

Lifelong Learning within Health and Social Services: An Italian Community of Practice

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Abstract— eLFOSS (Formazione eLearning per operatori dei Servizi Sanitari, i. e. eLearning for health workers' continuing education) is a project whose main goal was at the beginning to prepare fifteen senior trainers to design and produce eLearning, for improving the quality of health and social workers' continuing education. This was, in fact, the original request from the Trento's Autonomous Province to the University of Trento, in Italy. We, the academic educational designers, suggested to adopt the socio-constructivistic learning as theoretical framework [2], [3], [7], [8], [11], [12]. The aim was ambitious and very soon we realize that for achieving it we had to make aware of the complexity of designing socio-constructivistic eLearning not only the trainees, but also the stakeholders, i.e. the managers of Trento's Autonomous Province.

For that reason the project undergo some changes during its life. We moved from the idea of delivering a series of eLearning modules about quality eLearning design to the plan of cultivating a community whose practice was the design of quality eLearning [13], [14], and whose participants, at various level of involvement, were the trainees, the designers, the stakeholders. Ideally the community had also to be able to sustain and self-govern its partnership beyond the eLFOSS project.

The change in perspective was paramount: we went from the creation of a syllabus to planning strategies to cultivate the community. We still designed eLearning, but sharing our ideas among all the stakeholders, student included, and considering the design as an artifact to discuss all together the domain and the practice of the community [11], [13].

This paper want to describe how and why our project was a good "nursery" for eLFOSS community of practice, and which educational strategies and environmental conditions made possible its start up. Without hiding what are the critical factors affecting the present surviving of the community itself.

For our research we collected qualitative data, through semi-structured interviews and focus group, integrated with the text analysis of the forum messages exchanged within the community.

Index Terms—Community of practice, health, continuing education, socio-constructivism, eLearning

I. ELFOSS PROJECT AND ITS GOALS

The eLFOSS (Formazione eLearning per operatori dei Servizi Sanitari, i. e. eLearning for health workers' continuing education) project main goal was at the beginning to train in the design of socio-constructivistic eLearning environments fifteen professionals in charge, in the organizations involved (see tab. 1), of the health workers' continuing education. These workers are indeed not always allowed to attend classroom meetings, due to their professional engagement and to the time-consuming displacement in Trentino, a mountainous district.

The University of Trento designers and researchers, requested from the Trento's Province to realize the project, did not wanted to design "off the shelf" online courses providing "passive" training, founded on the idea of knowledge transmission. And this for two reasons. First of all the risk was, in this case, to try to introduce an innovation without the support and enthusiasm of the users. Furthermore, this solution would have created a relationship of dependency of the Trento's Province upon the University, not allowing a growth of the former in term of ability to manage the innovation.

During the analysis phase we —the designers and researchers of the Trento University— suggested to adopt as a framework the socio-constructivistic learning theories [2], [3], [4], [7], [8], [10], [12]. The goal was ambitious. Hopefully the coordination committee (see tab. 1) endorsed it fully, so that afterward two managers of the Trento's Province decided to engage personally in the project, as students of the courses offered. The design of an innovative —methodologically and technologically— online course involve many different competences like: to manage the human resources and organizational aspects; to coordinate very different professional skills; to balance the different fields of intervention of the actors involved; to weigh up the pros and cons of specific technological and methodological choices; to motivate the learners. And also to understand how to identify the right teaching methods; to design the course project; to create and publish the learning content; to manage and organize the learning community; to guide and support the community in the interactions pace; to integrate together all these processes in the design/production of an eLearning module. To fulfill all these requests we had to transfer the complexity (and the beauty) of the methodological (and technological)

innovation of socio-constructivistic eLearning not only to the trainees, but also to the managers of the organizations involved, so that they could understand the potential of the network and the opportunity it offers to build relationships and knowledge.

A long process of inter-mediation among the coordination committee (see tab.1) went on, to reach an agreement and build up together a solution, relating «professionals and isolated niche of knowledge», coordinating «unconnected activities and initiatives directed to similar thematic field» [14].

