

Typology of Online Learning Communities

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Abstract. This study presents a typology for Online Learning Communities (OLC). People have always been members of different learning groups. OLC is about people who share a common interest and learn in a collaborative mode using information and communication technology (ICT). People communicate globally and exchange information with expectations to find others interested in the same subject. The aim of the article is to suggest categories for existing forms of OLC. Six different categories of OLC are presented, in which participants respectively environment are dividing factors. The typology defines each type of OLC depending on if the environment is online or blended. A mixture between online and physical meetings creates the blended environment. The other factor is based on if the participants practice is related to an educational or professional environment, and perhaps sited in an environment connected to a shared interest.

Introduction

Many people use information and communication technology (ICT), such as personal computers, the Internet and mobile artifacts, for their learning activities. The extension of the Internet and the increasing use of email, discussion boards, connected to databases and the Web, have improved the conditions for Internet based communities. The usage of ICT brings forms of activities in which the condition of learning changes (Säljö, 2000). Some people associate computers with information providers, but more often computers and Internet are used as a tool for people's communication over geographical distances. In an OLC,

learning is becoming more of an interactive and active process with others, instead of studying and reflecting on your own. Members of an Internetbased community use the net in a mode of articulating information through a written language based on their possibilities to interpret and respond to each other's text (Slevin, 2000). ICT is "opening up opportunities for new forms of human association" (p.96) and should be understood as a contextualized social phenomenon.

Humans have always been members of certain groups, in which they share the same interest and values about subjects important for each individual. Communities are basically places in which people cooperate and communicate with each other. The sociologist Bauman (2001) describes the word *community* as both with a meaning and a feeling. Understanding, common values, belonging, engagement, considerations and the collaboration between the members are some of the characteristics of a community. Bauman argues that the word *community* has a positive connotation to the word *society*. Living together in a "society can be bad; but not the community. Community, we feel, is always a good thing" (p.1). The meaning of community will still be a word of harmony. People's ambition to share knowledge and listen to each other is not always free from conflicts. Bauman (ibid.) also asserts that, standing outside the community creates feelings of anxiety. People's relations to other members of a community can be a frustrating experience both in a physical context and on the Internet. Humans' interactions are transmitted into new arenas and their communication styles and rules are different from what they are used to in a physical environment.

Description of OLC as a research area

The learning environment is not a static place where members of a community use ICT connected to the Internet for their communication. Then, learning is convenient where or when it suits the learner. The Online Learning Communities (OLC) are defined "as learning atmospheres, a context providing a supportive system from which sustainable learning processes are gained through a dialogue and collaborative construction of knowledge by acquiring, generating, analysing and structuring information" [Jobring, 2002]. The basic foundation of an OLC is the mediation of knowledge between the learners, rather than the exchange of information. The members of an OLC create the content themselves with the support of the community rather than being provided with ready-made study materials.

According to the OLC research group at the IT-university of Göteborg, there is a distinction between an Online Learning Community (OLC) and an Online Community (OC). Learning can be an explicit or an implicit activity depending on each individual or group of members. The express purpose to learn creates a learning atmosphere by the members of an OLC, and that is the interest in our

research. To distinguish each community from others, it is possible to express that learning in an OLC, is a statement by the members. The statement can be announced as goals at their meeting points, such as websites or in conference systems, but also through other activities. How to communicate in a social text-based environment can be a learning activity in an OC. Learning is often an implicitly expressed activity that can be based on different activities whether it happens in an OLC or OC. An example of an OC could be a Swedish online community, *Lunarstorm* <http://www.lunarstorm.se> designed for people who want to make new friends or stay in contact with each other. These types of OC share a common interest in social communication with other people. Each community on the net is based on structures of social networks.

The meaning of the words *Online* versus *Virtual* is another question that must be considered in the research area about OLC. Some researchers use the word virtual for learning communities over the Internet. The use of the word online is based on each member's possibility of being available for asynchronous or synchronic communication. Some of the technologies that are used within an OLC are not always based on a virtual environment. This conclusion supports my decision to define *Learning Communities* independent of technological platform or network as online environments.

