

Financial / Administrative co-ordinator

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Executive Summary

The present report refers to work progress that took place during
 M28-M30, i.e. September to November 2004

1- Overview

Objectives

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
WP 4: Remote scenarios <ul style="list-style-type: none"> • Support the users in the experimentation phase (Task 4.4.) 	<p>UDUI Students' workshop "Space and information science" with student groups who worked on the the astronomy scenario (lunar heights) and system dynamics (water rocket model)</p> <p>UCH</p> <ul style="list-style-type: none"> • Metadata for seismology and astronomy scenarios • Further development of the tools related to the seismology and astronomy scenarios <p>USB Continued implementation of generator which produces protocol handler from specification. Finishing the CRATER simulation implementation.</p> <p>UPM (Leader in WP4) Task 4.2</p> <ul style="list-style-type: none"> • We set up the solar scenario for the demo we did last September 2004 in the review in Växjö • We have improved many features of the robot scenario <p>Task 4.3</p> <ul style="list-style-type: none"> • We have performed many tests with the chemical scenario at the UNED

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
	<p>Task 4.4</p> <ul style="list-style-type: none"> • We have been giving support to chemical scenario at the UNED <p>The telescope could be finished already, however we now have funds and we will start to build it up in the next period. However we can control it completely via web and we manage the images from it.</p> <p>We have finished a scheduling tool for remote labs. However it hasn't been integrated yet in any laboratory.</p>
<p>WP 5: Local scenarios</p> <ul style="list-style-type: none"> • Support the users in the experimentation phase (Task 5.4.) 	<p>UDUI</p> <ul style="list-style-type: none"> • Students' workshop "Space and information science" with student groups who worked on the maze scenario • Dissemination of the maze scenario at the final event of the "year of technology 2004" in Duisburg, Germany: exchange of experiences with other institutions <p>VXU</p> <ul style="list-style-type: none"> • Workshop with teachers from a local school. The aim of the workshop was deeper studies of the tools and material from the DEXT "BioDiversity" • Working with and at a local school with the biodiversity scenario <p>UPM</p> <p>The chemical laboratory prototype has been finished</p> <p>INESC-ID (Leader in WP5)</p> <p>Development of BeLife</p> <ul style="list-style-type: none"> • Implementation of the weather model based on the portuguese weather characteristics • Implementation of the time scale controller • Creation of the BeLife world using the ION Agents framework • Implementation of specific cultures for the biological model • Planning of specific experiments regarding user interface design issues and the use of multiple external representations in virtual environments

<p>WP 6: Communication and pedagogical networking</p> <ul style="list-style-type: none"> • Dissemination of results (Task 6.5) 	<p>UDUI Installation of the LOR system in Duisburg</p> <p>UCH Further metadata development for seismo and astronomy scenarios</p> <p>UNED (Leader in WP6)</p> <ul style="list-style-type: none"> • The implementation of scenarios, projects, and activities, all of them available through the portal browser • Including a chat as another service in the portal • Defining the LOR web services, so that it could be accessed by external tools (a first proposal based on the use of servlets, and the final one using a SOAP standard) • Database: optimising the access to the objects, in order to improve speed and scalability (dynamic and lazy retrieval of objects) • Optimising the loading of the ontology (using Java directly instead of Algernon queries) • Packaging of the COLDEX portal software to be downloaded and installed in any other server
<p>WP 7: Open User Scheme</p> <ul style="list-style-type: none"> • Dissemination: Establishing of learning communities Organisation of Workshops (Task 7.4) 	<p>UDUI (Leader)</p> <ul style="list-style-type: none"> • Dissemination of OUS ideas and results to the community of women in computing (GHC 2004) • Students' workshop at the University of Duisburg-Essen introducing three parts of the space theme, i.e. maze and astronomy scenario: maze scenario, lunar heights and system dynamics (water rocket) <p>UCH Contacts to schools to implement OUS communities</p> <p>VXU Preparation, design and implementation of educational activities for the formation of an initial user community in Sweden.</p> <p>UNED</p> <ul style="list-style-type: none"> • Multilingual version of the portal (English and Spanish) • Online contextualised help • Including new metadata • Extending the ontology with inference rules

