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## Categorization of tools and pedagogical approaches related to collaborative learning and CoPs

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## **Palette**

Pedagogically sustained Adaptive Learning Through the exploitation of Tacit and  
Explicit knowledge

Integrated Project

Technology-enhanced learning

### **D.PAR.02**

**Categorization of Tools and pedagogical approaches related to collaborative learning  
and CoPs**

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### **Summary**

This deliverable presents a categorization of tools and a clarification of the notion of "scenario". It presents some existing taxonomies. The tools inventory and the proposed categorization focus on a user perspective. It takes into account data collected from CoPs, from PALETTE's partners and from the existing literature. Special attention is paid to existing tools (internal and external), systems and educational scenarios linked to collaborative learning, as well as to the development and evolution of CoPs in different contexts.

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# 1 Introduction

This deliverable basically deals with a **categorization of tools** which are related to the context of PALETTE, but also tries to **clarify the notion of "scenario"**, which is ubiquitous in our project. The above two actions seem to be quite distinct at a first glance, but in fact they are not. Let us explain why we talk about a "categorization of tools" and also, tell about the meaning we want to give to the word "tool".

We will consider the partners who are interested in the associated issues. Firstly, interested people are the technical developers who have already built tools. They have to fit them to CoPs practices in order to help them living and growing. That is why they need to improve their tools specifications and/or build new ones. One way to achieve this goal is to get a good feedback on which tools CoPs presently use and in which ways. But technical partners are not the only people interested in categorizing tools. Teaching specialists (or, more generally speaking, people with a pedagogical background) also need to get a realistic view of what kind of technical tools CoPs have adopted and of what tools computer scientists have built (or plan to build) with respect to their own view on collaborative work and, more generally, of CoPs needs. Furthermore, teaching specialists use to consider concepts such as 'strategies of use' and 'educational scenarios' as tools. This last point is worthy of further clarification. Members of CoPs may also profit from this deliverable. In the participative design process, they should describe better tools and scenarios they use. This attempt of tools categorization should be viewed like a first step to foster collaboration between developers hoping that CoPs will also take advantage of this connection.

Categorization is certainly a difficult task, which has to take into account a series of issues, such as the definition of the appropriate criteria and categories. During this task, we also had to customize our way of considering things with respect to the project's context. The main idea was to produce a tool identification sheet to describe and characterise all the tools currently developed by the technical partners. To achieve this goal, two particular but necessary points of view were taken into account. The starting point for the building of that sheet is the technical partners' point of view. In a direct line with the PALETTE methodology of work, the first step was based on a collaborative design experience. Then, the users' point of view was adopted through five criteria whose identification was inspired and fed by the first CoPs interviews (this resulted to an improvement of the initial identification sheet). In a third step, the tools developed by the technical partners were analysed. To enlarge the view obtained through the above actions, an inventory of existing tools external to the PALETTE project was made, by following an action-based perspective. This classification attempt is very close to a concern of action strategy. It is an interesting meeting point between the 'software tool' and "scenario" concepts.

The second part of this document is dedicated to the notion of scenario. After a short review of the literature, we focus on the use of the scenarios by the technical partners before thinking about "what will a PALETTE scenario look like". Formalisms are described and illustrated and an example is given to show how scenarios and scenarios depictions can be used to improve CoPs functioning and facilitate tools development.

The reported considerations may be viewed like a starting point for further reflection of **WP1** and **WP5** which will advance the progress of **WP2, WP3** and **WP4**.

## 2 Categorization of tools

### 2.1 Structure

The deliverable is structured as follows. First, we define the objectives of the task of tools categorization. Next, we make clear how we worked in order to complete these goals (methodology). Further, we describe the following actions, which led us to achieve the above objectives:

- Creation of an inventory of existing classifications (through a literature review)
- Writing of an interview guide (to obtain information on the currently tools used by CoPs)
- Development of a customized "classification" (developed with the help of the technical and pedagogical partners in order to describe tools developed within the project) and processing of the collected data.
- External regards (in order to pay attention to developments of tools and features not only focused on the PALETTE concerns)

### 2.2 Objectives

In the context of PALETTE, we have to establish a strong link between tools developed by technical partners and the activities of the eleven communities of practice selected by the project. To establish this link, we need to investigate two major issues.

While D.PAR.01 explains how to create the relation with the CoPs and how the data gathering was carried out, this deliverable explains how the identification of tools for CoPs was led and the way in which we developed the method of categorization. Thus, the "categorization of tools" task aims at learning about the functionalities of the developed tools in order to adapt and enhance them through the participative design process.

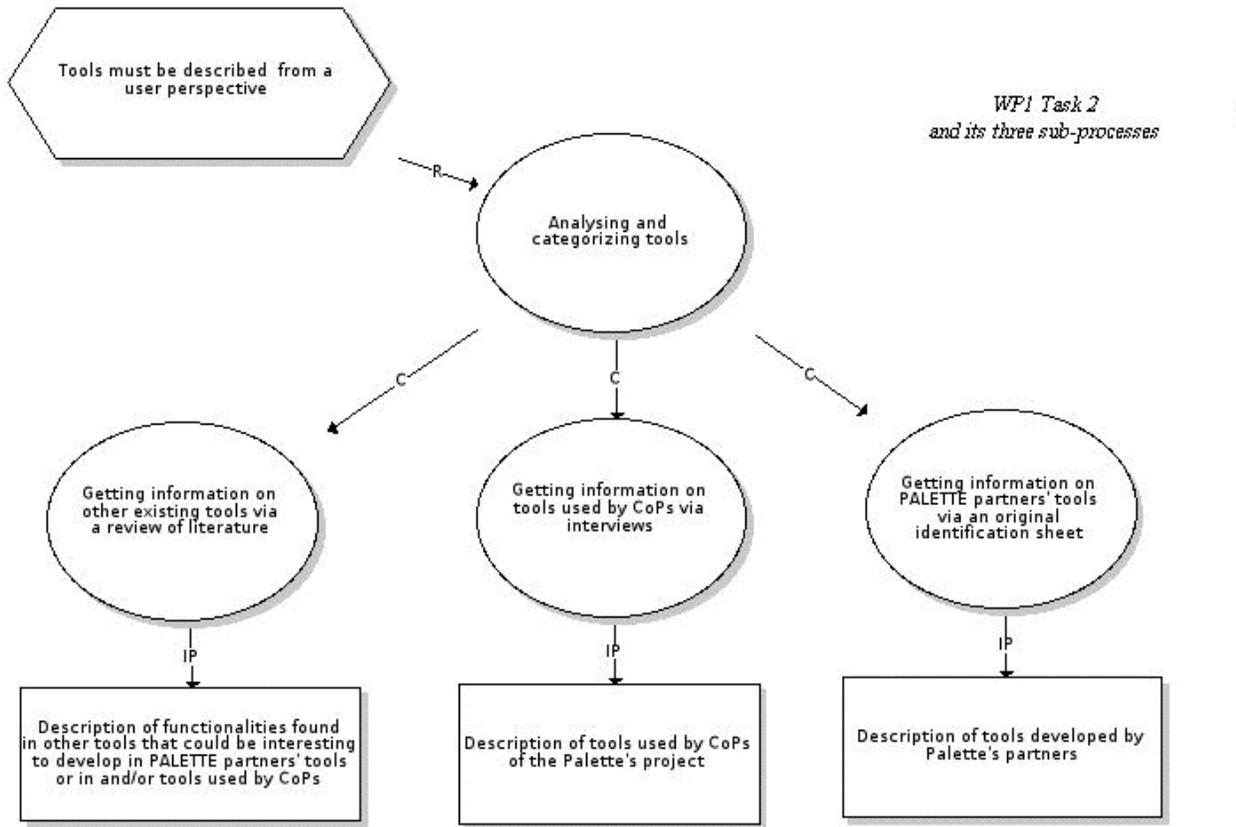
### 2.3 Methodology

In order to establish the methodology which would help us to meet the above mentioned objective, we selected three fields of investigation:

- The first one covers tools already used by CoPs involved in the project.
- The second one is the field which covers all the tools developed by the PALETTE partners.
- The third and last one gathers the tools, features and use cases of virtual communities outside PALETTE.

It is important to cover these three fields which are all rich in information. Let us recall that the main PALETTE objective is to provide different services useful for CoPs coming from three main categories of services: information services, mediation services and knowledge

management services. Since the objective of the project is to propose services for CoPs, our categorization methodology must follow an users' and not a developers' perspective.



**Caption:**

<p>“R” means “Regulates” (or “acts on”)          “C” means “is Composed of”          “IP” means “Input/Product-Output”</p>	<p>○ = Processes, actions          ⬡ = Principles          □ = Objects, products</p>
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*Fig. 1: WP1 Task 2 and its sub-processes*

**Figure 1** shows how the reflection on a user perspective allowed us to investigate the three fields. Even if the methodology is designed to be user oriented, the three fields required customized methodologies.

- The analysis of CoPs and their uses of tools will deploy an activities-centered methodology.
- The analysis of tools developed within the project will deploy a methodology taking into account a mix of three considerations: the technical descriptions of tools, the life cycle of CoPs (Daele & Charlier, 2006) and especially the three main categories of services of the PALETTE project.

- The methodology developed to analyse the tools developed outside PALETTE is much more flexible and does not take into account the preceding categorizations because the objective of this action is only to bring flexible ideas of development, not elaborate parallelisms.

## 2.4 State of the art - Analysis of existing tools taxonomies

The approaches described in this subsection show us that the building of a tools taxonomy is not trivial. Mainly, we discovered that tools taxonomies are not always focussing on the same kind of tools. Sometimes, the word 'tool' is a synonym of 'software', but it can also mean a whole system or a technology.

During the last twenty years, numerous approaches have been proposed for the classification of groupware technologies and their functions, basing their taxonomies on different dimensions. The DeSanctis and Gallupe's matrix of time and space (1987) has been adopted or revisited by several authors (for instance, Ellis and al. (1991), Grudin (1994) and Dix and al. (1998)). Some of these approaches provided alternative taxonomies based on shared information (Dix et al.) or functional criteria (Dix and al. (1998) and Ellis and al.(1991)). There are also approaches that selectively integrate space and time criteria, accordingly proposing new classification schemas (Reinhard and al., Coleman and Wenger).

Because of their functional issues, their innovative approaches and relative recentness, the existing classification approaches could suit the purposes of PALETTE. They are particularly interesting for PALETTE, because they offer some ways of understanding the various aspects of a knowledge strategy based on groups' activities and allow to explain how this technology can affect the success of a community of practice.

### 2.4.1 Reinhard's CSCW classification criteria (1994)

In 1994, Reinhard, Schweitzer, Völksen and Weber proposed to classify CSCW (**Computer Supported Cooperative Work**) systems according to **application, functional and technical criteria** (see Table 1). Even though their classification originally aimed at a better evaluation of technologies' flexibility, it can also serve generic purposes.

**Application criteria** refer to a system that can provide only generic tools only (e.g. shared calendars, shared editors) or both generic and specific tools (e.g. tools aiming at designing teaching material for a computer based teaching system).

**Functional criteria** are related to social aspects of teamwork, and include *interaction, distribution, coordination, user specific reactions, visualization and data hiding*. *Interaction* technology supports can be synchronous or asynchronous, implicit or explicit (direct communication through gesture/voice/video), and formal or informal. Furthermore, participants can be collocated or distributed. *Coordination* depends on the group's size and task, and can be free (i.e. relying on an agreement between group members) or system-based (i.e. managed by the system). *User specific reactions* are supported by different roles or rights, or handle each

interaction in the same way (collaboration transparent systems). *Visualization* may be related to WYSIWIS (what you see is what I see) principle. In any case, different levels are possible, since users can see identical content but different layouts, different views of the same object, etc. *Hiding data* with different granularity (from entire documents to single words) can be provided in different levels of data classification.

**Technical criteria** concern hardware, software (input, output, application, data) and network support. They are related to groupware's architecture. Each of the elements composing a software system can be either centralized (higher level of consistency but high data traffic) or replicated (data require less traffic but consistency is harder to obtain) or distributed (information is distributed in the different hosts composing a network).

Application Criteria		Generic	Generic and Specific Tools
Functional Criteria	Interaction	Synchronous	Asynchronous
		Implicit	Explicit
		Formal	Informal
	Distribution	Same place	Different Place
	Coordination	Free	System based
	User specific reactions	Provided	Collaboration transparent
	Visualization	Different levels of WYSIWIS	
	Data hiding	Different levels of granularity	
Technical Criteria	Input	Centralized	Replicated
	Output	Centralized	Replicated
	Application	Centralized	Replicated
	Data	Centralized	Replicated

*Table 1: Reinhard et al.'s CSCW classification criteria (1994)*

These multiple criteria are undoubtedly helpful to describe tools used in a group work environment. However, the many possible combinations of different characteristics are such that it is quite hard to use them in order to develop categories of tools. Moreover, the authors originally proposed to use these criteria to evaluate groupware products according to their ability to switch dynamically between different states. The categories' overlap is seen as a possible, positive fact and an integrated system as a desired goal. Hence, the above classification promotes a top-down vision about tools acting in work group activities: from a technological and ideal functioning point of view to the real implementations. PALETTE project tries to follow the opposite way. The aim is to shape, for the different CoPs involved in project, visions about tools used to support collaboration and work, as well as definition of the associated roles and functions.

## 2.4.2 Coleman's evolved functional categories (2002)

Coleman applied functional criteria to develop his logical taxonomy of groupware. The shorter version of classification is as follows:

- **Collaborative Content Management Systems:** Learning Content Management Systems, e.g. Blackboard
- **Tacit Knowledge and Intellectual Capital Management:** Storage, indexing, valuation and search of information
- **Real Time Collaboration Tools:** Audio/video/data conferencing, virtual classrooms, online presentations
- **Virtual Team Tools:** Distributed Project Management, Virtual Workplaces and process-oriented tools
- **Collaborative Customer Resource Management:** Application of human agents to e-commerce through the use of real time collaboration technologies
- **Portals and Online Communities:** e.g. Yahoo-groups, Google-groups
- **Unified and Wireless messaging infrastructures for collaboration:** Wireless collaboration, e-mail-based-services, peer-2-peer, IM/Chat, Bulletin Boards

To describe these categories, Coleman divided collaboration into six progressive levels; with different classes of tools integrated in different ways:

- **Messaging and Calendaring**
- **Project Management:** specific information is organized and shared. Related features are time-management, cost-tracking and document revision history
- **Data Management:** information is controlled at file level, and sophisticated access controls and file dependencies are tracked and managed
- **Neutral Data Access:** application data is shared with multiple users in a neutral file format like PDF. Multiple users can examine and markup the files without having the native application used to create them, even though they can not make changes to their design
- **Native Data Access:** multiple users are allowed to share and interact with native application data. Authorized users can work directly with data in their native format across the Internet
- **Real Time Design Review:** the ultimate level of collaboration, where more users can share a native application to make real time changes

Level	Objects	Documents	Conversations	Tasks
<b>Messaging &amp; Calendaring</b>	<b>Yes</b>	Maybe as attachments to e-mail or a calendar notation	<b>Yes</b>	Possibly as a result of the interaction
<b>Project Management</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b> Usually as real time or asynchronous threaded discussions	<b>Yes</b> Helps to define this category of tool or service
<b>Data Management</b>	<b>Yes</b> If they are in a file	<b>Yes</b> If they are in a file	<b>Yes</b> For asynchronous discussions if they are in a file	<b>Usually not</b>
<b>Neutral Data Access</b>	<b>Yes</b> Through application sharing or shared viewing	<b>Yes</b> Also have the ability to annotate (lots of neutral standards)	<b>No</b>	<b>No</b>
<b>Native Data Access</b>	<b>Yes</b> As part of sharing applications and whiteboards	<b>Yes</b> As part of shared applications also supports group editing	<b>Yes</b> Can support chat/IM or other conversations based application	<b>Yes</b> As part of project or task management applications

Level	Objects	Documents	Conversations	Tasks
<b>Real Time Design Review</b>	<b>Yes</b> Through application sharing or annotation with native file formats	<b>Yes</b> Through application sharing or annotation with native file formats	<b>Yes</b> Through application sharing or annotation with native file formats	<b>Yes</b> Through application sharing or annotation with native file formats

*Table 2: Data Types and Levels of Collaboration, from Coleman, 2002*

These observations (see Table 2) allowed Coleman to describe its latest functional classification in terms of the data types usually supported within a defined level of collaboration by a certain kind of tool. What emerges is that "different collaborative tool types work with different data types, using specific collaborative functions to support different levels of collaboration" (Coleman, 2002). This can be easily observed in the case of real time collaboration tools, supporting only conversations at a project management level and all kinds of data at real time design review level. Finally, Coleman looked at the functions associated with different tools in order to provide a more refined and practical sorting, always observing the fundamental distinction between synchronous and asynchronous collaboration.

These different criteria applied by Coleman to classify data, interactions and functionalities are the result of the researcher's perspective. If we analyse his classification in the lights of those made by Dix in 1998, it is possible to observe the different results of the observation of the same factors and their relations: data, interactions and functionalities. For example, Dix classified data according to their granularity and level of sharing, while Coleman divided them with respect to their type. On the other hand, Dix defined interactions in terms of different relations between participants and artifacts, while Coleman is interested in the levels of collaboration. The above researchers' visions converge when both looked at the functions associated with different tools in order to provide a more refined and practical sorting of them by introducing the distinction between synchronous and asynchronous collaboration. Thus, they both created special categories for synchronous tools: "meeting rooms" for Dix, "real time collaboration tools" for Coleman. Hence, we have to deal with a relative "freedom of classification" in groupware technologies that seems to forget that practice cannot be reduced to theory. Partially, this is related to the looseness of the main groupware category itself.

By observing and analysing CoPs activities, PALETTE proposes a user perspective of tools, roles and functions. Adopting this perspective, we contribute to adaptability, acceptability and accessibility of the PALETTE tools and services.

### **2.4.3 Wenger's categories for technologies supporting CoP (2001)**

In 2001, Étienne Wenger published the results of a survey of community-oriented technologies that included a classification of them. In order to select the technologies to include in his survey, he considered the needs of communities of practice. Wenger focused his categorization on shared repertoires of resources within a community of practice such as experiences, tools or stories within a community of practice. According to him, typical features useful to a community of practice would be:

- A homepage (to communicate its existence and activities)
- A conversation space (to discuss topics related to its domain)
- An area for floating questions within the community
- A directory of members' expertise in the domain
- A shared workspace (for eventual synchronous collaboration or meetings)
- A document repository (for their knowledge base)
- A search engine (to retrieve what they need in their knowledge base)
- Community management tools (to monitor members' activity and documents)
- A function allowing the creation of subcommunities

He classified technologies providing such functionalities at different levels in eight categories derived from the empirical study of the market (see Table 3):

	<b>Desktop of the knowledge worker</b>	<b>Online project spaces for team work</b>	<b>Website communities</b>	<b>Discussion groups</b>	<b>Synchronous meeting facilities</b>	<b>Community-oriented e-learning systems</b>	<b>Access to expertise</b>	<b>Knowledge repositories</b>
<b>Typical features</b>	<ul style="list-style-type: none"> <li>- Customizable desktop</li> <li>- Multiple views</li> <li>- Full-text search engines</li> <li>- Notification systems</li> <li>- Conversation spaces</li> <li>- Project management facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Workspace management</li> <li>- Team management</li> <li>- Project management</li> <li>- Task management</li> <li>- Folder structure for sharing documents</li> <li>- Search engines</li> <li>- Check out and version control of documents</li> <li>- Notifications</li> <li>- Conversation spaces</li> <li>- Presence awareness</li> <li>- Polling and voting</li> </ul>	<ul style="list-style-type: none"> <li>- Members' identification</li> <li>- Conversation spaces</li> <li>- Presence awareness</li> <li>- Folder structure for sharing documents</li> <li>- Customizable community space</li> <li>- Feedback and rating mechanisms</li> <li>- Sub-communities' support</li> <li>- E-commerce</li> <li>- Calendar of events</li> <li>- Administration console</li> </ul>	<ul style="list-style-type: none"> <li>- Members' identification</li> <li>- Advanced conversation spaces</li> <li>- Customizable community space</li> <li>- File upload with postings</li> <li>- Search engines</li> <li>- E-mail support</li> <li>- Advanced discussions</li> <li>- Sub-communities' support</li> </ul>	<ul style="list-style-type: none"> <li>- Presentation facilities</li> <li>- Application sharing</li> <li>- Web tours</li> <li>- Audio/Video streaming</li> <li>- Whiteboard</li> <li>- Chat</li> <li>- User reaction indicators</li> <li>- Polling and voting</li> <li>- Presence awareness</li> <li>- Automated invitation</li> <li>- Minutes-taking and action-items</li> <li>- Recording/archiving</li> <li>- Attendance reports</li> </ul>	<ul style="list-style-type: none"> <li>- Storage of content material</li> <li>- Open and directed ways for students to discuss content</li> <li>- Synchronous or asynchronous content delivery</li> <li>- Presentation facilities</li> <li>- Recording and broadcasting of classroom sessions</li> </ul>	<ul style="list-style-type: none"> <li>- Question-asking facilities</li> <li>- Profiles of experts</li> <li>- Feedback mechanisms</li> <li>- Reputation builder</li> <li>- Automated ranking of responses and experts</li> <li>- Automated access to FAQ database</li> </ul>	<ul style="list-style-type: none"> <li>- Documents storage, classification and indexing</li> <li>- Version control</li> <li>- Search engines</li> <li>- Document previews</li> <li>- Meta-data management</li> <li>- Recovery of deleted information</li> <li>- Integration of different data sources</li> <li>- Document format conversion</li> <li>- Administration facilities</li> </ul>

*Table 3: Wenger's classification technologies, from Wenger, 2001*

Like Coleman, Wenger dedicated a special category to synchronous tools. Along the years, as a consequence to social and technological changes, groupware technologies moved their center of attention from synchronous, co-located activities to long term, distributed ones. Interesting is also the fact that not all the systems belonging to a certain category provide the same features, and some tools can be more alike than others, or include functions that make them closer to those of other categories. In his graphical representation, Wenger indicated (with an arrow) the eventual trend of a product towards providing more forms of support for communities of practice.

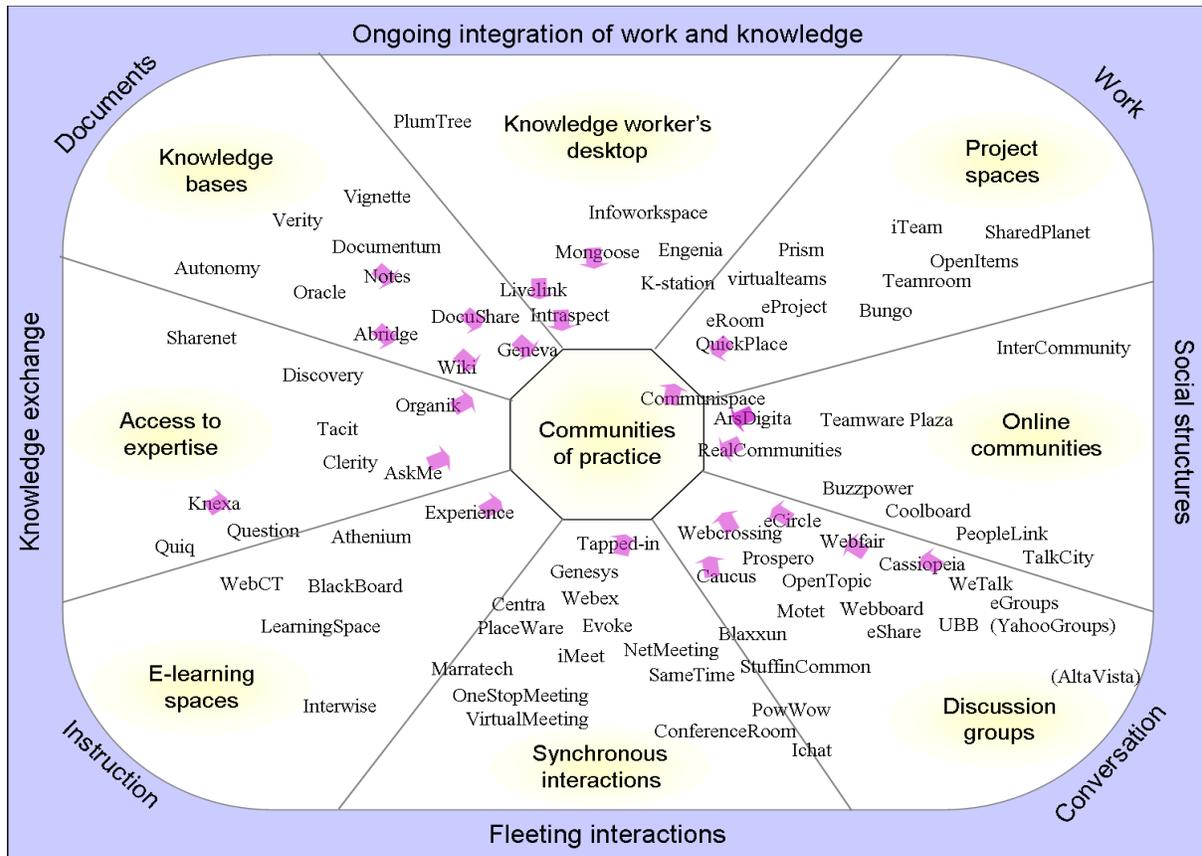


Fig.2: A graphical representation of Wenger's taxonomy (2001, p.9)

The Wenger's categorization (**Figure 2**) interests PALETTE in what the process of its development concerns. The author builds his categorization by putting technology in the context of community of practice needs. So he introduces an "interrelated dimension of the social life of knowledge" to illustrate the tension between the different requirements communities of practice need to integrate. More particularly it is a question of:

- Social structuring of knowledge: groups vs. markets (i.e. more or less group focused)
- Sharing knowledge: interactions vs. documents
- Context of learning: instruction vs. joint projects (i.e. more or less instruction based learning)
- Management of attention: multiple focuses vs. momentary, single focus.

