THE CONFIGURATION PROCESS OF A COMMUNITY OF PRACTICE IN THE COLLECTIVE TEXT EDITOR

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ABSTRACT

The various tools available on Web 2.0 enable the interactions in a Community of Practice (CoP) to be optimized and may discourage the participation of members. Thus, the choice of the tools is fundamental for the growth and maintenance of a CoP. With a focus on this and, from the analysis of the characteristics of the group and the activities which will be developed, this article deals with the configuration process of a Community of Practice in the CTE - Collective Text Editor . As such, the article discusses the CoP and presents the CTE as the meeting place and use of this community, since it corresponds to the demands and needs of the group.

KEYWORDS

Community of Practice, Collective Text Editor.

1. INTRODUCTION

The term "community" may bring to mind something that is increasingly less experienced in large urban centers: the sense of community as a meeting, in person, of people affectively united by something in common. For Burbules (2004), it is a nostalgic memory of the community, as it relates to the "memory of a time when affiliation was based on proximity, on relative homogeneity and familiarity: the community of a small town, a neighborhood, a large family " (p. 209).

Nowadays the term community is most frequently used together with other nouns or adjectives (school community, virtual community etc.) and reflects what is understood, in different spheres, as the best strategy for achieving results (efficient, effective, etc.): cooperativeness. In this sense, whether to increase the productivity of businesses or to enhance learning processes, among other reasons, people seek to meet (or are reunited) in order to form communities.

One type of community that has emerged from these necessities are the Communities of Practice (CoP). These communities generally unite people interested in specific learning and in the practical application of this (Terra, 2005).

When the objective is uniting people, the Internet and Web 2.0 show one of their greatest vocations: interaction. Communities of Practice take strength from the opportunities of connection anytime, anywhere; of collective construction and, often, of the lack of expense offered by free software, making the virtual world your space par excellence.

The idea of configuring a CoP arose based on the needs of a group of postgraduate students from the Federal University of Rio Grande do Sul (UFRGS), to meet virtually, to give continuity to the discussions realized in person and to share and produce new texts and study topics. Thus, the focus of this paper is to relate the configuration process of this Community in the Collective Text Editor (CTE), pointing out the reasons which show why this environment is suitable for this community. It is hoped that this study will present a text editor as a possible space for the establishment of a Community of Practice.

As such, the first section of this article discusses the Communities of Practice. The second presents the CTE. The third section presents the reasons which pointed to the Editor as the option that best meets the needs, values, knowledge and expertise of the members of the CoP. Lastly, the concluding remarks are presented.

2. COMMUNITY OF PRACTICE

According to Wenger (2006), "Communities of Practice are groups of people who share an interest or a passion for something which they learn to better by interacting regularly." As for Terra (2005, p.01), "CoPs consist of people who are connected, informally as well as contextually, by a common interest in learning, and principally in practical application."

Wenger (2006) points out that the Communities of Practice differ from other communities due to 3 major characteristics:

a) Domain: the theme or topic of interest to the community, in which the members of the CoP feel compromised.

b) Community: formed through the relationships between members and allows individuals to learn from each other.

c) Practice: A CoP is not just a community of interests, it is the set of shared resources (experiences, stories, tools and mode of referring to current problems, among other things) that form the repertoire for the use of everyone in the resolution of problems.

According to Schlemmer (2012), when the project upon which the Community of Practice is working ends, the CoP also ends. Wenger (1998, as cited in Ribeiro,Silva, Boff and Viccari, 2011) and Terra (2005) defend, from this standpoint, that CoPs have cycles or stages of life.

According to Wenger (1998, as cited in Ribeiro et al, 2011), these cycles are called creation, expansion, maturation, activity and dispersal. As for Terra (2005), cycles are birth, growth, maturity, decline and death. However, although the CoP has "a well-defined life cycle, in relation to its stages, [...] there are no limits on the temporal scope for the definition of each of the stages" (Ribeiro et al, 2011, p. 696).