	<p>UPM Task 7.4</p> <p>Contact with some Latin-American learning communities in order to organise (as host) a OUS workshop in Madrid next March 2005</p>
<p>WP 8: Evaluation</p> <ul style="list-style-type: none"> Evaluation with user communities established by WP7 (Task 8.3) 	<p>UDUI</p> <ul style="list-style-type: none"> Students' workshop at the University of Duisburg-Essen introducing three parts in the space domain (maze and astronomy scenario): maze scenario, lunar heights and system dynamics (water rocket) with questionnaires and observation (yet to be analysed) Contribution to the final of the evaluation plan <p>UCH</p> <p>Initial implementation of the astronomy and seismology tools in schools to evaluate technical and pedagogical plausibility</p> <p>VXU</p> <p>Evaluation</p> <ul style="list-style-type: none"> Finishing the final evaluation plan Planning for a field study at a local school <p>Starting a field study that will be conducted during the fall term at a local school using the biodiversity scenario.</p> <p>UNED</p> <ul style="list-style-type: none"> Preparing the portal for the Vaxjö pilot Contributing to the evaluation plan <p>UPM</p> <p>Task 8.1</p> <ul style="list-style-type: none"> We have tested the first prototype of the robot and the astronomy scenario

1.1 Milestones

Milestone*	Planned date	Actual date	Comments
MilestoneNo13 – Continuous enlargement of the user group WP7	30 Nov 2003 to 29 Feb 2005		on-going
MilestoneNo10 System Prototype 1	30 Nov 2003		
MilestoneNo16 Final Prototype	31 May 2004		
MilestoneNo17 Server network ready	31 May 2004	September 2004	

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MilestoneNo10 System Prototype 1	30 Nov 2003		
MilestoneNo16 Final Prototype	31 May 2004		
MilestoneNo17 Server network ready	31 May 2004	September 2004	
MilestoneNo18/19/20/22/24 Workshop on dissemination and evaluation / WP4+5+6+7+8	31 Aug 2004	13 – 14 December 2004, Lisbon, Portugal	
MilestoneNo23 Pre-evaluation done / WP 8	31 Aug 2004	13 – 14 December 2004, Lisbon, Portugal	

* Note: The milestones are renumbered, according to their due dates.

1.2 Deliverables

<i>Deliverable Code & Name</i>	<i>Planned delivery date</i>	<i>Actual delivery date</i>	<i>Comments</i>
D1.2.1 – Project presentation (brochure, website, video)	30 Nov 2002 30 Nov 2003 30 Nov 2004		<ul style="list-style-type: none"> Additional materials, revised deliverables etc. within the deliverables area Raw material COLDEX video with examples of several scenarios has been collected (finalisation planned for the beginning of next year) relased with subsequent updates
D4.2.1/D5.2.1/D6.2.1 – System Prototype	31 Jan 2004	5. Oct 2004	Combined deliverables
D4.3.1/D5.3.1/D6.3.1 – Final Prototype	30 Jun 2004		A Draft of the deliverable D4.3.1 System Prototype is finished. Some changes and corrections are pending. D5.3.1 System Prototype is pending.
D7.2.2 – Functional Documentation	30 Jun 2004	16. Nov 2004	Will be updated beginning of 2005
D7.3.1 – System Report	30 Nov 2004	not yet	

D8.1.1 – Evaluation II: Specialised Evaluation and Test Plan	31 Oct 2004	30. Nov 2004	
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1.3 Deviations from Plan

Causes and Description	Corrective actions
Some deliverables are not yet finalised	The partners will contribute to the finalisation of these deliverables
The COLDEX video is not yet finalised	The raw material is already there; after checking and selecting it, the video will be ready at the beginning of 2005
Astronomy scenario	We have some delay in the UPM part of the astronomical scenario since they didn't have funds until last month for buying the dome
Chemistry scenario	We had some delay in the Chemical scenario because the Spectrometer got broken and we could work on it for three weeks

2 - Contractual Arrangements

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3 - Project Meetings (held and foreseen)