It is a complex task to describe what OLC is about, because of its manifold aspects from several research areas, like pedagogy, philosophy, sociology, communication theories and computer science. Therefore, it is important to create tools for descriptions and analysis of OLC. A typology can present a specific research field in order to give a precise representation of the phenomenon. Sudweeks & Simoff (1999) present a definition of typologies:

“Typologies are distinct, discrete classifications of information that help to give order to a confusing, continuous mass of heterogeneous information. In some way, this continuum of information has been divided into discrete regions where points within each such region bear qualitative similarities to each other, whereas points in different regions bear qualitative differences to each other. The construction of meaningful typologies, therefore, is the foundation of scientific inquiry” (Sudweeks & Simoff, 1999, p.37).

In order to understand a research field, “it is necessary to develop a syntactic/semantic map of the content of representative texts” (Mitra & Cohen, 1999, p.194). A typology can give support both in the ambition to present different types of OLCs and to create a vocabulary about the phenomenon.

The aim of the article is based on three central ideas. First, there is a need to create an extensive and representative map of the research field and to describe the occurrence of OLC. The second aim is to develop several concepts and categories of different types of OLCs. The third aim is to create a terminology within the research area of OLC, a vocabulary that can unite researchers in their work. The list of factors that constitute an OLC can be extensive, but this will not

be the focus of this article. In collaboration with other researchers the typology can be developed to adapt an extended research field in purpose to describe each OLC. The typology of OLC is based on a survey of literature and research articles about collaborative learning over the Internet.

Participants in learning environments

OLCs are not always located in an online environment. It is important to mention that Learning Communities also exist in a physical context. Learning Communities in physical environments are usually related to meetings between the learners and the facilitator in a face-to-face mode (F2F) on campus, at work, or in different associations based on a specific interest. This implies that Learning Communities exist with or without ICT. Research about Learning Communities in a physical context will not be of focus in this paper. The aim of this article will be to continue to concentrate on online environments.

Some people are used to experience learning as an activity, which merely exists in schools. Säljö (2000) asserts that learning within an institutional context can be seen as a complement to all forms of learning. People are participants who may collaborate in different environments like in school, at work and in their spare time. Lave & Wenger (1991) describes the process of legitimate peripheral participation, in which a participator becomes full partnership within a community of practice. Learning as a situated activity is important when building typologies that illustrate people's different membership in OLC. These practices can be divided into educational and professional environments and learning in an informal setting. The use of the factors *participants* and *environment* can explain the practice which an OLC is related to. Characteristics of the participator's different practices:

Educational – An OLC in an educational context basically related to learning activities in schools, colleges and universities. An institution or faculty promote and structure the education for the learners in which the student gets credits for their knowledge and activities. Learning in an institutional context starts from kindergarten up to the age of adults.

Professional – Work-integrated learning is placed in practices related to people's place of work. Many adults in their different professions experience learning at work as upgrading of their work-related competences. Medical practitioners, principals and salesmen are examples of this category.

Interest – OLC can be created as an Interest OLC in which learning about a subject gather people in several communities of interest. These informal practices include learning in our spare time and daily routines, which are prevalent forms of

activities. The context of this category can imply knowledge about our favourite music group, how to fix the roof of our house, gardening activities and so on. On the Internet several OLCs can be found, OLCs which create human networks based on an individual interest.

The factor *environment* is a form or arrangement in which OLC can be realised as an online or blended mode. The two terms, online and blended, will be introduced as factors that can describe how members of an OLC will meet in an online environment. Characteristics of environments:

Online – People learn over a geographical distance using ICT. The community does not consist of any physical meetings with the other learners and it is a pure online mode, always in a synchronic mode of communication.

