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**Greek teachers' online community of practice: who we are, what we do and how Η επαγγελματική Διαδικτυακή κοινότητα των Ελλήνων εκπαιδευτικών: ποιοί είμαστε, τι δημιουργούμε και πως**

*Niki Lambropoulos*

# Greek teachers' online community of practice: who we are, what we do and how
# Η επαγγελματική Διαδικτυακή κοινότητα των Ελλήνων εκπαιδευτικών: ποιοί είμαστε, τι δημιουργούμε και πως

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**ABSTRACT**
Greek Teachers' online community of practice has recently appeared in an effort to follow the European tendencies. This paper present a framework based on 3 process-based learning stages. The new principle of Self-organised Observational Learning in Online Social contexts (SOLOS-Online) as well as genre issues in online communities of practice are discussed and analysed focused on the provision of help for newcomers, lurkers and active readers towards energetic participation for both online and offline educational activities.

**KEYWORDS:** communities of practice, online participation, social construction of meaning, eLearning, observational learning, non-formal & life long learning

## INTRODUCTION

Greek Teachers' online Community of Practice (CoP) has recently made its entrance into the online educational world. In an effort to open up existing systems of education, lifelong learning on the bases of blended learning, nationwide school communication and teachers' online communities of practice, learning management systems are used to support online training courses. Creative transfer of learning is of great importance given that they are expected to implement acquired knowledge in everyday practice. Greek teachers are in the process of developing online communities of practice via two active networks: The Greek National School System (www.sch.gr; 8,500 members in March 25, 2004) and the Scientific Society for the Promotion of ICT in Primary Education (www.eeep.gr; 90 members in March 25, 2004).

The educational system in Greece creates obstacles for life-long learning needed in the teachers' community as they convey new perspectives to the future generations. Greek Teachers' CoP needs to be freed from impediments such as: the hierarchical development based on the years in the job instead of a development based on their performance; inability to define teachers' needs, problems

ideas and suggestions; life long learning projects are not developed as part of a process but as individual programmes without continuity; insecurity towards new ideas especially when imposed and not emerged from the members; lack of direct communication between the members and the Ministry of Education via surveys; there is no specialization not defined by the subjects but by other orders such as age. For example it is difficult for older Greek citizens to attend courses in seminars or/and universities and as such create new specialized positions for teachers; and lack of contribution to the National Education Policy (Lambropoulos, Birmpas, 2004).

  Open and Distance Learning (ODL) and Communities of Practice (CoP) suggest specific practices as a newcomer engages in CoP via legitimate peripheral participation (Wenger, 1998) based on the old '*master and disciple*' relationship. Aristotle (384-322 BCE, translation from the ancient text by the author) suggested 3 levels of a process for becoming a Master or a 'scientist', while every next level has the potential for the next: (i) the learner who knows nothing but if s/he wants can change through learning by studying next to a Master; (ii) the learner who has reached her/his Master's level and if s/he wants could bring theory into practice; and (iii) the learner who now as a Master decides to practice what he has learnt. The latter are the real Masters or the **scientists** according to the ancient text: '*όντες, ενεργεία γίνονται **επιστήμονες***' (2003:168). Following a contemporary terminology on a process-based context the three levels might appear as:

(i)    *Initial introduction to the learning practice*: the learner knows nothing about the subject. The Master (tutor from now on) is the more advanced person who will help the learner to build the distance of the asymmetrical interactions (zone of proximal development, Vygotsky, 1978:86).
(ii)    *Mutual understanding* between the tutor and the learner occurs when interactions are symmetrical as in common knowledge (Mercer, 1995).
(iii)    *Energetic participation in the community of practice*, in order to develop both the community and media/artefacts as such. This paper will investigate aspects of this issue based on Preece's (2000) concept that the individual should contribute to the community as this has not studied extensively yet. Energetic participation refers to the ability of changing one's own environment whereas pseudo-energetic refers to the adjustment following existed frameworks (Lambropoulos, 2004).

