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D6.1b 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)	

D6.1 - Dissemination plan and report

M24

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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 is this report, which is delivered in M24 (D6.1b) and the last one will be delivered at the end of the project 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 M24 (D6.2b). It reports on the dissemination activities that have already been taken and will serve as guideline for the dissemination activities during the remaining 6 months 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 describes the actions which are envisaged for the future, and reports on past dissemination activities.

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, definitory context detector);
- Developed functionalities for multilingual retrieval (via ontologies);
- ILIAS LMS integrated with new functionalities (semi-automatic metadata generation and multilingual retrieval);
- Validation methodology.

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 already been taken and those that are envisaged for the future.

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

- The LT4eL external portal, which presents the LT4eL project to the public, has been thoroughly redesigned. It now has a much more appealing look, with more intuitive navigation. The content, now enhanced with imagery in places, has also been organised in a more rational way, so that people can more effectively learn about the project. The main new feature is a scheme that gives a clear overview of the status of the various work-packages with immediate links to results that have come out of those. In addition, this scheme also shows the relations between the various workpackages.
- Results are available via SourceForge page, which is regularly updated and contains the newest stable release (<http://sourceforge.net/projects/lt4el/>).
- Results are available via Ohloh.net page, which is regularly updated and contains the newest stable release (<http://www.ohloh.net/projects/9785?p=LT4eL>).
- We have decided not to produce our own newsletter to disseminate the results of the project but to use existing channels such as the ILIAS newsletter or the Bazaar blog. However, we have decided to improve our website and to include news and results there, because a web site can be consulted at any point in time by all persons interested in the project. The improved web site contains the code of the most recent stable versions of the tools and all deliverables that have been written so far. It is also possible to see the progress on the different tasks in a visual way.

3.1.2 Planned activities

- We plan to make a film of a demo of the project to show the results achieved in the way the functionalities have been integrated into ILIAS and how they have improved the learning process. This film will be made available via the project web site.
- Include some demo tools.
- The final results will be made available via open source communities (SourceForge.net and Ohloh.net). The project web site will provide links to the code as well as a description of what exactly can be downloaded.

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 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 Award

Our paper, "Improving the search for learning objects with keywords and ontologies", written by Lothar Lemnitzer, Cristina Vertan, Alex Killing, Kiril Simov, Diane Evans, Dan Cristea and Paola Monachesi, won the **best paper award** at the EC-TEL 2007 conference. There were two reasons for assigning the award to our paper, that is because of the innovative role of the LT4eL project in the field of eLearning and the fact that it can set a baseline for new projects in the area.

3.2.1.2 Paper or poster presentations

- Claudia Borg and Mike Rosner: Language Technologies for an eLearning Scenario. Presentation at the Computer Science Annual Workshop 2007, 5 - 6 November 2007, Malta (<http://www.cs.um.edu.mt/~csaw/>).
- Claudia Borg, Mike Rosner and Gordon Pace: Towards Automatic Extraction of

Definitions. Presentation at the Computer Science Annual Workshop 2007, 5 - 6 November 2007, Malta (<http://www.cs.um.edu.mt/~csaw/>).

