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D6.1c Dissemination plan and report

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Dissemination Level		
PU	Public	x
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

D6.1c - Dissemination plan and report

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1 Executive Summary

According to the annex, the aim of work package 6 is to present and disseminate results of the project, to foster the transfer of knowledge and a broad take-up of programme results. The following groups will be the special targets:

- end users at universities: learners and teachers
- scientific community
- national educational authorities

There are three dissemination plans delivered during the project. The first one has been delivered in M12 (D6.1a), the second one was delivered in M24 (D6.1b) and the last one is this report, which is delivered in M30 (D6.1c) According to the revised list of deliverables, the dissemination plan and report contains

- dissemination plan and updates;
- information on presentations at scientific and eLearning events;
- information on activities with respect to information and communication;
- information on transfer of knowledge.

The goal of the report is to provide an overview of carried out and planned dissemination activities

This document describes the LT4eL project dissemination plan and report for M30 (D6.1c). It reports on the dissemination activities that have taken place in the last 6 months of the project and it will present activities which will take place after the end of the project. The tasks described in the list of deliverables have been used as guidelines for structuring the document. The document is organized as follows:

- The first section defines the strategy identifying main objectives, target groups, contents, channels and actors of the planned dissemination activities.
- The second section contains the actual plan and report. It reports on past dissemination activities and describes the actions which are envisaged for after the end of the project.

An overview table summarizing past and future dissemination activities has been included in Appendix 1 of the Activity Report.

2 Dissemination strategy

In this section we identify main objectives, contents, target groups, channels and actors of the LT4eL dissemination activities.

2.1 Main objectives

Following the initial outline of the project (Annex I), the main objective of the LT4eL dissemination activities is to increase awareness and promote the main results of the projects to the general public and especially to persons and organizations who would benefit most of it.

2.2 Project results to be disseminated

The main outputs of the projects about which information should be disseminated are:

- Know-how in Language Technology (LT), Natural Language Processing (NLP), Semantic Web and eLearning technologies, and interconnections between those;
- Corpus of learning objects (at least 1000 pages) for each language represented in the consortium;
- Collection language specific open-source tools and resources for language processing;
- Developed domain specific ontology and language specific vocabularies;
- Developed functionalities for metadata generation (keyword extractor);
- Developed functionality for glossary creation (definitory context detector);
- Developed functionalities for cross-lingual retrieval (via ontology and lexica);
- ILIAS LMS integrated with new functionalities (semi-automatic metadata generation, glossary creation and multilingual retrieval);
- Validation methodology and results.

2.3 Target groups

The targets of the LT4eL dissemination can be divided into 5 groups according to the use we expect them to make of the project results:

- Scientific community (LT, NLP, Semantic Web and eLearning), including other ICT projects, who will use the collected resources, the developed concepts and methodology for their research activities.
- Open source or commercial LMS developers who will use the developed concepts and methodology to integrate new functionalities within their systems.
- LMS end-users who will use the developed functionalities integrated in the ILIAS or other systems.
- LT4eL partners who will use the collected resources, developed concepts and methodology for their research activities and the developed functionalities integrated in the ILIAS system for their didactic

activities.

- Local authorities (e.g. ministries of education), and higher education institutions (e.g. universities) who will become aware of the potential of eLearning.

2.4 Dissemination channels

In order to reach the target groups in the most effective way we have selected the following dissemination channels:

- multilingual web portal;
- presentations at scientific events;
- publications in scientific journals, conference proceedings, etc.;
- organization of events (scientific, promotional, awareness);
- networking (user interest registration page on the web portal, existing local mailing lists, user panel with experts in LT and eLearning);
- knowledge transfer (internal dissemination);
- liaising with other projects;
- contacts with eLearning communities (notably LMS developers);
- contacts with higher education institutions;
- information material.

2.5 Division of tasks

Dissemination activities are part of WP6 with Utrecht University as WP leader. Utrecht University is responsible of the setup and maintenance of the project website. All LT4eL partners are expected to be involved in all aspects of dissemination, e.g. by regularly presenting their results within the scientific community, by updating the project website, by contributing to the organisation of project events, by actively liaising with other projects to promote LT4eL objectives.

3 Dissemination plan and report

Dissemination is an ongoing activity for the entire duration of the LT4eL project. This section describes the dissemination actions that have been taken in the last 6 months of the project and those that might be possible after its end.

3.1 Multilingual web portal

The main forum for dissemination activities is the project web portal (accessible under <http://www.lt4el.eu>), which has been operational since the very beginning of the project. This portal is hosted by the coordinator, but all members of the project are responsible for the publication of relevant information.

The server area is structured in two domains:

- Publicly accessible pages primarily aimed at dissemination: e.g. short description of the project, its participants, objectives, milestones and results. These pages are accessible in all the 9 languages of our consortium: Bulgarian, Czech, Dutch, English, German, Maltese, Polish, Portuguese and Romanian. Here we collect information about language resources and tools, relevant standards and eLearning platforms as well as proceedings of the organised workshops, copies of the reports and developed tools.
- Restricted (user name and password) pages (wiki) primarily geared to project participants containing project internal and administrative material.

Additional servers:

- A portal (restricted by password) hosted by partner UAIC (leader of WP1) at http://consilr.info.uaic.ro/uploads_lt4el/ with a frozen version of the project results.
- A server hosted and administrated by partner CUP, which serves as integration test server for WP4 activities.
- The project also decided to make the source code available under an open source licence and to

host it on the SourceForge.net portal for open source projects at <https://sourceforge.net/projects/lt4el/>. This makes the results immediately available to the general public and gives everyone the opportunity to join and collaborate with the project.

