

Financial / Administrative co-ordinator

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Executive Summary

Main achievements

Progress in implementation of the "Described Work"

Highlights / anticipated problems for the next reporting period

1- Overview

Objectives

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
UDUI	
Maze Scenario	Further development of the maze scenario which contains on the physical side Lego Mindstorms robots, on the virtual side a maze software which runs on PDAs. The rule sets for escaping the maze can be shared by a RuleServer. A first project week about the maze scenario with students from K7-K8 has been hold in July.
SVG Support	Implementing SVG support
Seismic Scenario	Further development of the seismic scenario
Integration of Smart Devices into Java Applications	<ul style="list-style-type: none"> • Development of a framework for the integration of smart devices into Java applications • Planning of a smart devices palette in Cool Modes • Comparison of different operating systems for smart devices
Integration of MatchMaker	Plans for the integration of MatchMaker in the Coldex server architecture
Metadata Standard in Cool Modes	<ul style="list-style-type: none"> • Comparison of different standards for learning metadata • Integration of an extended metadata standard in Cool Modes

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
UCH	
Remote scenario: Earthquake	The Seismographs from the schools which are still working (4 out of 6) are now online and we are going to include about 3-4 "professional" seismographs from the Instituto Sismológico de Chile. There is now a java program which does the conversion of the raw data in the format that can be read and the datafile node of the seismo freestyler.
Remote scenario: Telescope	The technical problems of remote controlling the telescope were solved. There is still the problem of the telescope calibration of the positioning.
Remote Scenario	A methodology was designed and is being implemented to share and download learning material which has already been "labeled" with metadata. This methodology works for the situation of having a set of servers, each one dedicated to serve a community with certain common characteristics (language, background, learning field). The students are identified with a vector of preferences and this is used as information for downloading the learning material from the most suitable sites in parallel (if the selected material is replicated).
Local scenario	A Java-palette for the freestyler was developed in order to support Java teaching/learning.
VXU	
Models and scenarios	Initial steps towards the refinement of the set of models and scenarios to be the basis for WP4 & WP5.
Evaluation plan	Elaboration of ideas and methods for the evaluation plan.
Local experiment sites	Analysis of technical requirements at different local experiment sites in Växjö, Sweden.
Evaluation aspects	Elaboration and analysis of claims defined by WP2 regarding evaluation aspects.
USB	
Seismic scenario	<ul style="list-style-type: none"> • Developed first prototype of Seismic scenario (Construction of realities) • Access to real data from real earthquakes, started to look into the integration framework suggested by UDUI.
Contributions to Review	Presentation of results of Tools & Platforms
UNED	

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
Technical reports	<ul style="list-style-type: none"> • A scenario testbed for a local experiment site in Chemistry. TR n.1, LTCS group, UNED, 2003 • Active Document Manual. TR n.2, LTCS group, UNED, 2003 • Active Document Technical Manual. TR n.3, LTCS group, UNED, 2003 • Learning object repository (LOR) discussion Document. TR n.4, LTCS group, UNED 2003 • 5-Definición de herramientas para la gestión de recursos de un repositorio distribuido de objetos de enseñanza y aprendizaje en un contexto colaborativo. TR n. 5, LTCS group, UNED 2003.
Toolbox for different scenarios	<p>Further work with the adaptation of the Active document system in two directions:</p> <ul style="list-style-type: none"> • to make the AD system more portable and configurable in order to be easily installed in other machines, and • to implement and make fully operational the use of PDA's. <p>Besides the software, two technical reports have been written (number 2 and 3, listed above). Contribution to the production of the D3.2.1 deliverable.</p>
AD system and installation tool	Work on the system. As planned in the TA, the system is due at month 18.
Analysis of technical requirements at different local experiment sites	Start of working in this workpackage on this task. (see also below)
Implementation of local learning environment and construction of realities	Start of working in this workpackage on this task. A scenario was designed. (see also below)
Test the prototypes and modify them according to the user needs and requirements	Tests were carried out with 10 students. The experiment contained two phases, a pre-lab and a lab. This lab session lasted two days and was organized in the UNED "Las Rozas" Local Center (20 km from Madrid), where UNED students from the Madrid region typically carry out their experimental work. In June we were dedicated to the writing of the technical report n. 1 listed above.
Specification of the distributed COLDEX Server infrastructure	Prepare the deliverable D6.1.1. As a result of the discussion a new version of the architecture has been designed. Meanwhile we have explored the idea of building a COLDEX community web portal based on the current technology for the semantic web. So far, a first data model has been sketched using the KAON toolsuite. In parallel we have started a collaboration with UPM to study the protocol they propose for remote experiments.