In this sense, for a Community of Practice to remain active during its period of maturation or maturity, Wenger, McDermott and Snyder (2002) propose 7 principles of management:

1. Planning for evolution: thinking that in the future the CoP may have new and different needs;
2. Maintaining the dialogue between the internal and external perspective: opening possibilities for other exchanges, encouraging them among members and among other people and communities;
3. Inviting to different levels of participation: understanding that people are different, and therefore, interact in different ways and degrees;
4. Developing public and private spaces (one-on-one) for the community members;
5. Focusing on the value of the CoP: The communities survive because, as well as their members, they are valued. As the authors point out, the value is important because, in the majority of communities, adhesion and permanence are free.
6. Combining familiarity and stimulation: Familiarity with tools and activities is great for members to feel comfortable in the CoP, but it is also necessary to offer new things and to encourage participation;
7. Creating rhythm for the community: maintaining regular events and avoiding overloading.

In view of the principles mentioned by Wenger, McDermott and Snyder (2002), one realizes that the life cycle of a Community of Practice is strictly related to its members and, naturally, the interactions between them. It is in this sense that Wenger, White, Smith and Rowe (2005) point out how it is necessary and fundamental to know the members as well as the activities they perform to choose the most appropriate tools for the CoP. After all, as the authors affirm, when the user does not learn the technologies with ease, he may feel discouraged to participate. Thus, the tools can play a role in optimizing the interactions and giving support to collective work or, conversely, may discourage the participation of members as well as harming the collective work.

For Wenger et al (2005) a perfect technological configuration does not exist. The most appropriate configurations will always vary from community to community. Thus, one should take into account the level of access to and command over the technologies that participants have; the capacity to connect; the browser used; the availability of purchase or the preference for free software; the need (or not) for technical support, etc..

Besides these aspects, the type of activity that the community realizes and which the technology must mediate, must be analyzed. Examples are: interaction activities, publishing, sharing, etc. From this understanding, it is possible to choose the tools focused on the needs (and possibilities) of the members of the community.

The Web 2.0 tools have long been used by the CoP. As pointed out by Kirkwood (2006), Web 2.0 allows people with a particular interest in common to find other people with the same interest and form their communities.

It is noteworthy also that, besides providing tools for interaction, Web 2.0 encouraged the development of Free Software, that is, free online tools. This, in Brazilian terms, may be fundamental to the existence of CoPs focused on learning outside educational platforms such as Moodle (http://www.moodle.org.br/).

It should be noted also that the free tools of Web 2.0 have become very popular and are part of everyday life for many people. For communities of practice focused on learning, using these tools is to give students a sense of familiarity. By providing this feeling, students are free to make relationships, encouraging them to create, share, publish and cooperate – fundamental principles of pedagogical theories based on the transmission of knowledge, that go beyond traditional teaching.

Thus, tools like blogs and wikis, which allow both collective and individual creation and publication, can be highlighted; synchronous tools like msn and skype, podcasts, which enable the exercise of creativity, move away from textual activities, etc. It is possible to find all these resources, as well as forum, polls and others, free on the web. Using them or not in a CoP will depend on factors related to the command and characteristics of the participants.

Given the above, the next section presents the Collective Text Editor (CTE), an environment of collective construction of texts, coupled with synchronous and asynchronous tools, free and available on the web.

3. THE COLLECTIVE TEXT EDITOR - CTE

The Collective Text Editor - CTE (http://www.nuted.ufrgs.br/etc2/index.php) - was developed by NUTED/UFRGS (Center for Digital Technology applied to Education at the Federal University of Rio Grande do Sul - http://www.nuted.ufrgs.br/) aiming initially to promote collective writing. The editor is online, and therefore does not need installation in a server or local computer.

Fully developed within the philosophy of Free Software, the CTE employs PHP language and uses the related database management system (DBMS) MySQL and the Apache Web server, both with open source code. It also has customer focused technologies, such as *JavaScript*, *Dynamic* HTML and *Cookies*, among others (Macedo, Zank, Vinade and Behar, 2010).

In 2009, the CTE was completely restructured, becoming reliant upon a new interface, new interaction features and a new logo. Moreover, files are now organized following a folder structure, as shown in Figure 1:

Figure 1. CTE Home Screen.

The text can be viewed and edited entirely and can still be written by different users simultaneously, which relies on different tools of interaction and communication, among these: a) Message: allows participants to send messages via e-mail to each other, b) Forum: has search and editing features, as well as different viewing options c) Comments: tool located on text editing screen, allows users to leave messages for each other or make observations about the writing d) Communicator: tool that displays *online* users, allowing them to converse in real-time and simultaneously to the editing.