Title	Date and Place	Main conclusions
Second project review	10 Sep 2004 in Växjö, Sweden	<p>The overall performance evolved quite positively.</p> <ul style="list-style-type: none"> • The concrete evaluation planning has to be improved • The explicit formulation of a coherent strategy between the partners has to be enhanced (having an impact on educational innovation and clarifying the exploitation of results) • Dissemination in the scientific community was seen as positive, some additional activities should be done: Balance the dissemination activities and the mobilisation of educational authorities in Latin-America and in Europe. Consider conferences of school networks such as EMINENT (from EUN) • The dates of travels must always be specified and match the dates in the progress report. The partners will pay attention to this • Deliverable D7.2.2 has to be delivered • Show more obviously common framework guiding the selection of the various learning scenarios and give a greater cohesion to the

<i>Title</i>	<i>Date and Place</i>	<i>Main conclusions</i>
		<p>various parts</p> <ul style="list-style-type: none"> • The apparent lack of coherence between the evaluation methodology (D2.3.2) and the operational plan (D8.1.1) has to be elaborated • Report "pre-validation" and "testing" activities • Dissemination activities: a broadening of the events list aimed at addressing other audiences (e.g. "science education" community) • Complete the Consortium Agreement
Project meeting	13 – 14 Dec 2004 in Lisbon, Portugal	<p>Topics to be discussed</p> <ul style="list-style-type: none"> • Progress reports on applications (school trials) and OUS activities • Reports/discussion of ongoing evaluation activities in accordance with the new version of the second evaluation deliverable • Report on experience with the LOR based on a complete of specifications of learning objects from the different scenarios • Tools: focus on BeLife

4 - Dissemination / Promotional Information

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

<i>Date</i>	<i>Title</i>	<i>Number of persons attended + other information</i>
8 – 9 September 2004	CRIWG 2004, San Carlos, Costa Rica	Baloian, N. Presentation of "A model for a Collaborative Recommender system for Multimedia Learning Material"
6 – 17 September 2004	informatica femminile, Bremen, Germany	Oelinger, M. COLDEX Presentation; discussion of COLDEX results and exchange of ideas with members of the Waikato University, Hamilton, New Zealand
6 – 9 October 2004	GHC 2004, Chicago, USA	Oelinger, M. Dissemination of the COLDEX project at the Grace Hopper Celebration of Women in Computing: transfer of ideas and results to the community of women in computing
7 – 9 October 2004	"Eichstätter Bildungsfest", Eichstätt, Germany	Diehl, S. Presentation of the CRATER prototype and learning material at the "Eichstätter Bildungsfest" (Festival of education)
8 – 14 November 2004	School Foresight, Athens, Greece	COLDEX exhibition at the school foresight exhibition (European Science Week 2004)

Date	Title	Number of persons attended + other information
15 – 17 November 2004	IST event, The Hague, Netherlands	Hoppe, U., Jansen, M., Hoeksema, K. COLDEX dissemination: exhibition booth at the <i>Exhibition "People and Economy"</i>
18 – 21 November 2004	Year of technology, Germany	Oelinger, M., Bollen, L., Jansen, M. Final event of the national "Year of technology 2004" in Germany: workshop "Mission possible – where no wo/man has gone before..." for students from schools throughout the Ruhr area at the University of Duisburg-Essen, taking place at the "day of technology" (18 November 2004)
22 – 23 November 2004	NCWS 04, Växjö, Sweden	Jansen, M., Gottdenker, J., Rossmann, P., Milrad, M. "Exploring the Use of WebServices for the Design and Implementation of Innovative Collaborative Technologies" and presentation
14 – 18 Dez 2004	CELDA, Lisbon, Portugal	Cognition and Exploratory Learning in Digital Age (IADIS International Conference) Hoeksema, K., Hoppe, U. "Combining Interactive Modelling and Scientific Discovery in the classroom"
14 – 18 Dez 2004	CELDA, Lisbon, Portugal	Cognition and Exploratory Learning in Digital Age (IADIS International Conference) Kuhn, M., Hoppe, U., Lingnau, A., Fendrich, M. "Evaluation of exploratory approaches in learning probability based on computational modelling and simulation" Kuhn, M.: Presentation of results from didactic sequences according to COLDEX scenarios
14 – 18 Dez 2004	CELDA, Lisbon, Portugal	Poster to be presented at Cognition and Exploratory Learning in Digital Age (IADIS International Conference) Nuno Otero, André Vala, Ana Paiva, Marcelo Milrad "Learning with the BeLife simulation tool: the effects of Manipulating the time scale of events and Collaboration mode"
31 March – 2 April	OUS workshop, Madrid, Spain	Second COLDEX-OUS workshop with invited participants, reporting on cooperative OUS activities
	IADIS 2005	A metamodel for defining and managing learning web communities. – IADIS International Conference on Web Based Communities, February 2005
	CSCL 2005	submitted to CSCL 2005 Hoppe, U., Pinkwart, N., Oelinger, M., Zeini, S., Verdejo, F., Barros, B., Mayorga, J. I. "Building bridges within Learning Communities through thematic objects and navigation support"