Blended – The traditional physical lectures on campus or locally placed clubs are combined with a communication homestead using ICT from individual places. This mode is a mixture of physical and online environments and meetings that can take place both in an asynchronous and synchronic mode of communication.

Social learning based on cultural aspects

Learning is a human activity that is a constant process of action. Humans learn either they are conscious of their activities or not, and their activities are always related to a specific context. Under the following categories (1.5 and 1.6), I will shortly mention that the context of an OLC can be studied by concentrating on the social aspects. In a sociocultural perspective on learning, humans are social beings and their activities are related to a specific practice. These practices can be seen as shared histories of learning (Wenger, 1998). Humans are members in different practices and share their experiences and knowledge in several cultural settings. “Learning is located in the interplay between culture and individuals, and it implies the *transformation* of individuals and collectives in terms of the nature of the task they master” (Säljö, 1999, s.149). Learning is about a social process that brings the participation of people into a common social culture. From a sociocultural perspective on learning there are three aspects that are prominent: *Meaning, Language and Mediation*.

Vygotskij (1934/1974) claims that the relation between what people know and how they mediate their knowledge within a cultural historical background is based on the theories of internalisation. The process of all activities can be “performed on an external plane before the experience comes to be executed on an internal plane” (Wertsch, 1985, s.61-2). Vygotskij defines the external activities as *semiotically mediated social processes*, and the processes can be seen as the key to understanding in relation to internal performances. Humans are

trying to understand their environment and their activities in relation to others and they intend to explain their experiences through language.

Social learning based on cultural aspects

The members of an OLC will not only share the common interest, but also the vocabulary that is mediated between the members. Text-based communication can be seen as an artifact for language. *Emoticons* is a comprehensive name for text-based communication that brings feelings to the text in order to reinforce the meaning of the words and to reduce misunderstandings in a computer-mediated communication (CMC) (Herring, 1996). The combinations of alphabetic letters, capitals and signs create possibilities for people to compensate the lack of body language and intonations in the dialogues by using the keyboard of a particular technology (Ma, 1996). In a specific OLC, the language develops within the community, and it is built by the members' creativity, engagement, understanding and collaboration.

Communication and the interplay between human beings describe learning as a mediation of signs and symbols which a historical background and have roots in cultural contexts. In a zone of proximal development (ZPD), Vygotskij explains that a learning process is based on collaboration between a learner and a more knowledgeable person. From the point of understanding they had prior to their learning activity, interactions can result in extended knowledge for both of them. From a perspective of sociocultural theories, the possibility of studying the phenomenon of OLC is feasible, since of the text-based material that can be analysed by focused on mediation, language and meaning. Säljö (2000) argues that several questions should be asked, when studying learning in a sociocultural perspective. These questions concerns how humans use and develop psychological and physical tools, and how communication between humans emerge through collaboration by using technology. Tools are located in a cultural environment and the meaning of cultural aspects in OLC will not only explain that members will share both the vocabulary for their understandings, but also form rules for their own discourse.

Result

The results present a typology based on factors of participants and environment to describe the learning context of OLC. The typology of OLC (fig.1) presents a comprehensive subdivision of OLC in which each type can be either studied comparatively within or without the same environment or in relation to other OLCs.

Every OLC is either based on an online or blended environment. An OLC can be realised in a pure online mode with no physical meetings. Blended mode is a

mixture of physical and online meetings, which is a prevalent form of using ICT to support communication within an OLC as a complement to the members learning activities. A participant is an active learner in which the activities are related to a kind of practice like: *educational*, *professional* or based on a *shared interest* by the members. In the typology of OLC, the word *learning* in the name Online *Learning* Communities is exchanged by the practice of the participators is of the specific environment in order to define each type more precisely. Every type of OLC gets a special abbreviation, in combination with one of the environments. As a result I will present six different types of OLC. A figure that describes these types is presented in figure 1.