Other highlights of the CTE are the new interface, which follows usability criteria that make it very intuitive, and the tools "Concepts Network" and "MineraFórum", which are based on the technology of Text Mining. The first allows the extraction and relation of the principal terms discussed in the textual productions. Meanwhile, the MineraFórum extracts and relates the principal terms discussed in a forum, as well as attributing a relevance value for each message posted.

4. THE CHOICE OF THE COLLECTIVE TEXT EDITOR

Based on the concept of Wenger (2006) surrounding the Community of Practice, this article relates the reasons for which the CTE was chosen as the meeting work and group discussion environment.

The community is composed of a teacher and five students of the PPGEDU / UFRGS (Postgraduate Program in Education at the Federal University of Rio Grande do Sul), which have studies and research related to Professional Education in common. The CoP is provisionally titled, the "Community of Practice of Professional Education and Technology" or CoP PET.

According to the characteristics of CoP proposed by Wenger (2006), it can be said that this group already has a domain of interest, Professional Education, but that it is still forming as a community. What they lack, entirely, is the characteristic of practice. In this sense, even if the community is not yet established in a virtual space, it is possible to consider that it already exists, since students meet in person. Based on Wenger (1998, as cited in Ribeiro et al, 2011) and Terra (2005), it appears, therefore, that the community is moving towards a phase of expansion/growth.

In order for this CoP to be constituted entirely and arrive in the phases of activity (Wenger, 1998, as cited in Ribeiro et al, 2011) and maturity (TERRA, 2005), it was decided to observe the principles laid down by Wenger, Mcdermott and Snyder (2002) for the management of CoPs in addition to the suggestions of Wenger et al (2005). Thus, to choose the environment and tools, it was necessary to obtain some data with community members. Accordingly, a questionnaire was created to infer information about: the degree of command over the Information and Communication technologies and the Internet and the values and activities that the group intends to perform (WENGER et al, 2005; WENGER, 2006). In relation to the values, it was sought to identify whether the CoP members would agree to pay for the technological resources and use environments and/or tools available only in English.

The questionnaire was answered by 6 people, the teacher and his 5 advisees. The collected data was compared with the characteristics of the Collective Text Editor, a free online virtual environment developed within the University in order to verify that the CTE could be a space option for community practice. This comparison showed that the CTE will meet the needs, values, knowledge and mastery of the members of the CoP regarding Information and Communication Technologies (ICT), as shown in Table 1:

Table 1. Correspondence between the necessities, values, knowledge and command of the Community of Practice members in relation to the TIC and CTE.

Necessities, values and knowledge of members of the CoP	**Collective Text Editor – CTE**
Effective use of ICT, Internet and social networks: a) Don´t use nor master many technological resources. The majority of members (5 people) use only e-mail. Half (3 people) have an account in a social network, although only one uses it frequently.	- Is available online (download not necessary); - Has an interface familiar to other editors, which facilitates its use and makes learning how to use it fast. Has a friendly interface and is intuitive.
Command of the English Language: a) The 6 members stated that they had some knowledge of the English language but prefer to use tools and environments available in Portuguese.	Available in Portuguese.
Payment: a) Don´t wish to pay for the virtual space.	- It is a Free Software and therefore is free of cost.
Activities most realized: a) Discussions, publication and sharing	- Possesses synchronized and unsynchronized tools which take account of these activities and needs.

Beyond the domain of the community and also of the needs, values and knowledge of the members, the possible styles that the CoP covers must be taken into account in order to choose the environment or the tools that will be used. The styles relate to the group of activities that are performed by members of the community and that should result in a set of tools to support these activities.

Based on Wenger, White, Smith (2009), it is understood that this community covers "meeting", "open conversations" and "content" activities. The functions, tools that can give support to these activities and corresponding tools in the CTE are presented below:

a) Meeting – Strong activity and feature of the community. However, part of the regular scheduled meetings will continue to be conducted in person (face to face). Thus, the CoP will be mixed, since there will be face to face and virtual encounters.

Table 2. Activities and Tools – Style “Meeting”.