According to Wenger's opinion, the optimal tools to support the complex activities in a community of practice must comply with the principle of strategic intent of the technology (Wenger, 2001). This means that the technology must support needs such as follows: knowledge exchange - social exchange, conversation - information, and instruction's work.

## Conclusion

As we have seen, different authors proposed different ways to classify groupware technologies and their functions. In this section, we have discussed in more detail three approaches in order to summarize three differently focused perspectives:

- Technical perspective of Reinhard & al. (1994);
- Collaboration process perspective of Coleman (2002);
- Community of practice needs perspective of Wenger (2001)

These categorizations offer an insight in the very complex problem of tools categorization. On the other hand, we can observe that the scholars felt the need to indicate that groupware categories tend to overlap. This tendency is to be seen as a positive factor, since the demand for integrated systems is high and their development desirable. PALETTE is in accordance with these lines, by promoting interoperability, usability, utility and acceptability of tools from a user perspective. In the light of the three categorizations presented, a possible technical solution to these demands seems to be tailoring. Tailoring is the activity of modifying a computer application within the context of its use (Mørch et al., 1998). In other words, it is the adaptation of a system performed by its users while using it, in order to satisfy the needs that were not properly accounted for in the original version. Considering the specific case of CoPs activities system, tailoring could take the form of modules or features which can be added to, refined or removed from the system by its administrator or final users.

By using the knowledge extracted from the three categorizations, we built a grid in order to facilitate user participation in the PALETTE's services design process. This grid has to bridge technical perspectives of tools design with users' perspective by helping CoPs to participate actively in the design of PALETTE tools and services.

## 2.5 Tools used by CoPs: Interviews

Some of the following sections make reference to information coming from the CoPs members or from their representatives. In a first step, the way to get this information was interviews. In order to help interviewers in the accomplishment of their job, an interview guide was built. We explain shortly below, the principles related to the building of this guide.

Building an interview guide, which would help us to get information from activities in the CoPs, required to take into account several dimensions. All questions addressed to CoPs would be formulated in order to get some sort of scenarios with a consideration as precise as possible of CoPs activities.

Thus, we needed to have:

- First, precise and concise ideas of what sort of activities traditional CoPs have. For example, practitioners usually share documents, have discussions on their activities, share tips, try to evaluate themselves through experiences, and so on.

- Secondly, we needed to know how existing tools (already used by CoPs) and how tools developed by partners support or could support these activities, so that we have a good idea of what sort of tools are usually used/could be used by CoPs.

We needed to know how a CoP lives, and how tools could support their activities. Thus, we wrote some questions from scratch which intended to know more about activities that could or could not be supported by tools. We preferred starting from an activities-centered perspective than from a tools usages one in order to get very contextualized (in the CoPs life) usage scenarios. Directly asking questions to CoPs on tools usages would have shown us some specific problems of already existing tools usages, rather than have helped us to think about new ways of doing things. The mentioned questions were:

About the activities of the CoP

- Can you describe the activity of CoP compared to what it produces?
- What are the current results (in a large sense) of the CoP's production?
- In your view, does the CoP create knowledge? If so, can you describe this process of creation?
- Can you describe how and where the community finds/retrieves information? Can you describe the process?
- Can you describe the mediation process (collaboration, negotiation, decision making on specific tasks)?
- How would you describe the learning activities (or the development of competencies) of the members in the community?
- Can you illustrate (with examples) some situations of uses of tools (technological and organizational)?
  - Which tools (technological and organizational) are used by CoPs?
  - How could you characterize the appropriation of the tools by members? Are they well accepted / used?
  - Which tools (technological and organizational) could be useful for CoPs?

Technical partners were solicited to this participative activity of writing the guide<sup>1</sup>, and throughout the evolution of the project (realization of interview, tools descriptions, and so on), the guide continues to be improved by comments from all the partners. We believe that this document will evolve through all the duration of the project. The task of writing the interview guide is detailed in D.PAR.01 (sections 3.2.2 and 4.2.2). Some results of these interviews on the tools already used by CoPs have been translated into MOT+ schema and are presented in D.PAR.01 (section 3.3.2.2).

## 2.6 Tools developed within PALETTE

In order to build a tools identification sheet, we planned a collaborative work with the technical partners. They hold down the best place to talk about the tools they developed. But this point of view being not sufficiently user-centred, we have included in the building of this sheet, a lot of items directly inspired by Daele & Charlier 2006.

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<sup>1</sup> The complete interview guide with the above questions and their details can be found in annex 2 of D.PAR.01.

The following subsection describes the main ideas and, notably, the five criteria allowing tools to help CoPs living and growing. The next two ones describe the building of the sheet and present the results obtained from the analysis of the completed questionnaires.

### **2.6.1 PALETTE's tools classification from a user perspective**

It is known that the successful use of a system not only depends on how the system is designed but also on the characteristics of the users, on their knowledge and familiarity to manipulate such systems, their attitudes and the degree to which the system matches their perception of the operations it is able to support.

One major concern in the development of adaptability, acceptability and accessibility of the PALETTE's tools and services is to develop a real communication between users and developers. To facilitate this attempt, we propose a grid that constitutes the interface between PALETTE tools and PALETTE beneficiaries, the CoPs involved in the project. Indeed, the more the classification of tools will be centered on the relation between the users and the developers rather than solely user- or developer-centered, the more the communication and the collaboration should be efficient because based on common vocabulary and culture. For this purpose we chose to present the tools not only by following the technical categories depicted in our questionnaire but also following validated categories of CoPs' activities. This is structured according to five categories, coherent with the Wenger (2001) classification, that we defined from the learning process model adopted in PALETTE (Daele, 2004; Daele & Charlier, 2006). This way to present the tools could help the beginning of the development of a double awareness: one of developers about CoPs needs and another of CoPs about possibilities offered by the PALETTE's tools.

The five criteria identified for our purposes were the following:

- Exchange of resources;
- Experience sharing and expression or illustration of practices, reflection and analysis;
- Problem solving and depiction or (collaborative) creation of new knowledge
- Debate, confrontation, argumentation, negotiation for decision making
- Archiving, evaluation, coordination, awareness

#### **Exchange of resources**

One goal of the CoPs is to create a social structure that fosters learning, develops competencies, and helps members to share knowledge. The question to deal with here is to explore how online repositories are used to store, share and reuse knowledge and content, and how taking the user perspective might challenge the emerging approaches to repository development. The key factors of success include easy uploading/downloading, awareness functionalities and tools to search.

#### **Experience sharing and expression or illustration of practices, reflection and analysis**

We included under the same criterion the process (experience sharing) and the results of this process (reflection and analysis) because we aim to stress the interdependence that exists between

them. The sharing of practices and experiences is often one of the first things to be carried out in a knowledge management initiative. During their activities, the members of CoPs share methods, tools, techniques, language, stories and sometimes behaviours. They share also emotions, reflexions, ideas, motivation, perceptions, etc. The results of this sharing process are expressed by the degree of analysis and reflection about their own practices. The choice of appropriate technologies depends on the nature and objectives of CoPs and issues and problems on which they focus. So, information technology creates a bridge between geographically distributed members, and provides a space in which they can communicate their reflections, their analysis about their practices and their ideas.

### **Problem solving and depiction or (collaborative) creation of new knowledge**

In their activities, CoPs' members raise new questions and issues. They need to keep track of all ideas and related brainstorming. So, they can go back to this list later to get inspiration or to help in problem solving. In this process, the CoPs can exchange many ideas and create new knowledge. Knowledge is information about structured and relevant resources that is sharable and reusable. The ability to create and harvest knowledge is becoming a key factor in the activities of CoPs. According to a user perspective, for finding quickly any information, the CoPs could need a powerful tool for searching and locating information needed in their work.

### **Debate, confrontation, argumentation, negotiation for decision making**

Decision making is one of the most common thinking activities and one of the most crucial processes of any CoP. To decide, from a user perspective, usually means to make a choice among alternatives. We can have a debate about ideas or actions and everybody can argue about his/her point of view. Argumentation is another communicative activity in CoPs. Many argumentation technologies exist, such as mailing lists, group decision support systems, co-authoring, and negotiation support systems. Support for argumentation should include the specific conversational moves and it should also enable the design of these interactions, in terms of augmenting, shaping, guiding, and facilitating argumentative interaction. In this process, the negotiation for decision making may be about problem solutions or meanings of concepts. Negotiation can be backed up with the already agreed upon points of view and lines of arguments for developing or elaborating concepts.

### **Archiving, evaluation, coordination, awareness**

Acquiring, reproducing, reusing and storing information and knowledge requires special premises and skills. Firstly, awareness is important to facilitate a collaborative work. In the short term, awareness is a good way of "knowing about what is going on in the shared workspace", and in the long term, in this context, it means "knowing about what is going on with the shared knowledge". Archiving is an important activity too, for example to manage email archiving services, to reuse information or to keep tracks of what has been done and shared.

## 2.6.2 Development of a tool identification sheet

In order to describe efficiently tools developed within the framework of PALETTE, we decided to develop a tool identification sheet (choice of the elements and structure) which would be addressed to developers working in PALETTE. The sheet was developed as a form<sup>2</sup> that would help us to get easily answers to the same questions for each tools of partners. We had already some presentations of tools (during Kick-Off meeting in March and Summer School, for example), but all of them were different. Some partners made only technical presentations whereas others presented their tools with a very precise idea of what sort of CoPs' activities they could support. Thus, the form would help us to fill in descriptions which would be comparable and as rich/complete as possible.

The form provided us a description of the tools according to several criteria. These criteria have been co-constructed with the developers because they were the ones who would fill in it, descriptions are intended for them, and also because they better knew how to describe their tools.

The process of elaboration was based on the followings steps:

The first draft has been elaborated with technical partners. We first wrote questions on technical aspects of the tools which included very objective questions:

- General information about the team and the context where the tool is developed, etc.
- Tool description with demo/screenshots links, etc.
- Technical description, how is it coded, etc.

After several discussions and small loops of regulation with partners, we decided to incorporate some questions to more precisely describe generic tools developed by some partners. These questions led us to add questions on very specific features/components of tools that were important to be described. Even if these descriptions satisfied tools' developers, they appeared to be not sufficient for some others. They thought that technical descriptions only could not be useful for the project. The purpose of PALETTE is not to develop technical innovations per se, but mainly to enhance CoPs activities by providing them the appropriate services (supported by tools). Thus, every description of tools needed to be contextualised in CoPs' life. We then had to ask developers what sort of services their tools could support.

So after reactions of several partners, the form was improved. A second section of questions about tools services and tools usability was added. These questions were about:

- **Usability**
- **Target audience of the tools:** Who in the CoPs could this tool help?

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<sup>2</sup> The questionnaire can be found in annex 5.1.

- **Purpose in PALETTE:** This section is maybe the one which was the more difficult to elaborate, because we needed to integrate questions about the CoPs activities. For this reason, we have had to work out criteria of categorization from a user perspective (those previously presented).

### 2.6.3 Results

The answers collected gave us very useful data on the 12 developed tools by the five technical PALETTE partners (forms completed are presented in the annex part of this document). Drawing deep conclusions from these data is useless since the majority of these tools are in stage of development (we do not know yet precisely which services these tools will cover). However, we present the results below (being aware that some issues will evolve all along the project).

Name of Tools?	Partner's name?	Programming Language?	Can it be used directly in a CoP?	WP interest?
Amaya	INRIA / WAM	The code is written in C and C++. The user interface is built on wxWidgets	Yes	WP2
CoPe_it!	Research Academic Computer Technology Institute	The technologies used to program it are: C#, VB.NET and ASP.NET	Yes	WP2, WP3 and WP4
Corese	INRIA - ACACIA	Java, RDF, Conceptual Graphs	No	WP2, WP3 and WP4
e-Logbook	EPFL	The current version relies on .NET and C#. The next version will rely on Ruby on Rails.	Yes	WP2, WP3 and WP4
Generis	Centre de Recherche Public Henri Tudor	PHP, xml, abstraction of DBMS (possible use of MySQL, Oracle ...), some components programmed in C.	No	WP3
KmP	INRIA - ACACIA	Java; Jsp; RDF/RDFS/SPARQL/XSLT; MySQL; SVG	Yes	WP3
LimeSee2	INRIA / WAM	Java 1.4 (among the different used libraries are the dom4j xml model and the jmf multimedia framework)	Yes	WP2 (maybe WP4 too)
Meat	INRIA - ACACIA	Java; XML; JAPE	Yes	WP3
QBLS	INRIA - ACACIA	Java; JEE; XSLT	Yes	WP3
ROCS	EPFL	Java and XML Technologies	Yes	WP2
SeWeSe	INRIA - ACACIA	Java; servlet; JSPX; XML; XSLT; CSS; XHTML; RDF/S; OWL; SPARQL; javascripts; AJAX; etc.	No	WP3 and WP4
Virtual Staff	INRIA - ACACIA	Java	Yes	WP3 and WP4

Table 4: Comparison of tools

The grid presents each tool identified according to the technology used to develop it, with a parallelization with its immediate (or not) usability by CoPs, and the type of services which the developers think that the tool could answer to. In the question about services, it was asked to answer for which WP the tool could be useful. Let us recall the services that each related WP is supposed to develop:

- **Information Services:** WP2
- **Knowledge Management Services:** WP3
- **Mediation Services:** WP4

By observing the results, one can realize that interoperability between technologies used by the various partners is not obvious, even if the tools seem to be complementary to each other. Some tools are programmed in different languages which are not interoperable. Incompatibilities can also exist on the fact that the tools were created to manipulate different files format. The challenge of interoperability between the services to be addressed by the WP5 is thus not to be forgotten.

### 2.6.3.1 Competencies and technical requirements

Proposing tools to support the activities of CoPs is an issue, to make these CoPs able to quickly and easily use these tools is another more difficult issue. The usability of tools depends on various criteria: the design of the interface itself depends on it, the degrees of competencies needed to use it, but also the type of technology which these tools require to work with (webserver, operating system, etc.). Through the two following questions we intended to know more about that:

Name of Tools?	Technical requirements?	Competencies of users?
<b>Amaya</b>	It runs on Windows XP/2000/NT, Mac OS X, and Linux platforms	It needs that someone in the CoP has a minimum knowledge of HTML, or better, XHTML
<b>CoPe_it!</b>	DataBase Server: SQL SERVER Web Server: IIS OS: Windows 2003 Server Edition	No special IT competencies are required for using CoPe_it!
<b>Corese</b>	JVM	RDF (good knowledge) - SPARQL (very good knowledge) - XSLT (-)
<b>e-Logbook</b>	Webserver	Basic use of a Web browser
<b>Generis</b>	Web browser (any web browser, the application is cross-browser), web application server (apache, MySQL) regarding the server side (runs file on Windows, Linux, Mac OS X).	None but depending of level of use.
<b>KmP</b>	Tomcat - MySQL - Java - Linux/Windows	No competencies (looks like a web server)
<b>LimeSee2</b>	Windows/Linux/Mac OS X + Java 1.4 environment.	Good knowledge of SMIL (and more generally XML).
<b>Meat</b>	Linux / GATE	For MeatSearch, no special competencies: only be able to use the interface.
<b>QBLs</b>	Webserver (currently runs on tomcat 5.5)	Requires a fair bit of knowledge about the software itself; to be configured. After that, the use does not require technical knowledge.
<b>ROCS</b>	It is designed to be independent of platforms.	Nothing (domain understanding)
<b>SeWeSe</b>	JDK 1.5 + Tomcat	Developers need to know associated technologies. Users just see a website.
<b>Virtual Staff</b>	Tomcat, JDK 1.4+	No special competencies are required: the end-user must be able to use the interface for building and filtering the graphs.

Table 5: Comparison of tools

By analyzing the results obtained, one realizes that there are several categories of tools: tools could be web-based or stand-alone, on the one hand, they also could be generic tools and integrated tools, on the other hand. Therefore, there are three categories:

- **Web based and integrated tools:** Cope\_it!, e-Logbook, Generis, KmP, QBLs, and Virtual Staff.
- **Local based and integrated tools:** Amaya and LimeSee2.
- **Generic tools:** Corese, Meat, SeWeSe, and ROCS.

From the usability point of view, the integrated tools (web-based and local one) must be easy for the final user. Several of the tools developed within PALETTE must be improved on this aspect (see the answers to the questions of the Usability part of questionnaire (annex 5.2)). The generic tools are not concerned with these questions of usability since they are handled only by developers. The final users manipulate them via other interfaces.

**2.6.3.2 An inventory of tools towards a user perspective**

As explained previously, we felt the need to integrate in the questionnaire some questions which would help us to make an inventory of tools towards a user perspective in order to establish possible correlation within tools.

Obviously, some of the tools under consideration fall in one or more categories (**figure 3**). The main contribution of this synthetic view is that the occurring overlaps of services can be revealed and thus design towards the integration of services can be properly performed. Furthermore, all participating partners can be properly informed about tools available and exploit the respective provided services. In addition to that, among benefits resulting from this description of existing tools is the facilitation of WP5 task related to the development of services inventory.

Name of tool	Exchange of resources	Experience sharing	Expression of practice	Analysis about experience sharing	Decision making	Creation of knowledge	Support for evaluation	Awareness	Coordination	Archiving
<a href="#">Amaya</a>	****	****	***	***	**	****	***	***	****	*
<a href="#">CoPe_it!</a>	****	****	***	****	****	****	****	***	****	***
<a href="#">Corese</a>	****	*	****	****	***	***	**	**	**	****
<a href="#">e-Logbook</a>	****	****	****	****	****	**	****	****	****	****
<a href="#">Generis</a>	****	**	****	***	****	***	****	****	****	****
<a href="#">KmP</a>	**	**	****	***	*	***	*	*	**	***
<a href="#">LimeSee2</a>	*	****	****	**	*	****	*	*	*	*
<a href="#">Meat</a>	****	**	***	***	***	***	***	***	***	****
<a href="#">QBLS (Question Based Learning System)</a>	****	***	***	***	***	****	****	***	***	****
<a href="#">ROCS</a>	*	****	****	**	*	*	*	**	*	*
<a href="#">SeWeSe</a>	****	*	*	*	*	***	*	***	*	****
<a href="#">Virtual Staff</a>	****	****	****	***	****	****	***	***	*	***

*Fig. 3: Scale from 1 to 5 (\*\*\*) = middle position) describing the interest of tools regarding some CoPs' activities*

From a CoP member point of view, the "Categorization of Tools" activity supports CoP members in terms of providing helpful information about the existing tools. The results of this study can be properly disseminated to all participating CoPs, so as to inform them about tools and technology options already available. It should be noted at this point that the lack of information regarding tools that facilitate everyday practices is quite common. In this way, the people involved in PALETTE can make their choices as regards the use of existing tools that better suit their specific needs.

Finally, the synthetic view of forms can be used as an input to the PALETTE WP1 Task 3, aiming at the design of scenarios of uses of services, as it is absolutely essential to have a general description of tools based on the same grounds.

## 2.7 External tools: depiction and analysis of existing tools

The computer and management literature abound of examples of use of web-based tools for communities. Some tools are presented as bringing miracle solutions for the development of communities of practice, while others are used by hundreds of communities of practice but are not presented like that. Without falling into a blind idealism, we will try through this subsection to present tools or tools' functionalities developed outside PALETTE. If we do not have a look at some tools developed outside PALETTE, there is a risk of not taking into account recent developments done elsewhere. So, we do not want here to bring completely new ideas, but only to have a look on some interesting developments. We will describe what is done through a synthesis of ideas coming from various sources (experiment documents, scientific papers, tools presentations, articles, online reviews, and personal experiments). Our purpose is not to make an exhaustive list of the useful functionalities / ideas for the development of tools for CoPs, but only to bring some elements for reflection on "what is done" elsewhere. For that, we identified 6 general sets of themes allowing us to explore various interesting directions:

- *Categorization*
- *Collaboration*
- *Sharing*
- *Coordination*
- *Stimulation*
- *Debating*

The labels of these directions differ from the categorizations considered previously for several reasons:

- These directions, as their name indicates, are only directions (not categories).
- What we present here is not properly about tools. It is about functionalities of tools, concepts which frame current research or, quite simply, a way of functioning of some virtual communities.
- Moreover, these directions are not guided by a theory on CoPs. These are tools, functionalities, or simply practices of virtual communities that can help to give ideas to PALETTE partners.

### 2.7.1 Categorization

Categorization is the process in which objects are recognized, differentiated and understood. It implies that objects are grouped into categories, usually for some specific purpose. Ideally, a category illuminates a relationship between the subjects and objects of knowledge. Categorization is fundamental in decision making and in all kinds of interaction with the environment. There are, however, different ways of approaching categorization.

These last years, a new phenomenon emerged which changed the manner of considering the categorization of these information-objects. It is called **folksonomy** and it is generated through the **tagging activities** of users.

## Folksonomy

A "folksonomy" is a collaboratively generated, open-ended labeling system that enables Internet users to categorize content such as Web pages, online photographs, and Web links. In the opposite of the traditional categorizations (which are often taxonomic type), the categorization in tag (or folksonomy) does not require a preestablished way of organizing the objects. The users who do not know the organization of the files system are able to classify a new element easily as well as to find an object in it. The freely chosen labels called "tags" (see below) help to improve search engine's effectiveness because content is categorized using a familiar, accessible, and shared vocabulary. The labeling process is called tagging. Three widely cited examples of websites using folksonomic tagging are:

- Del.icio.us - <http://del.icio.us> (tags for bookmarks)
- Flickr - <http://flickr.com> (tags for pictures)
- YouTube - <http://www.youtube.com/> (tags for videos)

## Tags

A tag is a keyword or a descriptive term associated with an item as means of classification. Tags are usually chosen informally and personally by the author/creator of the item, i.e. not usually as part of some formally defined classification scheme. Tags are typically used in dynamic, flexible, automatically generated internet taxonomies for online resources such as computer files, web pages, digital images, and internet bookmarks. Typically, an item will have one or more tags associated with it, as part of some automated classification software or system. The software will provide links to other items that share that keyword tag, or even to specified collections of tags. This allows for multiple browseable paths through the items which can quickly and easily be altered by the collection's administrator, with minimal effort and planning.

### 2.7.2 Collaboration

The term of collaboration covers various dimensions. The simple fact of exchanging documents can be regarded as a form of collaboration. Since we dedicated a section to the sharing document activities, we will present here the tools which support collaboration in its strongest dimension which is the production of an original work together. By original work, and within the framework of the communities of practice, we think of documents that integrate different sort of data: texts, images, figures, tables, videos, etc. This type of activity can be supported by various types of tools.

In general, when it is a question of working on the same documents together, the workers have as a practice to edit documents on machine locally with traditional editors of documents: OpenOffice.org, Microsoft Office, KOffice, iWork, etc. These documents are then exchanged (via Email for example), and then improved again. Different versions of documents are exchanged until one agrees on a last final version.

This way of functioning, although it is very popular among workers, has many disadvantages: slowness of the process, impossibility of writing together in the same time, the access to the last version of the document is not always easy, all the workers must have the same editing software, etc.