  Energetic participation is evident in similar theoretical frameworks. Specific practices are suggested from the previous stages as in CoP, such as mimicry, demonstrating and working together. Mimicry is related to observation and reproduction of model's behaviour (Bandura, 1977). Newcomers are within the zone of proximal development and during legitimate peripheral participation they observe the tutor's and/or other members' behaviour. In the first stage they appear as lurkers and active readers (Lambropoulos, 2004). Observational Learning is the potential benefit to these learners when they observe or 'listen in' on experts or their peers as they discuss and perform a new activity on an online environment. These discussions are based on verbal reasoning and self explanation (Chi *et al.,* 1994). The externalization of thinking processes creates the setting where community genres lead to collaborative development of CoP. The term genre (Collins, 2001) has been used to describe group-personalizations regarding words, phrases, vocabulary contexts and ways of thinking to signify group construction of meaning. Online CoP interact and work towards the construction of community-artefacts which might be in an abstract form i.e. knowledge. Non-formal (as semi-structured) learning (CEDEFOP, Bjornavold, 1999) in CoP is about communication, sharing, discovering, producing through participation, and development of specific jargon and context. Tacit knowledge and communities' artefacts are considered to be implicit and explicit results of non-formal learning. Enhancing creativity by being co-present with the members of the community of practice saves significant time for newcomers'

introduction and engagement.


## 2,500 YEARS OF MIMESIS

Historical influences for Observational, Vicarious Learning and Social Learning Theory can be traced back to almost 2,500 years ago. 'Mimesis' is the ancient Greek work for learning through observation. Plato (circa 428-c. 347 BC) in Phaedrus gives the mimetic work of artists a fairly low value, as representation removes the represented object from true reality. For his student Aristotle (384-322 BC), mimesis comes from a fundamental 'desire to know' as human learning is inherently mimetic..

The Social Learning of Imitation was first mentioned in 1890: ' [learning as] a natural instinct to imitate the actions of others' (W. James as sited in Thorndike, 1898). Observational learning (or modeling) in the form of the study on 'imitation' by behaviourists such as Miller and Dollard (1941). They were the first to include the motivational subject who is positively reinforced for matching the rewarded behaviour. It was then when Social Learning and Imitation was first mentioned connected to human behaviour as motivated by internal drives and the observed behaviours were either reinforced or extinguished through environmental reinforcement. Following Aristotle, matched-dependent behaviour occurs when the model is older, smarter or more skilled than the imitator. Responsiveness to modelling cues is largely determined by factors as characteristics of the models (e.g. high status, competence or power), the attributes of the observers (e.g. lack of self-esteem, prone to adapt behaviours) and the response consequences (positive or negative) associated with matching behaviour (Bandura, 1977:88-90). The results from these studies (Bandura & MacDonald, 1963) were based on observer's emotional arousal (modelled pain reactions).

At that time researchers were trying to define the field of Social Learning Theory based on the concepts of learning by experience & observation, reciprocal interaction, individual's behaviour and environment, vicarious learning, modelling behaviour based on identification and reward vs. punishment contingencies (Rotter, 1942; Sears, 1951; Mischel, 1968). In the 50s, a theoretical approach of historical personage simulation was suggested by Auerbach (1953). The significant time lapse between cause and effect, created the passage from Social Learning Theory to Social Cognitive Theory (Bandura, 1986). Bandura connected vicarious learning with the exposure to positive and negative situations. As such vicarious reinforcement and vicarious punishment were related to profit from successes and mistakes of others as well as from their own experience (1977:117-121). These processes introduce comparative judgement processes into the operation of reinforcement influences (1977:123). Bandura described observational learning as a multiprocess phenomenon. This process –based approach consisted by the following stages:
  (i)    attentional processes that regulate sensory registration of modelling stimuli;
 (ii)    retention processes that are influenced by rehearsal operations and symbolic coding of modelled events into easily remembered schemas;
(iii)    motoric reproduction processes that are concerned with availability of component responses and the utilisation of symbolic codes in guiding behavioural reproduction; and
 (iv)    incentive or motivational processes that determine whether or not acquired responses will be activated into overt performances.

The Vicar Group of Edinburgh, based on Bandura's findings, worked on a vicarious learning project from 1995 to 2000. The aim was to create a tool to support vicarious learners. A closer

look into Vicar Group's findings is reminiscent Aristotle's first and second levels as they indicate that:

(i)    The students rapidly begin to model (or mimic) the language and structure of the discussions to which they are exposed.   Specific skills are needed to cross 'acquiring' specific behaviours to 'performing' behaviour.
(ii)   Common ground can take place by naming and identifying discourse objects.

The other extreme of observational learning is detected in Baudrillard's concept of 'Simulations and Simulacra' (1988). Simulation is the unconscious creation of the real through conceptual or 'mythological' models which have no connection or origin in reality. This becomes the determinant of our perception of reality and *becoming* is replaced by personal changes to match the Model's characteristics (Baudrillard, 2002).

