewing the world (shared analogies, examples, explanations) (code S-LAN)
   A2. Management aspects
   4. Practice: introduction to the community, shared ways of doing things together (common practices and beliefs about best practices); shared innovation among members (transfer of best practices); methods, techniques and artifacts such as bulletin boards, management and community development; behavior patterns that signify membership usual in real interaction is more difficult to occur in online interaction (code S-PRA)
   5. Community Knowledge: a rapid flow of information between and among members; conversations come quickly to the point; problems are quickly framed (common understanding) (code S-CK)
   6. Evaluation and Assessment: an ability, concentrated or distributed, to assess the effectiveness of actions taken and the utility of products produced (code S-EVA)
   7. Evaluation for Research: sociability evaluation (code S-RE)

B. Usability: HCI and Interaction design for Online Communities Groupz-ware (code U)
   1. Common tools (U-TOOLS) based on the previous sociability indicators. As such the tools are suggested to support identity (code U-ID), relations (code U-REL), language (code U-LAN), practices (code U-PRA), community knowledge (code U-CK) and evaluation (code U-EVA).
   2. Research Tools: usability evaluation (code U-RE)
   3. Additional features (code U-ETC)

A table of the characteristics was created and used to support the aims of the study: to identify the twofold informal learning and consensus knowledge building, to investigate sociability and usability supporting contribution and evaluate the evaluation criteria themselves.

## 4 The Study

Fourteen out of 61 subjects (22.95%, ) from the ‘Greek Primary Teachers’ Association for the Valorization of ICT in Education’ (EEEP, formed in December 2003), responded to a questionnaire with 22 open and closed questions in July and August 2004. The members use an emailing list based on Moodle Open Source Learning Management system. The aims of the study were to test the Sociability and Usability Criteria Model as well as investigate engagement and contribution in depth, as part of LPP, Informal Learning and Consensus Knowledge Building. Qualitative Research Methodology was used, based on content analysis (Bauer, 2000) under the twofold perspective of discourse analysis (Computer-Mediated Discourse Analysis, Herring, 2001) and empirical linguistic analysis (Herring, 2001).

The evaluation Criteria Catalogue for Sociability and Usability was viewed as a proposal and used to identify members’ opinions, not to evaluate sociability and usability issues within EEEP. This was due to the absence of groupz-ware.

### Table 1: Sociability and Usability Evaluation for EEEP

<table>
<thead>
<tr>
<th>Sociability Elements</th>
<th>Groupz-ware</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>People- Policies - Purposes – Beliefs – Practices</strong></td>
<td>eeep.gr website, Greek Primary Teachers’ Association for the Valorization of ICT in Education</td>
</tr>
<tr>
<td>Description on the Front page</td>
<td>Greek Primary Teachers’ Association for the Valorization of ICT in Education</td>
</tr>
<tr>
<td>Sense of shared identity - Descriptions of domains of interest</td>
<td>Description on the Front page - &gt; 42.9% felt part of the group within 2-3 day</td>
</tr>
<tr>
<td>Members Profiles – Directory - New Users</td>
<td>Greek Primary Teachers’ Association for the Valorization of ICT in Education</td>
</tr>
<tr>
<td>&gt; male to female teachers ratio was 2/3 to 1/3</td>
<td>Profiling system - clickable members, monitoring newcomers (n/a)</td>
</tr>
<tr>
<td>&gt; 7 subjects (50%) suggested that the new members bring modern ideas and new interests to the group. 4 (28.6%) indicate the importance of community knowledge building based on new members’ contribution, 2 (14.3%) community’s maintenance</td>
<td>Tracking members' locations (n/a)</td>
</tr>
<tr>
<td>Locations</td>
<td>Easy to be updated – Newsletters (n/a)</td>
</tr>
<tr>
<td>Greece</td>
<td></td>
</tr>
<tr>
<td>News (ongoing activities, changes, world news) available on a webpage, in a different website than the actual discussion forums</td>
<td></td>
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</table>

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<tr>
<th>Mutual Relationships, Behavioural Patterns:</th>
<th>Community Networks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work-related interactions</strong></td>
<td>Outer links for collaboration-Work-related Topics – Jobs (n/a)</td>
</tr>
<tr>
<td>&gt; 78.6% interaction with different communities of practice is important for the community towards production</td>
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<tr>
<td>&gt; Sub-groups based on community’s common interests</td>
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<tr>
<td>&gt; sub-topics</td>
<td></td>
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<tr>
<td>&gt; Cooperation with members via personal communication preferably via email</td>
<td></td>
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</tbody>
</table>

### On Contribution

- > 85.7% discussion is a reason for active participation
- > 7 (50%) contribution aids to effective learning; 5 (35.7%) to personal development; 4 (28.6%) to get information; 4 (28.6%) it is the future for education; 3 (21.4%) to be able to help the students; 1 (7.1%) the reason for active participation is communication; 1 (7.1%) fun; 1 (7.1%) production of material; 1 (7.1%) s/he did not know; 2 (14.3%) did not give any answer.