## Wiki

In order to solve the above problems, the programmers developed technological Web-based tools making it possible to edit documents together. First of them, the wiki which is a type of website that allows users to easily add, remove, or otherwise edit and change most available content. The success of this tool could be evaluated by having a look at the evolution of the Wikipedia.org project and at other website that use Wiki to write their documentations. Wikis are very powerful engines but also rather austere, and are not very user-friendly. Wikis are not WYSIWYG editor (**What You See Is What You Get**). Thus it requires the learning of typographic syntax by the user. The Wikis interfaces and their typographical syntax are different from a software to another.

## Further evolutions

Basically due to the success of these new technologies, new web-based editors were born in the last months. They learned from the positive experiments from Wikis, and developed a lot of new functionalities. Among the new functionalities offered by these tools:

- Support of import/export of files in traditional format (even proprietary).
- WYSIWYG editor.
- Many sort of editing document: Spreadsheet, Text document, etc.

Among these new web-based office applications, **Writely** is one of the most famous. We also could mention **WriteBoard** (which is not WYSIWYG but very user-friendly) from the 37Signals team.

Writely can be used as a collaborative text editing suite, and features access controls. Its user interface is a WYSIWYG word processor that appears within a web browser. Menus, keyboard shortcuts, and dialogue boxes show up in a way similar to what you would expect on a GUI-driven word processor, such as Microsoft Word or OpenOffice.org.

One of the more important feature of these tools is the controlling changes one. Previously described tools are generally designed with the philosophy of making it easy to correct mistakes in documents, rather than making it difficult to make them. Thus, while these tools provide very easy way to make corrections on a shared document, they also provide a means to verify recent additions to the body of pages. This feature is called Recent Change, Page history or Change Log.

Hence, through this feature users could review Revision History showing previous page versions; and the *difference* feature, highlighting the changes between two revisions. This feature helps the users to get the history flow of the content.

- Writely - <http://www.writely.com/>
- WriteBoard - <http://www.writeboard.com>

### 2.7.3 Sharing

The term "sharing information" gathers many different practices. We will here restrict our meaning to that of sharing information with a relatively broad public. Two types of platform are largely developed: Blog and CMS. The blogs are generally used by individuals whereas the CMS are for groups of persons. Moreover, the information which is disseminated is present in different ways on Blog and CMS. The blogs present less structured and more factual information, whereas the CMS propose more finalized information.

#### Blogs

A weblog, which is usually shortened to blog, is a type of website where entries are made (such as in a journal or diary), displayed in a reverse chronological order. Blogs often provide commentary or news on a particular subject, such as politics, or local news; some function as more personal online diaries. A typical blog combines text, images, and links to other blogs, web pages, and other media related to its topic. Most blogs are primarily textual although many focus on photographs, videos or audio.

- WordPress - <http://wordpress.org/>
- Typo - <http://www.typosphere.org/>

#### CMS

A content management system (CMS) is a computer software system for organizing and facilitating collaborative creation of documents and other content. A CMS is sometimes a web application used for managing websites and web content, though in many cases, CMS require special client software for editing and constructing articles. They can also be used for storage and single sourcing of documentation for a firm including but not limited to operators' manuals, technical manuals, sales guides, etc. The market for CMS remains fragmented, with many open-source and proprietary solutions available. Some of them are listed below.

- Joomla! - <http://www.joomla.org/>
- Drupal - <http://drupal.org/>
- Radiant - <http://www.radiantcms.com/>
- List of CMS - <http://www.cmsmatrix.org/>

### 2.7.4 Coordination

Coordination within the communities of practice covers various concrete realities, various processes but also various associated technological (or not) solutions. Some CoPs organize regular meetings to coordinate their members. Others set up technological solutions (which are mainly tools of communication) which make possible that each member evaluates the work

progress of other members. That can be done through a daily report of the member's activities diffused to other members, informal discussions, a shared calendar of activity with description of task and deadlines (that could be individual and collective), etc.

The most current technological solutions to ensure good coordination between members are often shared calendars with tools of traditional communications associated (more or less advanced). Among the most popular divided calendars, one finds **Google Calendar**, **Kiko**, **30Boxes**, etc. which have the advantage of being very easily editable, and exportable to other applications (Shared calendar in RSS format for example).

Other types of more integrated applications combine the shared calendars with communication systems. It is the case of **Hula**, by example, but also of **BaseCamp**.

- **Calendar:**
  - Kiko - <http://kiko.com/>
  - 30Boxes - <http://www.30boxes.com/>
  - Google Calendar - <http://www.google.com/calendar/>
  - Phenix Agenda - <http://www.phenix.gapi.fr/>
- **Integrated software:**
  - Basecamp - <http://www.basecampHQ.com/>
  - Hula Project - <http://www.hula-project.org/>

## 2.7.5 Stimulation

The stimulation of activity is a principle which can be implemented by various technical mediations. The simple feature of alerting the users instantaneously can stimulate interactivity. Among the systems of mediation which stimulate the activity, we can mention the forums, the instant messaging, the mailing-list and the meta feature of all these systems which is the Web Syndication.

### Forum

An Internet forum is a facility on the World Wide Web for holding discussions, or the web application software used to provide the facility. Web-based forums, which date from around 1995, perform a similar function as the dial-up bulletin boards and Internet newsgroups that were numerous in the 1980s and 1990s. A sense of virtual community often develops around forums that have regular users. Some Internet forum software:

- Vanilla - <http://getvanilla.com/>
- PunBB - <http://www.punbb.org/>

### Instant messaging

Instant messaging typically boosts communication and allows easy collaboration. In contrast to e-mails or phone, the parties know whether the peer is available. Most systems allow the user to set

an online status or away message so peers get notified whenever the user is available, busy, or away from the computer. On the other hand, people are not forced to reply immediately to incoming messages. This way, communication via instant messaging can be less intrusive than communication via phone, which is partly a reason why instant messaging is becoming more and more important in corporate environments. Also, the fact that instant messages typically get logged in a local message history closes the gap to the persistent nature of e-mails, facilitating quick, safe, and persistent exchange of information such as URLs or document snippets, which can be unwieldy when done using inappropriate media such as phone. Two examples of IM tools:

- Jabber - <http://www.jabber.org/>
- Skype (voice and video too) - <http://www.skype.com>

### **Mailing-List**

A mailing list is a collection of names and addresses used by an individual or an organization to send material to multiple recipients. A discussion group that occurs via mass email distributions. Mailing lists are usually maintained by individuals utilizing list server software. List servers maintain a list of email addresses to be used for the mailing list. Subscribing and unsubscribing to the list is accomplished by sending a properly formatted email message to the list server. Mailing-list could be moderated and unmoderated. To send a message to an unmoderated list, you email it to the list server which automatically emails your message to every name on the list. To send a message to a moderated list, you email it to the mailing list's moderator who would then send it on to the list server for distribution.

- MailMan - <http://www.gnu.org/software/mailman/>

### **Web Syndication**

In opposite to the tools presented above, the Web-syndication is not a tool but a functionality which can be applied to various web-based tools like: CMS, Blog, IM, etc. Web syndication is a form of syndication in which a section of a website is made available for other sites to use. This could be simply by licensing the content so that other people can use it; however, in general, web syndication refers to making Web feeds available from a site in order to provide other people an updated list of content from it (for example, one's latest forum postings, etc.). This originated with news and blog sites but is increasingly used to syndicate any type of information.

Millions of online publishers including newspapers, commercial web sites and blogs now publish their latest news headlines, product offers or blog postings in standard format news feed. Syndication benefits both the websites providing information and the websites displaying it. For the receiving site, content syndication is an effective way of adding greater depth and immediacy of information to its pages, making it more attractive to users. For the transmitting site, syndication drives exposure across numerous online platforms. This generates new traffic for the transmitting site's making syndication a free and easy form of advertisement. The prevalence of web syndication is also of note to online marketers, since web surfers are becoming increasingly

wary of providing personal information for marketing materials (such as signing up for a newsletter) and expect the ability to subscribe to a feed alternatively.

## 2.7.6 Debating

Debating in a CoP consists in formal discussion on a particular topic, in which arguments pro and con are put forward. These activities are very useful for CoPs. There are important periods of time in which each one tries to find justifications for its argumentation. A lot of mediated communities developed methods (sometimes supported by technical artifacts) in order to manage the debates between the participants. There are as many examples as different ways of managing debates. In this subsection we will briefly describe two examples which are very different in the way of managing debates.

### Wikipedia

The first example is the process of negotiation and argumentation of Wikipedia (the famous encyclopedia). An argumentation process can happen for several reasons. For example, if a contributor wants to delete an article because he finds it inappropriate, he will start a debate to ask the others if he is allowed to delete it (see **figure 4**).

**Lisa Suhay** [edit]

no sources and no real indication of notability [Spartaz](#) 14:18, 23 July 2006 (UTC)

- **Keep** her first book *Tell me a story* seems to be notable and widely reviewed. The CNN review is quoted on its Amazon page under the *Editorial Reviews* section. Notable enough. [Andrew Lenahan - Starblind](#) 15:04, 23 July 2006 (UTC)
- **Keep** Appears to be **WP:VAIN** Creator of article is [User:Fableauthor](#) which seems to be Lisa herself. I've asked for clarification on her talk page, but have no response. The only substantive subsequent edit was wikification. I think much of this should be used, but I do think an article about Lisa Suhay is valid (notable and verifiable), but it should be written by someone else. [Brian](#) 16:57, 28 July 2006 (UTC)|tball

Changed delete to keep as I just received confirmation from Lisa Suhay that it is **not** autobiography. Another person posted the article from Lisa's account (which is why it appeared to me to be autobiography). I agree it is notable and verifiable - my only concern was the possible autobiography. Thanks. [Brian](#) 18:29, 31 July 2006 (UTC)|tball
- **Delete** - there is an encyclopaedic article in here trying to get out. However, WP is full of articles kept in the vain hope that they will get cleaned up and we don't need another. Delete, and someone can start again if they wish. [BlueValour](#) 20:04, 29 July 2006 (UTC)

***AFD relisted to generate a more thorough discussion so that consensus may be reached.***

Please add new discussions below this notice. Thanks, [Maier Diab](#) 17:33, 30 July 2006 (UTC)
- **Keep**. Looks pretty good to me, and the CNN thing clinches it for me (assuming it can be substantiated; I've slapped a {{fact}} on that assertion). --[Rhwawn](#) talk to [Rhwawn](#) 03:33, 31 July 2006 (UTC)
- **Keep**, here's the review [\[24\]](#) |, she also might be the same Lisa Suhay involved in a bizarre NYT situation: [\[25\]](#) |. --[badlydrawnjeff](#) tak 11:05, 31 July 2006 (UTC)
- **Keep**, might be a **WP:AUTO** violation (and might not be for that matter), but she meets **WP:Bio** and editing can deal with any **WP:VAIN** wording, etc. --[Isotope23](#) 14:54, 31 July 2006 (UTC)

**Comment** I confirmed that it's not autobiography and changed my opinion (see above) at this time there's no reason to delete - this article should be kept in my opinion 22:13, 31 July 2006 (UTC)|tball
- **Keep** - fix and cleanup. [GrapePie](#) 19:55, 31 July 2006 (UTC)
- **Keep** per [Badlydrawnjeff](#) and link to CNN transcript, this subject passes **WP:Bio** guidelines. [Yamaguchi](#)先生 09:07, 1 August 2006 (UTC)

*The above discussion is preserved as an archive of the debate. **Please do not modify it.** Subsequent comments should be made on the appropriate discussion page (such as the article's talk page or in a deletion review). No further edits should be made to this page.*

*Fig.4: Debating on Wikipedia*

The contributor explains the reason why he wants to delete this article and asks the others what they do think about it. Then, everyone tells the others why they wish the article to be preserved or deleted and argue in detail. Each one has also the possibility to comment or to ask for more details about the position of the others. These positions can also evolve/move with through the

process of debating (thanks to the controlling version which allows a contributor to position himself in favour one day and against the day after).

What is interesting in the manner of functioning of the argumentation on Wikipedia is the fact that the technical interface induces only very little thing on the operation of the argumentation. People argue as if they were face to face at the same place. The debating process of Wikipedia is not technically implemented but emerges from a social order.

## Slashdot

Slashdot is a popular technology-related news website and Internet forum updated many times daily with user-submitted and editor-evaluated summaries of news and events with a nerdy slant, and a page for comments on each story.

In the opposite of Wikipedia, which does not implement technical special features of moderation (users interact as if they wrote on a simple whiteboard), Slashdot developed a complex mechanism. When someone posts a comment in reaction to a news, the given comment can have any score from **-1** to **+5**, and Slashdot users can set a personal threshold where no comments with a lesser score are displayed. A person browsing the comments at a threshold of **1** will not see comments with a score of **-1** or **0** but will see all others. It is the fundamental principle of this type of moderation. Rather than removing the messages with "low value", the system buries them through their very little visibility. The automatism of the regulation is thus done via the moderation of the users themselves, rather than by a strict and automatic algorithm.

Moderators have demonstrated their ability to increase or decrease the score of comments, and in some cases entire threads of comments have been marked down to -1. Subsequently, a meta-moderation system was implemented to moderate the moderators and help contain abuses.

There are a lot of other websites, and softwares that implement this type of moderation:

- **SlashDot** - <http://slashdot.org/>
- **Da Linux French** - Discussion on Linux - <http://linuxfr.org/>
- **Ars Technica** - Technology and science news, typically with fewer stories but longer analysis and relevancy - <http://arstechnica.com>
- **Shoutwire** - Socially promoted general news - <http://www.shoutwire.com/>
- **Wikio** - Same as ShoutWire but in French - <http://www.wikio.fr/>

## 2.8 Conclusions and perspectives

As stated above, the "Categorization of Tools" activity aims at describing how tools developed within PALETTE can be used to support Communities of Practice's activities. As demonstrated above, all the existing tools provide a series of services and various functionalities.

The two auxiliary fields which we have investigated, covering tools developed outside PALETTE and tools actually used by CoPs taught us a lot of things. The interviews of CoPs gave

us some advices on the current use of tools, and allowed us to extrapolate the functionalities which could be useful to these CoPs (see also D.PAR.01). In parallel, the task of depiction enabled us to go through the most interesting functionalities brought up during the last years. We should not forget that the most important task this deliverable had to deal with, was to describe the tools developed by the partners in order to evaluate the possible bonds between them. By the answers obtained through the questionnaire, we think we have brought clarifications on the developed tools. Obviously, these descriptions are not final and will be refined, and improved throughout the project. The notion of scenario must also be precised. It is used by all the developers as well, but not necessarily in the same direction. The next part of this deliverable (section 3) will show the differences and similarities between the visions of the technical and pedagogical developers.

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## **3 Clarification of the notion of « scenario » and use of scenarios within PALETTE**

### **3.1 Introduction**

Due to its importance in fields as different as Theatrical Studies, Strategic Management, Software Engineering, Human-Computer Interaction and Pedagogy, the literature on scenarios is quite abundant. However, most of the authors emphasize the fact that it is very difficult to give an exact and fully satisfying definition of this notion because of its heterogeneity. Some will have a rather narrow definition of it while some have a rather large definition; some will even use different names for different contextual extensions (for example a scenario for the whole play versus a scenario for a specific scene of it), some will prefer textual descriptions while some prefer graphical representations, etc.

PALETTE partners do not escape from this heterogeneous use and understanding of the concept of scenario. As we have seen in the R&D methodology of PALETTE (described in detail in D.PAR.01, section 4), scenarios are boundary-objects in the project, used as constant meeting points between PALETTE's partners for developing tools as well as between developers (WP 1, 2, 3, 4 and 5) and CoPs, for which and with which these tools are developed. It was thus necessary for us to close the related gaps between partners to make sure that we share a common view of what scenarios could or should be in the project. A sub-group of three researchers was constituted in order to gather and analyze the literature and understand the actual definition and use of scenarios by the PALETTE's partners. For this purpose, we organized meetings with them. This part of the deliverable presents our results and proposes a clarification of what scenarios mean for the PALETTE community. It is illustrated with some figures drawn from the first results we got from the interviews with the CoPs.

### **3.2 Short review of the literature**

As said in the introduction, because of the heterogeneity of the concept of scenario, there is no canonical definition of it; this is why some studies rather aimed at establishing a typology and at identifying the main common characteristics of what is usually or can be called a scenario (Rolland and al., 1996; Jarke and al., 1999; Pernin-Lejeune, 2004). These are the three texts this review of literature mainly rests on and no affirmation from other texts really challenged their conclusions. Further references are given in Annex 3: A Complementary Bibliography on the Notion of Scenario.

As a result of our course through the most recent studies on scenarios in the fields of Software Engineering, Human-Computer Interaction and Pedagogy, we would thus like to emphasize the fact that we encountered many similarities and that, even if the vocabulary or the concerns are not

always exactly the same<sup>3</sup>, the common characteristics of a scenario resumed here are widely shared. Here are those common characteristics:

A scenario is **about an activity**<sup>4</sup> (using a tool, the functioning of an engine, learning, testing a system, making a decision, etc.).

Depending of the **purpose** of the scenario, this activity can be:

- Either **designed *a priori***: the scenario is thus conceived as “a **description** of a possible set of events that might reasonably take place” (Jarke and al., 1999) and is generally used for **exploratory purposes** (what would the results be in such a scenario?) or for **prescriptive purposes** (what has to be done to reach a specific result);
- Or **analysed *a posteriori***: the scenario is thus a **description** of an actual activity and is generally used for **explanatory or descriptive purposes** (how do the actors use this tool? Why do they use this tool inefficiently?).

This activity can be designed or analysed at **different systemic levels**: micro (a specific action within a larger process, e.g. a lesson on fractions), meso (a sub-set of actions within a larger process, e.g. a set of lessons on algebra), macro (the activity as a whole, e.g. an annual course on mathematics).

This activity can also be designed or analysed at **different abstraction levels**: a scenario will thus be **concrete**, i.e. referring to entity instances (this specific customer in this very specific context), or **abstract**, i.e. referring to entity types (a customer with no reference to a specific context) or **mixed** (a customer in this specific context). The level of abstraction of a scenario has an impact on its **reusability**: in principle, the more abstract it is, the more reusable it is.

A scenario **describes or represents an activity**: it is most frequently expressed either by a text (informal or structured) or by graphics or both (static representations), but also, by tables, structured notations, physical models, hypermedia, etc., some of which can be animated or more or less interactive. The language used for expressing a scenario can be more or less formalized and the **level of formalization** has an impact on **interoperability** of the scenario: in principle, the more formalized or modelled it is, the more interoperable it is.

A scenario has also a **lifecycle**: it can be either transient (short life span) or persistent (long life span). This aspect has of course an impact on the **costs** of a scenario-based approach.

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<sup>3</sup> For example, the discussions among pedagogical scenarios developers often deal with the choice of a specific formalized language that would allow creating interoperable and reusable learning scenarios or banks of scenarios.

<sup>4</sup> N.B. “Activity” is used here in a very large sense that does not necessarily imply a human actor, so that “activity” can embrace, for example, the functioning of an automaton or of a fully automatic program.

In summary, a scenario is a description of a (possible or actual) activity. Anyone who wants to develop scenarios has to answer the four following questions:

- Which is the **purpose** of the scenario?
- Which will be the **content** (the knowledge) expressed in the scenario?
- In which **form** will the scenario be expressed?
- Which is the **lifecycle** of the scenario?

### 3.3 What will the PALETTE's scenarios look like?

This section is divided in three parts that illustrate the way we proceeded to arrive to a first general agreement about what a PALETTE scenario will/should look like. The first part reports on how we got information from Ts and Ps PALETTE partners about their views and uses of scenarios; the second part sets out the general accepted specifications of a PALETTE scenario; the last part illustrates what a scenario is at this stage of the process and gives an idea of how it could be developed and enhanced through the several further steps described in the R&D methodology of PALETTE (see D.PAR.01, section 4).

#### 3.3.1 Identifying scenarios' views and uses of the technical PALETTE partners

Within WP3, and in connection with WP1, we started an analysis (identification) of the scenario representations and uses of Ts and Ps all along the development process of PALETTE services and tools, trying to answer questions such as: Which own scenarios do Ts (Ps) elaborate? Which Ps' (Ts') scenarios do Ts (Ps) reuse? Which scenarios do Ts and Ps collaboratively elaborate? How do Ts (Ps) succeed or fail to communicate when using their own scenarios? To which extent do Ts (Ps) understand the Ps (Ts) scenarios? Which alignment procedures do Ts (Ps) implement to achieve mutual understanding with PS (Ts)? Which Ts (Ps) operate as intermediaries to help Ts and Ps achieve mutual understanding?

##### 3.3.1.1 Analysis frameworks

The *Crews scenario model* (Rolland et al., 1996).— We started the analysis work by elaborating a questionnaire based on the Crews scenario model (see a description of the model in section 3.2). This questionnaire, entitled « Positioning your scenario approach », was aimed

*[...] to make PALETTE partners share their own view of scenarios, stories, vignettes, use cases..., in order to establish bridges between these different representations of a "scenario", and facilitate co-operations and collaborations within our PALETTE community. The idea [was] to help partners who elaborate use cases (respectively: stories, vignettes, scenarios...) understand and, later on, use the stories, vignettes, scenarios ... (respectively: the use cases) elaborated by other partners. [...]* (Giboin, 2006).

Before submitting the questionnaire to all the Ts and Ps, we decided to use it as a "frame" for analyzing interviews and observations of Ts. This questionnaire, and more exactly the Crews

scenario model behind the questionnaire was intended to help us characterize the kinds of scenarios used by Ts. To analyze the Ts' scenario representations and uses, we also used complementary "frames", among which are the three frames we will present now: (1) the Carroll's (1995) "Two perspectives on design" table; (2) the Pohl and Haumer's (1997) "Three scenario categories" schema; and (3) the Haumer, Pohl and Weidenhaupt's (1998) "Interrelating Real World and Model" schema.

### **The Carroll's (1995) "Two perspectives on design" table**

Table 6 summarizes the differences between the classical (widespread in 1997) approach to HCI design (or "technologist" approach), in which abstraction, genericity formality, etc. prevail, and the (not widespread in 1997) scenario approach. This frame was intended to help us characterize the Ts' design perspective.

Scenario perspective	« Technological » perspective
Concrete descriptions	Abstract descriptions
Focus on particular instances	Focus on generic types
Work driven	Technology driven
Open-ended, fragmentary	Complete, exhaustive
Informal, rough, colloquial envisioned outcomes	Formal, rigorous specified outcomes

*Table 6: Two perspectives on design (Carroll, 1995)*

### **The Pohl and Haumer's (1997) "Three scenario categories" schema**

This schema describes three kinds of scenarios that more or less address the context in which the system to be designed will be used. The scenarios are:

- **System internal scenarios (A).** They focus mainly on the system itself, i.e. the scenario does not consider the context the system is embedded in. Such scenarios are for example used to represent interactions between system objects, e.g. object method calls;
- **Interaction scenarios (B).** They represent knowledge about the interaction of the system with its context. This may include interactions with stakeholders and/or other systems. A common notation used to represent such scenarios are message sequence (trace) diagrams;
- **Contextual scenarios (C).** They represent, in addition to the direct interactions between the system and its context, also information about the context of the system. For example business goals are stated and related to the services provided by a system, system external relations of stakeholders are represented, the use of the information obtained by a service of the system may be expressed, or organizational policies may be stated.