3.1.1 Past activities

- We made 5 short demo videos illustrating the functionalities we have developed in the LT4eL project and the way they have been integrated into ILIAS. The films will be made available via the project web site and YouTube. In particular, we have created:
 - 1 video to show the use of the keyword extractor and keyword search in the case of an English LO;
 - 1 video to show the use of the keyword extractor and keyword search in the case of a Polish LO;
 - 1 video to show the use of the glossary candidate detector in the case of an English LO;
 - 1 video to show the use of the glossary candidate detector in the case of a Portuguese LO;
 - 1 video to show the use of the semantic search and ontology browsing with English and Bulgarian as retrieval languages.
- The site includes the newest versions of the tools and the results achieved by the project, as well as the last deliverables and a summary of the results achieved by the project.
- The final release of the software is available via open source communities (SourceForge.net and Ohloh.net). The project web site provides links to the code as well as a description of what exactly can be downloaded.
- We have also installed the final version of ILIAS with the integrated functionalities on a server of the University of Utrecht. This includes also a copy of the portal of the developed resources maintained at the University of Iasi to guarantee access via the web portal to potential users of the functionalities that would like to try them out as well as partners who would like to carry on research related to LT4eL beyond the end of the project. In this way, it will also be possible to access the web services. The aim of this initiative is to guarantee access to the functionalities developed beyond the end of the project.

3.2 Scientific events

In order to disseminate the results achieved within the project, it is important to be present at major eLearning, Language Technology, Natural Language Processing and Semantic Web events. This can be done in the form of paper or poster presentation or through the organization of special sessions or workshops dedicated to priority topics. Selected members of the consortium should act as Organising Committee and are in charge for the submission of the workshop proposal, and in case of acceptance to constitute the program committee, contact invited speakers and edit the workshop proceedings. As announced in the Annex, particular attention should be given to the organisation of workshops or events in new member states (NMS) and associate candidate countries (ACC). The organization of these events should offer the opportunity to researchers from NMS and ACC countries to participate to such events, should encourage them to publish their results and make them available to the international scientific community and to strengthen cooperation with scientists of other relevant research communities.

3.2.1 Past activities

- In the last six months of the project, we have been present at 9 scientific events (6 conferences and 3 workshops) with a poster (7) or an oral presentation (9). It should be mentioned that the posters presented at LREC have the same status as an oral presentation and don't imply a lower quality of the poster with respect to the oral presentation. After the end of the project, 5 other papers will be presented at 4 conferences and 1 workshop.
- In the second year of the project, we have organized 3 workshops. We have been present at 17 scientific events (6 workshops, 5 conferences, 1 summer school, 1 symposium, 1 summit and 3 other meetings) with a poster (1) or an oral presentation (23).
- In the first year of the project, we have organized two workshops, and one seminar. We have been present at 14 scientific events (9 workshops, 4 conferences, 1 summer school) with a poster (1) or

an oral presentation (15).

3.2.1.1 Paper or poster presentations

- Kiril Simov and Petya Osenova. Language Resources and Tools for Ontology-Based Semantic Annotation. Presented at the Workshop `OntoLex 2008' at LREC 2008, pp. 9-13.
- Dan Cristea and Ionut Pistol. Managing Language Resources and Tools using a Hierarchy of Annotation Schemas. Presented at the Workshop `Sustainability of Language Resources and Tools for Natural Language Processing' at LREC 2008. (<http://www.sfb441.uni-tuebingen.de/c2/>).
- António Branco, Francisco Costa, Filipe Nunes, Pedro Martins, João Silva, Sara Silveira. LX-Service: Web Services of Language Technology for Portuguese. Presented at LREC, Morocco, May 2008 (<http://www.lrec-conf.org/lrec2008/>).
- Łukasz Degórski, Michał Marcińczuk and Adam Przepiórkowski. Definition extraction using a sequential combination of baseline grammars and machine learning classifiers. Presented at LREC, Morocco, May 2008 (<http://www.lrec-conf.org/lrec2008/>).
- Eline Westerhout, Paola Monachesi. Creating glossaries using pattern-based and machine learning techniques. Presented at LREC, Morocco, May 2008 (<http://www.lrec-conf.org/lrec2008/>).
- Lothar Lemnitzer and Paola Monachesi. Extraction and evaluation of keywords from Learning Objects – a multilingual approach. Presented at LREC, Morocco, May 2008 (<http://www.lrec-conf.org/lrec2008/>).
- Petya Osenova, Kiril Simov and Eelco Mossel. Language Resources for Semantic Document Annotation and Crosslingual Retrieval. Presented at LREC, Morocco, May 2008 (<http://www.lrec-conf.org/lrec2008/>).
- Michael Rosner. ODL: An Object Description Language for Lexical Information. Presented at LREC, Morocco, May 2008 (<http://www.lrec-conf.org/lrec2008/>).
- Vladislav Kubon and Miroslav Spousta. Multilingual Approach to e-Learning from a Monolingual Perspective. Presented at FLAIRS-21, Florida, USA, May 2008 (<http://www.flairs-21.info/>).
- Paola Monachesi, Kiril Simov, Eelco Mossel, Petya Osenova and Lothar Lemnitzer. What ontologies can do for eLearning. Presented at IMCL 2008. 16-18 April 2008 (<http://www.imcl-conference.org/>).
- Paola Monachesi, Eline Westerhout. What can NLP techniques do for eLearning? Presented at INFOS 2008, Egypt, 27-29 March (<http://www.fci-cu.edu.eg/infos2008/>).
- Lothar Lemnitzer and Kiril Simov and Petya Osenova and Eelco Mossel and Paola Monachesi. Using a domain-ontology and semantic search in an eLearning environment. Presented at International Conference on Engineering Education, Instructional Technology, Assessment, and E-learning (CISSE-EIAE 07), 3-12 December 2007 (www.cisse2007.org).
- Rosa Del Gaudio, António Branco: Automatic Extraction of Definitions in Portuguese: A Rule-Based Approach. Presented at TeMa Workshop at EPIA Conference 2007, 3 - 7 December 2007, Portugal (<http://www.epia2007.appia.pt/tema/>).
- Eline Westerhout, Paola Monachesi: Semi-automatic glossary creation from learning objects. Presented at CLIN 2007, The Netherlands. (<http://lands.let.ru.nl/~clin2007/programme.html>)
- Lothar Lemnitzer, Paola Monachesi: Evaluating a multi-lingual keyphrase extractor in an eLearning context. Presented at CLIN 2007, The Netherlands. (<http://lands.let.ru.nl/~clin2007/programme.html>)
- Jantine Trapman, Paola Monachesi: Merging LT4eL with the Cornetto Database. Presented at CLIN 2007, The Netherlands. (<http://lands.let.ru.nl/~clin2007/programme.html>)