Learning is evident in personal changes regarding to behaviour although very often learning is not visible. Non-formal learning is based on Polanyi's concept of tacit knowledge (1966). As in Observational learning, non-formal learning, is contextual and tacit in its character and occurs in a grey zone of privacy (Bjørnåvold, 2000) and it is difficult to detect and appreciate. Bjørnåvold suggests that '*invisibility is increasingly being perceived as a problem affecting competence development at all levels, form the individual to the society as a whole*' (p.29). Observational learning and non-formal learning in CoP are invisible with both individual and social aspects in terms of identification, assessment and recognition.

## COMMUNITIES OF PRACTICE: PARTICIPATION & GENRE ISSUES

Lave and Wenger introduced the term communities of practice (CoP) within the boundaries of social theory of learning in 1992. Wenger continued the research (1998) analyzing the different types of learning, the construction of common meaning and the members' identity within communities of practice.  According to Wenger, the social theory of learning is referred to the theories of: social practice, identity, situated learning and practice. As such, the followed framework regarding the construction of the online courses for Geek teachers' CoP, has 4 levels as an initial inventory: community, identity, meaning and practice.  CoP could be emerged and organically developed if the policies, training programmes and system designs derive from the members and not imposed by external forces (Lambropoulos & Birmpas, 2004). As such, members' practice provide resolutions to institutionally generated conflicts, supports communal learning, help newcomers to join the community, generates specific perspectives and terms to enable accomplishing what needs to be done and makes the job habitable by creating an atmosphere in which monotonous and meaningless aspects of the job change perspective within the everyday community life (Wenger, 1998:46). The result of interactions and shared repertoire could be used in the production of community's artifacts or 'reification' according to Wenger and could be transferred into other CoPs.

Group-generated text created by the active members of Online CoP follow the notion of open-source software, creative copying and public copyright and suggests an open-ended and thus creative environment. Dialogues function and increase the capacity of to say to one's self by means of words of symbols, what one has done or one will do (Bruner, 1995). The dialogue as a social interactive medium in online discussion and information sharing is actually the only medium that conveys the meaning of the interactive sequences and contributes to constructive learning. Participants can compare their own prior learning and the level they might reach, both at the point of expert-to-novice transfer and the construction of new knowledge. The more advanced member acts as the leader while there is no demonstration of his/her behaviour but the result of it.

Bakhtin (1981) emphasized the dialogical construction of meaning as a basic characteristic of all communication. Meaning cannot be transmitted from one to the other, but *is constructed* between the speaker and the listener, the writer and the reader. Focus on meaning is suggested to have the experiential, literal, personal, and creative phase (Cummins, 2000). It is the reciprocity and the active engagement with the ideas of others that changes an action into interaction, the monologue into dialogic and 'multilogic' processes. Following Dysthe (1996), two functions are characteristic of all texts: *the univocal function* focuses on conveying meaning as accurately as possible, and *the dialogic function* on how to generate new meanings. All texts serve both functions, but one or the other is most dominant, depending on the context. The univocal, reception-like function of a lurker has served a 'conduit metaphor' (Wertsch, 1991) of communication, with its emphasis on transmission and reception.

Dysthe analyzed asynchronous web discussions based on the dual functionality of texts for the creation of highly learning potential. She found that the theoretical framework seemed to bridge the dichotomy between the monologic and the dialogic, between transmission and dialogic communication, as well as between the individual and the social aspects of learning. This exchange in the community works as the situated platform for conceptual alignment, collaborative learning and common knowledge (Mercer, 1995). The selection of particular clusters of text that convey the subjective parts of meaning is a dynamic, cognitive process in which the interpreter 'foregrounds' certain elements of the display and 'backgrounds' the others (Nystrand, 1995). The internal mechanisms that help the active readers on the web to reflect on the 'online dialogical shared meanings', support a constructive grid of interpretations and selection of the meaningful material. If shared meaning comes about when the conversants synchronize their role with each other, then *internal reciprocity* is the initial process of internalizing the meaning. Internal reciprocity is different than empathy. The first is reflective and logical, the latter is emotion based. Internal reciprocity is linked to observational learning, internal creative copying and creative use of knowledge. If there is a way of separating the useful from the useless information in a group-generated text then the selection and construction of the meaning will be a result of internal reciprocity going beyond the person who provided the information (creative copying). The importance of the selected data has been stressed from observational learning research regarding the re-useable learning material and learning objects (Boyle, 2003) although without considering the process of the selection itself. Active Reading on the Web reflects itself as the result of common knowledge and the waste of interaction.