ONLINE LEARNING COMMUNITIES		ENVIRONMENTS	
		Online	Blended
P A R T I C I P A N T S	Educational OLC - Participants learn in education systems, at colleges, universities and other formal institutions.	1. OEC- Online Educational Community	2. BEC- Blended Educational Community
	Professional OLC - Participants learn within an internal and/or external organisation based on their profession.	3. OPC- Online Professional Community	4. BPC- Blended Professional Community
	Interest OLC - Participants learn in an informal environment sharing a common interest.	5. OIC- Online Interest Community	6. BIC- Blended Interest Community

Figure 1. Typology of Online Learning Communities.

Characteristics of the six types of OLC

To illustrate the main characteristics of each category, I will give examples by presenting URL-addresses (Uniform Resource Locator) of OLCs, from the Internet. The URL-addresses must be viewed as examples in which the community sphere can be accomplished. A visit in the introduced examples of OLC is essential for the readers' understanding of the result of the typology. The examples of OLC are merely concentrated on communities in which participators are adults.

Online Educational Community (OEC)

An Online Educational Community (OEC) is based on a pure online environment. Teachers and moderators have initiated an OEC out of an ambition to create a community over the Internet in which collaborative learning will be realised as

one possible strategy for Distance Education. Sometimes an OEC is augmented by pedagogical methods, such as Problem Based Learning (PBL) as a support for the students' learning activities. Some institutions that can be related to the category of OEC are *Virtual University*, <http://www.vu.org>, or the Swedish institution of Distance Education called *Netuniversity*, <http://www.netuniversity.se>. The examples are large organisations that are coordinated with several others institutions such as universities and colleges, which can be seen as small units which organise a specific education programme.

Blended Educational Community (BEC)

When teachers and facilitators have decided to use ICT as a tool mixed with F2F-lectures and the activities on the Internet, the learning context could be named Blended Educational Community (BEC). It is a mixture of physical and online environments in which an education programme can be introduced in order to let the students and teachers get to know each other. Another physical meeting can be the examination of the students' knowledge and for the moment of evaluation. The tasks are collaborative solved by the students and the learning activities are facilitated by the teachers. Examples of BEC can be found at universities, for example *Skövde*, Sweden <http://platon.his.se/> and IT-university of Göteborg, Sweden, or internationally at several universities and colleges. At the *IT-university of Göteborg* <https://www.ituniv.se/intranet>, an intranet supports the activities for the students. Nowadays, BEC is a type of OLC that can be seen as a supported educational platform for learning activities instead of a tool merely for distance education.

Online Professional Community (OPC)

An Online Professional Community (OPC) is based on professional members and their interest of sharing knowledge of their common activities at work. Participants of this category do not meet in physical environments, because of the geographical distance. Often they share a common vocabulary depending on their work assignments. The vocabulary of a specific community at work can be shared globally by its members (Lave & Wenger, 1991). Principals and Medicals can be examples of professional who become members of an OPC. One example is the community of British principals *Talking Heads* <http://www.ncsl.org.uk/> are a community over the Internet that support learning within a community sphere. In the community of Talking Heads, principals are discussing common interests such as management, economic aspects and pedagogical research. Medicals also have an OPC which use Internet to support their learning activities. In *BioMedNet* <http://www.bmn.com> members are gathering in sub-communities depending on their knowledge about a specific subject.

Blended Professional Community (BPC)

In a Blended Professional Community (BPC), the professionals meet in a physical context, perhaps at work or at conferences. The usage of ICT can support their contacts between the meetings by the members of a BPC. In this category, most of the work-integrated learning activities will be examples of a BPC. Some of the systems are called intranet and works within the organisation as a supportive communication system and an information provider. Several companies and organisations are using intranet and ICT to support both external and internal communication between employees and co-workers in different projects. The internal activities are constituted by colleagues within the same organisation or company. The external activities within a BPC can be constituted by collaborations with other cooperative organisations or companies. The centre of School Management Training, Göteborg, Sweden manages a 3-year long programme for principal structured as Talking Heads for their learning activities. Their online meetings are combined with physical meetings and stand as examples of BPC which is a prevalent form of a community using ICT for their work-integrated learning. Examples from the category BPC are difficult to present and get access to, because of the companies' security policies.