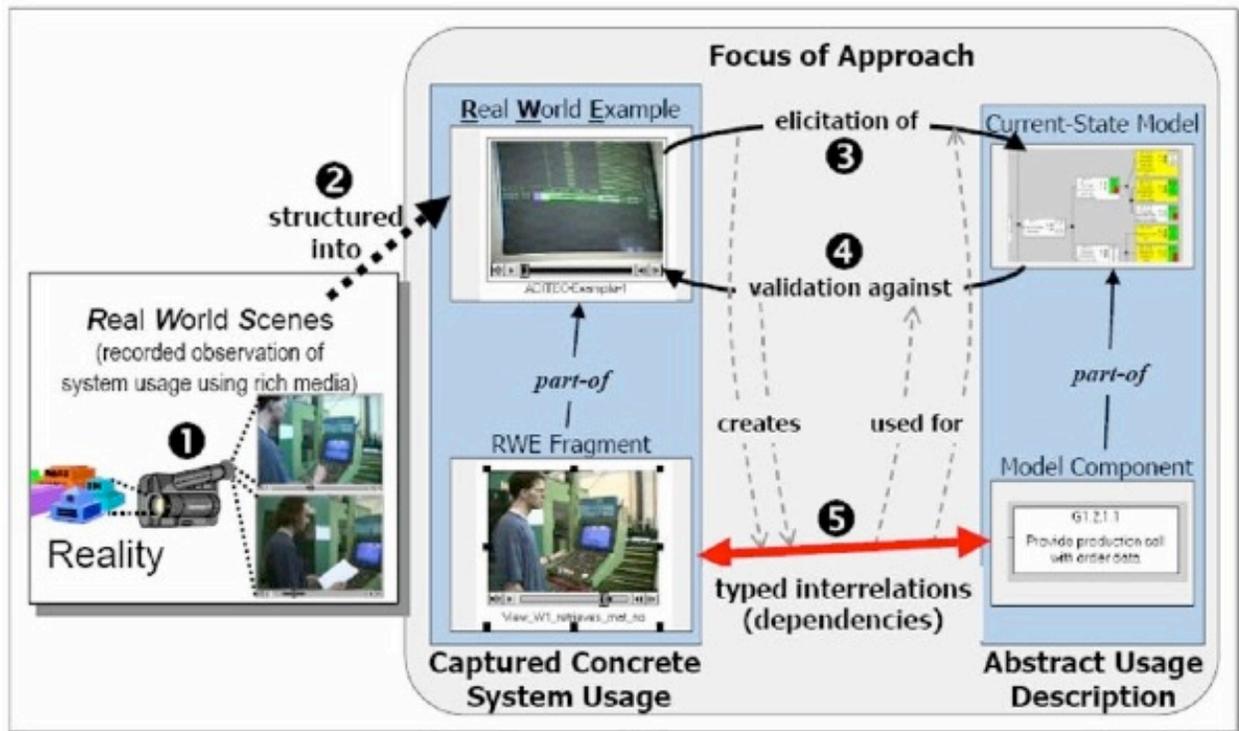


Fig. 5: Three types of scenarios (Pohl & Haumer, 1997)

This “Three scenario categories” frame was intended to help us characterize the degree to which Ts’ scenarios address the PALETTE services and tools’ context of use.

### **The Haumer, Pohl and Weidenhaupt (1998) “Interrelating Real World and Model” schema**

This schema summarizes an approach to requirements analysis proposed in the CREWS project, which emphasizes the relationships between informal-concrete-etc. (or Real World) aspects and formal-abstract-etc (or Model) aspects of system development. Three main steps define the approach:

- Capturing Real World Scene (RWS), i.e. observations of current system usage using rich media (e.g., a video).
- Prestructuring the RWS into a Real World Example (RWE), i.e., a collection of material that represents one system usage (e.g., cutting a video in a way that shows the temporal sequence of a sample system usage). RWEs are used for two main purposes. On the one hand, new concepts are elicited from the RWEs. On the other hand, the current-state models can be validated against the RWEs.
- Elaborating a Real World Example Fragment (RWEF), i.e. an interrelated part of a real world example. Elaborating a RWEF consists in interrelating the parts of the observations with the component of the conceptual current state model elicited from the fragment

and/or validated against the fragment. More precisely, it consists in selecting the corresponding fragment of the RWE and indicating the type of the interrelation to be created between the fragment and the component of the current- state model. The interrelation takes place at a fine-grained level since arbitrary fragments of the recorded observations (e.g., a cut-out video clip or even a part of one picture as extreme) can be linked to any element of a conceptual model (in contrast to relating the whole observation to the current state model). The types of interrelations to be created between the RWEFs and the components of the current-state models depend on the modeling primitives.

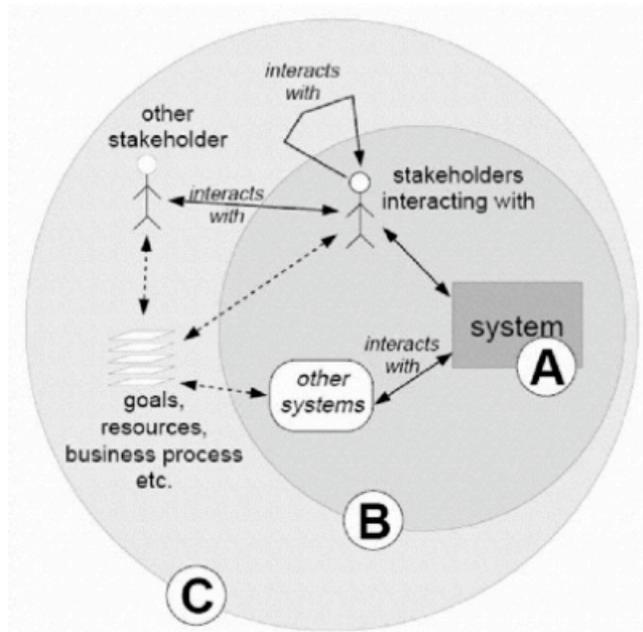


Fig.6: Interrelating real world example fragments with model components Haumer, Pohl and Weidenhaupt's (1998)

This “Interrelating Real World and Model” frame was intended to help us characterize the relationships that Ts establish between: (a) scenarios and other design representations, and (b) the tools used to elaborate these scenarios and representations.

### 3.3.1.2 A sample analysis concerning Ts

Below we report a sample analysis concerning Ts involved in WP3 (we will cite some verbalizations of one of these Ts, we called Tedwan (for Technical Developer One). Let us recall that the aim of WP3 is to build ontologies and develop KM services based on these ontologies, and that these activities presuppose to elaborate or reuse scenarios.

Generally speaking, if Ts agree to use scenarios to achieve their development work, they do not ignore the abstraction, formality, etc., requirements which make their work conspicuous. As a result, their view of scenarios is determined by these requirements. As Tedwan claimed, what is important for T is to get “implementable” scenarios:

**Tedwan:** *The scenarios to be described in a specification document are supposed to be "implementable".*

As long as developers do not get such a kind of scenarios, they consider it be hazardous to start implementing the system. Implementing a scenario supposes a certain kind of formalization of this scenario: Tedwan: The scenarios we are going to implement, we formalize them.

The formalization - if performed with an appropriate notation language - allows to assess the "implementability" of a scenario. Ts rather use notation languages such as UML.

**Tedwan:** *If we translate a scenario into UML, we can see immediately if a scenario can be implemented or not.*

Ps have proposed to Ts to use another notation language, and its associated tool: MOT. However, some Ts are still wondering if MOT is appropriate to get implementable scenarios:

**Tedwan:** *I observed that the PALETTE partners who used MOT edited a single MOT diagram to represent both the dynamic and static aspects [of system use]. Maybe it's possible with MOT to represent these aspects with two separate diagrams, but I am waiting someone who will show it to me. Absolutely, [this drawback] doesn't prevent us from performing the specifications. The only problem is that when we write software, we like to describe data structures first, and then to ask us questions about their use [= the procedures using the data structures].*

Ts mainly focus on scenarios B (interaction scenarios) and C (system internal scenarios). Scenarios A are used to feed scenarios B when scenarios A exist and when their exploitation cost (i.e., the amount of work for eliciting scenarios A's elements for elaborating scenarios B) is not too high:

**Tedwan** [answering to the question: « Why are the scenarios you propose are mainly generic? »]: *At the beginning, we can't elaborate specific scenarios. When possible, we suggested to the other Ts to reuse CoPs' descriptions elaborated by Ps in WP1 [interviews, MOT diagrams, syntheses...]. We do it when it's possible and when it doesn't require too much work.*

When the scenario exploitation's cost seems too high, it happens that Ts ask Ps to do the elicitation work, providing to the Ts the types of information (or concepts) they need to get for building the ontologies and the services, e.g., *Actors, Actions*, etc. (cf. the PALETTE document "Requirements of WP3 for WP1").

Because Ts will have to build user interfaces in the mid term, some of them asked Ps to provide them with CoPs' concrete elements (handled documents, screen dumps of CoPs' tools currently used, etc.) that could help specifying interfaces and prototyping, or elaborating mock ups, of the PALETTE interfaces. In the first place, for Ts, these elements can be used to elaborate storyboards illustrating the current activities of CoPs. These storyboards represent a kind of scenarios which allow making concrete the current CoPs' "interfaces" and the ways CoPs interact with the interfaces. These storyboards can help define more specific functionalities. They can also be a starting point for defining the future interfaces.

### 3.3.1.3 Concluding comment

Among the lessons learnt from our first analyses of Ts' scenario representations and uses, we say that, besides the main task of elaborating scenarios common to Ts and Ps (see Section 3.3.2 below), there should be another main task to perform in PALETTE, i.e., bridges should be

established between: (a) the different kinds of scenarios elaborated during a design process, and (b) the different kinds of tools used for elaborating these scenarios.

### 3.3.2 General principles

Regarding the purpose of the project, which is both to improve and facilitate the functioning of the CoPs and to develop online services, our scenarios of use should have some specific characteristics:

Expected characteristics of the PALETTE's scenarios	Actions
They should speak both to the partners in charge of the development of the services and to the CoPs. This implies to take into account the information they respectively need for working and functioning.	On the one hand, several meetings have been organized where all the PALETTE's partners have expressed their interests and needs regarding the scenarios to be produced. On the other hand, the CoPs have been interviewed; the information contained in the scenarios will be focused on their needs and urges.
They should depict the aims of the CoPs activities, the actions and operations, and their sequence.	For this characteristic, it was important to well define the form of the depictions: text, graphics, table... A first form has been decided on combining text- and graphical-based presentations, able to be presented to the CoPs and discussed with them.
They should integrate the use of one or more instruments (software, online service, organizational tool, etc.) possibly integrated into a system of instruments.	The interviews of the CoPs were partially focused on the CoPs' tools and their uses for achieving purposes and activities.
Following the participatory design approach, the scenarios should be enhanced and detailed all along the development process up to the description of the operations <sup>5</sup> .	In the PALETTE's R&D methodology (see D.PAR.01, section 4) different participatory activities are planned for discussions and negotiations between developers and between developers and CoPs for enhancing the scenarios and organizing their experimentation.

*Table 7 PALETTE's perspective*

According to the classification of scenarios proposed by Rolland et al. (1996), a scenario can be described by a form, contents, a purpose and a lifecycle. The figure below summarizes the choices made within the project regarding its purposes and the characteristics of scenarios described above. The developers and the CoPs themselves (in yellow oblate hexagons) are

- The form of the scenarios will be text-based illustrated by graphical representations. Different software are used here, notably MOT+ which allows to produce graphical representations exportable in different standard format (XML, IMS-LD, OWL) and is then suitable for different needs of the developers.
- The contents of the scenarios are descriptions of the activities of the CoPs (collaboration, information use, production of documents, knowledge management...) and their uses of tools within a specific context (history, actors, roles...).
- The purposes of the scenarios are to encounter the developers' information needs and to present structured information to the CoPs about their functioning and their activities.

<sup>5</sup> According to Leontiev (1981), there are three levels in human activity: the activity itself, that aims at transforming the environment, the action, that aims at realizing the object of the activity and the humdrum operations that compose the action.

- The lifecycle of the scenarios depends on the different negotiation steps within the participatory activities involving the developers as well as the CoPs. The scenarios will act all along the project as "boundary objects" useful for the negotiation of the scenarios themselves, the experimentation modalities with the CoPs and the development of the CoPs' activities.

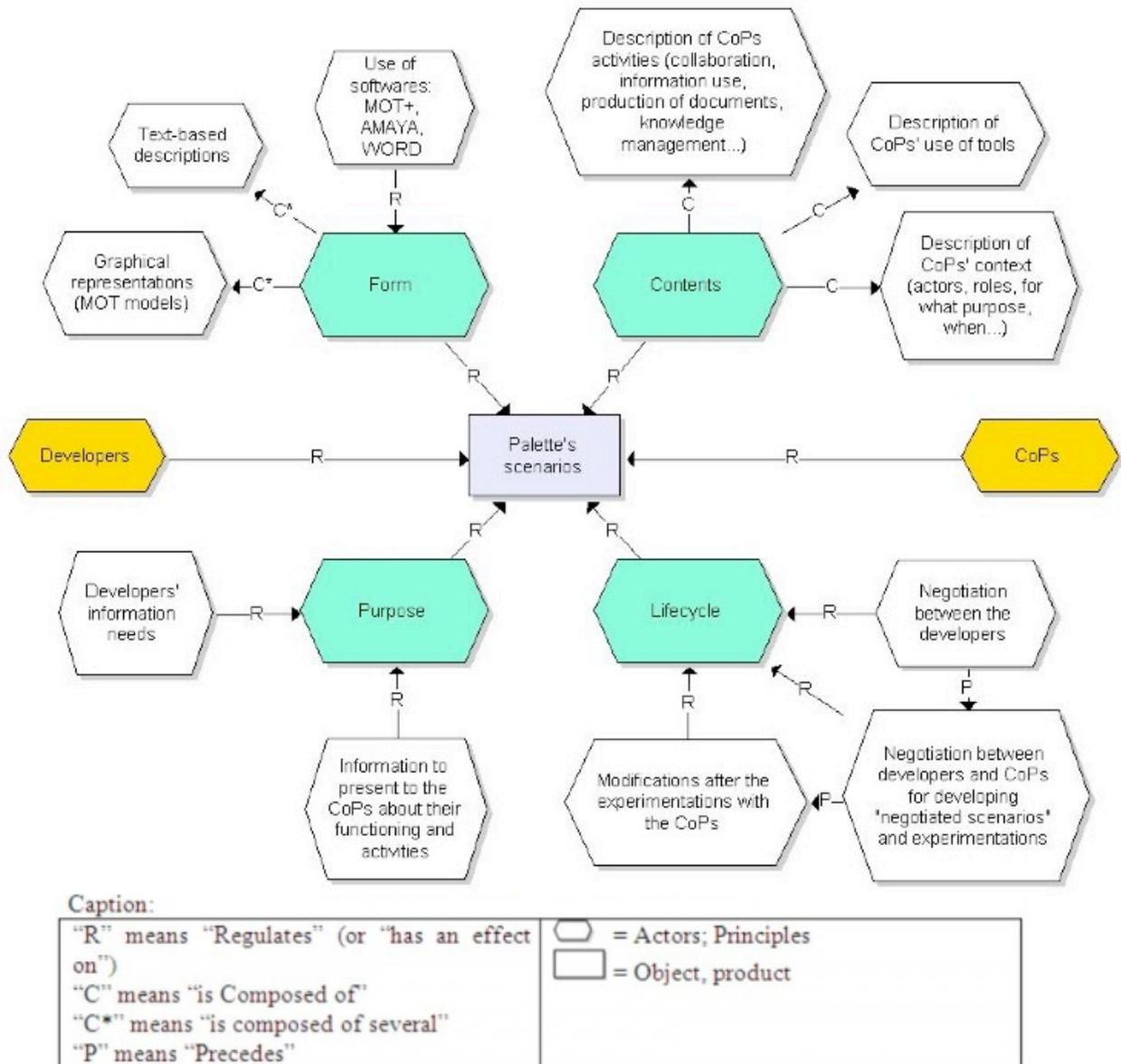


Fig. 7: Specific characteristics of PALETTE scenarios

Regarding the review of literature drawn above, PALETTE brings forward an original element: the continuous negotiation of the contents and form of the scenarios. This approach is based on the participatory design perspective.

### 3.3.3 An illustration of the work already done

The following example, taken from the results of the first two stages of the PALETTE's R&D methodology (i.e. Establishing the collaboration and Modelling the activities of the CoPs), illustrates what a scenario is at this stage of the process and gives an idea of how it could be developed by developers and enhanced with the CoPs through the several steps described in the R&D methodology of PALETTE (see D.PAR.01, section 4).

For example, **figure 8** presents the former situation in a CoP (information got from the first interviews conducted with the CoPs): in a classroom, a teacher can detect the problems of comprehension students can meet through an explicit demand of explanation during the lesson, through observation during the practical training in classroom or on the occasion of the final evaluation. It is otherwise well-known that students discuss with each other about the course via private e-mail, chat or phone calls, so that the teacher is not aware of some of the possible problems they can meet.

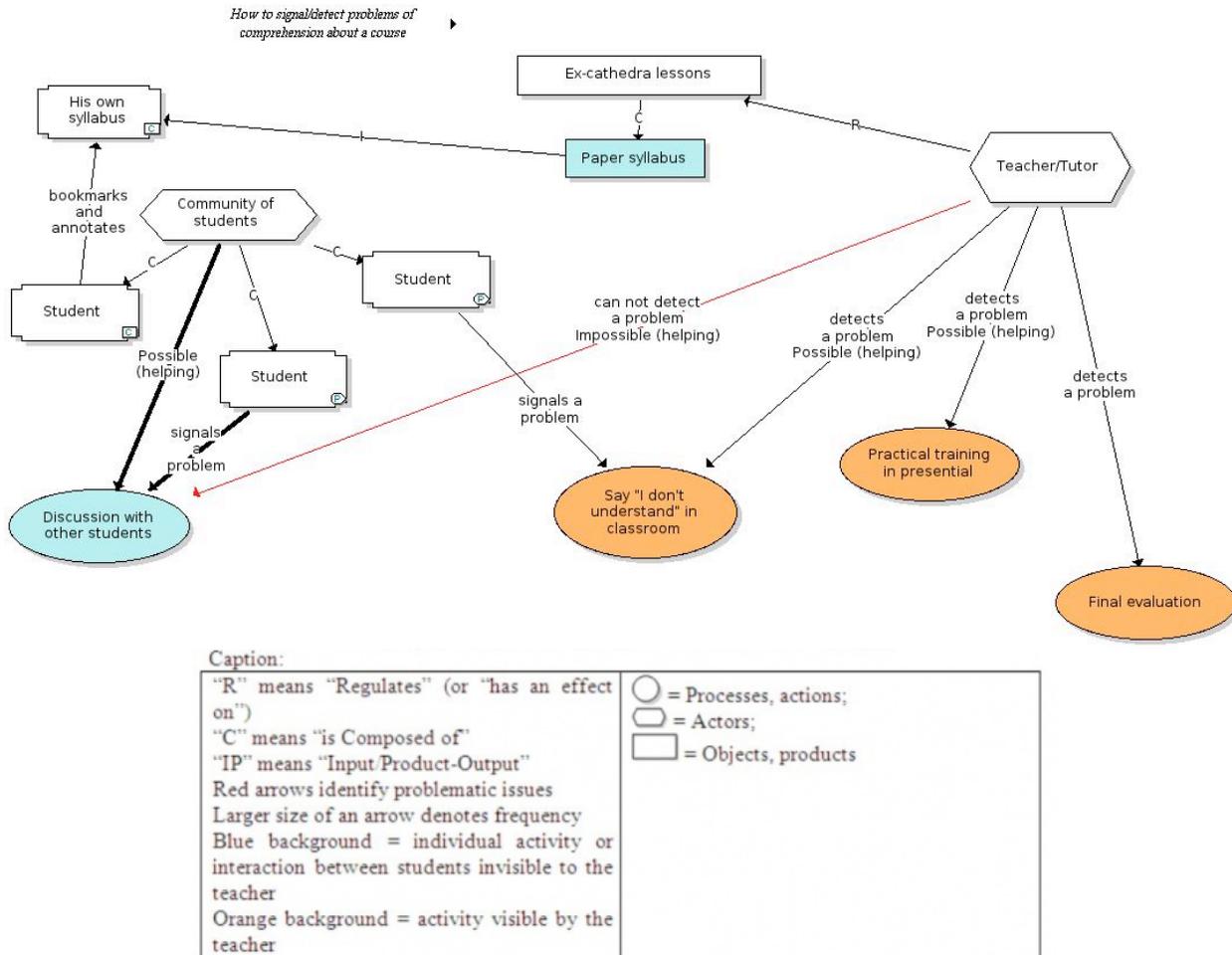
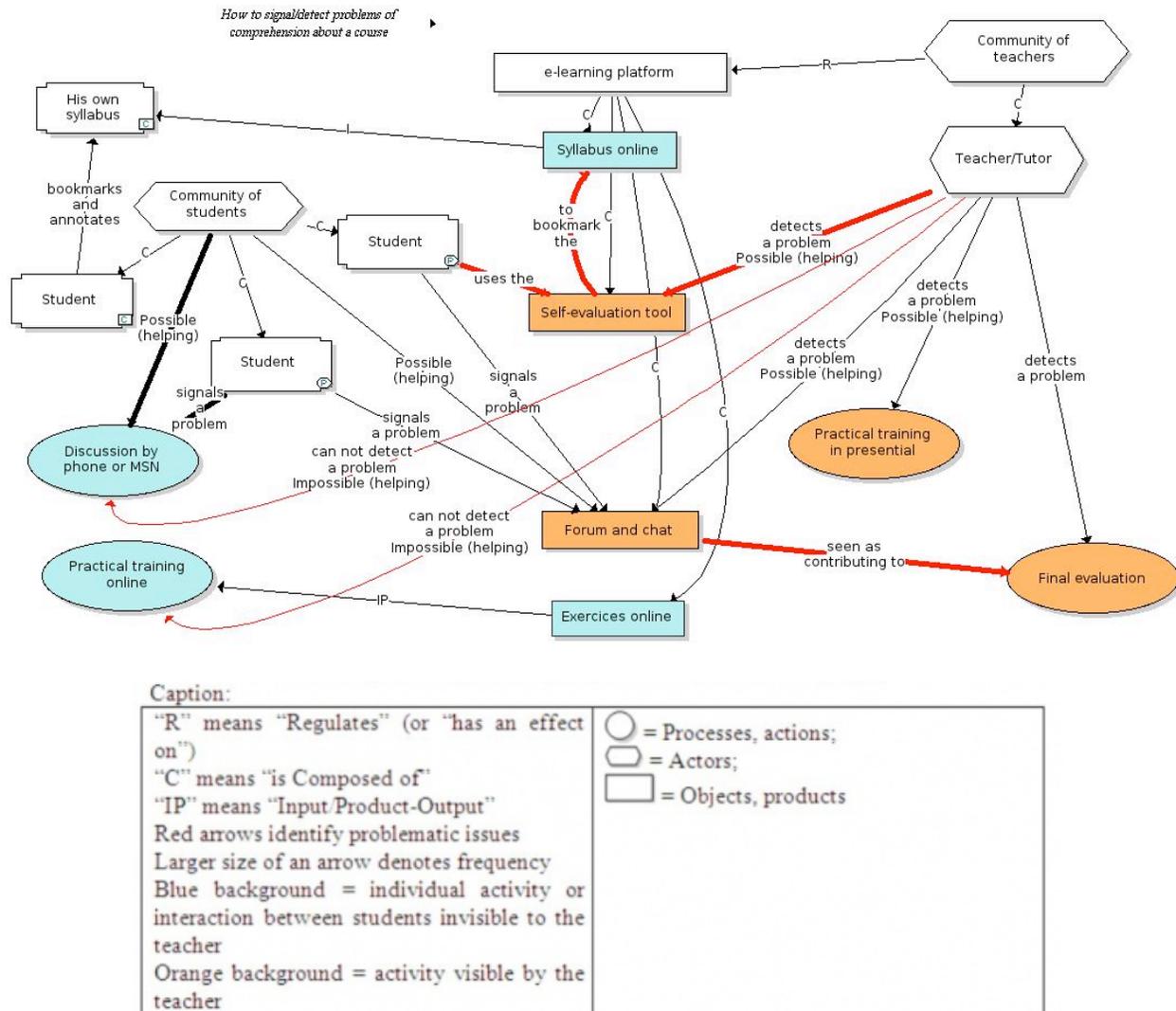


Fig. 8: How to signal/detect understanding problems about a course in a CoP (before)

When new teachers arrived, they decided to put the course online, because they thought it was easier to adapt the course to multilevel-skilled students and also because they thought a forum could be useful for the students to ask them their questions at anytime and for them to be aware of the kind of difficulties met with by the students. **Figure 9** shows the situation after this organizational change.



*Fig. 9: How to signal/detect understanding problems about a course in a CoP (after)*

The above schema, that represents a model of the actual functioning of the CoP, indicates two new problems that arose after the change into an online course: first the students do not use the forum very much, because they consider it is a kind of control they refuse or because they believe that their interventions on it will be evaluated and will contribute to their final evaluation; they then bypass the recommended procedure (described in **figure 10** below) and still continue to have many private discussions; second we observe that many students divert the self-evaluation tool

provided on the platform to make it a “bookmark tool”, so that the teacher are wrongly led to the belief that those students have problems of comprehension.