### Reasons for Contribution

- > 78.6% common interest, interesting topic; 50% the use of the community; 50% that worked for a ratio of 21.4%, makes the moderator responsible for ‘pushing’ some members.

They contribute in order to:
- > 71.4% add something different, promotion of views; 64.3% reaction and response to a message, 42.9 % clarify something said; 7.1% see different views; 7.1% open a new topic; 21.4% self-introduction was second
- > New suggestions are based on the previous messages.
In Ancient Greek, the state of aporia describes the state of observation and looking for answers.

Most teachers (78.6%) believe that active participation is important.

Participation is natural to have different stages and levels of participation due to the nature of the person, familiarisation with computers, specialisation and being an active member by leading is needed (21.4%).

Role
> 3 (21.4%) need for leading; 2 (14.3%) familiarisation with computers facilitates the process of adapting roles; 1 (7.1%) need for resolving conflicts, one (7.1) need for organization; specialization is essential for 2 respondents (14.3%) as well as active participation (14.3%).
> The moderator is important on providing information (21.4%).
> leadership is needed (21.4%). The capabilities of the person who adapts the specific role, familiarisation with computers, specialisation and being an active member by nature.

Expertise
- 35.7% thought that there is the potency to improve the English language.

Perspectives
- personal judgment and self-directed learning (28.6%)
- 35.7% thought that there is the potency to improve the English language

Explanations
- Thesis-Antithesis-Synthesis of messages

Voting
- Votes, Polls, Surveys,
- Newsletters, meaningful sub-groups and sub-topics

Search and advanced search
- Basic search
- Good RS
- Accessible and memorable interface & navigation

Roles
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- leadership is needed (21.4%). The capabilities of the person who adapts the specific role, familiarisation with computers, specialisation and being an active member by nature.

Artifacts
- Consensus Knowledge Building is the Abstract Product of Discussion

Exhibitions
- Exhibition Area, Projects websites

1 In Ancient Greek, the state of aporia describes the state of observation and looking for answers.
The evaluation Criteria Catalogue for Sociability and Usability helped to have a bird's eye view of the community regarding sociability and usability. ‘Active waiting’ is a new term suggested by Subject K that describes the anticipation, eagerness and hidden expectations of the newcomer in an effort to understand the nature and the culture of the community. The cycle of thesis – antithesis – synthesis might be central for the architecture of a replying message (Subject K). Members profiling depends mostly on the writing style and what actually the person says and then contribution to the community (Subject N). The members who replied to the importance of active participation (35.7%) were the members who actually replied that they did develop feelings –although negative (42.9%)- as being part of the community. The remaining openness actually provides a positive climate regardless the negativity in the group. After the crosstabulation of the results, from the 12 subjects (12, 85.7%) who believe in the importance of active participation in the group, 5 of them (35.7%) developed feelings, 3 (21.4%) did not develop any feelings and 3 (21.4%) were open. The remaining 2 subjects (14.3%) who did not reply in the question of the importance of active participation said that they were open.

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<tr>
<th>SU-ETC</th>
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Even though the evaluation Criteria Catalogue for Sociability and Usability helped to have a helicopter view of the community and members’ needs, it needs to be used in coherent online communities for further evaluation. Consensus Knowledge Building framework suggested that the members were aware of the problems for absence of contribution as well as problems related to their working environment; they identified and described the context of working within communities; they worked-in-process and described problems; they provided solutions and suggestions in a collective way; they suggested new ideas based on collaboration and brainstorming – community knowledge building; and they do use their association to participate in the process of changing the previous environment by implementing previous suggestions. Based on the finding the sociability issues appeared as following:

**People:** There are different types of communities as well as participants and non-participants. As such, three basic issues define the nature of an online community: (i) the individual as a social being (community building); (ii) the natural tendency of the human being to learn (community knowledge building) and (c) consensus decision making. The actual decision on registering in a community indicates the most important drives for an individual, the intention and motivation for sharing knowledge. There are several techniques for motivation: encouraging the members to build profiles, getting to know each other, opportunities for self-observation, induction, sub-groups, finding suitable discussions, etc. So the findings were on:

**Purposes:** The main community purposes need to appear in the interface before the registration processes. The zone of proximal development (Vygotsky, 1978) and supported by asymmetrical interactions, is the key for newcomers integration via legitimate peripheral participation (Lave and Wenger, 1991).