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
Test the developed COLDEX-server software and modify it according to the user needs and requirements	In July and August, a test with KAON was carried out. After several installation problems and discussions with the authors of the tool, we arrived at the conclusion that the current state of development of this tool (it is an on-going project) was not a reasonable choice for COLDEX. So we are now carrying out a test with <i>Protegé</i> for the ontology development and <i>STRUTS</i> for the portal definition and management.
UPM	
Development of methodology for experiments and development of COLDEX client API	Design of the five experiments which will be performed with the telescope. Implementation in HTML for showing their characteristics. Making of a prototype of an experiment API based in SOAP protocol. Preparing of implementation of the remote scenario and its five experiments to the XML based technology. Working on a new robotic scenario for the subject "Embedded Real Time Systems" (more info in Spanish http://laurel.datsi.fi.upm.es/~ssoo/DSCD/)
INESC-ID	
BeLife	<ul style="list-style-type: none"> Continuation of the study of the greenhouse management domain. We are working closely with an expert in order to inform the model underlying BeLife. Validation of the BeLife model. The referred to expert is studying how to validate the model. The model's validation will be crucial to further iterations of BeLife. Initial contacts with teachers and students in order to involve them in the design activity. Identification of potential design issues that can be further investigated with specific experiments.
Learning requirements	Learning requirements, planning of design sessions and experiments, initial contacts with informants (teachers and students).

1.1 Milestones

<i>Milestone</i>	<i>Planned date</i>	<i>Actual date</i>	<i>Comments</i>
M06 - Tool prototypes ready	31 May 2003		Prototypes see 5 – Main results
M07 - Network and interface specification	31 May 2003		

1.2 Deliverables

<i>Deliverable Code & Name</i>	<i>Planned delivery date</i>	<i>Actual delivery date</i>	<i>Comments</i>
D1.3.1 - Quality Plan	30 Nov 2002		

D2.2.2 - Collaborative Scenarios (Draft 2 July 2003)	31 May 2003		Preliminary final version
D2.3.1 - Learning Activity Design (Draft 2 July 2003)	31 May 2003		Preliminary final version
D3.2.1 and D3.2.2 - TOOLBOX documentation (Draft 2 July 2003)	31 May 2003		Preliminary final version
D6.1.1 - Network Specification (Draft 2 July 2003)	31 May 2003		version 2 currently available

1.3 Deviations from Plan

Causes and Description	Corrective actions
List any deviation from plan including a brief description of the reasons.	Corrective action envisaged by the project to overcome the issue. This should include the expected impact in terms of delays, quality and quantity of work.
Quality plan	to come

2 - Contractual Arrangements

State any serious problems that cannot be addressed at project level and / or require a contract amendment (including change of consortium, substantial change of description of work, ...)

3 - Project Meetings (held and foreseen)

Title	Date and Place	Main conclusions
COLDEX meeting	29 June - 1 July 2003, Duisburg, Germany	Preparation of the review
COLDEX review	2 July 2003, Luxembourg	
Next COLDEX meeting	30 - 31 October 2003, Växjö, Sweden	<ul style="list-style-type: none"> • Preparation of the next review envisaged for early 2004 likely to be held in Växjö • Steps towards finalising the technical environment • Preparation of the OUS workshop • More concrete elaboration of scenarios and DEXTs

4 - Dissemination / Promotional Information

4.1 Conferences and / or Workshops organised / foreseen by the project

Date	Title	Number of persons attended + other information
5 June 2003	Videoconference UDUI, VXU	Discussion of technology 4 persons from UDUI, 6 persons from VXU

<i>Date</i>	<i>Title</i>	<i>Number of persons attended + other information</i>
14 - 18 June 2003	CSCL 2003	Participant of the program committee Ulrich Hoppe, UDUI
23 - 28 June 2003	ED-MEDIA 2003	World Conference on Educational Multimedia, Hypermedia & Telecommunications <ul style="list-style-type: none"> T.Read, F.Verdejo, B.Barros: Incorporating interoperability into a distributed eLearning system. To be published in ED-MEDIA 2003 Conference Proceedings
7 - 9 July 2003	ITHET 2003	International Conference on Information Technology Based Higher Education and Training <ul style="list-style-type: none"> M.Felisa Verdejo, Beatriz Barros, Rosa Gómez Antón and Timothy Read: The design and implementation of experimental collaborative learning in a Distance Learning context. To be published in ITHET 2003 Conference Proceedings. ITHET03 "4th international conference on Information Technology Based Higher Education" Conference Proceedings, in cooperation with the Institute of Electrical and Electronics Engineers (IEEE) Education Society and with the United Nations Educational, Scientific and Cultural Organization (UNESCO).
20 - 24 July 2003	AI-ED 2003	International Conference on Artificial Intelligence in Education; several presentations / papers <ul style="list-style-type: none"> M.F.Verdejo, B.Barros, J.I.Mayorga, T.Read: Including collaborative learning designs in a Learning Object Repository. AIED 2003 Conference Proceedings Program Co-Chair Ulrich Hoppe, UDUI
21 - 25 July 2003	School Project "Escape the Maze"	Project week at the Robert-Schuman-Gesamtschule in Willich, Germany. Scenario of Lego Mindstorms robots, PDAs and finding a way out of the maze. The project preconditions, the weekreports, the members and more can be found in the website (german): www.coldex.info/maze/ 4 persons from UDUI, 20 students
5 - 8 August 2003	COLDEX programmers' workshop	Presentations and practical exchange of technical knowledge 11 persons from UDUI and VXU