So the project undergo a transformation that was progressively shaped during its evolution. In other words at the beginning of 2008 we leave the idea of simply deliver two courses about the eLearning design and started facilitating the birth of a community—that included the trainees, the designers and university professors, some managers of the Trento's Province—whose practice was the design of quality eLearning environments. Ideally we also wanted that the community will last beyond eLFOSS, to build and share knowledge, solve doubts, problems, anxieties, in short to promote quality eLearning. The change in perspective was paramount: we went from the creation of a syllabus to the design of strategies to energize the community. This mean that the design became an artifact to discuss all together the domain and the practice of the community [11], [13]. To effectively convey the dynamics of an online training project in the context of the institutions involved, eLFOSS was designed as a three-stage project:

1. *eLFOSS-Training* (September 2007 to June 2009). Where we train the human resources that, inside the organizations involved, are charged of lifelong learning management;
2. *eLFOSS-Practice* (September 2009 -in progress), Where the Community of Practice, already established, create a "real" eLearning course (to train the health workers of the Trento's Province). At the beginning the academic staff act as the core group of the Community that design and produce eLearning, while the Province trainees are "legitimate peripheral participants"[8]. Here are the words of one eLFOSS learner:

What I would need now is to design a real, whole course, maybe of different lenght from what we already experienced, with the supervision of experts for the educational strategies and perhaps for the content matter. To help me understand if what I am designing is correct either in content or in methods. (student 4)

Sharing this reflection we planned that afterwards the eLearning modules will have be designed and delivered directly from the Province's professionals, with the possible advice of the University people.

3. *eLFOSS-Evaluation* (September 2007 - December 2009). It is the phase of the *in itinere* evaluation of the project quality, based on the "five pillars of quality online education"[8]: learning effectiveness, student satisfaction, faculty satisfaction, cost effectiveness, access. It is a process that develops throughout the eLFOSS project.

20 students, mostly managers of the PAT Human Resource Departments, were engaged overall in the project.

II. ELFOSS IS A COMMUNITY OF PRACTICE?

All the forum messages and the interviews with the different stakeholders testify the intense synergy, negotiation and sharing of objectives among all and also the enthusiasm, motivation and spirit of cooperation of the eLFOSS participants[1].

But did we accomplish what we wanted, i.e. the creation of a Community of Practice whose members are eLFOSS students, Province managers and University of Trento staff, and whose purpose is to help each other in designing quality eLearning courses?

We analyze here following whether we can find traces of this process on what happened during the eLFOSS project, i.e. whether we can say that the eLFOSS people created «a sustained, self-governing learning partnership among people who share a challenge or a passion, interact regularly, learn from and with each other, and over time improve their ability to deal with their situation, collectively and individually» [16].

As described by Wenger, McDermott and Snyder [14], despite the many nuances inherent the Communities of Practice, they all share a basic structure:

1. a *domain*, or thematic field, which surrounds a body of knowledge;
2. a *community* of people who care about this thematic field;
3. a shared *practice* developed to be effective in the thematic field.

In the ELFOSS Community of Practice we can actually find the constituent elements of the model proposed by the cited authors?

We gathered the data that we will interpret and comment through semi-structured interviews and focus group; quantitative information made available by Moodle, the Learning Management System we used to design and produce eLFOSS; forum messages and personal diaries that every student wrote during the online participation.

A. The domain

The eLFOSS domain is made explicit through the objectives (see table 1) set out by the coordination committee to warrant the community members that all the necessary cognitive tools to design and produce quality

eLearning will be made available during the curriculum. It has to be stressed that the community has a strong interest in the subject. And this have proved to be, as Wenger, McDermott and Snyder say, powerful source of energy and value. Here is a message extrapolated from the forum, written originally in italian and translated in english, as well as all the others messages quoted in this paper.

Ciao to everyone , [...]...my work range in the sphere of a flat-out training (although I am not a trainer): in short I am in an uninterrupted learning process.

What I expect from eLFOSS?

- in general to gain clear idea in my mind about what we mean when we speak of eLearning (at times we speak about it in the working circles I attend, but still in a quite vague and confused way);

- to verify on the field the eLearning potential, quality and limits, to support the eLearning offer of the Trento's Province and to be included in the ECM- Continuous Medical Education training system, for the health workers;

- to learn through non-traditional methods, e.g. participating to a community of practice;

- to familiarize with multimedia technologies and languages;

- to have fun (perhaps this is to demand too much...). (student 1)

B. The community

The second constitutive element of a community of practice is the community itself: a group of people who interact, learn together, build relationships. Their learning process and knowledge construction bring them to a sense of belonging and mutual help. Interacting regularly the participants develop, not without conflicts, a common understanding of the domain and an approach to the practice. They create significant relationships founded on respect and trust; solidify a sense of a common history and identity.