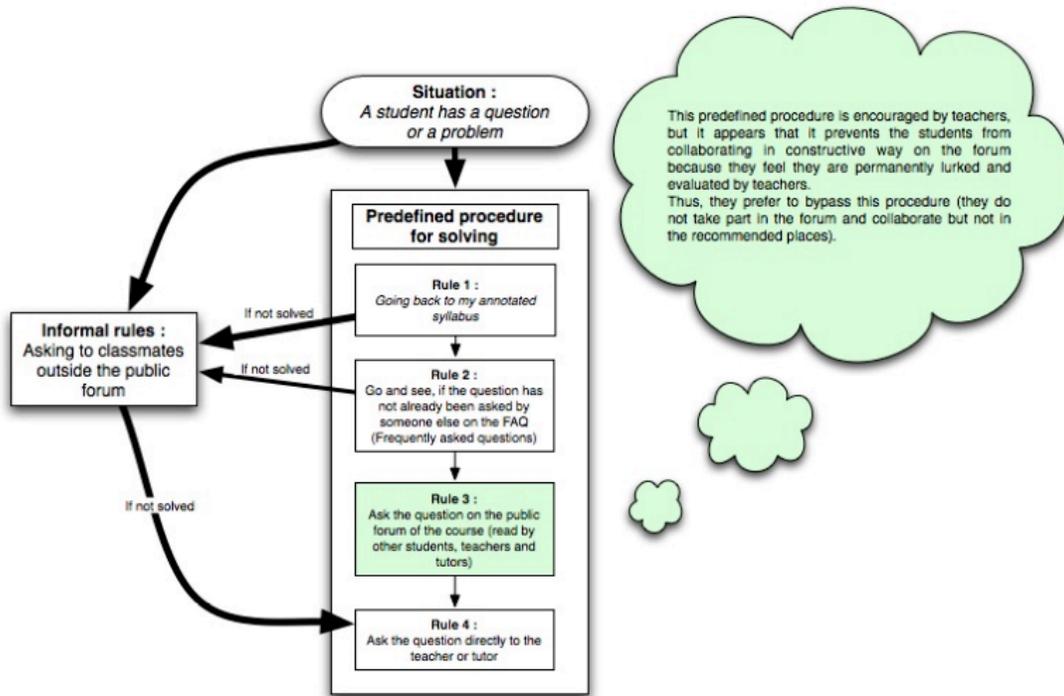


Fig.10 – Graphical representation of the predefined procedure for solving students' problem of comprehension

### 3.4 Conclusion and perspectives

At this stage of the project, our analysis of the CoP's activities helped developers to proceed to the *problematization* (*identify the problem*) and to the *interessment* (identify the interests of actors) phases. Then the proposed solutions, the details of which have to be determined by developers, should lead CoPs members to the *enrolment* phase accepting roles that suit them. Once this process is completed and validated with the CoPs, we will then have a first version of joint and negotiated scenarios (following the R&D methodology described in D.PAR.01, section 4). These scenarios will be represented by graphical schemas or by textual descriptions or both, and will be iteratively implemented and tested through the several future phases of development described in the PALETTE's R&D methodology. Finally, we will arrive to efficient renewed CoP's practices with, hopefully, a possible impact to other CoPs that would have similar needs (reusability).

The conclusions we arrived at after this first general clarification of the notion of scenario will be deepened and concretely implemented through the WP5's Task 3 "Functional specifications of services and scenarios" that begins in August 2006.

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## 4 General conclusions

This deliverable reports on two actions: a **tools categorization** and a first attempt to **clarify the notion of scenario**. The first one is more urgent because partners have to get a view as large as possible of what helpful tools exist before discussing and raising requirements of any kind. Technical partners have a personal view of collaborative work often depending on their work domain. They develop tools trying to exploit diverse technologies. Pedagogical partners are full of hope in Information and Communication Technology (ICT) because they seem to make possible strategies of all kinds and new practices. CoPs and CoPs members are set against acceptability of tools in their day-to-day life. These concerns may seem unconnected. That is why a tools categorization addressed to all of them is very useful and, in the same time, not so easy to be established. How it must be built is not a trivial question. The second action, concerning the clarification of the “scenario” notion is also important. We could notice a lot of times during meetings that the meaning of this notion seemed to be very different from a person to another with respect to their own work concerns.

### 4.1 Tools categorization

At least two issues have to be taken into account. First, the “tool” concept is complex even if you consider it only in an ICT context. A study of several existing taxonomies (cf. the state of the art) shows that adopted points of view may be very different. Sometimes a tool means software but sometimes it is a system or even a technology. We keep the idea that some people consider it may also be a way of using software (a system or a technology). In the context of PALETTE, we have to adopt a definition as large as possible of what a tool can be because we cannot filter out potential solutions for the CoPs.

The second issue is related to the particular nature of PALETTE. It focuses on the user (CoPs and CoPs members). It gives prominence to a participative design. So, we cannot settle for taxonomies which do not take explicitly into account the user point of view.

How did we manage the above issues? Rather than choosing a particular taxonomy, we decided to let the debate open. The main reason for that is that this deliverable should go on providing ideas to pedagogical and technical partners and inspire CoPs members when interviewed in order to find the solutions which best fit to the real CoPs needs. That does not mean we did not make any choice. Like mentioned in the DoW, an important objective of this deliverable is to provide WP 2, 3, 4 and 5 feedback on the foreseen services according to the CoPs requirements. The chosen way to achieve this goal was to build an identification tool sheet to be completed by the technical partners. In a first step, a collaborative work allowed these partners to bring to light their own view of how their tools should be described. But this interesting view was not sufficient and we tried to include the user point of view taking into account their opinion elicited from the already available CoPs interviews. This point of view has been expressed through five criteria related to the most general CoPs practices: exchange resources, share experience, solve problems, debate and manage knowledge and activities. These criteria were used to improve the identification tool sheet.

The tools proposed by the technical partners have been analysed. The results are available in this document. They can help developers to compare their tools. They help pedagogical partners to better imagine what is possible. CoPs members can also imagine which kind of tools fit best to their practices or can bring solutions to their problems.

To also keep a check on the external world (outside PALETTE), we have proposed a different view of what categorization of tools could be in a “depiction and analysis of existing tools”. This particular view is interesting because it puts down a bridge between the concept of tool-software-system-technology and the concept of tool-strategy. We think that PALETTE cannot avoid taking into account the emergence of more general tools not only inspired by the development of a technology but more often inspired by the development of strategies made possible through the development of these technologies. The Wiki is a good example for that.

This part of the deliverable can provide to all concerned partners answers to their main questions in what tools categorization concerns.

## **4.2 Clarification of the “scenario” notion**

The clarification of the “scenario” notion is relevant because it is used in very different fields of matter. PALETTE partners have to find an agreement about it in their particular context. This task will be further elaborated in the future of the project. So, the best we could do in a first step was to enlighten this notion by a short review of the literature. Using some existing models, we have described in which circumstances the technical partners are using scenarios and which differences can exist with the representation that pedagogical partners may have of this notion. It was important to clarify what a PALETTE scenario could be. So we needed to explore CoPs interviews to get a more precise idea. That gave us raw material to imagine how we could formalise and exchange them. More, an illustration of such a scenario is developed to show not only how this kind of scenario can be represented, but to show how such representations could be used in order to improve the scenario in a better CoPs life perspective. It sounds like an evidence that this work has to be developed more and more through the future tasks of WP1 and WP5.

## **5 Annexes**

### **5.1 Example of the questionnaire**

# Description of tool for CoPs

---



## Introduction

---

### Purpose of this form :

---

The purpose of this form is to describe efficiently tools developed within the framework of the Palette project. This description will serve the project in order to produce a report. With the help of this form, we hope to know more on their state of development, and on the types of CoPs' activities these tools are able to support. In a second time, this form will be used to describe tools already used by some CoPs.

The parallelism (between tools developed by Palette and tools already in used by CoPs) will lead us to establish a kind of symmetry between the useful functionalities for CoPs' activities, and those proposed by the tools of the partners of the project.

### How to use this form :

---

**All** the questions are suppose to be filled in by **all** the partners. However, some of questions have been written to describe generic tool developed by specific WP. Some of these questions are made as a series of questions requiring a boolean answer (ex. Can the tool manipulate formalized knowledge? Yes/No ). Given the answer to these questions, the user is required to fill in specific blocks of information related to the question (ex. What kind of knowledge? In which format or standards is it expressed? ...).

If you are unable to answer some of these questions, thank you to explain the reason of it **or** simply write "Useless for this tool" in the gap intended for the answer.

### Some definitions :

---

- Generic tool (or tool) : a piece of software (application, platform, framework, ...) that can provide some functionalities and that can be used directly or indirectly by a CoP or to develop applications or services for CoPs.
- Formalized knowledge (synonym of explicit knowledge and opposite of implicit knowledge) : Explicit knowledge is knowledge that has been or can be articulated, codified, and stored in certain media. The most common forms of explicit knowledge are manuals, documents, shemas, procedures, and stories. Formalized knowledge also can be audio-visual.
- Direct use : the tool can be used without modification.
- Indirect use : the tool need some major modifications to be used.
- KM : Knowledge Management
- WP2 : Workpackage in charge of developing Information services
- WP3 : Workpackage in charge of developing Knowledge Management services
- WP4 : Workpackage in charge of developing Mediation services

## General information

---

Name of the partner team ?

Name of the members/team in charge of describing the tool ?

Who are the developers of the Software ?

What is the context (institutional, in term of project, and so on) of the first development of the software ?

Name of the tool ?

Website of this tool ?

Could you provide a Demo or/and Screenshot of this software ?

- Could you comment it ?
- describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool

Tell us about its functionalities ?

What could be the context of use ?

- For individual or/and group ?
- What is its main purpose ?

Could you describe an example of use ?

- Could you describe one or more scenario of use ?
- Could you mention some details ?

Is the tool already in use ?

- Could you determine how many people use it ?
- What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. )
- Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

Was the tool designed to be ...

- used by people with special needs ?
- multilingual ?



Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component

- If you answer "yes", what are the offered functionalities of the component ?

Under which license is the software release ?  
(If there is any)

### Technical description

---

What are the technologies used to program it ?

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ?

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirement to run it ?

- (ie. WebServer or/and OS)

What are the competencies required to use it ?

- (ie. It needs that someone in the CoP knows the \*(x)html\* langage)

### Tools (Generic or not) and their components

---

Can the tool manipulate formalized knowledge ?

Yes  No

Knowledge material #

What kind of knowledge ?

In which format or standards is it expressed ?

Is the knowledge material domain-dependent and what is the domain ?

Is the knowledge material reusable ?

Is the tool offering KM services ?

Yes  No

Service #

What kind of services ?

Which formats or standards does it use ?

Who/What are the recipients of the service (Human, Other services/applications) ?

Describe the Inputs/Outputs of the service ?

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ?

What are the offered functionalities of the component ?

Does the tool support Content Management ?

Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?

Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

Is the tool interoperable with other software ?

Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

Does the tool support User Profile Management ?

Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.

Does the tool support Expertise Management?

Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for

an expert, Respond as an expert to a need, etc.  
Note: this may be related to the previous question.

Does the tool offer personalized services ?

Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,

Does it support awareness ?

Yes  No

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.

Does it support Global Search and Taxonomy ?

Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)

Does it support Data Mining and Data Warehousing ?

Yes  No

- Describe it

Can it be integrated with an e-mail application?

Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.)

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?

Yes  No

- Explain.

Is the tool easy to use ?

Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-       +

- Comment, prerequisites

Interface

-       +

- Comment

Help (internal)

-       +

- Comment

Documentation (external)

-       +

- Comment

- Link to documentation

### What is the target audience of the tools :

---

Do you think the tool can be used directly in a CoP

Yes  No

It helps the CoPs in general

Level of interest

-     +

It helps the organisational leaders interest in CoPs

-     +

It helps the coordinators of CoPs

-     +

It helps the facilitators (conversational coordinator)

-     +

It helps the members of CoPs

-     +

### Purpose in PALETTE

---

#### Can the tool be used to provide / develop applications or services for ?

---

(WP2) Information services

(WP3) Knowledge management services

(WP4) Mediation services

#### Classify your tools in these categories of use :

---

Exchange of resources, "objects" (URL, documents?)

-       +

- "Typical" examples : Repositories
- Comment

Experience sharing (telling, retelling, discussing? stories about practices)

-       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

Expression or illustration of practices (tracks of practice in various forms)

-       +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

-      +

Reflection, analysis about experience sharing or illustration of practices

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

-      +

Debate, confrontation, argumentation, negotiation for decision making

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

-      +

Depiction or (collaborative) creation of new knowledge

- "Typical" examples : White board, Wikis, ...
- Comment

-      +

Support for evaluation (quantitative or qualitative)

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

-      +

Awareness

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

-      +

Coordination

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

-      +

Archiving

- "Typical" examples : Zipped repositories, knowledge bases.
- Comment

**Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?

Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ?

- hat kind of services (information, knowledge management, mediation, other) and comment

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?

- Could you describe the improvements necessary for using your tool in PALETTE ?

---

---

Comments on the questionnaire :

## **5.2 Questionnaires completed by technical partners**

# Description of tool

## General information

---

Name of the partner team ? *INRIA / WAM*  
Name of the members'team in charge of describing the tool ? *Irène VATTON*  
Who are the developers of the Software ? *INRIA and W3C. Development team coordinated by Irène Vatton (INRIA)*

What is the context (institutional, in term of project, and so on) of the first development of the software ? *Research on structure editing and a framework that integrates multiple W3C technologies*

Name of the tool ? *Amaya*  
Website of this tool ? *<http://www.w3.org/Amaya>*  
Could you provide a Demo or/and Screenshot of this software ? *<http://www.w3.org/Amaya/screenshots/Overview.html>*  
▪ Could you comment it ? *This page displays a set of screenshots with captions*  
▪ describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool *Amaya is a Web editor, i.e. a tool used to create and update documents directly on the Web. Browsing features are seamlessly integrated with the editing and remote access features in a uniform environment.*

Tell us about its functionalities ? *Amaya is a complete authoring tool for Web pages. It provides support for XHTML, CSS style sheets, MathML presentation markup. This allows users to browse and edit Web pages containing mathematical expressions, and a subset of the Scalable Vector Graphics (SVG). Amaya includes a collaborative annotation tool based on Resource Description Framework (RDF).*

What could be the context of use ? *The context of use is individual or/and group editing of Web documents. The software is available on Windows, MacOS X, and Linux.*  
▪ For individual or/and group ?  
▪ What is its main purpose ?



What are the technical requirements to run it ? *It runs on Windows XP/2000/NT, MacOS X, and Linux platforms*

- (ie. WebServer or/and OS)

What are the competencies required to use it ? *It needs that someone in the CoP has a minimum knowledge of HTML, or better, XHTML*

- (ie. It needs that someone in the CoP knows the \*(x)html\* language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ?  Yes  No

Knowledge material #

What kind of knowledge ?

In which format or standards is it expressed ?

Is the knowledge material domain-dependent and what is the domain ?

Is the knowledge material reusable ?

Is the tool offering KM services ?  Yes  No

Service #

What kind of services ?

Which formats or standards does it use ?

Who/What are the recipients of the service (Human, Other services/applications) ?

Describe the Inputs/Outputs of the service ?

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ?

What are the offered functionalities of the component ?

Does the tool support Content Management ?  Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

*Sharing of Web documents  
Creation of annotation threads*

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

*Documents produced with Amaya can be reused with any other XHTML/CSS/MathML conformant tool.*

Does the tool support User Profile Management ?  Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.

*Personal preferences*

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,

Does it support awareness ?

Yes  No

*The annotation tool can be used for awareness*

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.

Does it support Global Search and Taxonomy ?

Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)

Does it support Data Mining and Data Warehousing ?

Yes  No

- Describe it

Can it be integrated with an e-mail application?

Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.).

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?

Yes  No

- Explain.

*Users can work on local or remote documents and data. Work on local data doesn't need Internet connection*

Is the tool easy to use ?

Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates

*Standard text editing features and a set of explicit menus  
There are also on-line help pages*

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-       +

- Comment, prerequisites

*Future development of templates*

Interface -       +

- Comment

Help (internal) -       +

- Comment

Documentation (external) -       +

- Comment

- Link to documentation

<http://www.w3.org/Amaya/User/doc/Manual.html>

## What is the target audience of the tools :

---

Do you think the tool can be used directly in a  Yes  No  
CoP

Level of interest

It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +

## Purpose in PALETTE

---

### Can the tool be used to provide / develop applications or services for ?

---

(WP2) Information services *yes. Template-driven editing is implemented on top of Amaj*

(WP3) Knowledge management services

(WP4) Mediation services

### Classify your tools in these categories of use :

---

Exchange of resources, "objects" (URL, documents?) -       +

- "Typical" examples : Repositories
- Comment

*May help to browse, feed, update and organize a Web server*

Experience sharing (telling, retelling, discussing? stories about practices) -       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

*Editing shared documents*

Expression or illustration of practices (tracks of practice in various forms)

- ○ ○ ○ ○ ○ +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

*Editing shared documents*

Reflection, analysis about experience sharing or illustration of practices

- ○ ○ ○ ○ ○ +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

*Editing shared documents*

Debate, confrontation, argumentation, negotiation for decision making

- ○ ○ ○ ○ ○ +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

*Annotations can be used for this purpose*

Depiction or (collaborative) creation of new knowledge

- ○ ○ ○ ○ ○ +

- "Typical" examples : White board, Wikis, ...
- Comment

*Editing shared documents*

Support for evaluation (quantitative or qualitative)

- ○ ○ ○ ○ ○ +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

*May help to create questionnaires and various types of forms*

Awareness

- ○ ○ ○ ○ ○ +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

*can be used to create personal pages, group pages, etc.*

Coordination

- ○ ○ ○ ○ ○ +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

*Can be used to maintain shared documents such as calendars, schedules, progress reports, group status, open issues, etc.*

Archiving

- ○ ○ ○ ○ ○ +

- "Typical" examples : Zipped repositories, knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ? *Information services based on shared Web documents*

- hat kind of services (information, knowledge management, mediation, other) and comment *Information services*

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?
- Could you describe the improvements necessary for using your tool in PALETTE ?

---

Comments on the questionnaire :

*This form contains 152 errors, according to <http://validator.w3.org/>*

# Description of tool

## General information

---

Name of the partner team ?	<i>Research Academic Computer Technology Institute</i>
Name of the members'team in charge of describing the tool ?	<i>Christina Evangelou, Nikos Karousos, Nikos Karacapilidis</i>
Who are the developers of the Software ?	<i>Nikos Karacapilidis, Manolis Tzagarakis, Nikos Karousos, Christina Evangelou, George Gkotsis, Dora Nousia, Vassilis Kallistros, Spyros Christodoulou</i>

What is the context (institutional, in term of project, and so on) of the first development of the software ? *New software, based on previous research work*

Name of the tool ?	<i>CoPe_it!</i>
Website of this tool ?	<i><a href="http://copeit.cti.gr">http://copeit.cti.gr</a></i>
Could you provide a Demo or/and Screenshot of this software ?	<i><a href="http://copeit.cti.gr">http://copeit.cti.gr</a></i>
<ul style="list-style-type: none"><li>▪ Could you comment it ?</li><li>▪ describe the screenshot or/and give login/passwd if needed</li></ul>	<i>For using CoPe_it! you have to register through a web form provided at <a href="http://copeit.cti.gr">http://copeit.cti.gr</a></i>

## Tool description

---

Tell us a small description of the tool	<i>CoPe_it! is a web-based system that assists and augments collaboration among CoPs' members by facilitating the conduct of argumentative discourses. Following an integrated approach, the system provides CoPs' members engaged in such discourses with the appropriate means to collaborate towards the solution of diverse issues, thus augmenting individual and organizational learning.</i>
Tell us about its functionalities ?	<i>CoPe_it! supports the conduct of electronic argumentative discourses by providing a shared environment for the exchange of the involved stakeholders' points-of-view in the form of linguistic statements. In this way, users may formulate and put forward their own alternative solutions. Moreover, users may express arguments in favor or against alternative solutions. Through these discourse elements, stakeholders articulate their diverse problem interpretations, interests, objectives, priorities and constraints. Furthermore, such elements reflect the stakeholders' differences in terms of</i>
What could be the context of use ? <ul style="list-style-type: none"><li>▪ For individual or/and group ?</li><li>▪ What is its main purpose ?</li></ul>	<i>CoPe_it! can be used by various groups of people working together as a team, who want to exchange their points-of-view towards solving a decision making issue. It perfectly addresses needs of Communities of Practice.</i>

Could you describe an example of use ? *CoPe\_it! can be used, for instance, by a medical doctors' CoP, in order to assist them decide what kind of treatment they should select for treating a diseased patient. More specifically, CoP members participating in such a discourse can propose alternative courses of action (treatments) and express their in favour and against arguments as regards these alternatives. Appropriate reasoning mechanisms embedded in CoPe\_it! assist the community in reaching a decision throughout the discourse (at each discussion instance, the tool indicates the most well-argued alternative so far).*

- Could you describe one or more scenario of use ?
- Could you mention some details ?

Is the tool already in use ? *The CoPe\_it! prototype was released in July 2006. Till now, its major users are members of the development team.*

- Could you determine how many people use it ?
- What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. )
- Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

Was the tool designed to be ...

- used by people with special needs ? *No*

- multilingual ? *Currently, the tool is released in english only.*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component

*The CoPe\_it! User Management Middleware and Argumentation Tool are provided to the web site as external services through their APIs.*

- If you answer "yes", what are the offered functionalities of the component ? *The offered functionalities are user management and argumentation support.*

Under which license is the software release ?

(If there is any)

## **Technical description**

---

What are the technologies used to program it ? *The technologies used to program it are: C#, VB.NET and ASP.NET*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *Yes*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run it ?

- (ie. WebServer or/and OS)

*DataBase Server: SQL SERVER  
Web Server: IIS  
OS: Windows 2003 Server Edition*

What are the competencies required to use it ?

*No special IT competencies are required for using CoPe\_it!*

- (ie. It needs that someone in the CoP knows the \*(x)html\* language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ?  Yes  No

Knowledge material #

What kind of knowledge ?

In which format or standards is it expressed ?

Is the knowledge material domain-dependent and what is the domain ?

Is the knowledge material reusable ?

Is the tool offering KM services ?  Yes  No

Service #

What kind of services ?

Which formats or standards does it use ?

Who/What are the recipients of the service (Human, Other services/applications) ?

Describe the Inputs/Outputs of the service ?

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ? *see above*

What are the offered functionalities of the component ? *see above*

Does the tool support Content Management ?  Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

*CoPe\_it! supports uploading of multimedia documents*

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

*CoPe\_it! supports argumentation between CoPs' members and collaborative decision making. it also provides a shared workspace where an argumentative discourse can be visualized (tree-like view).*

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

Does the tool support User Profile Management ?  Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.

*CoPe\_it! supports the creation and management of user profiles.*

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,
- CoPe\_it! personalized services are under development.*

Does it support awareness ?  Yes  No

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.
- CoPe\_it! awareness services are under development.*

Does it support Global Search and Taxonomy ?  Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)
- taxonomy of issues*

Does it support Data Mining and Data Warehousing ?  Yes  No

- Describe it

Can it be integrated with an e-mail application?  Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.)
- E-mail services are already integrated to CoPe\_it!*

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?  Yes  No

- Explain.
- Users can access CoPe\_it! being connected to the internet, through any internet browser .*

Is the tool easy to use ?  Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates
- CoPe\_it! is an easy to use tool. Using CoPe\_it! does not require IT expertise. Furthermore, detailed instructions and guidelines are available to the users.*

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-       +

- Comment, prerequisites

*Diverse visualization and reasoning issues will be considered (according to the real needs of CoPs). Also, the set of discourse acts offered will be expanded. Finally, alternative "knowledge spaces" will be developed.*

Interface

-       +

- Comment

Help (internal)

-       +

- Comment

*Better help will be provided (e.g. through small videos about the use of the system).*

Documentation (external)

-       +

- Comment

*Better documentation is under construction to cover diverse needs (of experts, developers, simple users, facilitators, etc.)*

- Link to documentation

<http://copeit.cti.gr>

**What is the target audience of the tools :**

---

Do you think the tool can be used directly in a  Yes  No CoP

Level of interest

- It helps the CoPs in general -     +
- It helps the organisational leaders interest in CoPs -     +
- It helps the coordinators of CoPs -     +
- It helps the facilitators (conversational coordinator) -     +
- It helps the members of CoPs -     +

**Purpose in PALETTE**

---

**Can the tool be used to provide / develop applications or services for ?**

---

- (WP2) Information services Yes
- (WP3) Knowledge management services Yes
- (WP4) Mediation services Yes

**Classify your tools in these categories of use :**

---

Exchange of resources, "objects" (URL, documents?)