**Policies:** The moderators need to foster and support their community as a unique, organic body, help members on their learning process, seeing each member on an individual basis with specific interests, needs, targets and common visions. Culture and ethics, awareness and insights from improvisation, feelings of acceptance and trust, guidance and support, empathy, develop attitudes for interacting with people in a safe environment. The initial stage of information and registration as well as induction and training is when moderators are needed to support newcomers and prevent the ‘lurker’s corner’.

**Practices on Contribution:** Informal and Consensus Knowledge building derived from the findings for supporting sociability and usability for engagement and contribution to communities. According to members’ suggestions, contribution is a developing process and both the management and the system are of great importance to facilitate LPP. The developers and the moderators are supposed to work continuously as in the first week of newcomers’ participation, help and support the members and provide them with the tools they need. One of the most important finding is the need of a good moderator, sensitive to the members’ needs and with special attention to the early stages of registration (Brochet, 1989). As such, information about the nature and culture of the community and continuous support needs to meet a first informative page, good registration system, live tracking system. Good search facility based on thesaurus, messages indexation and a supporting content management system wit indexation facility will help the members to save time and being accurate with their interests and perhaps being more. The process is based on time and interactions between the members as on one and two ways of communication, revolving on the time of registration as the starting point. The process of Management is not a static one but a dynamic process every time an individual decides to register to the community. The first days after registration are of most importance.

The overall issues for the process of legitimate peripheral participation supporting contribution appear as following as derived from the evaluation criteria catalogue:

**Matching Sociability and Usability**

A. **Before Registration:** Acquiring information - Informative Front Page

B. **Registration – Enrolment:** minimum agreement with the community’s basic sociability issues on the part of the newcomer is reassured. Both the system and the moderator need to encourage, help, support and motivate the newcomer to ask for help from the community members.

C. **After Registration – Maintenance**
   - Search for existing discussion topics, sub-groups
http://www.hci-international.org/

- Active Observation of Discussions: First contact with the community; Energetic lingering for Active Observation; Aporia⁶, hesitation, doubt, insecurity; Familiarisation with the community; finding the minimum level of agreement with community’s nature, culture and common visions; Finding interesting topics – information.
- Personal Judgment: Agreement of being interested in the topic; Definition of personal enquiries; Decisions on what to do next
- Actions (based on personal judgment): Cooperation with members via personal communication preferably via email; Engagement in discussion; New suggestions are based on the previous messages; Feedback is based on the previous message; Support from the community – Feedback, if the feedback is positive the communication continues, if negative, s/he returns to the previous observational and lingering state; Projects are helpful as they trigger judgment and discussion; Presentation of projects give the background for discussions; New doubts and new questions to be answered
- Repetition of the Participation Process: (a) Energetic lingering and Active Observation; (b) Reading; (c) Engagement; (d) Decisions on withdrawal from the community are without warning and (e) Technical support and suggestions to the developers and moderators

Findings from a different study (Lambropoulos, 2005), suggest that volunteers could provide great help for Consensus Knowledge Building since they are community members. One suggested technique for potential participants’ activation was analysing interaction in one and two-ways of communication. Initial one-way communication could be encouraged with votes, polls, surveys or special offers and anonymous posting. That positive climate during this group discussion activated 7 members in 20 days. More than half of the messages (53.1%) in the study appeared to have a pattern: an initial introduction as a response to the selected message, an extensive explanation and justification of their point was made, an example was making suggestions very clear and lastly, a greeting or an interesting quote used to ‘sign’ the message. But at the end, non-participants have the right not to participate if they do not want to; these are the lurkers.

Both clusters of findings provide practical frameworks to leave ‘delurking’ as the last option.

6 Conclusion and Future Trends

The results of the study proved the need for an evaluation criteria catalogue in conjunction with discourse analysis in order to combine the concepts of sociability and usability. In addition, it could identify informal and consensus knowledge building as the respondents created frameworks for management and design for online communities that derived directly from their practice as the dynamic nature of evaluation criteria catalogue allowed new attributes to be emerged as well. Sociability and Usability are the key concepts behind online communities’ Darwinian evolution for all members in their crossroad of international and externalization that might lead to return some of the benefits back to the community.

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References


⁶ In Ancient Greek, the state of aporia describes the state of observation and looking for answers without additional judgment in the search.


