Publishable Executive Summary – Year 1

The main goal of the PALETTE project is the facilitation and enhancement of both individual and collective learning through Communities of Practice (CoPs) - frequently interacting groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in that domain. Empowered by the appropriate use of networked applications and advanced technologies, CoPs have the potential to become a fundamental ferment for the deployment of learning environments that support professionals, organisations and individuals in the future.

Cross-fertilizing pedagogical and technological researches, in order to elaborate, implement and, validate new learning environments, enhancing knowledge building and sharing in CoPs, are the main challenging issues addressed by the PALETTE project.

To reach this goal, a participatory design approach has been adopted for the development of a *palette of services* to improve efficiency of CoPs' member practices, in terms of:

- Expressing, representing and sharing practices as well as authentic problems
- Debating and reflecting about the practices and about the life of the CoP
- Developing, reifying and exploiting knowledge inside and outside the CoP
- Facilitating engagement, participation and learning

While understanding and respecting the CoPs own choices, objectives and constraints, collaboration with the PALETTE project will allow the CoPs to analyse their current situation and, to imagine and make effective possible improvements through the experimentation of new activities and tools. It includes: the management and use of documents owned by the CoPs, the creation of social links through a better awareness of the social networks and interactions, the representation and efficient retrieval of the knowledge created and, the availability of effective decision making processes.

Scenarios written through the participatory design process will represent the original configuration of practices created by each CoPs through the use of services integrated in their environment. The usability and reusability of such scenarios is targeted for the benefit of the wider European community.

Fourteen contractors participate in the project:

1. European Research Consortium for Informatic and Mathematics (ERCIM, France)
2. Ecole Polytechnique Fédérale de Lausanne (EPFL, Switzerland)
3. Université de Fribourg (UNIFR, Switzerland)
4. Institut National de Recherche en Informatique et Automatique (INRIA, France)
5. Research Academic Computer Technology Institute (CTI, Greece)
6. Centre de Recherche Public Henri Tudor (CRP-HT, Luxembourg)
7. University Abou Bakr Belkaid (UT, Algeria)

8. University of Liège (ULG, Belgium)
9. Association de l'Enseignement Supérieur Commercial Rhône Alpes (AESCRA-EM Lyon, France)
10. GATE – CNRS – Université Lyon 2 (GATE-CNRS, France)
11. Center for the study of Education and Training (CSET, United Kingdom)
12. Association ePrep (ePrep, France)
13. Support IT (UK) Ltd T/A Nisai Group (Nisai, United Kingdom)
14. MindOnSite - Integral Coaching SA (MindOInSite, Switzerland)

The project management is jointly carried out by:

Bruno Le Dantec – Administrative and Financial Coordinator, and contact point to the European Community)
ERCIM EEIG (European Research Consortium for Informatics and Mathematics, a European Economic Interest Grouping)
2004 Route des Lucioles – BP93
F-06902 Sophia Antipolis Cedex, France
Tel : + 33 4 9238 5013
Fax: + 33 4 9238 5011

Christine Vanoirbeek – Scientific Coordinator
EPFL (Ecole Polytechnique Fédérale de Lausanne)
Centre for Global Computing
EPFL – IC – CGC
Station 14
CH – 1015 Lausanne, Switzerland
Tel: +41 21 693 25 75
Fax: +41 21 693 75 75

Bernadette Charlier – Deputy Scientific Coordinator
Université de Fribourg
Département des Sciences de l'Education
Boulevard de Pérolles 90
CH- 1700 Fribourg, Switzerland
Tel : +41 26 300 75 50
Fax : +41 26 300 96 32

The work performed during the first year is articulated around the main project objectives in the following way:

The development of three categories of services, respectively addressing "the production, reuse and sharing of information", "the reification of knowledge about practices" and "the support to collaborative learning" is conducted according to a participatory design methodology to reach the two additional fundamental objectives of the project: "Interoperability of services" and "Usability of services"

The work performed during the first year of the PALETTE project has been mainly dedicated to the following activities

- The setting-up of the methodological framework to establish the communication and the participatory processes between partners and, with CoPs

- The development of services addressing the targeted scenario in respect to the scientific and technological objectives of the project.