3.2.1.2 Participation at events in the Mediterranean area

In the last phase of the project, we have targeted a series of events in the Mediterranean area. There is quite a lot of potential in the development of technology enhanced learning in this area since eLearning can be the answer for a growing need of education. The attendance of the conferences had as objective the dissemination of our results in the Mediterranean area, the possibility to localize our results in Arabic speaking countries and cultures, the creation of a new network for the development of new programs and projects through the identification of interested partners. We provide a report of the three events attended, as requested by our Project Officer.

- The sixth International conference on Informatics and System(**INFOS 08**) took place in Cairo, Egypt on March 27-29, 2008. We presented the following paper: P. Monachesi and E. Westerhout *What can NLP techniques do for eLearning*. The paper was well attended and interesting comments were provided by the audience which was interested in the application of Language Technology in

eLearning. Some contacts have been established with researchers working on Arabic NLP such as L. Belguith (Tunisia), J. Dichy (France), S. Tazi (France), as well as Khaled Shalaan (Egypt-Dubai) who organized the NLP track at the conference and who is particularly active in the field and also rather interested in eLearning. Particularly relevant for our project was the talk by Artail et al. on a QA system embedded in an eLearning environment. The invited talk of Prof. Ali Farghaly from Oracle, on Arabic NLP was very inspiring. Initial contacts have been established with Prof. Galal Hassan, chair of the department of Information System at University of Cairo. We discussed the need for eLearning at his university due to the exponential growth of students and the increasing availability of good infrastructure and the plans for the organization of elearning standards for Egyptian universities to be set by the national eLearning center. After the conference, a meeting was organized with Prof. Galal Hassan and the new responsible for the National eLearning center (<http://www.nelc.edu.eg/>), Prof. Tarek Gharib to discuss possibilities of collaboration between the LT4eL project and the eLearning center. Paola Monachesi has sent the relevant material about the project and at the moment we are investigating the possibility to submit an elearning project based on a collaboration between Utrecht University and University of Cairo to a Dutch funding agency targeted at developing countries. The conference allowed for many opportunities of networking and exchange of information due to the very informal atmosphere.

- The international conference on Interactive Mobile and Computer aided Learning (**IMCL 08**) took place in Amman, Jordan on 16-18 April 2008. The project results were presented by means of the following paper: Paola Monachesi et al. *What Ontologies can do for eLearning*. The paper was very positively received, the audience could see the benefit of ontologies and semantic search and a lively discussion followed the presentation. The quality of the papers presented was varied, however the conference gave the possibility to assess the state of the art in mobile learning research and the possibilities in real life applications. In addition, the conference offered a splendid opportunity for networking and disseminating the results of the project beyond the paper presentation. Due to the central position of Jordan, the conference was attended by researchers coming from virtually the whole world, which made the event quite unique. The conference was attended also by the CEO of Giunti Labs. We had already established some contacts with Giunti Labs at EC-TEL 07 (Fabrizio Giorgini), however, during the conference there was the possibility at several occasions to discuss more in detail the results achieved in the LT4eL project which could be used by Giunti. While Giunti is interested in the research line pursued by the LT4eL project, it would require too many resources and effort to commercialize the LT4eL results into a product. However, they will keep the documentation of the project in standby in case a client asks something similar to what we have produced. In particular, we have discussed about possible ways to produce results within EU projects which could be directly used by industrial partners and common research interests especially with respect to eLearning in the Mediterranean area. A dinner was organized in this respect with Said Jahama, general manager of Moodle Rooms, Arabia, to discuss the elearning situation in Jordan and the Middle east and possible collaborations in future projects. Contacts have been established with M. Qusay (Canada - Palestinian Admn. Area) wrt. research to be carried out by his students in adopting the semantic search implemented in LT4eL for reusability of content and distribution via mobile devices. In addition, we are investigating possibility of grants proposal with Jamil Itmazi (Palestinian Admn. Area) in order to use results of the LT4eL project in blended learning which will allow easier access to education in Palestina. Contacts have also been established with Razan Khatib and Alma Khasawnih, they have created a Web 2.0 elearning site called *Questler* (www.questler.com) with the aim to promote collaborative learning and discussion especially in the Middle East community. They are considering our semantic search driven by the ontology as a way to access information on their site. Finally, we have discussed the Jordan eLearning situation with Eman Y. Tobail from the Jordan Education Initiative (www.jei.org.jo) and exchanged information about relevant activities which could be carried out in the framework of their funding also using LT4eL tools such as semantic search.
- The International conference on Language Resources and Evaluation (**LREC08**) took place in Marrakech, Marocco from 26-30 May. The conference is an important event in the field of Language Technology attracting a broad audience, making it a relevant dissemination event for our project. Almost 1000 people attended the conference this year, among which 16 from our project. The LT4eL project was well represented with 7 presentations being offered, 5 of which were during the main