4.2 Articles Published, Press coverage etc.

<i>Date and Type</i>	<i>Details</i>
July 2003	Extension of the COLDEX Website
26/07/2003 - Regional newspaper	Article in the "Rheinische Post" about the school project scenario "Escape the Maze" (german) www.coldex.info/maze/rheinischepost20030726.pdf

5 - Main results

<i>Description</i>	<i>Details</i>
Prototype of Cool Modes Metadata Mechanism	First Prototype for metadata generation including information retrieval in MySQL database by web client

Prototype of Seismic scenario	Development of first prototype of Seismic scenario (Construction of realities)
Toolbox (different scenarios)	Portability and configurability of the AD system in order to be easily installed in other machines, and implementation of the use of PDAs (also make fully operational)
Specification of the distributed COLDEX Server infrastructure	A new version of the architecture has been designed. Meanwhile we have explored the idea of building a COLDEX community web portal based on the current technology for the semantic web

6 - Project Effort

The effort for the reporting period and the cumulative effort to-day is presented as an Excel sheet which is attached to this management report.

Summary

List of technical, business and administrative highlights

Overall assessment of the main milestones achieved, or results delivered

Tool prototypes have been developed and further elaboration on various scenarios has been done. The COLDEX community web portal has been changed; it was switched from KAON to the ontology software Protegé as well as STRUTS for the portal definition and management.

Problems encountered and decisions taken

The KAON toolsuite caused several problems which are now solved by using another solution. There is a problem of the communication to the telescope concerning the calibration of the positioning.

Conclusive statement on correspondence between planned project progress (as detailed in the Project Programme) and actual accomplishments

The scenarios are further developed and some new parts of these are planned. SVG support has been implemented. The development of the framework for the integration of smart devices into Java applications has been started. Initial steps to design a metadata system for COLDEX have been done. There are now ideas and methods for the evaluation plan as well as the analysis of claims concerning evaluation aspects. Additional technical reports are available.

There is a delay in coordination and management, since the Quality Plan is still missing. The reporting is already restructured and the delays should gradually be minimized from now on.

Work progress overview

Specific objectives (for the reporting period)

Integration of smart devices; local and remote scenarios as described; evaluation plan; tests of prototypes; distributed server infrastructure

Achievements

Development on integration of smart devices; integration of the MatchMaker in the COLDEX server architecture is planned; local and remote scenarios as described; first steps towards the evaluation plan; tests of prototypes according to the user needs and requirements; specification of the distributed server infrastructure; review presentations including status overview of the project partners

Project reviews

Follow-up of recommendations from previous review and / or preparation of inputs to upcoming review

The first review has taken place in July 2003. The restructuring of the reporting has been done. The deliverables are elaborated. There are some dissemination activities in Europe planned. Remote experimentation will be elaborated during the next months. The overall recommendation is to continue.

The next review is envisaged for early 2004 likely to be held in Växjö.

Work planned for the next reporting period

(UDUI)

a) Meta information mechanism for Cool Modes:

- Document metadata generation (automatic generation of context metadata)
- Retrieval of the stored documents (implementation of refined retrieval in the web client)
- Content awareness on starting of web client
- Starting of discussion concerning the mechanism within COLDEX metadata context

b) Metadata Mechanism in Cool Modes

- Finalising of a prototype for metadata generation within Cool Modes:
 - Upload to database
 - Retrieval of database via web browser

(VXU)

Evaluation plan

- Ideas and methods for the evaluation plan
- Draft for the preliminary evaluation plan

(UNED)

Ontology and Project Portal

- Design and development of the ontology and project portal
- Development of a Java API to enable the portal to access the ontology
- Further discussions at the metadata workshop in December 2003

(INESC)

a) Aims

- Conclusion of the validation of the BeLife model by an expert
- Continuation of the definition of the user interface and learning requirements, and corresponding specifications

b) Potential Issues

Some challenges are envisioned concerning the development of a user interface for blind learners as well as develop strategies to foster collaboration between blind and sighted learners.

Project Management

Co-operation within the consortium, including project meetings

A project meeting June/July 2003 in Duisburg and a review took place in July 2003.

Participation in workshops and / or conferences, publications, etc.

Participation in workshops or conferences from various partners sum up to eight, three publications are available, one regional newspaper article.

Effort breakdown

- Not only in Europe but also in Latin America information society will play the leading role. Thus the COLDEX project supports collaborative learning processes by creating the educational and technical framework to become aware of the need of scientific progress - and more, the project enables students not only to enhance pure information, but to see it in a wider context by connecting people from different continents working on the same topic. Some practical workshops resp. projects have taken place within the current reporting period. Several scenarios were added to the initial ones.
- As the importance of knowledge increases more and more in society, the COLDEX project aims at deeply required foreseeable demands. I.e. the space topic as a scientific background for the learning objects which will be fostered by COLDEX. The intercultural aspect of the project as well as the low-cost DEXTs cover the postulated social aspect.