4.2 Articles Published, Press coverage etc.

<i>Date and Type</i>	<i>Details</i>
03/11/2004 – Online article	COLDEX at IST Results: <i>Features: Using technology for learning & teaching science</i> http://istresults.cordis.lu/index.cfm/section/news/Tpl/article/BrowsingType/Long%20Feature/ID/70609/highlights/COLDEX
04/11/2004 – Online article	Website announcement <i>Year of technology: Mission possible</i> (german) http://entdecke.uni-duisburg-essen.de/mission15.shtml

5 - Main results

<i>Description</i>	<i>Details</i>
Scenarios and Open User Scheme: Workshops	Workshops in cooperation with schools in several scenarios (astronomy scenario, maze scenario, biodiversity scenario) and at different sites (Germany, Sweden).
Communication and network	Installation of the revised LOR at different sites (Spain, Germany).
Dissemination	Dissemination of the COLDEX project and its ideas at different conferences, exhibitions and research meetings.
Concise letter (attached)	Clarifications concerning Aspects of Coherence and Impact: critical issues, overall rationale and originality, software development and design principles, dissemination and take-up.
LOR webportal	Software delivered: multilingual version of the COLDEX portal (a LOR service able to process and generate metadata from external tools and the portal context, a chat service, social and project manager, a knowledge manager handling the ontology). As well the LOR is available through web services. This portal can be installed in any server.
Solar and robot scenario	The telescope laboratory prototype has been adapted to the solar scenario for the demo in the review. The UPM robot scenario has been set up.
Prototype: scheduler	The scheduler has been installed and set up in the Chemical Scenario in the UNED.

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

This summary contains a list of technical, business and administrative highlights of the reporting period September – November 2004.

Overall assessment of the main milestones achieved, or results delivered

According to the project review in September, the project objectives and the deliverables have been reconsidered. This will result in adaptations regarding to the scenario prototypes and pedagogical implementation of the approaches described in WP 2 – Pedagogical Models and Scenarios. In this sense, the evaluation plan has been revised.

Problems encountered and decisions taken

Some deliverables are still delayed. To face this problem, the deadlines for the contributions will be tightened. The issue will be discussed during the next project meeting in December. The COLDEX video – including sequences of students' workshops – will be delivered at the beginning of next year in order to present the implementation of the core ideas in the project.

Whereas aspects such as technical quality, scientific dissemination, general level of activity and output were considered positively, aspects of coherence in the project have been discussed. Based on the review presentation, this was less seen as an actual deficit in the project's practice but more as a deficit in making coherence explicit, visible and easily understandable. Evidently, this has a bearing on assuring longer-lasting impact of the project in both the fields of science and technology as well as in educational practice. In this respect, also dissemination strategies are an issue.

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

Despite the reported problems the overall progress of the project is positive. Although there are still some delays, the scenarios have been elaborated and tested, the evaluation of the maze scenario and the astronomy scenario is currently being analysed. Continuously new user communities ask for the learning materials and guidelines to use COLDEX tools and approaches.

Work progress overview

Specific objectives (for the reporting period)

User support, dissemination and evaluation are the main objectives in this reporting period. Taking into account the activities done, these objectives have been achieved..

Achievements

List of Deliverables

Detailed information is contained in the table "1.2 Deliverables" above. One important deliverable, namely "D8.1.1 Evaluation Plan II: Specialised Evaluation and Test Plan" has been submitted. It will serve as specification for the ongoing evaluation of the different scenarios.