- Adam Przepiórkowski, Łukasz Degórski, Beata Wójtowicz: On the evaluation of Polish definition extraction grammars. Presentation at LTC 2007, 5 – 7 October 2007, Poland (<http://www.ltc.amu.edu.pl>).
- Eelco Mossel: Displaying context of search terms for retrieved documents. Presentation at BIS21++ Information day at RANLP 2007, 30 September 2007, Bulgaria (<http://bis-21pp.acad.bg/>).
- Laska Laskova: (Semi)automatic glossary detection for Bulgarian. Presentation at BIS21++ Information day at RANLP 2007, 30 September 2007, Bulgaria (<http://bis-21pp.acad.bg/>).
- Kiril Simov, Petya Osenova, Alexander Simov, Anelia Tincheva and Boris Kirilov: A system for semi-automatic ontology annotation. Presentation at RANLP Workshop 'Computer-Aided Language Processing, 30 September 2007, Bulgaria (<http://clg.wlv.ac.uk/events/CALP07/>).
- Kiril Simov and Petya Osenova: Bulgarian language resources for ontology-based semantic search. Presentation at RANLP Workshop 'A Common Natural Language Processing Paradigm for Balkan Languages, 26 September 2007, Bulgaria (<http://lml.bas.bg/lml/CNLPPfBL07.htm>).
- Dan Cristea, Ionut Pistol & Corina Forascu: ALPE as LT4eL processing chain environment. Presentation at RANLP Workshop 'Natural Language Processing and Knowledge Representation for eLearning Environments', 26 September 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Kiril Simov, Petya Osenova: Applying Ontology-Based Lexicons to the Semantic Annotation of Learning Objects. Presentation at RANLP Workshop 'Natural Language Processing and Knowledge Representation for eLearning Environments', 26 September 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Rosa Del Gaudio, António Branco: Supporting e-learning with automatic glossary extraction: Experiments with Portuguese. Presentation at RANLP Workshop 'Natural Language Processing and Knowledge Representation for eLearning Environments', 26 September 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Lothar Lemnitzer, Paola Monachesi: Keyword extraction for metadata annotation of Learning Objects. Presentation at RANLP Workshop 'Natural Language Processing and Knowledge Representation for eLearning Environments', 26 September 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Eline Westerhout, Paola Monachesi: Combining pattern-based and machine learning methods to detect definitions for eLearning purposes. Presentation at RANLP Workshop 'Natural Language Processing and Knowledge Representation for eLearning Environments', 26 September 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Eelco Mossel: Crosslingual Ontology-Based Document Retrieval. Presentation at RANLP Workshop 'Natural Language Processing and Knowledge Representation for eLearning Environments', 26 September 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Adrian Iftene, Diana Trandabăţ, Ionuţ Pistol: Grammar-based Automatic Extraction of Definitions and Applications for Romanian. Presentation at RANLP Workshop 'Natural Language Processing and Knowledge Representation for eLearning Environments', 26 September 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Lothar Lemnitzer, Cristina Vertan, Alex Killing, Kiril Simov, Diane Evans, Dan Cristea and Paola Monachesi: Improving the search for learning objects with keywords and ontologies. At EC-TEL 2007, 17-20 September, Greece (<http://www.ectel07.org/>).
- Cristina Vertan: Example-based machine Translation for Cross-lingual Retrieval. Tutorial at the MT-summit XI, 10-14 September 2007, Denmark (<http://mtsummitcph.ku.dk/>).
- Cristina Vertan, Paola Monachesi, Kiril Simov, Petya Osenova, Lothar Lemnitzer, Alex

Killing and Diane Evans: Crosslingual retrieval in an eLearning environment. At AI*IA 2007, 10 – 13 September 2007, Italy (<http://aiia.info.uniroma2.it/>).

- Lothar Lemnitzer: LT4EL. Presentation at the kick-off meeting of the SIG eLearning of the German Society for Computational Linguistics, 11 September, Germany.
- Eelco Mossel: Crosslingual Ontology-Based Document Retrieval (Search) in an eLearning Environment. At the XVIth European Symposium on Language for Special Purposes (LSP), 27 - 31 August 2007, Germany (<http://nats-www.informatik.uni-hamburg.de/LSP07/WebHome>).
- Claudia Borg: Discovering grammar rules for Automatic Extraction of Definitions. Presentation at the Doctoral Consortium at Eurolan Summer School 2007, 30 July - 2 August, Romania (<http://eurolan.info.uaic.ro/2007/DC/>).
- Adam Przepiórkowski, Łukasz Degórski, Miroslav Spousta, Kiril Simov, Petya Osenova, Lothar Lemnitzer, Vladislav Kubon and Beata Wójtowicz: Towards the automatic extraction of definitions in Slavic. Presentation at the BSNLP workshop at ACL 2007, 29 June 2007, Czech Republic (<http://langtech.jrc.it/BSNLP2007/>).
- Eelco Mossel, Lothar Lemnitzer and Cristina Vertan: Language Technology for eLearning -- a multilingual approach from the German perspective. At GLDV 2007, 11 – 13 April, Germany (<http://www.sfb441.uni-tuebingen.de/gldv2007/index.en.html>).
- Paola Monachesi, Lothar Lemnitzer and Kiril Simov: Language Technology for eLearning. Poster presentation at KP7-congres. 13 February 2007, Den Haag. The Netherlands.
- Eline Westerhout and Paola Monachesi: Extraction of Dutch definitory contexts for eLearning purposes. CLIN 17, 12 January 2007, (<http://www.ccl.kuleuven.be/CLIN17/>).