-       +

- "Typical" examples : Repositories
- Comment

Experience sharing (telling, retelling, discussing? stories about practices)

-       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

Expression or illustration of practices (tracks of practice in various forms) -  +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

Reflection, analysis about experience sharing or illustration of practices -  +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

Debate, confrontation, argumentation, negotiation for decision making -  +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

Depiction or (collaborative) creation of new knowledge -  +

- "Typical" examples : White board, Wikis, ...
- Comment

Support for evaluation (quantitative or qualitative) -  +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

Awareness -  +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
  - Comment
- these issues will be addressed in the near future*

Coordination -  +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

Archiving -  +

- "Typical" examples : Zipped repositories, *these issues will be addressed in the near future* knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ? *CoPe\_it! already provides mediation, argumentation and collaboration services. For a detailed description check <http://copeit.cti.gr>*

- hat kind of services (information, knowledge management, mediation, other) and comment *see above*

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?
- Could you describe the improvements necessary for using your tool in PALETTE ?

---

Comments on the questionnaire :

# Description of tool

## General information

---

Name of the partner team ? *INRIA - ACACIA*  
Name of the members' team in charge of describing the tool ? *Adil El Ghali <adil.elghali@sophia.inria.fr>*  
Who are the developers of the Software ? *Olivier Corby <olivier.corby@sophia.inria.fr>*

What is the context (institutional, in term of *institutional; applied to many projects* project, and so on) of the first development of the software ?

Name of the tool ? *Corese*  
Website of this tool ? *<http://www-sop.inria.fr/acacia/soft/corese/>*  
Could you provide a Demo or/and Screenshot of this software ? *<http://ubaye.inria.fr:8080/demo/>*  
▪ Could you comment it ? *Semantic web server for competency management*  
▪ describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool *Semantic search engine for :  
RDF/S  
SPARQL  
RDF Rules*

Tell us about its functionalities ? *Core Search engine for semantic web servers (see. SEWESE)*

What could be the context of use ? *- Individual  
- Semantic search*  
▪ For individual or/and group ?  
▪ What is its main purpose ?

- Could you describe an example of use ? *searching for competency in a Technopole such as Sophia Antipolis (see KmP)*
- Could you describe one or more scenario of use ?
    - *Enterprise searching for a partner*
    - *see KmP*
  - Could you mention some details ?

- Is the tool already in use ? *~50 users :*
- Could you determine how many people use it ?
    - *researchers, engineer (web, ...)*
    - *light-weight java component*
    - *RDF, SPARQL compliant, RDF Rules,*
  - What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. )
    - Smooth integration into semantic web servers.*
    - Approximate search technical innovation*
  - Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

- Was the tool designed to be ...
- used by people with special needs ? *Generic component*

- multilingual ? *No*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component
  
- If you answer "yes", what are the offered functionalities of the component ?

Under which license is the software release *License INRIA (available for research purpose)* ?  
 (If there is any)

## **Technical description**

---

What are the technologies used to program it ? *Java, RDF, Conceptual Graphs*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *Yes*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run JVM it ?

- (ie. WebServer or/and OS)

What are the competencies required to use - RDF (++)  
it ? - SPARQL (+++)

- (ie. It needs that someone in the CoP knows the \*(x)html\* language) - XSLT (-)

### Tools (Generic or not) and their components

---

Can the tool manipulate formalized knowledge ?

☞ Yes ☞ No

Knowledge material #

What kind of knowledge ?

*RDF Schema Ontology  
RDF metadata annotation  
SPARQL query  
Corese RDF Rule*

In which format or standards is it expressed ?

*RDF/S  
SPARQL*

Is the knowledge material domain-dependent and what is the domain ?

*domain independant*

Is the knowledge material reusable ?

*yes*

Is the tool offering KM services ?

☞ Yes ☞ No

Service #

What kind of services ?

*Ontology based information retrieval  
Possibility to query the ontology itself  
Semantic web portal*

Which formats or standards does it use ?

*RDF/S  
SPARQL  
XSLT*

Who/What are the recipients of the service (Human, Other services/applications) ?

*Human or services*

Describe the Inputs/Outputs of the service ? *Input : ontology + metadata + sparql query*  
*Output : answer to the query (sparql xml result format)*

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ?

What are the offered functionalities of the component ?

Does the tool support Content Management ?  Yes  No

- Describe it *see sewese for content management*  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

Is the tool interoperable with other software ?  Yes  No

- Describe it *tomcat, sewese*  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

Does the tool support User Profile Management ?  Yes  No

- Describe it *see sewese*  
e.g. Create user profile, Update user profile, etc.

Does the tool support Expertise Management?  Yes  No

- Describe it *see kmp*  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,

Does it support awareness ?  Yes  No

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.

Does it support Global Search and Taxonomy ?  Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)

*Exploit RDF Schema statements*

Does it support Data Mining and Data Warehousing ?  Yes  No

- Describe it

*Can be used for building data warehouse application by using metadata*

Can it be integrated with an e-mail application?  Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.).

*Could be used in an application to search tagged email archive and classify tasks and calendar events*

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?  Yes  No

- Explain.

*Both are possible*

Is the tool easy to use ?  Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-       +

- Comment, prerequisites

for ontologies developers CORESE is a kernel for SEWESE

Interface

-       +

- Comment

API + Minimal interface for developers  
designed to be embebed into a web server; the natural interface is a web browser

Help (internal)

-       +

- Comment

Documentation (external)

-       +

- Comment

- Documentation API  
- Corby/RR-5621  
- Corby et al.; 2005  
- Corby et al; 2004  
- Corby; Faron 2002

- Link to documentation

<http://www-sop.inria.fr/acacia/soft/corese/documentation.ht>

## What is the target audience of the tools :

---

Do you think the tool can be used directly in a CoP  Yes  No

	Level of interest
It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +

## Purpose in PALETTE

---

### Can the tool be used to provide / develop applications or services for ?

---

(WP2) Information services	Yes
(WP3) Knowledge management services	Yes
(WP4) Mediation services	Yes

### Classify your tools in these categories of use :

---

Exchange of resources, "objects" (URL, documents?) -       +

- "Typical" examples : Repositories *ontology, metadata*
- Comment

Experience sharing (telling, retelling, discussing? stories about practices) -       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

Expression or illustration of practices (tracks of practice in various forms) -  +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ... *metadata, annotation*
- Comment

Reflection, analysis about experience sharing or illustration of practices -  +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis *Ontology based info retrieval*
- Comment

Debate, confrontation, argumentation, negotiation for decision making -  +

- "Typical" examples : Voting systems, argumentation supports, ... *Ontology based info retrieval*
- Comment

Depiction or (collaborative) creation of new knowledge -  +

- "Typical" examples : White board, Wikis, ... *Yes if integrated in a semantic wiki*
- Comment

Support for evaluation (quantitative or qualitative) -  +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

Awareness -  +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

Coordination -  +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

Archiving -  +

- "Typical" examples : Zipped repositories, knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ? *ontology based information retrieval*

- hat kind of services (information, knowledge management, mediation, other) and comment *information, knowledge management*

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?
- Could you describe the improvements necessary for using your tool in PALETTE ?

---

Comments on the questionnaire :

# Description of tool

## General information

---

Name of the partner team ? *EPFL*

Name of the members'team in charge of describing the tool ? *Yassin Rekik, Denis Gillet*

Who are the developers of the Software ? *Thibaud Guillaume-Gentil, Christophe Salzmann, Sandy Helou*

What is the context (institutional, in term of project, and so on) of the first development of the software ? *The initial tool was developed in the context of a New Learning Technologies project funded by the board of the Swiss Federal Institutes of Technology (the eJournal of the eMersion environment).*

Name of the tool ? *e-Logbook*

Website of this tool ? *<http://emersion.epfl.ch>*

Could you provide a Demo or/and Screenshot of this software ? *<http://lawwww.epfl.ch/webdav/site/la/users/105245/public/eLc>*

- Could you comment it ? *Screenshot over the current implementation of the e-Logbook supporting CoPs*
- describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool *The e-Logbook is an electronic version of a classical paper notebook. It is implemented as a collaboration artifact to support exchange and construction of knowledge within CoPs.*

Tell us about its functionalities ? *According to the structure and the protocols ruling a CoP, its members can support their activities by sharing digital assets and arguing on them through the e-Logbook.*

What could be the context of use ? *Any CoP relying on rich digital assets to exchange and develop explicit and tacit knowledge.*

- For individual or/and group ?
- What is its main purpose ?

- Could you describe an example of use ? *A learning community including students, teaching assistants and educators can exchange laboratory-oriented assets like measured data, analysis scripts, reports and anotate them when carrying out remote experimentation.*
- Could you describe one or more scenario of use ?
  - Could you mention some details ?

- Is the tool already in use ? *About 160 engineering students a year are using the initial version of the e-Logbook at the EPFL.*
- Could you determine how many people use it ?
  - What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. )
  - Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

- Was the tool designed to be ...
- used by people with special needs ? *No*

- multilingual ? *Yes*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component
  
- If you answer "yes", what are the offered functionalities of the component ?

Under which license is the software release *Freeware within the Palette community, providing that the EPFL is acknowledged* ?  
(If there is any)

## **Technical description**

---

What are the technologies used to program it ? *The current version rely on .NET and C#. The next version will rely on Ruby on Rails.*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *The next version will be fully documented*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run *Web server* it ?

- (ie. WebServer or/and OS)

What are the competencies required to use *Basic use of a Web browser* it ?

- (ie. It needs that someone in the CoP knows the *\*(x)html\** language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ?  Yes  No

Knowledge material #

What kind of knowledge ? *Any knowledge that can be embedded as digital asset.*

In which format or standards is it expressed ? *Any digital format.*

Is the knowledge material domain-dependent and what is the domain ? *Domain independant.*

Is the knowledge material reusable ? *Yes.*

Is the tool offering KM services ?  Yes  No

Service #

What kind of services ? *Large set of actions applicable on digital assets, such as import, note, rename, submit, info, export, move, broadcast, finalize, assign, annotation, zip, delete.*

Which formats or standards does it use ? *XML*

Who/What are the recipients of the service *Both human and Web components or services* (Human, Other services/applications) ?

Describe the Inputs/Outputs of the service *Coming soon.*  
?

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component *Logbook.*  
?

What are the offered functionalities of the component ? *See above.*

Does the tool support Content Management ?  Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

*Any type of documents can be uploaded. The documents cannot be modified, but they can be annotate, shared, linked, etc.*

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

*The tool supports asynchronous operations on digital assets.*

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

*An API is provided to support exchange of digital asset with other Web components and services.*

Does the tool support User Profile Management ?  Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.

*The tool relies on a CoP model that includes the description of the community structure, protocols, assets and activities, including the members' profile.*

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

*Members' profile and roles can be adapted continuously.*

Does the tool offer personalized services ?  Yes  No



- Comment, prerequisites

Interface -       +  
 ▪ Comment

Help (internal) -       +  
 ▪ Comment

Documentation (external) -       +  
 ▪ Comment

- Link to documentation *http://*

### **What is the target audience of the tools :**

---

Do you think the tool can be used directly in a  Yes  No  
 CoP

	Level of interest
It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +

### **Purpose in PALETTE**

---

#### **Can the tool be used to provide / develop applications or services for ?**

---

(WP2) Information services	Yes
(WP3) Knowledge management services	Yes
(WP4) Mediation services	Yes

#### **Classify your tools in these categories of use :**

---

Exchange of resources, "objects" (URL, documents?) -       +

- "Typical" examples : Repositories *The basic feature concerns digital assets.*
- Comment

Experience sharing (telling, retelling, discussing? stories about practices) -       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

*Annotation of digital assets.*

- ○ ○ ○ ○ ○ +

Expression or illustration of practices (tracks of practice in various forms)

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

*Tracking of the evolution and annotation of digital assets.*

Reflection, analysis about experience sharing or illustration of practices

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

- ○ ○ ○ ○ ○ +

*Tracking of the evolution and annotation of digital assets by community members, including experts.*

Debate, confrontation, argumentation, negotiation for decision making

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

- ○ ○ ○ ○ ○ +

*Such features will be added in future releases.*

Depiction or (collaborative) creation of new knowledge

- "Typical" examples : White board, Wikis, ...
- Comment

- ○ ○ ○ ○ ○ +

*Currently, no synchronous actions are possible.*

Support for evaluation (quantitative or qualitative)

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

- ○ ○ ○ ○ ○ +

*The actions on the digital assets are fully logged, providing a useful quantitative means to support evaluation.*

Awareness

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

- ○ ○ ○ ○ ○ +

*Awareness regarding the actions on assets and the progress in the activities is provided.*

Coordination

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

- ○ ○ ○ ○ ○ +

*Yes, using the CoP administration application.*

Archiving

- ○ ○ ○ ○ ○ +

- "Typical" examples : Zipped repositories, *Built-in basic feature.* knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ?

- hat kind of services (information, knowledge management, mediation, other) and comment

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ? *No support for synchronous collaborative activities.*

- Could you describe the improvements necessary for using your tool in PALETTE ? *The CoP model used will be adapted according to the Palette one. Argumentation features will be added. Client for mobile devices will be developed.*

---

Comments on the questionnaire :

*Ouf.*

# Description of tool

## General information

---

Name of the partner team ?	<i>Centre de Recherche Public Henri Tudor</i>
Name of the members'team in charge of describing the tool ?	<i>Géraldine Vidou (Geraldine.vidou@tudor.lu), Thibaud Latou</i>
Who are the developers of the Software ?	<i>Patrick Plichart (patrick.plichart@tudor.lu) Judith Swietlik (judith.swietlik@tudor.lu) Raynald Jadoul (raynald.jadoul@tudor.lu)</i>
What is the context (institutional, in term of project, and so on) of the first development of the software ?	<i>Two contexts : -Institutionnal : used in different internal projects (Knowledge management, resources management, etc) -Elaboration of a platform for Computer Based Assessment with subjects and competencies modelling facilities.</i>
Name of the tool ?	<i>Generis</i>
Website of this tool ?	<i>http://www.tao.lu/ (Specific part for generis will be available</i>
Could you provide a Demo or/and Screenshot of this software ?	<i>http://mod1.tao.lu/generis/portal/taoportail.php</i>
<ul style="list-style-type: none"><li>▪ Could you comment it ?</li><li>▪ describe the screenshot or/and give login/passwd if needed</li></ul>	<i>Login: pilotkm Password: pilotkm</i>

## Tool description

---

Tell us a small description of the tool	<i>Generis is a platform intended to collaboratively model and manage knowledge (data and meta-data) about resources. The platform can be itself distributed as a p2p network of modules communicating together to reflect knowledge distribution. Generis is a web application which can be used completely in a free way (only need of a web browser). The platform offers an API and web services for knowledge management (consult, search).</i>
Tell us about its functionalities ?	<i>Resource management (consult, edition, search ), user and rights access management, import export xml rdf. Extension mechanisms (plugins, specific user interfaces).</i>
What could be the context of use ? <ul style="list-style-type: none"><li>▪ For individual or/and group ?</li><li>▪ What is its main purpose ?</li></ul>	<i>Collaborative knowledge management within the cops for individuals and groups</i>

Could you describe an example of use ? *Annotations, sharing and consultation of knowledge about resources within cops*

- Could you describe one or more scenario of use ?
- Could you mention some details ?

Is the tool already in use ?

- Could you determine how many people use it ?
- What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. )
- Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

*-Used in educational context : large scale assessment for school system monitoring in Luxembourg (with competencies and subjects modelling facilities)*

*- Institutional context : used in many internal projects ( knowledge management)*

Was the tool designed to be ...

- used by people with special needs ?

*A generic core adapted to specific needs.*

- multilingual ?

*Yes - multilingual data management and multilingual user i*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component

*Generis defines an API which can be used by other components implementing fonctionnalities.*

- If you answer "yes", what are the offered functionalities of the component ?

Under which license is the software release ?

(if there is any)

*The platform will be delivered under the GPL license, but it is possible to use it with an agreement on a non-disclosure document.*

## **Technical description**

---

What are the technologies used to program it ?

- (Programming language [php, C++, etc.]

*php, xml, abstraction of DBMS (possible use of MySQL, Oracle ...), some components programmed in C.*

Is the code clearly written and commented ?

- (ie. Could new programmers easily take part in the project ?)

*Some documentations are available within the code but the programmers guide is still in writting process.*

What are the technical requirements to run it ? *Web browser (any web browser, the application is cross-browser), web application server (apache, MySQL) regarding the server side (runs file on windows, linux, mac os x).*

- (ie. WebServer or/and OS)

What are the competencies required to use it ? *None but depending of level of use.*

- (ie. It needs that someone in the CoP knows the \*(x)html\* language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ? *☞ Yes ☞ No*

Knowledge material #

What kind of knowledge ? *RDF, RDF Schema*

In which format or standards is it expressed ? *RDF, RDF Schema*

Is the knowledge material domain-dependent and what is the domain ? *Domain independant*

Is the knowledge material reusable ?

Is the tool offering KM services ? *☞ Yes ☞ No*

Service #

What kind of services ? *Query on ontology, annotations of resources, import/export of knowledge.*

Which formats or standards does it use ? *RDF, RDFS, XML, SOAP*

Who/What are the recipients of the service (Human, Other services/applications) ? *Human or other applications*

Describe the Inputs/Outputs of the service ? *Semantic query based on model*  
*Input : query*  
*Output : answer*

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ?

What are the offered functionalities of the component ?

Does the tool support Content Management ?  Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

*Content management will be added to the platform soon (for internal needs)*

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

*not yet ....*

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

*Using import/export functions standard compliance*

Does the tool support User Profile Management ?  Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.

*User and rights access management*

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No



- Comment, prerequisites

*Needs of more ergonomic user interfaces*

Interface

-        +

- Comment

*More ergonomic user interfaces*

Help (internal)

-        +

- Comment

*User guide will make the usability easier*

Documentation (external)

-        +

- Comment

*A programmers guide is still in progress*

- Link to documentation

*http://*

## What is the target audience of the tools :

---

Do you think the tool can be used directly in a CoP  Yes  No

	Level of interest
It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +

## Purpose in PALETTE

---

### Can the tool be used to provide / develop applications or services for ?

---

(WP2) Information services

(WP3) Knowledge management services *Yes*

(WP4) Mediation services *No*

### Classify your tools in these categories of use :

---

Exchange of resources, "objects" (URL, documents?) -       +

- "Typical" examples : Repositories *KM*
- Comment

Experience sharing (telling, retelling, discussing? stories about practices) -       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

Expression or illustration of practices (tracks of practice in various forms)

- ○ ○ ○ ○ ○ +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

*Annotations resources*

Reflection, analysis about experience sharing or illustration of practices

- ○ ○ ○ ○ ○ +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

Debate, confrontation, argumentation, negotiation for decision making

- ○ ○ ○ ○ ○ +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

Depiction or (collaborative) creation of new knowledge

- ○ ○ ○ ○ ○ +

- "Typical" examples : White board, Wikis, ...
- Comment

*Thanks to the extension mechanisms such tools can be integrated*

Support for evaluation (quantitative or qualitative)

- ○ ○ ○ ○ ○ +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

*Specific components were developed for computer based assessment*

Awareness

- ○ ○ ○ ○ ○ +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

*User management*

Coordination

- ○ ○ ○ ○ ○ +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

Archiving

- ○ ○ ○ ○ ○ +

- "Typical" examples : Zipped repositories, *Knowledge based in a DBMS* knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ?  
*collaboratively model and manage knowledge (data and meta-data) about resources within the CoP.  
The platform can be itself distributed as a p2p network of modules communicating together to reflect knowledge distribution.  
The platform offers an API and web services for knowledge management (consult, search).*
- What kind of services (information, knowledge management, mediation, other) and comment

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?
- Could you describe the improvements necessary for using your tool in PALETTE ?

---

Comments on the questionnaire :



# Description of tool

## General information

---

Name of the partner team ? *INRIA - ACACIA*

Name of the members'team in charge of describing the tool ? *Adil El Ghali <adil.elghali@sophia.inria.fr>*

Who are the developers of the Software ? *Semi Gaieb <mgaieb@sophia.inria.fr>  
Olivier Corby <olivier.corby@sophia.inria.fr>  
Alain Giboin <alain.giboin@sophia.inria.fr>  
Nicolas Gronnier  
Cecile Guigard*

What is the context (institutional, in term of project, and so on) of the first development of the software ? *Project INRIA-CNRS-Telecom Valley*

Name of the tool ? *KmP*

Website of this tool ? *http://kmp.inria.fr*

Could you provide a Demo or/and Screenshot of this software ? *http://kmp.inria.fr*

- Could you comment it ?
- describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool *KMP (Knowledge Management Platform) is competency management platform for the association Telecom Valley .*

Tell us about its functionalities ? *The aim of the KMP project is to increase the portfolio of competences of the Telecom Valley of Sophia Antipolis by helping actors in expressing their interests and needs in a common space. The solution relies on the specification, design, building and evaluation of an online customizable semantic web application.*

1. Provide a Map of Competences to Foster Partnerships
2. A Semantic Web Service for the Cartography of Competences

What could be the context of use ? *Telecom Valley Sophia Antipolis*

- For individual or/and group ?
- What is its main purpose ?

Could you describe an example of use ? *Finding competencies in Telecom and computer science*

- Could you describe one or more scenario of use ?
- Could you mention some details ?

Is the tool already in use ?

- Could you determine how many people use it ?
- What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. )
- Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

*50 persons  
managers, engineers  
feed the competency base  
find competencies*

Was the tool designed to be ...

- used by people with special needs ? **Yes**

- multilingual ? **No**

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component
  
- If you answer "yes", what are the offered functionalities of the component ?

Under which license is the software release ? *not publicly available  
a demo is online*

(If there is any)

## **Technical description**

---

What are the technologies used to program it ? *Java; Jsp; RDF/RDFS/SPARQL/XSLT; MySQL; SVG*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ?

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run it ?  
▪ (ie. WebServer or/and OS)

*Tomcat  
MySQL  
Java  
Linux/Windows*

What are the competencies required to use it ?  
▪ (ie. It needs that someone in the CoP knows the \*(x)html\* language)

*No competencies (looks like a web server)*

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ?  Yes  No  
Knowledge material #  
What kind of knowledge ?

*Competence ontology  
Telecom/Computer Science ontology*

In which format or standards is it expressed ?

*RDFS*

Is the knowledge material domain-dependent and what is the domain ?

*Model of Competence  
Telecom/Computer Science*

Is the knowledge material reusable ?

*top ontology*

Is the tool offering KM services ?  Yes  No  
Service #  
What kind of services ?

*Knowledge creation and retrieval  
Knowledge maintenance*

Which formats or standards does it use ?

*RDF/S*

Who/What are the recipients of the service (Human, Other services/applications) ?

*Human*

Describe the Inputs/Outputs of the service ?

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ? *Corese engine*

What are the offered functionalities of the component ? *see Corese description (semantic search engine)*

Does the tool support Content Management ?  Yes  No

- Describe it *small documents associated to actors of the domain*  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

Does the tool support User Profile Management ?  Yes  No

- Describe it *admin/public/private simple profile*  
e.g. Create user profile, Update user profile, etc.

Does the tool support Expertise Management?  Yes  No

- Describe it *see above*  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,

Does it support awareness ?

Yes  No

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.

*Minimalist evolution management with dates*

Does it support Global Search and Taxonomy ?

Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)

Does it support Data Mining and Data Warehousing ?

Yes  No

- Describe it

*Clustering within competencies*

Can it be integrated with an e-mail application?

Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.).

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?

Yes  No

- Explain.

Is the tool easy to use ?

Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-        +

- Comment, prerequisites

Interface -       +  
 ▪ Comment

Help (internal) -       +  
 ▪ Comment *some tooltips*

Documentation (external) -       +  
 ▪ Comment

- Link to documentation *<http://kmp.inria.fr>*

### **What is the target audience of the tools :**

---

Do you think the tool can be used directly in a  Yes  No  
 CoP

	Level of interest
It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +

### **Purpose in PALETTE**

---

#### **Can the tool be used to provide / develop applications or services for ?**

---

(WP2) Information services  
 (WP3) Knowledge management services *yes*  
 (WP4) Mediation services

#### **Classify your tools in these categories of use :**

---

Exchange of resources, "objects" (URL, documents?) -       +  
 ▪ "Typical" examples : Repositories *ontologies*  
 ▪ Comment

Experience sharing (telling, retelling, discussing? stories about practices) -       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ... *may be*
- Comment

Expression or illustration of practices (tracks of practice in various forms) -  +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

Reflection, analysis about experience sharing or illustration of practices -  +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

Debate, confrontation, argumentation, negotiation for decision making -  +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

Depiction or (collaborative) creation of new knowledge -  +

- "Typical" examples : White board, Wikis, ...
- Comment

Support for evaluation (quantitative or qualitative) -  +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

Awareness -  +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

Coordination -  +

- "Typical" examples : Management of schedule, distribution of tasks, ... *searching partners*
- Comment

Archiving -  +

- "Typical" examples : Zipped repositories, *ontologies* knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ?