conference and 2 during the workshops. We had opted for presentations focusing on the various aspects of the project instead of a common joint presentation. We had developed information material which was widely distributed during the poster presentations that we have carried out. The poster presentations allowed us to establish direct contacts with interested partners, to obtain feedback on our work and to make the public more aware of the impact that Language Technology can have to enhance eLearning.

3.2.2 Planned activities

3.2.2.1 Accepted presentations after the end of the project

- Paola Monachesi, Lothar Lemnitzer and Kiril Simov. The LT4eL project: final results. To be presented at the LT4LL workshop to be held in Manchester in May 2008.
- Łukasz Kobylński, Adam Przepiórkowski. Definition Extraction with Balanced Random Forests. To be presented at GoTAL 2008 conference in Gothenburg in August 2008 (<http://www.cse.chalmers.se/gotal.html>).
- Adam Przepiórkowski, Michał Marcińczuk, Łukasz Degórski. Dealing with Small, Noisy and Imbalanced Data: Machine Learning or Manual Grammars? To be presented at TSD 2008 conference in Brno in September 2008 (<http://www.tsdconference.org/tsd2008/>).
- António Branco and Rosa del Gaudio. Supporting E-learning with Language Technology for Portuguese. To be presented at PROPOR-International Conference on Computational Processing of Portuguese Language in September 2008 (<http://www.propor2008.org/>).
- Gaby Bergedorf and Susanne Jekat. Mehrsprachiges Wissensmanagement (in German). To be presented at the 5th Days of Swiss Linguistics in November 2008 (<http://www.zhaw.ch/de/linguistik/5tdl.html>).

3.2.2.2 Other plans for presentations

For these presentations, no proposals have been written yet or the proposals have not been accepted yet.

- Łukasz Degórski, Łukasz Kobylński, Adam Przepiórkowski: Definition Extraction: Improving Balanced Random Forests, submitted to Computational Linguistics - Applications conference in Wisła (Poland) in October 2008 (<http://www.imcsit.org/>). Notification of acceptance: 28 July.
- Claudia Borg and Mike Rosner intend to publish and present their final project results at a local conference at Malta in November 2008.

3.2.2.3 Workshops and other events

We are investigating the possibility to organize a final workshop at Utrecht University either in the fall 2008 or at the beginning of 2009 targeted at a broad public including Dutch ministries and higher education institutions in order to disseminate the results of our project. We plan to organize the workshop in collaboration with OU-NL (Peter van Rosmalen) in order to show the continuity of the TEL research in the Netherlands and the relation between the two projects. We aim in this way to raise awareness for this kind of research in the Netherlands.

3.3 Publications

It is important that the research developed within this project is published nationally and internationally. We have implemented the following publication strategy:

- Publications coming from WP leaders (and collaborators) on the specific technical aspects of the project they are working on.
- Publications coming from the Technical Committee (TC) on general scientific aspects of the project.
- General publications about the project. These are the responsibility of the coordinator who involves the relevant partners.
- Furthermore each partner can publish on her own results as language provider and, clearly, on side research which might come out from these activities.

International journals and conferences with peer review are the main channels, as well as book

contributions or books.

3.3.1 Past activities

- In the last six months of the project, we have written 15 articles which were or will be presented at workshops and conferences.
- In the second year of the project, we have written 18 articles which were presented at workshops and conferences.
- In the first year of the project, we have written 5 articles which were presented at workshops and conferences.