- The initial elaboration of a learning model for CoPs

- The dissemination and promotion of the project activities in order to attract additional CoPs participation.

Setting up of the methodological framework

In the initial phase of the project, a considerable work has been dedicated to the setting up of the methodological framework. It was aiming at i) reaching a mutual understanding between "technology and pedagogy oriented" partners, ii) collecting, synthesizing and discussing information provided by the CoPs involved in the project and iii) elaborating scenarios, through the participatory design approach, to anchor the use of PALETTE services in CoPs practices.

The participatory design of new learning environments and practices is a fundamental issue of the PALETTE project and, constitutes a research object in itself.

Development of Palette services

Adaptation of existing tools provided by partners and development of new functionalities have been undertaken, on the basis of the design work performed, in order to provide services that fulfil the requirements of CoPs. The set of PALETTE services under development, are classified into three categories:

Information services aim at the development of tools to enhance authoring capabilities and facilitate reuse of information by COPs members in heterogeneous applications; reducing the current limitations caused by the proliferation of data sources deploying a variety of modalities, information models and encoding syntaxes.

Two main tools are currently developed: a multimedia authoring tool, based on the use of templates to facilitate the production of content by final users and, a tool facilitating the reuse and exploitation of information in various CoPs oriented learning contexts.

Knowledge management services aim at providing tools to support CoPs members in building and sharing knowledge about their domain and practices, on the basis of elaboration of generic (CoP oriented) and specific (domain oriented) ontologies.

A model related to communities of practice (community, actors, learner profile, competency, collaboration, process/activity and lessons-learnt) has been proposed as well as a practical method for building the CoP-dependent ontology, agreed by the partners. This method relies on available information sources and consists of several steps leading to intermediate representations that have enabled the partners to exchange their results and that have enabled phases of validation with the CoPs representatives.

Collaboration services aim at developing tools that help in collaboratively building a general perception of the community practices, progress, and problems as well as providing awareness about performed activities.

A first prototype of a web-based tool supporting argumentative collaboration towards learning (Cope_it) is available. The development of an awareness-support tool is under development.

Elaboration of CoPs learning model

Embedded in the research and development activities of the project, the contribution of a social science research perspective is being developed to elaborate a "community of practices model" that will help consultants, facilitators and CoPs members to grasp the situation in the community and estimate how the community will go on to develop. This analytical model aims at supporting the choice of the more suitable services offered as well as to value their effects on the CoP learning.

Dissemination activities

An important objective of the PALETTE project is the dissemination of produced outcomes, in order to make publicly known the availability of open-source services issuing from a multidisciplinary research activity, dedicated to communities of practice.

During this first year, the Palette partners participated in a series of conferences, workshop and dissemination activities to advertise the project and incite the participation of communities of practice. A first International Workshop on Building Technology Enhanced Learning solutions for Communities of Practice has been organized by CTI (Research Academic Computer Technology Institute) in conjunction with the first European Conference on Technology Enhanced Learning in 2006.

The project defined a training strategy in multiple purposes: sharing and make evolve knowledge and expertise among the partners of the project; proposing vocational and post-formation trainings programs related to technology enhanced learning and, providing support, in terms of coaching, to communities of practice. The "Palette Summer School" held in University of Fribourg included two days of training in the fields of standards in CoPs practices – emphasizing their relevance and impact- and presenting methods that assist in scenario modelling.

The exploitation of results and their dissemination are based on an open-source strategy and, aims at providing the conditions for engagement of further communities of practice issuing from a variety of application domains. It also encourages engagement from organizations, companies and academic institutions; the adoption of PALETTE services are intended to accommodate various environments that adhere to a number of recognized standards. Finally, the work is sustained by a formative evaluation of the project

More information about the project can be found on the project Website:
http://palette.ercim.org