3.2.1.3 Workshops and other events

Members of the project organized three workshops in the second year:

- Workshop: *Natural Language Processing and Knowledge Representation for eLearning environments* (http://www.lt4el.eu/nlp_knowrep200709.html) in conjunction with RANLP 2007 (<http://iml.bas.bg/ranlp2007/>) (26 September 2007, Borovets, Bulgaria). Organization: Paola Monachesi, Lothar Lemnitzer and Cristina Vertan.
- Workshop: *Applications of Semantics, Opinion and Sentiments (ASOS)* (<http://eurolan.info.uaic.ro/2007/ASOS/index.html>) at the 8th EUROLAN Summer School (<http://eurolan.info.uaic.ro/html/home.html>) (23-27 July 2007, Iasi, Romania). Organization: Steven Krauwer and Paola Monachesi.
- Workshop: *What can Natural Language Processing and Semantic Web technologies do for eLearning?* (http://www.lt4el.eu/ws_prague.php) in conjunction with ACL 2007 (<http://ufal.mff.cuni.cz/acl2007/>) (24 June 2007, Prague, Czech Republic). Organization: Paola Monachesi and Vladislav Kubon.

During the Malta project meeting in October 2007, a one-day dissemination event was organized on the 12th of October at the University of Malta. This meeting gave us the opportunity to disseminate our work within the local eLearning community.

3.2.2 Planned activities

3.2.2.1 Paper or poster presentations

With respect to the following reporting period (M25-M30), four presentations have already been given in December. Nine other papers have been submitted to conferences. We also list some other events where we aim at being present.

3.2.2.1.1 Presentations given in M25

- Lothar Lemnitzer and Paola Monachesi: Evaluating a multi-lingual keyphrase extractor in an eLearning context. Presentation at CLIN 2007, 7 December 2007, The Netherlands (<http://lands.let.ru.nl/~clin2007/>).
- Eline Westerhout and Paola Monachesi: Semi-automatic glossary creation from learning objects. Presentation at CLIN 2007, 7 December 2007, The Netherlands (<http://lands.let.ru.nl/~clin2007/>).
- Lothar Lemnitzer, Kiril Simov, Petya Osenova, Eelco Mossel and Paola Monachesi: Using a domain-ontology and semantic search in an eLearning environment. Presentation at CISCSE-EIAE e-conference (<http://www.cisse2007.org/eiae.aspx>).
- Rosa Del Gaudio, António Branco: Automatic Extraction of Definitions in Portuguese: A Rule-Based Approach. Presentation at TeMa Workshop at EPIA Conference 2007, 3 - 7 December 2007, Portugal (<http://www.epia2007.appia.pt/tema/>).

3.2.2.1.2 Accepted paper

- Paola Monachesi, Kiril Simov, Eelco Mossel, Petya Osenova and Lothar Lemnitzer. What ontologies can do for eLearning, IMCL 2008.

3.2.2.1.3 Submitted papers

- Ionut Pistol, Dan Cristea, Corina Forascu. Linguistic Processing Meta-System in an e-Learning Framework, submitted to CicLing 2008.
- Dan Cristea, Ionut Pistol, Corina Forascu. Automatic Building of NLP Architectures Applied to e-Learning, submitted to LREC 2008.
- Claudia Borg, Gordon Pace. Automatic Definition Extraction using Parser Combinators, submitted to LREC 2008
- Adam Przepiórkowski, Michał Marcińczuk and Łukasz Degórski. Definition Extraction: Partial Parsing and Machine Learning, submitted to LREC 2008
- António Branco, Francisco Costa, Filipe Nunes, Pedro Martins, João Silva. LX-Service: Towards Web Services of Language Technology for Portuguese, submitted to LREC 2008
- Eline Westerhout, Paola Monachesi. Creating glossaries using pattern-based and machine learning techniques, submitted to LREC 2008
- Mike Rosner, ODL: An Object Description Language for Lexical Information, submitted to LREC 2008
- Lothar Lemnitzer and Paola Monachesi. Extraction and evaluation of keywords from Learning Objects – a multilingual approach, submitted to LREC 2008