Articles written

- Vladislav Kubon, Miroslav Spousta. Multilingual Approach to e-Learning from a Monolingual Perspective. In `Proceedings of FLAIRS-21' (<http://www.flairs-21.info/>).
- Kiril Simov and Petya Osenova. Language Resources and Tools for Ontology-Based Semantic Annotation. In `Proceedings of the Workshop *OntoLex 2008*' at LREC 2008, pp. 9-13 (<http://www.lrec-conf.org/lrec2008/IMG/ws/OntoLex08.pdf>).
- Dan Cristea and Ionut Pistol. Managing Language Resources and Tools using a Hierarchy of Annotation Schemas. In `Proceedings of the Workshop *Sustainability of Language Resources and Tools for Natural Language Processing*' at LREC 2008, 31 May 2008 (<http://www.sfb441.uni-tuebingen.de/c2/>).
- António Branco, Francisco Costa, Filipe Nunes, Pedro Martins, João Silva, Sara Silveira. LX-Service: Web Services of Language Technology for Portuguese. In `Proceedings of LREC 2008' (<http://www.lrec-conf.org/lrec2008>).
- Łukasz Degórski, Michał Marcińczuk and Adam Przepiórkowski. Definition extraction using a sequential combination of baseline grammars and machine learning classifiers. In `Proceedings of LREC 2008' (<http://www.lrec-conf.org/lrec2008>).
- Eline Westerhout, Paola Monachesi. Creating glossaries using pattern-based and machine learning techniques. In `Proceedings of LREC 2008' (<http://www.lrec-conf.org/lrec2008>).
- Lothar Lemnitzer and Paola Monachesi. Extraction and evaluation of keywords from Learning Objects – a multilingual approach. In `Proceedings of LREC 2008' (<http://www.lrec-conf.org/lrec2008>).
- Petya Osenova, Kiril Simov and Eelco Mossel. Language Resources for Semantic Document Annotation and Crosslingual Retrieval. In `Proceedings of LREC 2008' (<http://www.lrec-conf.org/lrec2008>).
- Paola Monachesi, Eline Westerhout. What can NLP techniques do for eLearning? In `Proceedings of INFOS 2008' (<http://www.fci-cu.edu.eg/infos2008/>).
- Paola Monachesi, Kiril Simov, Eelco Mossel, Petya Osenova and Lothar Lemnitzer. What ontologies can do for eLearning. In `Proceedings of IMCL 2008' (<http://www.imcl-conference.org/>).
- Vladislav Kubon, Miroslav Spousta. Využití jazykových technologií v oblasti e-Learningu. In `Proceedings of MIS (Maly informaticky seminar) 2007', Josefuv Dul, December 2007 (<http://ulita.ms.mff.cuni.cz/pub/MIS/MIS2007.pdf>).
- Lothar Lemnitzer and Kiril Simov and Petya Osenova and Eelco Mossel and Paola Monachesi. Using a domain-ontology and semantic search in an eLearning environment. In `Proceedings of CISSE-EIAE 07' (<http://www.cisse2007.org>).

3.3.2 Planned activities

Submitted papers (accepted, but not published yet)

- Łukasz Kobyliński, Adam Przepiórkowski. Definition Extraction with Balanced Random Forests. To appear in `Proceedings of GoTAL 2008 conference', conference to be held in August in Gothenburg, Sweden (<http://www.cse.chalmers.se/gotal.html>).
- Adam Przepiórkowski, Michał Marcińczuk, Łukasz Degórski. Dealing with Small, Noisy and Imbalanced Data: Machine Learning or Manual Grammars? To appear in `Proceedings of TSD 2008 conference', conference to be held in September in Brno, Czech Republic (<http://www.tsdconference.org/tsd2008/>).
- António Branco and Rosa del Gaudio, Supporting E-learning with Language Technology for

Portuguese, To appear in 'Proceedings of PROPOR - International Conference on Computational Processing of Portuguese Language' (<http://www.propor2008.org/>).

Papers to be submitted

- Diane Evans, James Gray, Anne de Roeck, Cristina Vertan. Validation of cross-lingual retrieval in a multilingual setting, to submit to 'Specialised Language in Global Communication', selected papers from the International Symposium LSP 2007, Peter Lang 2008.

3.3.3 Journal articles

During the project, we have mainly targeted conferences to disseminate our results because of their immediate character, the possibility to build a network with interested researchers which could go beyond the end of the project and the availability of funding to participate at these events.

We had planned to write some journal articles in the last phase of the project, however, the fact that results were not yet final and most importantly the fact that validation was not yet completed has made us opt for additional conference papers in these last 6 months. A journal article on the project without detailed validation results would have not had chance of acceptance. We are now in the position to write journal papers which will have to be written after the project is finished, possibly in the fall.

This is a typical situation of many projects, it is after the end of the project that results are final and it is possible to draw strong conclusions. It would be desirable if this fact would be taken into account and would allow for the possibility to reserve funding only for dissemination activities after the end of the project.

Below we list a number of target journals for future publications:

- **Language Technology and Natural Language Processing:** Computational Linguistics, Language Resources and Evaluation (previously known as Computers and the Humanities).
- **Semantic Web:** Journal of Applied Ontology: An Interdisciplinary Journal of Ontological Analysis and Conceptual Modeling (<http://www.applied-ontology.org/>), Journal of Web Semantics: Science, Services and Agents on the World Wide Web.
- **eLearning:** European Journal of Open and Distance Learning (EURODL), International Journal of Emerging Technologies in Learning (iJET), Electronic Journal of e-Learning.

We envisage at least the following journal articles:

- Paola Monachesi et al. "The LT4eL project: results and evaluation", which should provide an overview of the initial objectives of the project, the results achieved and suggestions for the future.
- Paola Monachesi et. al. "Ontologies and eLearning", which could be an extended version of the conference paper "what can ontologies do for eLearning", which can focus on the results in this direction achieved within the LT4eL project, as well as first results in this area within the LT4LL project.
- Eline Westerhout and Paola Monachesi "LT for Dutch eLearning", which will focus on the results obtained for Dutch in the LT4eL project.

Ideally WP leaders will also write a paper summarizing the results of their WP in collaboration with relevant partners. We will report achievements in this direction at the review meeting.

3.4 Transfer of knowledge

Our aim is to promote exchange of knowledge and expertise among the members of the consortium and in particular to the members of NMS and ACC, i.e. partners UAIC (Romania), CUP (Czech Republic), IPP-BAS (Bulgaria) and ICS-PAS (Poland). To this end, we have ensured their active participation in the core WPs by assigning additional resources and travel money that will allow their presence in the development sites and their collaboration with the WP leaders. It is important to stress on the fact that the

transfer of knowledge and expertise between the project members will have been bi-directional. In addition, to further stimulate transfer of skills and expertise between the partners, but also to enhance the visibility of the activities in national and local contexts, at the project meetings and at the Technical Committee (TC) meetings, workshops or tutorials have been organised for all the consortium members and for the general public.