An Active Reader On the Web (AROW) sees multilogic process as monologic due to his/her absence of participation, although the outer source is a multilogical one. An author's work is without limit and without signification as these are taken by the reader (Barthes, 1997). There is a wider point of viewing AROWs in online communities since *all* members need to ground their initial knowledge by reflecting on both other members' behaviour and themselves simultaneously. As such, every member has the potential to act as an AROW; the majority decides to stay behind the scene without crossing the threshold of externalization his/her univocal voice. Based on the number of messages in online learning courses, Oriogun (2003) introduced Low, Medium and High participation of the users starting with one message as the lowest participation. AROWs do not participate at all, which means they have zero messages and no appearance on the discussion forum i.e. they do not exist. As such, the addition of Potential Participation would complete Oriogun's scale as conveying their transition of becoming an interactive member.

As such, the introduction of a difference between *e*nformatic (information-based electronic discussions) and *e*nergetic CoP is crucial. Members in *e*nformatic communities usually send mare information and there is great deal of active reading there, since their motivation for participation

in the specific community is the use of information. As such, *e*nformatic involvement appeared to be the first step in CoP.

Based on Wenger, Collins *et* al (KMi Report, 2001) suggested that CoP have key characteristics: (i) members have different roles of master and disciple; (ii) there is a progress in the roles; (iii) access is gained to the communities when active involvement is exhibited (legitimate peripheral participation); (iv) a specific community-oriented terminology is exhibited generally through story telling; (v) newcomers help in providing new points of view; and (vi) different communities need to develop and take perspectives into order to learn via interaction. The researchers developed the concept of community genres which was initially introduced by Orlikowski and Yates (1994) and extended by Cook and Brown (1999). Two potential genres were identified from this valuable research: (i) the inverted pyramid journalistic approach of introducing subjects in a newsletter; and (ii) the members used to read the first sentence of the message. The application was a browsing tool that exploited the community genre by focusing on word patterns occurring in the first sentence. As such, ways of working could be identified as genres and the benefit is that the members can learn effectively and use jargon towards accurate descriptions in contextual networks as well as engaging in CoP' artefacts production.

Factors of stability that affect CoP evolution are defined as growth points based on community genres. If found and carefully articulated, growth points could help newcomers' integration in CoP based on the emerged identified process. Community genres could be used as a basis to build genre-based learning objects in order to define community's ontologies. Community genres expressed in dialogical processes are formed from the most energetic members and as such, they could be identification points of reference for both the community and its genuine leaders. *A constructive grid of interpretations and selection of the meaningful material is built between the individuals/ CoP members as an outcome of varied communication strategies and types of learning.*

## SELF-ORGANISED LEARNING BY OBSERVATION IN SOCIAL ONLINE CONTEXTS (SOLOS-ONLINE)

Piagetian Constructivism is often supposed to not have taken into account the interpersonal relations (Crook, 1994). However, in 1965 Piaget himself suggested, " *cooperation ... eliminates the process ... of egocentric thought*" (1995:208) since cooperation is defined as "*… all relations between or more equal, or believed to be equal, individuals, that is to say, all social relations in which no element of authority or prestige is involve*d" (Piaget, 1995:200). So, instead of studying learning by getting data based on genres from individuals we could start analysing community genres that occur within CoP. However, the latter does imply the eternal question of who comes first, the individual or the community. My attempt is to discuss and analyse learning strategies rather than cognitive processes. The pillars for such an approach are founded at the following marks

- Learners exhibit behavioural changes after being involved in learning processes;
- Process-based learning is identified in the context of 'becoming' an energetic member of the community; Mimesis of the community members leads to behavioural changes;
- The results of observational and non-formal learning processes are partly tacit;

- Social construction of meaning is occurred within the *heads of the individuals*(Norman, 19993)[1] as a mode of internalization of meaning and simulated behaviour; and
- Internal reciprocity could result to *creative* collaborative reproduction.