3.2.2.1.4 Target conferences for further future presentations

- **eLearning**: EC-TEL, ICL (<http://www.icl-conference.org/>), ECER (<http://www.ipd.gu.se/english/ecer2008>), ICICTE (<http://www.icicte.org/index.htm>), ECEL (<http://www.academic-conferences.org/ecel/ecel2008/ecel08-home.htm>), SIBIRCON (<http://sibircon2008.sibsutis.ru/index.php>)
- **Language Technology and Natural Language Processing**: COLING (<http://www.coling2008.org.uk/>), and relevant workshops, such as the workshop "Partial Parsing: Between Chunking and Deep Parsing" at LREC 2008
- **Semantic Web**: International Semantic Web Conference (ISWC) (<http://iswc2008.semanticweb.org/>), EKAW (<http://ekaw2008.inrialpes.fr/>)

3.2.2.2 Workshops and other events

We plan the organization of one last workshop at the end of the project. At the moment, we do not know whether we will make this a project internal workshop or a public workshop

open to everyone. We also investigate whether it would be a good idea to organize the workshop as a virtual meeting using the Flashmeeting tool.

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 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.

- Claudia Borg and Mike Rosner. Language Technologies for an eLearning Scenario. In `Proceedings of the Computer Science Annual Workshop 2007', Malta (<http://www.cs.um.edu.mt/~csaw/>).
- Claudia Borg, Mike Rosner and Gordon Pace. Towards Automatic Extraction of Definitions. In `Proceedings of the Computer Science Annual Workshop 2007', Malta (<http://www.cs.um.edu.mt/~csaw/>).
- Rosa Del Gaudio, António Branco: Automatic Extraction of Definitions in Portuguese: A Rule-Based Approach. In `Proceedings of Workshop TeMA-2007' at EPIA 2007, Portugal (<http://epia2007.appia.pt/>).
- Kiril Simov and Petya Osenova. Bulgarian Language Resources for Ontology-Based Semantic Search. In `Proceedings of Workshop on a Common Natural Language Processing Paradigm For Balkan Languages' at RANLP 2007, Bulgaria (<http://lml.bas.bg/lml/CNLPPfBL07.htm>).
- Kiril Simov, Petya Osenova, Alexander Simov, Anelia Tincheva, Borislav Kirilov. A System for A Semi-Automatic Ontology Annotation. In `Proceedings of Workshop on Computer-aided language processing – CALP' at RANLP 2007, Bulgaria (<http://clg.wlv.ac.uk/events/CALP07/>).
- Kiril Simov, Petya Osenova: Applying Ontology-Based Lexicons to the Semantic Annotation of Learning Objects. In `Proceedings of Workshop Natural Language Processing and Knowledge Representation for eLearning Environments' at RANLP 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Rosa Del Gaudio, António Branco: Supporting e-learning with automatic glossary extraction: Experiments with Portuguese. In `Proceedings of Workshop Natural Language Processing and Knowledge Representation for eLearning Environments' at RANLP 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Lothar Lemnitzer, Paola Monachesi: Keyword extraction for metadata annotation of Learning Objects. In `Proceedings of Workshop Natural Language Processing and

Knowledge Representation for eLearning Environments' at RANLP 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).