Online Interest Community (OIC)

When people surf the Internet, they sometimes find people who share a common interest in a subject. People share interest in different areas such as pets, sports, different kinds of arts and so on. In a type of community called Online Interest Community (OIC), people share knowledge and experiences by sending tips and/or information that give other members support and solutions to different problems. They are not able to meet physically because of the geographical distance; therefore some members communicate globally or within a nation state with ambition to stay in contact with each other. *Womens health* <http://www.womens-health.com/index.phtml> is an example of how women organize their activities to support each other and their own health care. Another example of an OIC is realized by a community of programmers called *Programmer to Programmer*, <http://p2p.wrox.com/>. This community is structured in different categories depending on a specific program language.

Blended Interest Community (BIC)

In a Blended Interest Community, the members both meet online and F2F. They arrange meetings such as conferences, parties and they organise lectures about the subject they have in common. The physical meetings within a BIC can vary in numbers per year. The use of discussion boards and group-mail is a widespread form of communication within a BIC. As an example of BIC, *SeniorNet*

<http://www.seniornet.org> is a community over the Internet based on elderly members, learning how to use computers. In the OLC of SeniorNet, members gather both on the Internet and at the local learning centres for their learning activities. Sports communities over the Internet are meeting points for the team supporters. Supporters of a soccer team can stand as an example of BIC. The members meet at the games and discuss the result of wins and losses using a homepage which is combined with community activities. Famous British soccer team *Arsenal* <http://www.arsenal.com/> has built a community situated on the web that can be an example for how people meet in different environments, learning about soccer and a specific team. The activities are based on a specific language that the members of the supporters club share and construct their own language based on a common experience and historic background of the team. Also knowledge about soccer as a game is learned within the activities of viewing matches and reading about the sport.

Discussion

In the article, a proposal of terminology in the research area of OLC has been presented through the typology. A common vocabulary will help to create understanding between researchers. The classification of OLCs can be divided into several subcategories, but I have chosen to work with only six types. My decision is based on the fact that if there are too many categories of OLCs, a discrepancy will arise and make the typology difficult to use.

Using the typology as a demarcating map could describe how several OLCs differ from the other types. The factors that create the context of OLCs have been participants and environments. There can be other factors that describe the context of OLCs, but my ambitions are to explain those places and environments in which participants learn in an OLC. My research and work in progress concentrate on how an OLC is constituted. About the constituents of an OLC, the structure of the network as an internal or external system with certain access for the learners, could be one constituent of many others. OLC can be described in many different ways in the research field. My intention is to give examples of the constituents and show how these constituents can be developed and related to each other, both as a whole network, but also with focus on a single constituent.

The definition of OLCs will probably change as the conditions for humans' usage of technology develop over time. One important statement is that members of some OLCs are not always connected to the Internet. Environments will be constituted as the learner moves in time and geographical place. Therefore, it is important to study the participants' interactions in connection to its environment.

An OLC can develop over time, from one context to another, from an informal to a formal context. An OLC cannot be placed in two different practices at the same time. Every individual can be a member of several OLCs, even in the same

category. The environment is important for how we describe each community over the Internet. One type of a shared Interest OLC can develop to become a community of professionals. Programmers are often members of different types of OLC. They can be members of a Blended Professional Community (BPC), and then visit their friends in an Online Interest Community (OIC) in their spare time. Further research to develop the typology can be to bring a third factor into the typology such as the aspect of time. Using time as a factor for how a specific OLC changes periodically can be visualized in a 3-D figure to study sustainability in an OLC. To study what factors develop and change the condition of an OLC will also be the focus for forthcoming research.

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