One participant say:

It seem to me to have spent a full day with the group,their ideas are running through my mind, in a classroom this cannot happen, not with this intensity [...] I am very happy to make this experience, it is so rich and interesting that I would be hard to believe, if someone had told me it some times ago. (student 2)

This shows that, as Wenger says, «what allows members to share knowledge is not the choice of a specific form of communication (face to face as opposed to web-based, for instance), but the existence of a shared practicea common set of situations, problems and perspectives» [14].

Over time the community gains expertise that may be shared and directly applied in its own professional context in a meaningful way. At the beginning the

participants were led by more expert eTutors, the educational staff, but progressively they became more autonomous, gaining awareness and critical capability. Lave and Wenger [8] talk about Legitimate Peripheral Participation when the more expert members open to the novices a dynamic path towards the full and recognized participation.

Here following are some messages taken from the discussion forum of some newly arrived, at the early stages, in the already started course. We will label with *senior* the messages of the participants already present in the online environment and with *new entry* those of the newly arrived:

senior

The new entries admission in the group has passed from the initial disorientation to the understanding of the way the online environment works and the active collaboration, so as to complete the assignment... and, I guess, this can be an indicator of the quality of the progress in the work. (student 2)

new entry

Despite my late enrolment in the course, the impact has been very positive. I felt really welcomed and the fact that some members of both groups came to visit me helped me overcome the initial discomfort. Information provided at the “remedial” meeting were very useful and stimulated my curiosity about the way an online community works. (student 16)

senior

Following the tutor’s suggestion, today I’ve called him straight so as to understand the situation. He said he would try to run his role till the end writing the group journal. We’ve swapped our mobile numbers, so if he’d have problems he’d call me. (student 2)

new entry

I’ve printed and read carefully the messages of all of you... I’m just observing you. I feel so inadequate, that I can’t intervene. You all have organized in my own mind those that at the beginning were only “perceptions”. At the moment I feel like being led... I’m pleased [...] to have found a sort of parallelism with the APSS training. Here the trainer is asked to be an expert of “method”... but a lot of water has to flow under the bridge! (to be aware of the silence’ meaning, allowing the emersion of individual capabilities and the group development...I feel like a “seed”). (student 18)

If at the beginning of both courses the participants had the scaffolding of the educational staff in terms of stimuli and resources, they progressively became more autonomous in understanding and trying intensely the community dynamics.

Despite the fact that now I feel a little bit more at home in the new community, sometimes it seems to me that the learning process in our group is quite hard. And that risks to compromise the building of "our knowledge". I hope it's just a temporary condition... As president/moderator I'll try next week to find some strategies so as to involve all as much as possible! (student 4)

The community has given a lot to me.

...I used to consider the online as a relationship between learner and teacher, but in this case the community has enriched us a lot, in personal terms too.

...discussions that created this kind of closeness, this very strong group spirit.

In my opinion this has absolutely been the most interesting thing. (student 15)

From these forum messages a sense of identity, trust and mutual help emerge: feeling home, perceiving the added value of other people's knowledge, but also the difficulties in carrying out a task and suggesting actions for mutual help.

C. The practice

Referring to the practice —the third element— our participants, interacting constantly among themselves and with University teachers and instructional designers, have developed and shared a set of resources: case studies and common stories, theories, rules, diagrams, models, principles, tools, experiences, best practices, articles, heuristics, problem solving strategies.

In order to guarantee the apprenticeship and to share the practices, contact and confront among novices and senior instructional designers have been encouraged. During the first training course, "Collaborare online (i.e. online collaboration), the confront was mainly with the instructional designers. Afterwards, during the second course "eDesign" the novices were offered the chance to become more independent, developing autonomously a real short online module.

Consequently the community members became gradually more aware of their learning process, of the practices inherent in the online collaboration (use of the forum for discussion, roles assigning, url and texts sharing, collaborative writing of documents) and protagonists themselves of the practices to be carried out and transferred in their own work context. Everyone in the group worked over time more and more efficiently along with the others, minimizing the misunderstandings, sharing a common language with mutual help, getting to know better and better what everyone could offer to the community.

Below are some statements of the "Collaborare online" participants.