- Eline Westerhout, Paola Monachesi: Combining pattern-based and machine learning methods to detect definitions for eLearning purposes. In `Proceedings of Workshop Natural Language Processing and Knowledge Representation for eLearning Environments' at RANLP 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Eelco Mossel: Crosslingual Ontology-Based Document Retrieval. In `Proceedings of Workshop Natural Language Processing and Knowledge Representation for eLearning Environments' at RANLP 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Adrian Iftene, Diana Trandabăţ, Ionuţ Pistol: Grammar-based Automatic Extraction of Definitions and Applications for Romanian. In `Proceedings of Workshop Natural Language Processing and Knowledge Representation for eLearning Environments' at RANLP 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Adam Przepiórkowski, Łukasz Degórski, Beata Wójtowicz: On the evaluation of Polish definition extraction grammars. In `Proceedings of Workshop Natural Language Processing and Knowledge Representation for eLearning Environments' at RANLP 2007, Bulgaria (http://www.lt4el.eu/ws_borovets.php).
- Cristina Vertan, Paola Monachesi, Kiril Simov, Petya Osenova, Lothar Lemnitzer, Alex Killing and Diane Evans, Crosslingual retrieval in an eLearning environment, in `Proceedings of AIIA 2007', Italy (<http://aiia.info.uniroma2.it/>).
- Lothar Lemnitzer, Cristina Vertan, Alex Killing, Kiril Simov, Diane Evans, Dan Cristea, Paola Monachesi: Improving the search for learning objects with keywords and ontologies. In `Proceedings of EC-TEL 2007', Springer LNCS (<http://www.ectel07.org/>).
- Adam Przepiórkowski, Łukasz Degórski, Beata Wójtowicz: On the evaluation of Polish definition extraction grammars. At LTC 2007, Poland (<http://www.ltc.amu.edu.pl>).
- Claudia Borg: Discovering grammar rules for Automatic Extraction of Definitions at the Doctoral Consortium at EuroLan Summer School 2007, Romania.
- Eelco Mossel and Lothar Lemnitzer and Cristina Vertan: Language Technology for eLearning -- a multilingual approach from the German perspective. In Proceedings of GLDV 2007, Germany (<http://www.sfb441.uni-tuebingen.de/gldv2007/index.en.html>).
- Eline Westerhout, Paola Monachesi: Extraction of Dutch definitory contexts for eLearning purposes. In `Proceedings of CLIN 17', Belgium (<http://www.ccl.kuleuven.be/CLIN17/>).
- Adam Przepiórkowski, Łukasz Degórski, Miroslav Spousta, Kiril Simov, Petya Osenova, Lothar Lemnitzer, Vladislav Kubon, Beata Wójtowicz: Towards the automatic extraction of definitions in Slavic. In `Proceedings of the BSNLP workshop' at ACL 2007, Czech Republic (<http://langtech.jrc.it/BSNLP2007/>).

3.3.2 Planned activities

One paper has been published in M25:

- 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', Springer (<http://cisse2007.org/eiae.aspx>).

One paper has been accepted for publication:

- Paola Monachesi, Kiril Simov, Eelco Mossel, Petya Osenova and Lothar Lemnitzer. What ontologies can do for eLearning. Will appear in `Proceedings of IMCL 2008' (<http://www.imcl-conference.org/>).

As for the other papers submitted to conferences, we do not know yet whether or not they will be accepted.

In the first two years of the project, we have mainly targeted conferences to disseminate our results because of their immediate character, the fact that our results were not yet final and the possibility to establish new networks. The EC-TEL conference has been particularly relevant in this respect. However, we believe that the time is now ripe to address journal articles and so the focus will be on this dissemination medium until the rest of the project and beyond 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 aim at publishing the final results of the project in a special issue of a journal in 2008.

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 be 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 (to be held each year) and at the Technical Committee (TC) meetings, workshops or tutorials should be organised for all the consortium members and for the general public.