- hat kind of services (information, knowledge management, mediation, other) and comment

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?

- Could you describe the improvements necessary for using your tool in PALETTE ?

---

Comments on the questionnaire :

# Description of tool

## General information

---

Name of the partner team ? *INRIA / WAM*  
Name of the members'team in charge of describing the tool ? *Romain Deltour*  
Who are the developers of the Software ? *Romain Deltour, Jan Mikac*

What is the context (institutional, in term of project, and so on) of the first development of the software ? *Multimedia authoring research project and promotion of the W3C SMIL standard*

Name of the tool ? *LimSee2*  
Website of this tool ? *<http://wam.inrialpes.fr/software/limsee2/>*  
Could you provide a Demo or/and Screenshot of this software ? *<http://wam.inrialpes.fr/software/limsee2/LimSee2.png>*  

- Could you comment it ?
- describe the screenshot or/and give login/passwd if needed

*Shows the views of a SMIL document edited in LimSee2. On the left: XML tree and attributes (bottom). In the middle: layout canvas (top) and timeline (bottom). On the right: validation messages (top) and source code*

## Tool description

---

Tell us a small description of the tool *LimSee2 is an authoring tool for synchronized multimedia documents. It supports several profiles of the SMIL format: SMIL 1.0, 2.0 and 2.1. It provides a powerful GUI on top of the SMIL document model.*

Tell us about its functionalities ? *Edition of any kind of multimedia documents: positioning and synchronization of media objects.*

What could be the context of use ?  

- For individual or/and group ?
- What is its main purpose ?

*The main purpose is to facilitate the edition of SMIL documents, to avoid hand-writing of complex XML code.  
Any kind of document can be edited, so there are many contexts of use. Among the different kind of documents are:  
- slideshow (video + slides + interactive menu)  
- video captioning  
- quiz*

- Could you describe an example of use ? *Use case: authoring a document from scratch*
- Could you describe one or more scenario of use ?
    - *the user creates a new document.*
    - *He creates in the XML tree view the timing scenario*
    - *He creates the layout in the 2d canvas*
    - *He adds media object to regions in the layout or timeline*
    - *He fine tunes the synchronization with the timeline*
  - Could you mention some details ?
- Is the tool already in use ? *The tool is in use. It is difficult to estimate the number of users as it is freely distributed open source software.*
- Could you determine how many people use it ? *As it requires good knowledge of XML and SMIL, it is not dedicated to unexperienced users.*
  - What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. ) *It is used for instance by researchers, teachers, web developers. They use it because it's nearly the only one open source and cross-platform SMIL authoring tool.*
  - Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)
- Was the tool designed to be ...
- used by people with special needs ? *no, it is used to author generic multimedia documents.*

- multilingual ? *yes, there are english, french and japanese localizations.*

- Are there some components of the tool that can be used separately  Yes  No
- If you answer "yes", give a small definition of the component *Not directly. Code has to be adapted before.*

- If you answer "yes", what are the offered functionalities of the component ?

Under which license is the software release ? *Open source, custom INRIA license.*  
 (If there is any)

## Technical description

---

What are the technologies used to program it ? *Java 1.4 (among the different used libraries are the dom4j xml model and the jmf multimedia framework)*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *some parts are clear and well commented, but not the whole code. It requires some effort to take part in the project but it's definitely feasible.*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run *Windows/Linux/Mac OS X + Java 1.4 environment*.  
it ?

- (ie. WebServer or/and OS)

What are the competencies required to use *good knowledge of SMIL (and more generally XML)*.  
it ?

- (ie. It needs that someone in the CoP knows the *\*(x)html\** language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ?  Yes  No

Knowledge material #

What kind of knowledge ? *any kind of knowledge*

In which format or standards is it expressed ? *SMIL 1.0, 2.0 or 2.1 Language Profile (SMIL: Synchronized Multimedia Integration Language, a W3C recommendation)*

Is the knowledge material domain-dependent and what is the domain ? *not domain dependent.*

Is the knowledge material reusable ? *yes*

Is the tool offering KM services ?  Yes  No

Service #

What kind of services ?

Which formats or standards does it use ?

Who/What are the recipients of the service (Human, Other services/applications) ?

Describe the Inputs/Outputs of the service ?

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ?

What are the offered functionalities of the component ?

Does the tool support Content Management ?  Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

*Documents produced by LimSee2 can be viewed and played with any conformant SMIL player.*

Does the tool support User Profile Management ?  Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,

Does it support awareness ?  Yes  No

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.

Does it support Global Search and Taxonomy ?  Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)

Does it support Data Mining and Data Warehousing ?  Yes  No

- Describe it

Can it be integrated with an e-mail application?  Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.).

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?  Yes  No

- Explain.

*The tool can open and retrieve SMIL documents deployed on the web, but can also work only with local data.*

Is the tool easy to use ?  Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates

*For user having a good knowledge of smil, then it's easy to use.*

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-       +

- Comment, prerequisites

*Requires knowledge of SMIL  
Lots of functionality but requires lots of authoring steps to edit a document.*

#### Interface

-       +

- Comment

*- use of common UI widgets  
- rich interface for the manipulation of the smil syntax*

#### Help (internal)

-       +

- Comment

*no internal documentation*

#### Documentation (external)

-       +

- Comment

*Not very detailed, in English only.*

- Link to documentation

*<http://wam.inrialpes.fr/software/limsee2/user-guide/>*

### **What is the target audience of the tools :**

---

Do you think the tool can be used directly in a  Yes  No  
CoP

Level of interest

It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +

### **Purpose in PALETTE**

---

#### **Can the tool be used to provide / develop applications or services for ?**

---

(WP2) Information services	<i>Yes. LimSee2 will contribute to the developement of LimSee2</i>
(WP3) Knowledge management services	<i>No</i>
(WP4) Mediation services	<i>?</i>

#### **Classify your tools in these categories of use :**

---

Exchange of resources, "objects" (URL, documents?) -       +

- "Typical" examples : Repositories
- Comment

Experience sharing (telling, retelling, discussing? stories about practices) -       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ... *Could be used to tell stories in a multimedia form*
- Comment

Expression or illustration of practices (tracks of practice in various forms) -  +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ... *Could be used to illustrate practices in a multimedia form*
- Comment

Reflection, analysis about experience sharing or illustration of practices -  +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

Debate, confrontation, argumentation, negotiation for decision making -  +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

Depiction or (collaborative) creation of new knowledge -  +

- "Typical" examples : White board, Wikis, ... *Create new multimedia documents or edit existing documents*
- Comment

Support for evaluation (quantitative or qualitative) -  +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

Awareness -  +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

Coordination -  +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

Archiving -  +

- "Typical" examples : Zipped repositories, knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ? *Create and edit multimedia documents*

- hat kind of services (information, knowledge management, mediation, other) and comment *Information services: multimedia documents*

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?
- Could you describe the improvements necessary for using your tool in PALETTE ? *Rethink the authoring model and redesign the user interface. That is the purpose of developing LimSee3.*

---

Comments on the questionnaire :



# Description of tool

## General information

---

Name of the partner team ? *INRIA - ACACIA*  
Name of the members'team in charge of describing the tool ? *Adil El Ghali <adil.elghali@sophia.inria.fr>*  
Who are the developers of the Software ? *Khaled Khelif <Khaled.Khelif@sophia.inria.fr>*

What is the context (institutional, in term of *phd + collaborative project with biologists* project, and so on) of the first development of the software ?

Name of the tool ? *Meat*  
Website of this tool ? *http://*  
Could you provide a Demo or/and Screenshot of this software ? *http://www-sop.inria.fr/acacia/soft/corese/screenshots/MEA*  
▪ Could you comment it ? *screenshot of results of the term extraction phase*  
▪ describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool *MeatAnnot allows a semi-automatic generation of ontology-based semantic annotations.  
MeatSearch offers an interface for searching among such semantic annotations.*

Tell us about its functionalities ? *MeatAnnot extracts semi-automatically concept instances and relationship instances from text.  
MeatSearch visualizes graphs as answers to queries.*

What could be the context of use ? *individual for the moment*  
▪ For individual or/and group ?  
▪ What is its main purpose ?

- Could you describe an example of use ? *A biologist working on DNA micro-array experiments looks for scientific articles expressing the interactions between a gene and other biological entities, in order to confirm or infirm his/her interpretation of a given experiment..*
- Could you describe one or more scenario of use ?
  - Could you mention some details ?

- Is the tool already in use ? *used by its developers  
was recently used by a biologist*
- Could you determine how many people use it ?
  - What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. )
  - Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

- Was the tool designed to be ...
- used by people with special needs ? *by biologists to annotate scientific articles in their domain*

- multilingual ? *no*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component *MeatAnnot and MeatSearch can be used separately.*

- If you answer "yes", what are the offered functionalities of the component ? *MeatAnnot for automatic generation of annotation from a textual corpus  
MeatSearch for search in the annotation base.*

Under which license is the software release *INRIA* ?  
(If there is any)

## **Technical description**

---

What are the technologies used to program it ? *JAVA; XML; JAPE*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *Not sure*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run *Linux / GATE* it ?

- (ie. WebServer or/and OS)

What are the competencies required to use *For MeatSearch, no special competence: only be able to use the interface.* it ?

- (ie. It needs that someone in the CoP knows the *\*(x)html\** language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ?

Yes  No

Knowledge material #

What kind of knowledge ?

*Semantic annotations  
Ontologies*

In which format or standards is it expressed ?

*RDF/RDFS  
OWL Lite*

Is the knowledge material domain-dependent and what is the domain ?

*Existing biomedical ontology (UMLS)*

Is the knowledge material reusable ?

*Biomedical domain*

Is the tool offering KM services ?

Yes  No

Service #

What kind of services ?

*Annotation generation from texts.*

Which formats or standards does it use ? *RDF(S)*

Who/What are the recipients of the service *Both* (Human, Other services/applications) ?

Describe the Inputs/Outputs of the service ? *Input : Plain text*  
*Output : RDF annotation*

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ? *MeatAnnot: Term extractor and Relation detector*  
*MeatSearch: Ontology-based Search*

What are the offered functionalities of the component ? *MeatAnnot extracts terms from text relying on the ontology*  
*MeatAnnot detects the ontology relationships in the text*

*MeatSearch retrieves the annotations relevant for a given query and visualizes them through graphs.*

Does the tool support Content Management ?  Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

*With Corese*

Does the tool support User Profile Management ?  Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,

Does it support awareness ?  Yes  No

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.

Does it support Global Search and Taxonomy ?  Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)

*MeatSearch uses annotations to retrieve documents*

Does it support Data Mining and Data Warehousing ?  Yes  No

- Describe it

*MeatAnnot offers text-mining for annotation generation.*

Can it be integrated with an e-mail application?  Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.).

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?  Yes  No

- Explain.

Is the tool easy to use ?  Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-       +

- Comment, prerequisites

MeatAnnot: 1  
MeatSearch: 3

#### Interface

- ◯ ◯ ◯ ◯ ◯ +

- Comment

For MeatAnnot, no user interface yet, a future development is planned.  
For MeatSearch, graphical interface

#### Help (internal)

- ◯ ◯ ◯ ◯ ◯ +

- Comment

#### Documentation (external)

- ◯ ◯ ◯ ◯ ◯ +

- Comment

Khaled Khelif, Rose Dieng-kuntz, Pascal Barbry. "Web sémantique pour la mémoire d'expériences d'une communauté scientifique : le projet MEAT". Actes des 6èmes journées d'Extraction et de Gestion de Connaissances, EGC'06, p. 175-186, Lille, France, 17-20 Janvier, 2006.

Khaled Khelif, Rose Dieng-kuntz, Pascal Barbry. Semantic web technologies for interpreting DNA microarray analyses: the MEAT system. Proc. of the 6th International Conference on Web Information Systems Engineering WISE'05, New York, 20-22 <http://www-sop.inria.fr/acacia/Publications/acacia-pub-year>.

- Link to documentation

## What is the target audience of the tools :

---

Do you think the tool can be used directly in a  Yes  No CoP

Level of interest

It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> +

## Purpose in PALETTE

---

### Can the tool be used to provide / develop applications or services for ?

---

(WP2) Information services

(WP3) Knowledge management services yes

(WP4) Mediation services

### Classify your tools in these categories of use :

---

Exchange of resources, "objects" (URL, documents?)

- ◯ ◯ ◯ ◯ ◯ +

- "Typical" examples : Repositories
- Comment

Sharing a repository of RDF annotations  
Annotate any document w.r.t. a reference ontology  
Can be generalized to any domain

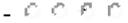
Experience sharing (telling, retelling, discussing? stories about practices)

- ◯ ◯ ◯ ◯ ◯ +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

Expression or illustration of practices (tracks of practice in various forms) -  +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

Reflection, analysis about experience sharing or illustration of practices -  +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

Debate, confrontation, argumentation, negotiation for decision making -  +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

Depiction or (collaborative) creation of new knowledge -  +

- "Typical" examples : White board, Wikis, ...
- Comment

Support for evaluation (quantitative or qualitative) -  +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

Awareness -  +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

Coordination -  +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

Archiving -  +

- "Typical" examples : Zipped repositories, *Annotation bases* knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ? *Annotation service*  
*Search and visualization service*

- hat kind of services (information, *KM* knowledge management, mediation, other) and comment

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?

- Could you describe the improvements necessary for using your tool in PALETTE ?

*MeatAnnot and MeatSearch had been developed for the biology domain but could be generalized to any other domain.*  
*If the predefined relation grammars offered by MeatAnnot are not sufficient or not useful for the considered domain, new relation extraction grammars could be developed in JAPE language.*  
*By the same way, handling contextual annotations w.r.t. to multiple viewpoints could be useful in a scientific community.*

---

Comments on the questionnaire :



# Description of tool

## General information

---

Name of the partner team ? *INRIA - ACACIA*  
Name of the members'team in charge of describing the tool ? *Adil El Ghali <adil.elghali@sophia.inria.fr>*  
Who are the developers of the Software ? *Sylvain Dehors <Sylvain.Dehors@sophia.inria.fr>*

What is the context (institutional, in term of project, and so on) of the first development of the software ? *Developped in the context of the main developer thesis work*

Name of the tool ? *QBLS (Question Based Learning System)*  
Website of this tool ? *http://ubaye.inria.fr:8080/exp\_weblearn*  
Could you provide a Demo or/and Screenshot of this software ? *http://ubaye.inria.fr:8080/exp\_weblearn/cours*  
▪ Could you comment it ? *login : invite*  
▪ describe the screenshot or/and give login/passwd if needed *password : invite*

## Tool description

---

Tell us a small description of the tool *Qbls is a web application for navigating semantically annotated courses.*

Tell us about its functionalities ? *-It allows to import annotated courses with styles from Word and OpenOffice Writer.  
- Content can be accessed through a dedicated web interface.  
- Annotations can be modified on-line.  
- user traces can be visualized*

What could be the context of use ? *Use by a teacher to put his courses on-line for the students*  
▪ For individual or/and group ?  
▪ What is its main purpose ?

Could you describe an example of use ? *Use during assignement sessions to access the course information*

- Could you describe one or more scenario of use ?
- Could you mention some details ?

Is the tool already in use ?

*Already used in two experiments.  
- during 2 h by 50 students  
- during a semester by 80 students  
Use it to help performing assignments*

- Could you determine how many people use it ?
- What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. )
- Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

Was the tool designed to be ...

- used by people with special needs ? *yes*

- multilingual ? *partly*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component *Annotation component*

- If you answer "yes", what are the offered functionalities of the component ? *annotation, integration with openoffice*

Under which license is the software release *INRIA* ?

(If there is any)

## **Technical description**

---

What are the technologies used to program it ? *Java; JEE; XSLT*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *partialy*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run it ? *need a WebServer (currently runs on tomcat 5.5)*

- (ie. WebServer or/and OS)

What are the competencies required to use it ? *requires a fair bit of knowledge about the software itself, to be configured. after that use does not require technical knowledge*

- (ie. It needs that someone in the CoP knows the \*(x)html\* language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ? *Yes No*

Knowledge material #

What kind of knowledge ? *Ontology, annotations,*

In which format or standards is it expressed ? *RDF/S, RDFa*

Is the knowledge material domain-dependent and what is the domain ? *yes, education domain (CS courses)*

Is the knowledge material reusable ? *partially*

Is the tool offering KM services ? *Yes No*

Service #

What kind of services ? *annotation*

Which formats or standards does it use ? *RDF/S, RDFa, SPARQL*

Who/What are the recipients of the service (Human, Other services/applications) ? *Human*

Describe the Inputs/Outputs of the service ?  Yes  No  
Input: ontology  
Output: a course annotated with RDF(S) w.r.t. the ontology

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ? *Service of annotation of a document, the annotation being based on the document-styles used*

What are the offered functionalities of the component ? *Possibility to generate annotations of a document according to the interpretation of the document styles (e.g. Word styles and Open office styles)*

Does the tool support Content Management ?  Yes  No

- Describe it *It enables to associate ontology-based annotations to a document.*  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?  Yes  No

- Describe it *It could be used for collaborative construction of courses*  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

Is the tool interoperable with other software ?  Yes  No

- Describe it *QBLS is interoperable with Corese and with Magpie. Oit could also interoperate with any semantic web tool (e.g. search engine) able to handle RDF(S) anf RDFa.*  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.

Does the tool support User Profile Management ?  Yes  No

- Describe it *QBLS handles a learner profile*  
e.g. Create user profile, Update user profile, etc.

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No



- Comment, prerequisites

*many configuration tasks are done by hand; students interface easy to manipulate*

Interface

-        +

- Comment

*usability is low for configuration; high for end users (students)*

Help (internal)

-        +

- Comment

*no help available*

Documentation (external)

-        +

- Comment

- Link to documentation

*<http://www-sop.inria.fr/acacia/personnel/Sylvain.Dehors/>*

## What is the target audience of the tools :

---

Do you think the tool can be used directly in a  Yes  No  
CoP

Level of interest

It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +

## Purpose in PALETTE

---

### Can the tool be used to provide / develop applications or services for ?

---

(WP2) Information services

(WP3) Knowledge management services  yes

(WP4) Mediation services

### Classify your tools in these categories of use :

---

Exchange of resources, "objects" (URL, documents?)

-        +

- "Typical" examples : Repositories
- Comment

*stores and distributes specific "LOs"*

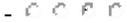
Experience sharing (telling, retelling, discussing? stories about practices)

-        +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

Expression or illustration of practices (tracks of practice in various forms) -  +

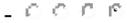
- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

Reflection, analysis about experience sharing or illustration of practices -  +

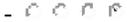
- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

Debate, confrontation, argumentation, negotiation for decision making -  +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

Depiction or (collaborative) creation of new knowledge -  +

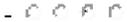
- "Typical" examples : White board, Wikis, *allows to annotate documents* ...
- Comment

Support for evaluation (quantitative or qualitative) -  +

- "Typical" examples : Logalyzers, *integrates a beta log analyser* management of questionnaires, ...
- Comment

Awareness -  +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

Coordination -  +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

Archiving -  +

- "Typical" examples : Zipped repositories, *Repositories of learning objects, of annotated courses* knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ? *Service of document annotation for the CoP (e.g. course annotation on an academic CoP).*

- hat kind of services (information, knowledge management, mediation, other) and comment *information and KM services*

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?

- Could you describe the improvements necessary for using your tool in PALETTE ? *Improve collaborative aspects (e.g. cooperative construction of a common document by several members of the CoP, etc...)*

---

Comments on the questionnaire :



# Description of tool

## General information

---

Name of the partner team ? *EPFL*  
Name of the members'team in charge of describing the tool ? *Christine Vanoirbeek, Aida Boukottaya, Karim Zouba*  
Who are the developers of the Software ? *Thibaud Guillaume-gentil, Karim Zouba*

What is the context (institutional, in term of *PHD Work at EPFL* project, and so on) of the first development of the software ?

Name of the tool ? *ROCS*  
Website of this tool ? *http://*  
Could you provide a Demo or/and Screenshot of this software ? *http://*

- Could you comment it ?
- describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool *ROCS is a reuse tool, i.e. a tool used to produce a new document by reusing existing documents fragments.*

Tell us about its functionalities ? *The tool reuses the content information of structured, semi-structured and textual documents (e.g, Word).*

What could be the context of use ? *The context of use is individual reusing of documents. The main purpose is to reduce the cost and amount of human effort when creating a new document.*

- For individual or/and group ?
- What is its main purpose ?

- Could you describe an example of use ? *An user creates a new Document.*
- Could you describe one or more scenario of use ? *-He extracts document fragments from a collection of existing documents.  
-According to his specific needs, he can adapt the content or/and the structure of extracted documents fragments.*
  - Could you mention some details ? *Examples of use could be: course production, document assembly,...*

Is the tool already in use ? *NO*

- Could you determine how many people use it ?
- What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc.)
- Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

Was the tool designed to be ...

- used by people with special needs ? *Need for reusing and adapting content*

- multilingual ? *Yes (need to develop further functionalities)*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component
- If you answer "yes", what are the offered functionalities of the component ?

Under which license is the software release ?  
(if there is any)

## **Technical description**

---

What are the technologies used to program it ? *JAVA and XML Technologies*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *YES*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run it ? *It is designed to be independent of platforms*

- (ie. WebServer or/and OS)

What are the competencies required to use it ? *Nothing (domain understanding)*

- (ie. It needs that someone in the CoP knows the \*(x)html\* language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ?  Yes  No

Knowledge material #

What kind of knowledge ?

In which format or standards is it expressed ?

Is the knowledge material domain-dependent and what is the domain ?

Is the knowledge material reusable ?

Is the tool offering KM services ?  Yes  No

Service #

What kind of services ?

Which formats or standards does it use ?

Who/What are the recipients of the service (Human, Other services/applications) ?

Describe the Inputs/Outputs of the service ?

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ?

What are the offered functionalities of the component ?

Does the tool support Content Management ?  Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.  
*Editors (e.g. Amaya, Word,...), Tools related to KM services (Ontologie creating, Annotation tools...)*

Does the tool support User Profile Management ?  Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.

Does the tool offer personalized services ?  Yes  No



- Comment, prerequisites

*Further development of main functionalities*

Interface

-       +

- Comment

*Further enhancement of user interface*

Help (internal)

-       +

- Comment

*Further enhancement of documentation*

Documentation (external)

-       +

- Comment

- Link to documentation

*http://*

## **What is the target audience of the tools :**

---

Do you think the tool can be used directly in a  Yes  No  
CoP

Level of interest

It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +

## **Purpose in PALETTE**

---

### **Can the tool be used to provide / develop applications or services for ?**

---

(WP2) Information services

*YES; Information reuse service*

(WP3) Knowledge management services

(WP4) Mediation services

### **Classify your tools in these categories of use :**

---

Exchange of resources, "objects" (URL, documents?)

-       +

- "Typical" examples : Repositories
- Comment

Experience sharing (telling, retelling, discussing? stories about practices)

-       +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ... *Reusing existing documents (existing experience)*
- Comment

Expression or illustration of practices (tracks of practice in various forms) -  +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ... *Different documents formats are supported*
- Comment

Reflection, analysis about experience sharing or illustration of practices -  +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis *Reusing existing documents*
- Comment

Debate, confrontation, argumentation, negotiation for decision making -  +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

Depiction or (collaborative) creation of new knowledge -  +

- "Typical" examples : White board, Wikis, ...
- Comment

Support for evaluation (quantitative or qualitative) -  +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

Awareness -  +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes") *Can be used to create personalized documents*
- Comment

Coordination -  +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

Archiving -  +

- "Typical" examples : Zipped repositories, knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ? *Information reuse services*

- hat kind of services (information, knowledge management, mediation, other) and comment *Information services*

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?
- Could you describe the improvements necessary for using your tool in PALETTE ?

---

Comments on the questionnaire :



# Description of tool

## General information

---

Name of the partner team ? *INRIA - ACACIA*  
Name of the members'team in charge of describing the tool ? *Adil El Ghali <adil.elghali@sophia.inria.fr>*  
Who are the developers of the Software ? *Fabien Gandon <Fabien.Gandon@sophia.inria.fr>*

What is the context (institutional, in term of project, and so on) of the first development of the software ? *CoMMA european project (March 2000- March 2003)*

Name of the tool ? *SeWeSe*  
Website of this tool ? *http://*  
Could you provide a Demo or/and Screenshot of this software ? *http://*

- Could you comment it ?
- describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool *Framework to speed up semantic web application development*

Tell us about its functionalities ? *Provide technical solutions to usual tasks in semantic web applications (ontology browsing, ontology edition, query solving, result rendering, MVC architecture; etc.)*

What could be the context of use ? *Any semantic web application hosted on a web server*

- For individual or/and group ?
- What is its main purpose ?