3.4.1 Past activities

- CUP (Czech Republic)
 - In May, Magdalena Prokopova spent a week at Open University. The purpose of the visit was to help OU with the analysis of the data from student trials and to learn from the huge experience of OU in this field.

The other three NMS and ACC partners (IPP-BAS (Bulgaria), ICS-PAS (Poland) and UAIC (Romania)) did not use the transfer of knowledge budget in the last six months of the project.

3.5 Liaising with other projects

The LT4eL project is committed to liaising with other EU projects, particularly those engaged in the same subject area, as well as with other projects and partners which are relevant for the activities carried out in the project.

3.5.1 Past activities

We have had collaborations and established new collaborations with the following projects:

- I*teach (<http://i-teach.fmi.uni-sofia.bg/>). We have started adding documents produced by the I*teach project to our corpus. These documents are particularly suitable for our purposes because they constitute a mini-corpus in a domain which is very close to ours (use of computers in education) of material translated in almost all languages of our consortium (mainly: Bulgarian, Dutch, English, German, Polish, Romanian). In the second year, we added more documents produced by the I*teach project to our corpus.
- ELENA (<http://www.elena-project.org/en/>). We have exchanged research results on metadata extraction with the ELENA project (finished in May 2005).
- CALIMERA (<http://www.calimera.org/>). We have used the documents collected within this European project to assemble our corpus of learning objects.
- PROLEARN (<http://www.prolearn-project.org/>). All LT4eL electronic meetings are organized using their developed application Flashmeeting (<http://flashmeeting.open.ac.uk/>).
- iCamp (<http://www.htk.tlu.ee/icamp/>). The iCamp project is planning to use our corpus of LOs for their research.
- APOSDLE (<http://www.aposdle.tugraz.at/>). We collaborate with the APOSDLE project with a constant exchange of information and results on the common issue of the use of ontologies in eLearning. They have been informed of our latest results.
- BAZAAR (<http://www.bazaar.org/>). We have used the Bazaar community to disseminate our project results. Bazaar supports a community for teachers and trainers by providing information and services for teachers and trainers in the development, creation, exchange and use of e-learning materials.
- SHARE (<http://www.share.uni-koeln.de/>). A contact has been established with this project through Matthias Kunkel because they are interested in our tools for metadata generation. They are also informed about our latest results.
- MELT (<http://info.melt-project.eu/>). A contact has been established with this project (Frans Van Assche) in order to provide information about the results of our project. They are interested in multilinguality of LOM instances and they will investigate to which extent our multilingual keyword extractor could be used in the context of their work.
- KP-Lab (<http://www.kp-lab.org/>). A contact has been established with this project (Liisa Ilomaki and Seppo Toikka) in order to inform them of the results achieved within the LT4eL project and investigate to which extent it is possible to establish a collaboration in this respect.

More in particular, contacts with the following projects/individuals have been reinforced, results have been exchanged and plans for new collaborations have started:

- The collaboration with the Open University in The Netherlands (Peter van Rosmalen, Jan van Bruggen), who is coordinator of the TENCompetence (<http://www.tencompetence.org/>) IP project is well established. The new STREP project, called Language Technology for LifeLong Learning (LTfLL) has started in March 2008. Three LT4eL partners will participate in the new project, that is Utrecht University, University of Tuebingen and Bulgarian Academy of Science. At the kick-off meeting in March, a short presentation by Paola Monachesi was given in order to identify possible LT4eL results to be exploited in the new project. During a meeting in Manchester (25-27 June) a more extended presentation about LT4eL will be given and an hands-on session will be organized in order to decide with all the partners which LT4eL results will be taken over in the new project.
- In the context of exploitation and commercialization of the LT4eL results, new contacts have been established by Paola Monachesi with Giunti Labs through Fabrizio Cardinali (CEO Giunti Labs) during the IMCL conference in Amman. The project software has been provided and Giunti will investigate the LT4eL functionalities in more detail. They believe that the functionalities developed by the LT4eL project (especially the keyword extractor and glossary candidate detector) could be in principle integrated in their CMS and might be relevant especially for some of the Eastern European languages. However, this will involve resources on their side which are not available at the moment; they have decided to keep the documentation in standby and to get in touch with the project in case any of their clients would be interested in having their CMS enhanced with our functionalities. More generally, it was agreed that due to the common research interests, it could be desirable to collaborate more closely in future projects in order to have results which could be directly integrated in their products.
- Egyptian eLearning: initial contacts have been established by Paola Monachesi at the INFOS 08 conference in this respect with Prof. Galal Hassan, chair of the department of Information System at University of Cairo. We discussed the need for eLearning at his university due to the exponential growth of students and the increasing availability of good infrastructure and the plans for the organization of elearning standards for Egyptian universities to be set by the national eLearning center. After the conference, a meeting was organized with Prof. Galal Hassan and the new responsible for the National eLearning center (<http://www.nelc.edu.eg/>), Prof. Tarek Gharib to discuss possibilities of collaboration between the LT4eL project and the eLearning center. Paola Monachesi has sent the relevant material about the project and at the moment we are investigating the possibility to submit an elearning project based on a collaboration between Utrecht University and University of Cairo to a Dutch funding agency targeted at developing countries.
- Palestinian eLearning: Contacts have been established at the IMCL 08 conference with M. Qusay (Canada - Palestinian Admn. Area) wrt. research to be carried out by his students in adopting the semantic search implemented in LT4eL for reusability of content and distribution via mobile devices. In addition, we are investigating possibility of grants proposal with Jamil Itmazi (Palestinian Admn. Area) in order to use results of the LT4eL project in blended learning which will allow easier access to education in Palestinian Admn. Areas, which is rather problematic at the moment due to the numerous check points that make mobility of students and issue.
- Jordanian eLearning: Contacts have been established during the IMCL 08 conference with Razan Khatib and Alma Khasawnih, they have created a Web 2.0 elearning site called Questler (www.questler.com) with the aim to promote collaborative learning and discussion especially in the Middle East community. They are considering our semantic search driven by the ontology as a way to access information on their site. We have discussed the Jordan eLearning situation with Eman Y. Tobail from the Jordan Education Initiative (www.jei.org.jo) and exchanged information about relevant activities which could be carried out in the framework of their funding also using LT4eL tools such as semantic search. A dinner was organized in this respect with Fabrizio Cardinali (CEO of Giunti Labs) and Said Jahama, general manager of Moodle Rooms, Arabia, to discuss the elearning situation in Jordan and the Middle east and their commercial plans in the future.
- The collaboration established by Paola Monachesi with the Open University UK (KMI group) in particular, Enrico Motta and Mathieu d'Aquin (member of the user panel) has been reinforced. The ontology and the lexica produced in the LT4eL project have been given to Mathieu d'Aquin for distribution through the Watson ontology search engine which is being maintained by OU-UK. In this way, we ensure exploitation of the ontology beyond the project and reuse by the Semantic Web community. In addition, the use of Watson to develop new domain ontologies in the context of the LT4eL project has been investigated in the Master thesis of Jantine Trapman.