Activities which contribute to characterizing the style “Meeting”	**Tools which would give support to these activities**	**Corresponding tool (s) available in the CTE**
Booking	Shared calendar; E-mail; Utility software for booking	Message
Synchronized Interactions	Video-conference: Web-conference and webcasting; Teleconference and VoIP; Chat Rooms	Communicator
Unsynchronized Interactions	Discussion forum; Wikis; E-mail lists	Forum; message
Presence/attendance	Attendance tools; Folders; Photos of the participants	Communicator; Personal Details
Participation in and taking of decisions	Poll	Without corresponding tool.

b) Open Discussions - The conversations between members remain permanently open, being extremely important to everyone’s learning.

Table 3. Activities and Tools – Style "Open Conversations".

Activities which contribute to characterising the style "Open Conversations":	**Tools which would give support to these activities**	**Corresponding tool (s) available in the CTE**
Conversations about a topic at a time	Email; Email lists; Chat; Functionality of blog comments; etc.	Message; Communicator
Conversations about multiple Topics	Forums on the Web; Wikis; Discussion trails in blogs; categories; aggregation services; Microblogging.	Forum – Collective Text Editing
Sub-groups/privacy	Access control Report mechanisms for the wider group	Access control for the texts (definition of the participants) and message for the participants of the folder
Highlighting key learning points -> utilization of features which highlight the most recent/active collective discussions and constructions	FAQs; Wikis for summaries; Tags; categories; Evaluation mechanisms of the posts; Tools which highlight the active discussions.	Forum; Editing of collective text; wall with new posts (Forum), new contributions in the collective texts and new messages.
Filing	Web repositories for email lists; Automatic filing for the Forum; Permanent links in blogs; Tag Clouds	Automatic filing of the forums; history of messages sent and received; history of the versions of the collective texts.

c) Content - The greatest interest of the CoP with respect to the environment will be in the opportunity to share and give/have access to documents, tools, and diverse content. It is thought that the possibility for collective writing motivates the production of scientific articles in the group.

Table 4. Activities and Tools – Style "Content".

Activities which contribute to characterising the style "Content"	**Tools that would give support to these activities**	**Corresponding tool (s) available in the CTE**
Sharing of document files	Independent document repositories; discussion annexes	Library
Comments, notes and content discussions	Discussion forums; Wikis for notes; Blogs with comment features; Web page noting tools.	Forum, collective text editing and comments
Publication of Content of one´s production	File sharing; Blogs; Web pages; Wikis.	Collective text editing, text url, and library (also as a portfolio)
Distributed editorial capacities	Tagging; Evaluation; Comments	Comments
Filing	News with time control; Automatic filing.	Automatic filing of the forums; history of messages sent and received; history of the versions of the collective texts.

Given the above, it was understood that the CTE could correspond to the needs, values and knowledge of the members and could also give support to the activities of the community. It shows itself, therefore, as an appropriate space for the CoP to form completely and reach the phases of activity (Wenger, 1998, as cited in Ribeiro et al, 2011) and maturity (TERRA, 2005).

5. FINAL THOUGHTS

This article describes the configuration process of a Community of Practice (CoP) in the Collective Text Editor (ETC). To this end, the first section sought to present what the Communities of Practice are and how they are configured. Next, the Editor was presented. In sequence, the needs and opportunities of the members of the CoP regarding technological resources as well as the activities to be performed and the tools that can give support to these activities were dealt with, indicating the corresponding tools and activities in the CTE.

The Community of Practice in question is formed by a group of postgraduate students. These students already meet in person in order to discuss issues relating to Professional Education. Based on Wenger (2006), it is understood, therefore, that this group, in addition to already possessing knowledge, is now also forming itself into a community.

The CTE is a virtual environment that is freely available on the web. The Editor was initially developed with the aim of promoting collective writing. However, also relying on interaction and communication tools, both synchronous and asynchronous, the editor can serve as a meeting and work space of a Community of Practice.

The data analysis collected in questionnaires, which were answered by community members, point to the Collective Text Editor (CTE) as an appropriate environment for the needs of the group. Likewise, the Editor can respond to the needs and difficulties of the members regarding foreign languages and command of digital resources. It is further added that the CTE corresponds to the styles that the CoP covers, that is, it relies on tools that can give support to the activities groups "Meetings", "Open Conversations" and "Content".

For these reasons, the CoP was implanted in the CTE and is already active. The interactions are occurring frequently, primarily through the Forum and Message tools. In light of this, data is being collected. The analysis of this data can then validate the Editor as a space for the formation of Communities of Practice.

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