This training course [...] would like to be the first brick of a wider project. It's not the direct

management of eLearning initiatives that pushed us to join, as PAT, this course, but the need to understand what eLearning is in order to plan, coordinate [...] an educational offer of this kind, that the leading training bodies in the health and social services area could guarantee to the professionals. Therefore the need to have an integrated group of eModerators coming from different contexts! Having chosen to collaborate with the University is, until this moment, [...] successful. We have a lot to learn yet from this staff [...] with the wish to get over time the expertise in the design and management of eLearning so as to become more autonomous. (student 4)

It has been very important, in terms of learning, to try on himself/herself the importance of socialization, the initial difficulties, the value of collaborative learning, in some cases also the discomfort for somebody not intervening, things that have risked to compromise our knowledge building. [...] I also found very useful to play different roles, as I believe that it has been an opportunity to experience on ourselves the various facets of the eModerator task. (student 3)

Last of all, looking back on our course, maybe as a group we could have made an additional effort to imagine the effects of this training in our future activity. Maybe the time was not yet ripe. (student 5)

In this context it is clear that all participants, educational staff included, were trying to be recognized like community members not only carrying out the assignments, but concentrating their own energy on interiorizing explicit and implicit rules risen in the community itself. Sometimes with a sense of real exhaustion.

Sometimes it has seemed to me intellectually too stimulating, I felt so tired especially in the end! (student 16)

[...] we often interrogated ourselves, in our group, about the operative effects and the transferability of the online collaborative methodology to the final users of the Trentino region health and social services. We collected an impressive number of questions, but also important suggestions that have to be shared with the whole class and our reference experts. (student 8)

Some messages taken from the online weekly diary confirm the enthusiasm and the perception that the community of practice were bringing concrete advantages to its members in terms of open-mindedness and ability to effectively transfer it to their professional life.

I believe that this has been an excellent chance at different levels: weaving the various contents of the course; thinking in a more structured way about the training effects on my own future professional activity (not yet completely defined); identify how to investigate the matter further, finding the aspects not yet very clear, and grey areas that are still to be explored, recognizing the complexity of the eModerator role and the importance of living personally the fears, the difficulties, sometimes the inadequacy of being novices in a virtual learning environment. (student 10)

III. COMMUNITY SUCCESSES, FEARS AND EXPECTATIONS

We can say that eLFOSS was, so far, a success project and the many messages quoted testify it. Even if we know that the project benefited from some peculiar conditions, which make the process hard to generalize. As Wenger says, each community is unique [16].

The factors that positively influenced the foundation of the eLFOSS community of practice were many. Some are elements of the context in which we worked, e.g. the small community and the homogeneous working environment of the members. So that, although the educational activity happened mostly at a distance, distributed in space and asynchronous in time, the participants had many opportunities to meet alongside the training. And this aspect certainly strengthened mutual trust.

Moreover the Community of Practice benefited from the mutual trust among the Trento' Province and the University people and the project was designed with the direct support of the managers of the Trento's Province lifelong learning departments. Here are the words of the Trento's Province managers:

Sometimes I remind me that everything started during a meeting with the University people last summer (editor's note: it was the 2007)! We needed all this months to understand the potential of eLearning for the lifelong learning plans for the professional of our Province and to clarify the direction we wanted to take! (student 2)

We are interested in our trainers participation in this type of community of practice, because we think it is essential in order to obtain eLearning instructional design skills. (student 5)

There are conditions that we deliberately and appropriately designed, dedicating time and resources. First of all we knew from experience that for a distributed community is extremely important in the first

place to create trust among participant. For that in a preliminary phase the learners were involved in motivating activities (not necessarily educational activities!) that let them know each others, and understand the limits and potential of every person. For instance we asked the students to produce a short film (4 minutes) to present themselves and the group.

Moreover we know [16] that at distance the efficient — both technologically and methodologically— interaction and collaboration is a fundamental prerequisite for any community of practice. For that we planned, in the *Colline* (Collaboration Online) course, a phase dedicated to the acquisition of the necessary skills to cooperate online in working situation. As a confirmation of the importance of online communication skills, we noted that the inclusion of some students directly in the second course, i.e. *eDesign*, proved to be difficult and required additional individual support by eTutors and by the Community.

Today the project is in a phase of standstill. After a goodbye meeting —was the July 2009— plentiful of intentions and emotions, everyone was swallowed up by the life of all days in his own office. But one word was enough, recently, to recompose the community with the aim to write collaboratively a paper about their eLFOSS experience for a book, now in print.