- Our collaboration with Paul Buitelaar (member of the user panel) in the area of ontology development has been reinforced with discussions carried out with several members of the project during the LREC conference. The ontology and the lexica produced in the LT4eL project have been given to Paul Buitelaar for distribution through Ontoselect, which is an ontology library being maintained by DFKI. In this way, we ensure exploitation of the ontology beyond the project and reuse by the Semantic Web and NLP community.
- The possibility of collaboration of UU (Paola Monachesi) in an IP proposal submitted by Claudia Roda (AUP) in the area of *attention* has been discussed. This was the result of various discussions carried out in the past with respect to results in the LT4eL project as well as in the FP6 AtGentive eLearning project (<http://www.atgentive.com/>) in which she was a partner. Unfortunately, the timing of the proposal submission (i.e. March) was not optimal for UU due to the final activities related to the LT4eL project and the start of the new project LTfLL. However, we do hope it will be possible to establish new collaborations in the future to further exploit the results of our projects.
- The collaboration with CNR Rome - Laboratory of Applied Ontology (Aldo Gangemi, Alfio Gliozzo - user panel member) established by Paola Monachesi has been reinforced during the LREC conference. New areas of collaborations have been envisaged and LT4eL results have been exchanged with Alfio Gliozzo in the area of semantic search to be reused in their project eu project Babylon and Ontology (<http://www.bonynetwork.eu/>). In particular, they are interested in the semantic search functionality the way it has been implemented in the LT4eL project, as well as on the use of ontologies in retrieval of Learning objects. We expect the collaboration to continue in the new project LTfLL in the area of social web and eLearning. In addition, we have distributed the ontology and the lexica produced in the LT4eL project to CNR since we have carried out a simplification of the DOLCE ontology (developed by Aldo Gangemi) which might be useful for additional real life applications.
- Results have been exchanged and contacts have been reinforced with the FP6 APOSDLE eLearning project (<http://www.aposdle.org/>) in the area of keyword extraction and ontologies for eLearning. Stefanie Lindstaed, Viktoria Pammer and Luciano Serafini have been informed of the latest results of the project and they are investigating whether they can use some of our results.
- The ILIAS team is part of a German network of eLearning developers called Campussource (<http://www.campussource.de/org/>), they have been using this channel for their dissemination. However, we will not be able to rely on it in the future because of missing project funding, Campussource is in a kind of re-structuring phase.

3.6 Contacts with LMSs developers and eLearning community

The functionalities developed in the LT4eL project have been integrated in the ILIAS Learning Management System. Our aim however is to foster implementation of the LT4eL results also into other open source or commercial LMSs such as Moodle, OLAT, ML3, ATutor, Sakai, Claroline, Blackboard, WebCT. To this aim, all developed functionalities are offered as web services, and the project has established contact with other open source LMSs developer teams and has updated them on all relevant project results.

3.6.1 Past activities

- We have ensured visibility of our results for other developers communities through the standard channels:
 - ILIAS with the integrated functionalities is maintained at the sourceforge.net open source community (<http://sourceforge.net/projects/lt4el/>)
 - ILIAS with the integrated functionalities is featured on a second open source software community at ohloh.net (<http://www.ohloh.net/projects/9785?p=LT4eL>)
 - the final version of ILIAS with the integrated functionalities will be available for interested partners on a server of the University of Utrecht. In this way, partners who would like to carry on research related to LT4eL beyond the end of the project would be able to access the software before installing it at their site. In this way, it will also be possible to access the web services.
- The latest official release of integrated ILIAS (M30) has been announced by ETHZ in the LMS

communities (forums) and to leading developers such as Moodle and Olat.

- The results of the project have been disseminated by Matthias Kunkel at the Learntech conference
- The E-learning Center ZHAW maintains close contact with the Competence Service Production center of St Gallen, Chur and Rapperswil. Those contacts provide a basis for cooperation and quality management in the field of e-learning in the German-speaking part of Switzerland. Presentation of relevant parts of the LT4eL project and the evaluation of certain scenarios through cooperating experts of the e-learning center ZHAW themselves served the project with the expertise and quality management of the Center being used.