- Could you describe an example of use ? *SweetWiki: a semantic web based wiki using RDF/S to organize wiki pages and navigation in the wiki site.*
- Could you describe one or more scenario of use ?
  - Could you mention some details ?

- Is the tool already in use ? *Yes.*
- Could you determine how many people use it ? *No.*
  - What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc. ) *Web developers for semantic web applications. Because we have the control of it.*
  - Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

- Was the tool designed to be ...
- used by people with special needs ? *???*

- multilingual ? *Yes*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component *Ontology Visualization  
Ontology Edition  
Ontology server*
- If you answer "yes", what are the offered functionalities of the component ?

Under which license is the software release *Not released now.*  
?  
(If there is any)

## **Technical description**

---

What are the technologies used to program it ? *Java; servlet; JSPX; XML; XSLT; CSS; XHTML; RDF/S; OWL; SPARQL; javascripts; AJAX; etc.*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *Yes*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run *JDK 1.5 + Tomcat* it ?

- (ie. WebServer or/and OS)

What are the competencies required to use *Devs need to know associated technos. Users just see a web site* it ?

- (ie. It needs that someone in the CoP knows the *\*(x)html\** language)

### **Tools (Generic or not) and their components**

---

Can the tool manipulate formalized knowledge ?  Yes  No

Knowledge material #

What kind of knowledge ? *The tool is based on RDF/S and OWL.*

In which format or standards is it expressed ? *Expressivity of the formalisms correspond to a subset of OWL Lite (essentially the algebraic properties)*

Is the knowledge material domain-dependent and what is the domain ? *Based on RDF/S and OWL Lite, thus domain-independent.*

Is the knowledge material reusable ? *Depend on who did the schema.*

Is the tool offering KM services ?  Yes  No

Service #

What kind of services ? *ontology browsing, ontology edition, ontology-based form generation for queries and annotation, query solving, result rendering*

Which formats or standards does it use ? *Web standards (see above list)*

Who/What are the recipients of the service (Human, Other services/applications) ? *Both human (GUI) and applications (API).*

Describe the Inputs/Outputs of the service *RDF/XML, SPARQL query language, SPARQL binding, XHTML*  
?

Are there some components of the tool that  Yes  No  
can be used Separately ?

Component #

Give a small description of the component  
?

What are the offered functionalities of the  
component ?

Does the tool support Content Management  Yes  No  
?

- Describe it  
e.g. Submit Raw Data and Upload Documents,  
Submit text based content through HTML forms,  
Upload file types including: .doc, .pdf, .xls, .ppt, .gif,  
.jpg to the content management system, Associate  
content with other "knowledge objects" on the site  
including previous content, discussions, events,  
and people, Search and Retrieve Content and  
Documents, etc.

Does the tools support any type of  Yes  No  
collaboration ?

- Describe it  
e.g. Discussion Boards, Create new discussion  
threads, Create new messages, Reply to messages,  
Message author information is available to users,  
Elect to post anonymous messages, Instant  
Messaging and Chat, View a list of all users who are  
currently online / view directory, Export  
conversation/meeting text records, etc.

Is the tool interoperable with other software  Yes  No  
?

- Describe it *Through web standards.*  
e.g. Share active screen (other users can view the  
screen of any of the participants), Remote desktop  
sharing, interoperation with diverse chat tools etc.

Does the tool support User Profile  Yes  No  
Management ?

- Describe it *Login, profile, confidentiality*  
e.g. Create user profile, Update user profile, etc.

Does the tool support Expertise  Yes  No  
Management?

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update  
user profiles, Post description of need for an expert,  
Respond as an expert to a need, etc. Note: this may  
be related to the previous question.

Does the tool offer personalized services ?  Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,

Does it support awareness ?  Yes  No

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.

Does it support Global Search and Taxonomy ?  Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)

*Ontology-based navigation and retrieval.*

Does it support Data Mining and Data Warehousing ?  Yes  No

- Describe it

Can it be integrated with an e-mail application?  Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.).

???

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?  Yes  No

- Explain.

*Users have to be connected to the web server.*

Is the tool easy to use ?  Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates

*Developers need to know the underlying technos. End-users just see a web site.*

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-       +

- Comment, prerequisites

*Developers need to know the underlying technos.*

Interface -        +  
 ▪ Comment

Help (internal) -        +  
 ▪ Comment

Documentation (external) -        +  
 ▪ Comment *in progress*

- Link to documentation *http://*

**What is the target audience of the tools :**

---

Do you think the tool can be used directly in a CoP  Yes  No

	Level of interest
It helps the CoPs in general	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the organisational leaders interest in CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the coordinators of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the facilitators (conversational coordinator)	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +
It helps the members of CoPs	- <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> +

**Purpose in PALETTE**

---

**Can the tool be used to provide / develop applications or services for ?**

---

- (WP2) Information services
- (WP3) Knowledge management services *yes*
- (WP4) Mediation services *yes*

**Classify your tools in these categories of use :**

---

Exchange of resources, "objects" (URL, documents?) -        +  
 ▪ "Typical" examples : Repositories  
 ▪ Comment

Experience sharing (telling, retelling, discussing? stories about practices) -        +

- "Typical" examples : Forums, weblogs, mailing-lists, chat, irc, ...
- Comment

Expression or illustration of practices (tracks of practice in various forms) -  +

- "Typical" examples : Supports for commented videos or annotated audios, pictures, moblogs, interviews, ...
- Comment

Reflection, analysis about experience sharing or illustration of practices -  +

- "Typical" examples : ?... could be supports for discussions related on illustration of practices with specific questions of analysis
- Comment

Debate, confrontation, argumentation, negotiation for decision making -  +

- "Typical" examples : Voting systems, argumentation supports, ...
- Comment

Depiction or (collaborative) creation of new knowledge -  +

- "Typical" examples : White board, Wikis, ...
- Comment

Support for evaluation (quantitative or qualitative) -  +

- "Typical" examples : Logalyzers, management of questionnaires, ...
- Comment

Awareness -  +

- "Typical" examples : Who is online?, presentation of people (+ "trombinoscopes")
- Comment

Coordination -  +

- "Typical" examples : Management of schedule, distribution of tasks, ...
- Comment

Archiving -  +

- "Typical" examples : Zipped repositories, knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ?  
*Semi-automated tagging of information resources,  
Collaborative annotation of information resources to organize them,  
Maintenance and refactoring of the indexing structures,  
Inferences to assist indexing and retrieval/navigation,*
- What kind of services (information, knowledge management, mediation, other) and comment  
*Collective information management and KM.*

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?
- Could you describe the improvements necessary for using your tool in PALETTE ?

---

Comments on the questionnaire :

# Description of tool

## General information

---

Name of the partner team ? *INRIA - ACACIA*

Name of the members'team in charge of describing the tool ? *Adil El Ghali <adil.elghali@sophia.inria.fr>*

Who are the developers of the Software ? *Marek Ruzicka  
David Minier  
Rose Dieng <rose.dieng@sophia.inria.fr>*

What is the context (institutional, in term of project, and so on) of the first development of the software ? *The virtual staff was developed by INRIA in the framework of the Life Line project (in collaboration with Nautilus company).*

Name of the tool ? *Virtual Staff*

Website of this tool ? *http://*

Could you provide a Demo or/and Screenshot of this software ? *http://*

- Could you comment it ?
- describe the screenshot or/and give login/passwd if needed

## Tool description

---

Tell us a small description of the tool *This tool enables a community of medical professionals to make a cooperative reasoning about diagnosis on a patient or treatment prescription, with support to decision making through argumentation.*

Tell us about its functionalities ? *The tool enables to create graphs visualizing the cooperative reasoning of the members of the medical community, and to give arguments in favour of or against possible solutions in case of need of complex decision making.*

What could be the context of use ? *The tool can be used by members of a medical group asynchronously or synchronously.*

- For individual or/and group ?
- What is its main purpose ?

Could you describe an example of use ? *For example, in a health network, several medical actors can use it for deciding the best therapy for a cancer diagnosed, according to the patient's characteristics.*

- Could you describe one or more scenario of use ?
- Could you mention some details ?

Is the tool already in use ? *No, it was tested by the industrial partner of the Life Line project and presented in demonstration to doctors (with illustration on a real case).*

- Could you determine how many people use it ?
- What sort of people use it ? in wich context ? (ie. its developers ?, web developers ?, only geeks ?, CoPs ?, etc.)
- Why do they use it ? (ie. there is no alternative, it a technical innovation ?, explain.)

Was the tool designed to be ...

- used by people with special needs ? *The tool was originally designed for members of a health network*

- multilingual ? *French-english*

Are there some components of the tool that can be used separately  Yes  No

- If you answer "yes", give a small definition of the component *The kernel on cooperative reasoning could be reused with another ontology (not necessarily in medical domain) and the interfaces could be adapted to other domains.*

- If you answer "yes", what are the offered functionalities of the component ? *Build graphs representing the reasoning process and filter these graphs according to the actors involved in the process .*

Under which license is the software release *INRIA license* ?  
(if there is any)

## **Technical description**

---

What are the technologies used to program it ? *Java*

- (Programming language [php, C++, etc.]

Is the code clearly written and commented ? *Yes*

- (ie. Could new programmers easily take part in the project ?)

What are the technical requirements to run it ? *Tomcat, JDK1.4+*

- (ie. WebServer or/and OS)

What are the competencies required to use it ? *No special competency are required: the end-user must be able to use the interface for building and filtering the graphs.*

- (ie. It needs that someone in the CoP knows the \*(x)html\* language)

## Tools (Generic or not) and their components

---

Can the tool manipulate formalized knowledge ? *☞ Yes ☜ No*

Knowledge material #

What kind of knowledge ?

*Ontologies  
SOAP graphs  
QOC graphs*

In which format or standards is it expressed ?

*RDF(S)*

Is the knowledge material domain-dependent and what is the domain ? *It is based on a medical ontology (Nautilus).  
But the virtual staff could be used with another ontology in another domain, provided that the mapping between the ontology and the graphs is adapted.*

Is the knowledge material reusable ? *Yes: the medical ontology can be used in any semantic web application (e.g. ontology-based search, etc.)*

Is the tool offering KM services ? *☞ Yes ☜ No*

Service #

What kind of services ?

*Cooperative reasoning*

Which formats or standards does it use ?

*XML  
RDF(S)  
SOAP model (Subjective Objective Assessment Plan)  
QOC model (Question Option Criteria)*

Who/What are the recipients of the service (Human, Other services/applications) ? *Presently, humans.  
But we could later implement also possible services or applications that would use the outputs of the virtual staff since a session of virtual staff is saved in XML format and in RDF(S) format.*

Describe the Inputs/Outputs of the service ? *The inputs of the virtual staff service would be:*  
- an RDF(S) ontology,  
- a mapping between this ontology and the types of nodes and edges of the SOAP and QOC graphs  
- data enabling to fill partially the SOAP graphs and the QOC graphs

Are there some components of the tool that can be used Separately ?  Yes  No

Component #

Give a small description of the component ? *The cooperative reasoning kernel.  
The visualization module.*

What are the offered functionalities of the component ? *It supports ontology-based creation or modification of SOAP graphs and QOC graphs. It keeps track of each actor action.  
It supports filtering of these graphs according to the actor.*

Does the tool support Content Management ?  Yes  No

- Describe it  
e.g. Submit Raw Data and Upload Documents, Submit text based content through HTML forms, Upload file types including: .doc, .pdf, .xls, .ppt, .gif, .jpg to the content management system, Associate content with other "knowledge objects" on the site including previous content, discussions, events, and people, Search and Retrieve Content and Documents, etc.

Does the tools support any type of collaboration ?  Yes  No

- Describe it  
e.g. Discussion Boards, Create new discussion threads, Create new messages, Reply to messages, Message author information is available to users, Elect to post anonymous messages, Instant Messaging and Chat, View a list of all users who are currently online / view directory, Export conversation/meeting text records, etc.
- Collaborative decision-making  
Support to argumentation and desing rationale.*

Is the tool interoperable with other software ?  Yes  No

- Describe it  
e.g. Share active screen (other users can view the screen of any of the participants), Remote desktop sharing, interoperation with diverse chat tools etc.
- With Corese  
XML and RDF(S) formats of the inputs/outputs of the virtual staff should enable interoperability with any tool handling these formats.*

Does the tool support User Profile Management ?  Yes  No

- Describe it  
e.g. Create user profile, Update user profile, etc.
- Each action performed on any of the graphs handled in the virtual staff is associated with the corresponding medical actor, which is useful for later filtering of these graphs or search about the virtua staff.*

Does the tool support Expertise Management?  Yes  No

- Describe it  
e.g. Expert Directory Linked to User Profiles, Update user profiles, Post description of need for an expert, Respond as an expert to a need, etc. Note: this may be related to the previous question.
- The Nautilus ontology integrates concepts on the different kinds of medical professionals.*

Does the tool offer personalized services ?  Yes  No

- Describe it  
Automatic reminders to update profile on a regular basis via e-mail notification, Administrator can set frequency for e-mail reminders, Searchable Expert Directory, Search and view contact information - integrated with user profile, Administrator can assign users to specified user groups,

*The tool offers graph filtering, based on the actors.  
It enables later ontology-based search on sessions of virtual staff.*

Does it support awareness ?

Yes  No

- Describe it  
e.g. Does it provide E-mail notification about submitted items, change of discourse status, etc.

Does it support Global Search and Taxonomy ?

Yes  No

- Describe it  
e.g. search features about the content of collaboration, taxonomy of issues addressed, etc.)

*Search based on concepts of the medical ontology or on concepts linked to the notion of virtual staff, of SOAP graphs or of QOC graphs.*

Does it support Data Mining and Data Warehousing ?

Yes  No

- Describe it

Can it be integrated with an e-mail application?

Yes  No

- Describe it  
e.g. E-mail integration with e-mail application using standard synchronization features, Calendar integration, Task integration, etc.)

Users can access it while connected to Internet, or they can access and work with data without any Internet/network connection ?

Yes  No

- Explain.

*Both*

Is the tool easy to use ?

Yes  No

- Describe it  
e.g. Pages are easy to understand and use, users can choose among existing templates

*The interfaces relied on models the medical community is accustomed to.*

## Usability

---

Note each of these items regarding to the actual usability of the software, and then describe in the "Comment" area what are the further development of it ?

Evaluation the general usability of the tool

-        +

- Comment, prerequisites

Interface - ☐ ☐ ☐ ☐ ☐ ☐ +  
 ▪ Comment

Help (internal) - ☐ ☐ ☐ ☐ ☐ ☐ +  
 ▪ Comment

Documentation (external) - ☐ ☐ ☐ ☐ ☐ ☐ +  
 ▪ Comment *M. Ruzika, R. Dieng-Kuntz, D. Minier. RR-5621 Virtual Staff - Software Tool for Cooperative Work in a Health Care Network Novembre 2004.*  
*Rose Dieng-Kuntz, David Minier, Frédéric Corby, Marek Ruzicka, Olivier Corby, Laurent Alamarguy, Phuc-Hiep Luong, Medical Ontology and Virtual Staff for a Health Network, In Enrico Motta and Nigel Shadbolt eds, Engineering Knowledge in the Age of the Semantic Web: Proceedings of the 14th International Conference, EKAW 2004, <http://www.inria.fr/rrrt/rr-5390.html>*  
 ▪ Link to documentation

## What is the target audience of the tools :

---

Do you think the tool can be used directly in a  Yes  No  
 CoP

	Level of interest
It helps the CoPs in general	- ☐ ☐ ☐ ☐ +
It helps the organisational leaders interest in CoPs	- ☐ ☐ ☐ ☐ +
It helps the coordinators of CoPs	- ☐ ☐ ☐ ☐ +
It helps the facilitators (conversational coordinator)	- ☐ ☐ ☐ ☐ +
It helps the members of CoPs	- ☐ ☐ ☐ ☐ +

## Purpose in PALETTE

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### Can the tool be used to provide / develop applications or services for ?

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(WP2) Information services  
 (WP3) Knowledge management services Yes  
 (WP4) Mediation services Yes

### Classify your tools in these categories of use :

---

Exchange of resources, "objects" (URL, documents?) - ☐ ☐ ☐ ☐ ☐ ☐ +  
 ▪ "Typical" examples : Repositories *Sharing of virtual staff sessions (on one or several problem solvings).*  
 ▪ Comment

Experience sharing (telling, retelling, discussing? stories about practices) - ☐ ☐ ☐ ☐ ☐ ☐ +



- "Typical" examples : Zipped repositories, *Virtua staff sessions* knowledge bases.
- Comment

### **Using the tool to develop services for CoPs**

---

Can the tool be used to develop services for CoPs ?  Yes  No

If you answer yes, please give some details about the services that implements the mentioned functionalities / improvements /

- Small description of the services ? *It would be possible to support any activity requiring cooperative problem solving, with a trace of the actors and of their respective arguments in favour or against a solution.*

- hat kind of services (information, knowledge management, mediation, other) and comment *KM and mediation*

If you answer no, what your tool cannot do for the CoPs ?

- Could you describe some limitations of your tool ?

- Could you describe the improvements necessary for using your tool in PALETTE ? *In order to take into account Palette, the Nautilus ontology should be replaced by the CoP domain and the mapping between this CoP-dependent ontology and the elements of the interfaces should be performed (e.g. association of the relevant concepts or relations of the ontology to the relevant types of nodes or types of edges in the graphs).*

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Comments on the questionnaire :

## 5.3 A Complementary bibliography on the notion of scenario

### 5.3.1 Pedagogical scenarios

- Brassard, C., Daele, A. (2003). Un outil réflexif pour concevoir un scénario pédagogique intégrant les TIC. In Desmoulins, C., Marquet, P. and Bouhineau, D. (Editors.). Actes de la conférence EIAH 2003 Environnements Informatiques pour l'Apprentissage Humain. Strasbourg: ATIEF, INRP:437-444.
- Crozat, S., Trigano, P. (2004). Conception de supports hypermédias pour une exploitation pédagogique: modèle et expérience

URL: <http://www.hds.utc.fr/~ptrigano/publications/spirale.pdf> (latest visit July 2006)

- Daele, A., Brassard, C., Esnault, L., O'Donoghue, M., Uyttebrouck, E. & Zeiliger, R. (2002). Conception, mise en oeuvre, analyse et évaluation de scénarios pédagogiques recourant à l'usage des Technologies de l'Information et de la Communication. Recre@sup project report, SOCRATES-MINERVA.

URL: <http://tecfa.unige.ch/proj/recreasup/rapport/WP2.pdf> (latest visit July 2006)

- Esnault, L. & Daele, A. (2003). *Higher Education and ICT: Questions to Design Successful Pedagogical Scenarios to Improve the Learning Process*. World Conference on E-Learning in Corp., Govt., Health., & Higher Education, Phoenix, Arizona, Ed.(1): 944-951.
- Faerber, R. (2004). Caractérisation des situations d'apprentissage en groupe. STICEF, Volume 11.

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- Faure, D. & Lejeune, A. (2005). Genscen', un éditeur graphique pour l'enseignant scénariste.

URL: <http://hal.ccsd.cnrs.fr/docs/00/03/18/54/PDF/ac17.pdf> (latest visit July 2006)

- Ferraris, C., Lejeune, A., Vignollet, L. & David, J.-P. (2005). Modélisation de scénarios pédagogiques collaboratifs.

URL: <http://hal.ccsd.cnrs.fr/docs/00/03/18/13/PDF/23.pdf> (latest visit July 2006)

- Giacomini-Pacurar, E., Trigano P. & Ghitalla, F. (2004). Vers une conception des modèles prédéfinis de scénarios pédagogiques.

URL:

[http://archive-edutice.ccsd.cnrs.fr/docs/00/02/75/19/PDF/Giacomini\\_Trigano.pdf](http://archive-edutice.ccsd.cnrs.fr/docs/00/02/75/19/PDF/Giacomini_Trigano.pdf)

(latest visit July 2006)

- Malevergne, D. (2003). Expression des intentions didactiques et réutilisation des ressources pédagogiques, Rapport de DEA.

URL:

[http://www-clips.imag.fr/arcade/User/jean-philippe.pernin/recherche/download/rapportDEA\\_Malevergne\\_09\\_2003.pdf](http://www-clips.imag.fr/arcade/User/jean-philippe.pernin/recherche/download/rapportDEA_Malevergne_09_2003.pdf) (latest visit July 2006)

- Paquette, G., Crevier, F. & Aubin, M. (1997). Méthode d'ingénierie d'un système d'apprentissage.

URL: <http://www.licef.teluq.quebec.ca/gp/docs/pub/ingenierie/misa.doc> (latest visit July 2006)

- Pernin, J.P. & Lejeune, A. (2004). Modèles pour la réutilisation de scénarios d'apprentissage.

URL: [http://tice.unice.fr/nte/colloque/communication\\_fichiers/48-pernin-lejeune.pdf](http://tice.unice.fr/nte/colloque/communication_fichiers/48-pernin-lejeune.pdf)

- Schneider, D. & al. (2003). Conception et implémentation de scénarios pédagogiques riches avec des portails communautaires, Colloque de Guéret, 4-6 juin 2003.

URL:

<http://tecfa.unige.ch/proj/seed/catalog/docs/gueret03/gueret03-schneider-print.pdf>

(latest visit July 2006)

- Villiot-Leclercq, E. (2005). Capitaliser, diffuser, réutiliser l'expertise pédagogique pour la conception de scénarios pédagogiques: des outils et des méthodes pour enrichir les pratiques dans un contexte d'enseignement à distance.

URL: <http://sif2005.mshparisnord.org/pdf/Villiot-Leclercq.pdf> (latest visit July 2006)

### **5.3.2 Languages of modelisation**

- Burgos, D., Arnaud, M., Neuhauser, P. & Koper, R., IMS Learning Design: la flexibilité pédagogique au service des besoins de l'e-formation

URL:

[http://dSPACE.ou.nl/bitstream/1820/470/1/BURGOSetAl\\_IMS+Learning+Design\\_la+flexibilit%C3%A9+p%C3%A9dagogique.pdf](http://dSPACE.ou.nl/bitstream/1820/470/1/BURGOSetAl_IMS+Learning+Design_la+flexibilit%C3%A9+p%C3%A9dagogique.pdf)

- De la Teja, I., Lundgren-Cayrol, K. & Paquette, G. (2005). Transposing MISA Learning Scenarios into IMS Units of Learning

URL:

<http://www.liceftelug.quebec.ca/gp/docs/Transposing%20MISA%20050705.doc>

- Dalziel, J. (2003), Implementing Learning Design: the Learning Activity Management System (LAMS).

URL:

<http://www.melcoe.mq.edu.au/documents/ASCILITE2003%20Dalziel%20Final.pdf>

- IMS Learning Design: Best practice and implementation guide, Revision: 20 January 2003.

URL: [http://www.imsglobal.org/learningdesign/ldv1p0/imslld\\_bestv1p0.html](http://www.imsglobal.org/learningdesign/ldv1p0/imslld_bestv1p0.html)

- Koper, R., 2002, Educational Modelling Language: adding instructional design to existing specifications.

URL: <http://www.httc.de/nmb/images/Koper-v1.pdf>

- Laforcade, P., Nodenot, T. & Sallaberry, C., 2005, Un langage de modélisation pédagogique basé sur UML.

URL:

[http://sticf.univ-lemans.fr/num/vol2005/laforcade-05/sticf\\_2005\\_laforcade\\_05.htm](http://sticf.univ-lemans.fr/num/vol2005/laforcade-05/sticf_2005_laforcade_05.htm)

- Laforcade, P., 2005. Approche par transformation de modèles pour la conception d'EIAH: illustration entre le langage CPM ET IMS-LD.

URL: <http://hal.ccsd.cnrs.fr/docs/00/03/17/83/PDF/17.pdf>

### 5.3.3 Other CREWS reports

- Becks, A. & Köller, J., (1999). Automatically Structuring Requirement Scenarios (CREWS-99-15.ps) (PDF).

URL: <ftp://sunsite.informatik.rwth-aachen.de/pub/CREWS/CREWS-99-15.pdf>

- Jarke, M. & al., (1999), Scenario Management: An Interdisciplinary Approach (CREWS-99-01.ps)

URL: <ftp://sunsite.informatik.rwth-aachen.de/pub/CREWS/CREWS-99-01.pdf>