There is a desire in all to pursue a common practice for the benefit of all. But it must be cultivated.

The question is: are we committing ourselves to the community living and prosperity for a long time?

Wenger identify [16] the factors of a community's success or failure. You can clearly detect some of them in eLFOSS: the passion for the domain, the reciprocal trust, the focus on a specific practice.

But also others factors are essentials if we wish that the community become established and grow up. The enthusiasm, skills and legitimization of the community leader are probably the single most important factor to cherish and to get ahead with the community. The core group of the community has to devote its energies helping the leader, because one or two people can indeed start the community, but they can't sustain for a long time its vitality.

The community moreover needs an expert support about the knowledge required to grow the domain, to keep team's expectations high and to give value to community members' time. This is feasible if the community is adopted by a person who is interested in the domain and act as a sponsor within the organization involved.

Let's see the participant's discussion about this.

Therefore there is need for someone, some institution —maybe the Province— that would formalize this community of practice, stimulate it and, of course, the institutions that make this

agreement take part but finance, too. Because the economic side is also important..... (student 5)

They can't imagine.We knew the building of knowledge as a group and the value to study together by experienceand it is of an absolute richness. (student 4)

To conclude we quote a Wenger's passage. In December 11th, 2009 during the Conference "Community of practice in health continuing education", at the Faculty of Cognitive Sciences, University of Trento, he said:

The main thing is to decide if you want or not to apply this perspective, and its evolutionary potential, to a group, rather than discuss endlessly if that group is or is not a community of practice...Then if this group is called team, task force, business unit is not really important...Often they are not communities, but you have to ask yourselves: do you want they will grow into a community? [15].

Objectives	<ol style="list-style-type: none"> 1. <i>eLFOSS training</i>:to train the participants on the knowledge and skills about the design and implementation of an eLearning socio-constructivist environment <ol style="list-style-type: none"> a. skills to interact and collaborate within online communities, directly experiencing their dynamics, organization and moderation; b. basic elements of theories and practices concerning analysis, design, implementation of ICT (Information and Communication Technologies) based courses; c. theoretical skills about designing eLearning professional roles; d. basic elements concerning analysis, design, implementation, evaluation of eLearning projects. 2. <i>eLFOSS practice</i>: to facilitate a Community of Practice to promote quality eLearning in the health council of Autonomous Trento' Province
url	www.didatticaonline.unitn.it

TABLE I.
ELFOSS PROJECT CHARACTERISTIC

what	eLFOSS (eLearning per la Formazione degli Operatori Sanitari e Socio-sanitari, i. e. eLearning for continuing education of health and social workers)
where	Trento (Italy)
when	From 2007 - present
eLFOSS sponsor	<ol style="list-style-type: none"> 1. APS- Assessorato alla Salute e alle Politiche Sociali, i.e. Health Council of the PAT-Autonomous Trento' s Province 2. SMG- School of General Medicine, PAT 3. APSS – Azienda Provinciale per i Servizi Sanitari, i.e. Local Health Service, PAT 4. UPIPA - Unione Provinciale Istituzioni per l'Assistenza, i.e. Provincial Union of the Institutions for Assistance
eLFOSS project management and design	UNIVERSITY OF TRENTO <ul style="list-style-type: none"> • DOL – Didattica OnLine (i.e. Division of Online Learning) • Faculty of Cognitive Sciences • Cognitive and education sciences Department
Target	20 students, mostly managers of the PAT Human Resource Departments
managers	Scientific director Patrizia Ghislandi Project manager Daniela Paolino PAT manager Franca Bellotti
Coordination committee	APS: Franca Bellotti, Training and Human Resources Development Office APSS: Amelia Marzano, Training Office U.P.I.P.A.: Massimo Giordani UNITN: Patrizia Ghislandi, Cognitive Sciences Faculty UNITN: Daniela Paolino, eLearning Services
Stages	<ol style="list-style-type: none"> 1. eLFOSS training <ol style="list-style-type: none"> September 2007-June 2009 a) Colline-Collaborare online 18 April 2008- 11 July 2008 b) eDesign- eLearning Design 14 October 2008- 24 February 2009 2. eLFOSS evaluation September 2007-December 2009 3. eLFOSS practice September 2009-....

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