Although Wenger defined the design for learning (1998:226-7) he did not identify the mechanism and the learning process within CoP as well as within the legitimate peripheral participation (LPP). As LPP is a process and not an actual fact/programme, management of the growth points based on genres could enhance learning especially for non active members and newcomers. Self-organised Learning by Observation in Social contexts (SOLOS) for Offline, Online, or a blended context, could allow learners in a self-directed and non-formal learning. SOLOS-Online is situated in social online learning contexts and integrates both individual and social spaces as part of non-formal learning approaches. Non-formal learning involve freedom regarding learner's choices. The use of Learning Objects in eLearning might enhance learning on the net and help to organise learners' own learning in their own time, according to their own capabilities (Boyle, 2003). The learner defines his/her purpose, strategy, outcome and review in a reflective way, using verbal reasoning as in self-explanation towards an intention for engagement with the community via legitimate peripheral participation. As such, self-assessment is achieved by reaching suggested reference points of artefacts production. Although it seems to be a lonely process of learning, the participation in an online CoP appears to be valuable together with the use of the online educational material as such (Zaphiris *et* al., 2003). Community building and mutual learning (CEDEFOP, Bjørnåvold, 2000) is suggested to take place under the perspective of '*immersion*' and '*co-presence*' (Beer *et al*. 2003). Presence (being located in an environment) and co-presence (being located in an environment with others) promotes reflection in learning in the search for personal meaning and understanding. Members have to manage space, time and the boundaries around the self and the other members as an urban experience of inner space and vice versa. As such, SOLOS-Online could occur in two levels (i) an internalisation of social construction of meaning and (ii) the outer self-explanation and energetic participation in CoP.

Assessment in SOLOS-Online is suggested to be based on the genre points (reference points, 'standards' according to Bjørnåvold) as they identify the formative purpose of the learning process (key qualifications), while the learning deficits can be identified. The summative purpose, the practical proof is the construction of community artefacts as well as the ability to transfer the acquired knowledge in different levels and contexts i.e. the classroom environment in a blended learning framework. Remaining in the vygotskian framework for non-formal-learning-based assessment in CoP, Engeström's (1987) 'expansive' learning model could be reflected in the assessment methodologies as clarified by Bjørnåvold: (a) the ability to questions established facts; (b) the ability to define and clarify problems; (c) the ability to cooperate and find possible solutions; (d) the ability to approach unexpected problems; and (e) the ability to formulate and implement solutions. In both Norway and the U.K. such practical experience is an additional criterion for assessment in job interviews whereas official recognition of non-formal learning is absent in Greece. Smart cards provision could avoid repetition of what the employee already know, give formal recognition to the knowledge and skills which GToCoP already possess and as such the number of teachers with formal qualifications will be increased (Cedefop, Perker, et al. 1994). Electronic smart cards as eCVs could better describe the abilities as well as reflect the potential of the individual playing the role of an online personal record.

The following section will refer to the ways these concepts could help the Greek Teachers' CoP to help each other in both online and offline practice. The basic effort is to transform personal

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[1]     [we might work in] sociocultural groups, but cognitive processing occurs **within the heads of individuals**... What really matters is the situation and the parts that people play. Norman (1993:3-4) my emphasis.

change into personal becoming, create specialization groups via learning and energetic participation in CoP and as a CoP, participate in governmental decision making.

## GREEK TEACHERS' ONLINE COP: MAKING LEARNING VISIBLE

  Greek Teachers' Online CoP (from now on GToCoP) started in December 2003 using a moodle-based learning management system for their training. The author was invited to teach two subjects, introduction to Online Learning and Learning Technologies. Part of the latter is the construction of GToCoP's own Learning Objects (LOs) as community artefacts in order to create a network following their own needs. Energetic interaction enables members' engagement with the process of changing the environment of participation i.e. the interface, the used strategies and the policy. The course introduced the basic LOs theory regarding construction, indexation, packaging and delivery towards a blended learning environment (the Internet and the classroom). The artefacts would be the LOs as well as the practical knowledge of ways to communicate, solve problems and participate in co-constructions. Additional result is the construction of an energetic GToCoP that could *vote* identifying their needs and participate in governmental decision making. Decisions upon LOs kind and format are discussed in the discussion forums. Cultural-based *open* LOs (CLOs) were introduced and were linked to discussion forums and relevant information, not belonging to CLO's inside context. Metadata for the previous CLO were built using Silo from ARIADNE (Ternier & Duval, 2002). The three levels of designing and constructing LOs are the following: (i) students and teachers' online discussion about LOs' design and construction can identify the structure of important units; (ii) the online environment gives the opportunity to teachers' community to share and re-use the findings of the previous discussion/investigation; and (iii) teachers can co-operate and collaborate with the LOs' production.

## CONCLUSION

  Learning by observation crossed the threshold of the new millennium while communities of practice members need to define who they are, what the members could offer to the community and what the products are that could contribute to its expansion and development. Non-formal knowledge in online environments needs to be certified by the Greek governmental institutions. The use of an electronic smart card would solve the rigid assessment provided by the organizations and companies. The construction pf specialization groups could lead to governmental decision making from CoP for the CoP.

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