Not only the deliverables, but also the reports (management and progress reports) are available within the website's deliverable area: www.coldex.info > deliverables. There is additional material (publications etc.) available, too.

The decision to combine the deliverables "System Prototype" and "Final Prototype" has been agreed by all partners at the project meeting in July 2004 considering the delay in reporting.

Progress by Workpackage / task

In the scenario workpackages (WP 4 and WP 5) the support of the users in the experimentation phase was the task for this reporting period. This task has been performed by running several user workshops resp. workshops for an educational audience. Some of the workshops cover also WP 8, since the data for evaluation issues was collected: developed learning objects, observation data and questionnaires will serve as data base to analyse those activities.

Concerning WP 6, the LOR system has been installed in different sites; however, the system is still a prototype and not yet tested by a large amount of users. This will be done in the context of the Open User Scheme where the learning communities are initialised.

Some more contacts to schools and researchers have been made. This is a promising progress for the Open User Scheme (WP 7).

Deviations if any and corrective action

The submission of several deliverables, including the video, has to be done as soon as possible. The Consortium Agreement will be worked out, too.

Project reviews

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

The review in September was quite positive; the remarks of the reviewers are summarised in section "3 - Project Meetings" above.

The Concise letter – containing critical issues, overall rationale and originality, software development and design principles as well as dissemination and take-up – can be found in the deliverables' area of the COLDEX website: www.coldex.info > deliverables. It describes the thread within the project and gives a summary of the actual state of the project as addressed in the review. (A copy is also sent in same mail.)

Work planned for the next reporting period

(UDUI)

- Project meeting about evaluation issues and some concrete discussions about the embedded tools
- Evaluation assessment of the workshops hold
- Re-facturing and publishing of a sophisticated Cool Modes OUS bundle, including example files and manuals
- Organisation of the 2nd OUS workshop

Project Management

The delay is still a problem in the project management. Keeping deadlines even tighter, we will try to catch up things. Based on the cost statement remarks, the following administrative issues, e.g. adjustments, can be improved by each partner. The payments for the previous cost statements have been managed and questions have been clarified.

Contractual issues

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Co-operation within the consortium, including project meetings

The discussions and remarks at the review and the previous project meeting in September resulted as follows:

- The concrete evaluation planning has been improved: the evaluation deliverables D2.3.2 and D8.1.1 have been elaborated and D8.1.1 has been submitted.
- Report "pre-validation" and "testing" activities: details can be found in the above report.
- The explicit formulation of a coherent strategy between the partners has been enhanced (having an impact on educational innovation and clarifying the exploitation of results) in the concise letter. Herein also the common framework guiding the selection of the various learning scenarios has been shown and a greater cohesion to the various parts has been given.
- Dissemination activities: a broadening of the events list aimed at addressing other audiences (e.g. "science education" community) has been started. Therefore some activities have been done, see the detailed list of activities above (4 – Dissemination / Promotional Information).
- Deliverable D7.2.2 has been delivered.
- Completion of the Consortium Agreement is planned for the workshop in December.

Contribution to clustering, concertation and standardisation

As supporting technology for the LOR, Web Services have been implemented which are nowadays a very important standard. Cool Modes is the initial example application using the provided Web Service to feed and retrieve the LOR. The flexible access supports users (learners as well as teachers) to work with the interface meeting their needs best. Thus the combination of tools and interfaces is implemented according the approach of usability demands.

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

The participation in workshops, conferences and the publications can be seen from section 4.1 above. Some of these are not paid by the COLDEX project, but have been hold along other scientific activities. Thus a tight connection to other projects could be used to discuss similar, but yet different approaches. This exchange helped to get more sophisticated ideas which now influence and improve the next steps.

Effort breakdown

Giving flexible access to the LOR – either via the web portal or via tools – is one approach of supporting users in integrating their virtual work in their physical world. Connecting different sites via the archive enables participants to exchange work and ideas in a multicultural and intercontinental community.

This aim can be achieved by expand the initial OUS group – which is quite small now, but will be made larger in the coming OUS projects in beginning of 2005 – to a European community which also shares scenarios with the Latin-American partners.

The evaluation of the workshops and projects in schools, universities and science centres has started using validate instruments in order to improve the ideas of the COLDEX project not only within COLDEX, but also in foreseen and following projects.