3.6.2 Planned activities

- The new functionalities will be explained and advertised in the next ILIAS newsletter.
- We are planning to organize a number of special events, in particular a workshop on the LT4eL functionalities integration process, together with other interested LMSs. It will be assessed whether this would be possible as co-located event with the next ILIAS conference to be held in Hamburg in September.

3.7 User panel

The validation phase (WP5) of the LT4eL project is being used to assess the quality and the usefulness of the functionalities we aim to provide. The scope of this WP is necessarily narrow: we will only assess the particular functionalities we have developed, and we will only test them in the experimental LMS environment adopted for this project. In order to get a better understanding of the general user's requirements and to promote the results of our project for adoption by a wider community we have decided to set up an international user panel. This panel consists of potential users of various types, such as LMS providers, providers of learning content, and teachers and users who make use of eLearning systems.

3.7.1 Past activities

- The panel has been kept informed of the major developments in the project, and their feedback is being elicited through various means. Communication has been mostly electronic and at various international conferences and events. All members have been informed of the latest results of the project and feedback has been elicited. A couple of members have taken part at our validation as tutors.

If we manage to organize a dissemination event for a broad public we plan to invite also some of the members to play an active role.

3.7.2 Members

Here is an updated list of the members:

- Gosse Bouma, language technology, Universiteit Groningen, The Netherlands, email: g.bouma@rug.nl
- Peter Dolog, eLearning, Department of Computer Science, Information Systems Unit, Aalborg University, Denmark, email: dolog@cs.aau.dk
- Piek Vossen, language technology, Vrije Universiteit Amsterdam, Netherlands, email: piek.vossen@irion.nl
- Marco Luccini, eLearning, Giunti Lab, Italy email: m.luccini@giunti.it
- Tomaz Erjavec, language technology, Dept. of Knowledge Technologies, Jozef Stefan Institute, Ljubljana, Slovenia, email: tomaz.erjavec@ijs.si
- Antal van den Bosch, language technology, ILK / Computational Linguistics, Tilburg University, The Netherlands, email: Antal.vdnBosch@uvt.nl
- Maria Teresa Pazienza, language technology and Semantic Web, Università di Roma, Italy, email: pazienza@info.uniroma2.it
- Claudia Roda, eLearning, American University Of Paris, France, email: croda@aup.fr
- Massimo Marchiori, Semantic Web, MIT Lab for Computer Science, USA / Università di Venezia, Italia, email: massimo@w3.org
- Iryna Gurevych, eLearning, Technische Universität Darmstadt, Germany, email:

gurevych@tk.informatik.tu-darmstadt.de>

- Delphine Bernhard, eLearning, Technische Universität Darmstadt, Germany, email: delphine@tk.informatik.tu-darmstadt.de
- Paul Buitelaar, language technology and Semantic Web, DFKI, Germany, email: Paul.Buitelaar@dfki.de
- Roberto Basili, language technology and Semantic Web, University of Roma, Italy, email: basili@info.uniroma2.it
- Patrizia Paggio, language technology, CST, University of Copenhagen, Denmark, email: patrizia@cst.dk
- Mathieu d'Aquin, Semantic Web, Open University, United Kingdom, email: m.daquin@open.ac.uk
- Fridolin Wild, eLearning, Austria, email: fridolin.wild@wu-wien.ac.at
- Peter van Rosmalen, eLearning, Open University, The Netherlands, email: peter.vanrosmalen@ou.nl
- Jan van Bruggen, eLearning, Open University, The Netherlands, email: jan.vanbruggen@ou.nl
- Alfio Gliozzo, language technology and Semantic Web, ITC-irst and CNR, Italy, email: gliozzo@itc.it
- Aldo Gangemi, language technology and Semantic Web, ISTC-CNR, email: aldo.gangemi@istc.cnr.it
- Shuly Wintner, language technology, University of Haifa, Israel, email: shuly@cs.haifa.ac.il
- Matthias Kunkel, eLearning, University of Cologne, Germany, email: m.kunkel@uni-koeln.de

3.8 Contacts with higher education institutions

The Lt4eL results will be further disseminated to higher education institutions (ministries of educations, universities), for examples via press releases or the organization of special meetings or awareness events. The objective is to test and promote the use of the developed functionalities, but also to stimulate support for the development of eLearning technologies that facilitate the creation, distribution and retrieval of learning material in the national languages.

3.8.1 Planned activities

- We hope that it would be possible to reach higher institution through activities carried out in collaboration with the CLARIN (www.clarin.eu) project aiming at building an archive of language resources for the Humanities. Most partners of the LT4eL project are part of this project and eLearning could be considered an interesting application. Utrecht University is the coordinator of CLARIN facilitating thus the connection.
- We are investigating the possibility to organize a final workshop of the LT4eL project at Utrecht University either in the fall 2008 or at the beginning of 2009 targeted at a broad public including Dutch ministries and higher education institutions in order to disseminate the results of our project. We plan to organize the workshop in collaboration with OU-NL (Peter van Rosmalen) in order to show the continuity of the TEL research in the Netherlands and the relation between the two projects. We aim in this way to raise awareness for this kind of research in the Netherlands.

3.9 Press release

Contacts have been established with the Communication Center of the University of Utrecht to assess whether it is possible to have a press release of the LT4eL project in the Dutch media. There are contacts also with ICT Results to which information material will be sent.