3.4.1 Past activities

- Here are more detailed descriptions of how partners CUP (Czech Republic), IPP-BAS (Bulgaria), UAIC (Romania) and ICS-PAS (Poland) have used their extra travel budget (5500 euro) from M12 - M24.
 - CUP (Czech Republic):
 - In July 2007, Miroslav Spousta traveled to Tuebingen in order to get acquainted with the recent results of UNI Tuebingen applicable to the project.
 - Natalia Kliueva took in July part in the Eurolan summer school in Romania, where she met other project partners and she also had a chance to discuss project-related issues.
 - In November 2007, Miroslav Spousta traveled to Warsaw, where he had a chance to meet other partners working on WP2.
 - In order to prepare the validation, Magdalena Prokopova spent one week at the Open University, also in November 2007. She is responsible for the validation for Czech and the journey gave her a chance to learn from the huge experience of OU in this field.
 - IPP-BAS (Bulgaria):
 - Kiril Simov and Petya Osenova visited Malta (UOM) in October where they

discussed the annotation grammar and the English lexicon and its connection to the ontology.

- ICS-PAS (Poland):
 - Łukasz Degórski and Adam Przepiórkowski visited Tuebingen in April to discuss WP2 related issues.
 - Łukasz Degórski visited Tuebingen in July and participated in the Processing Chain Workshop which was held between 10 and 12 July.
 - Lothar Lemnitzer (UTU, Tuebingen) has visited Warsaw from 28 November to 5 December to work on the WP2 deliverables.
- UAIC (Romania):
 - Dan Cristea and Corina Forascu have been to Malta for one week in October (6th to 12th October 2007) in order to discuss with the Maltese partner the new issues in collecting Maltese language resources and in developing processing tools.
 - Ionut Pistol has visited Tuebingen from 2 to 13 July and participated in the Processing Chain Workshop which was held between 10 and 12 July.
 - Diana Trandabat visited Utrecht University for two weeks in December 2006 and discussed the issues related to the annotation of the Romanian language resource collection.
 - Claudia Borg (UOM) visited Iasi for three months (May – August) and worked at the grammar for extracting definitions.
 - Mike Rosner (UOM) visited Iasi for one week at the end of July – beginning of August and discussed the issues in collecting Maltese language resources.

3.4.2 Planned activities

- CUP: we plan a slightly longer visit of Magdalena Prokopova at the OU in the spring (for the third round of validation) and also, if necessary, more visits of Miroslav Spousta at partner institutions involved in the implementation of individual tools.

3.5 Liaising with other projects

The It4eL 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.
- BAZAAR (<http://www.bazaar.org/>). We plan to use 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/>). We plan to get in touch with this project through Matthias Kunkel since they might be interested in our tools for metadata generation.

More in particular, contacts with the following projects/individuals have been established or reinforced:

- A visit has been organized by Paola Monachesi to AUP in Paris and Claudia Roda (member of the user group) in combination with a visit to Luxembourg. Claudia Roda is a partner in the FP6 AtGentive eLearning project (<http://www.atgentive.com/>) in order to discuss the role that language technology can play in determining the attention of learners. The main aim was to assess possibility to exploit LT4eL results in this context. In addition, feedback to the LT4eL project has been given especially with respect to validation methodology.
- Paola Monachesi has established contacts 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 aiming to create an infrastructure to support individuals, groups and organisations in lifelong competence development. Also in this case, the aim was to investigate the role of language technology in relation to Life Long learning services, this has lead to a new collaboration and a new STREP project which has been accepted within FP7, called Language Technology for LifeLong Learning (LTfLL) in which results of the LT4eL projects will be employed. Three LT4eL partners will participate in the new project, that is Utrecht University, University of Tuebingen and Bulgarian Academy of Science. In addition, exchange of methodology with respect to validation activities in eLearning context has been performed.
- Exchange of results and informal collaboration has been established by Paola Monachesi with the Open University UK (KMI group) in particular, Enrico Motta, Mathieu d' Aquin (member of the user panel) and Marta Sabou. The aim was to investigate the use of Semantic Web techniques and tools, especially Watson which is an ontology search engine, to improve the developement of domain ontologies. Mathieu d'Aquin was invited to present results in this respect at the workshop we have organized in Prague while discussions have been carried out with Enrico Motta during the ASOS workshop, that we have organized at the EUROLAN summer school in order to exchange project results.
- A visit at CNR Rome - Laboratory of Applied Ontology (Aldo Gangemi, Alfio Gliozzo - user panel member) has been organized by Paola Monachesi in combination with the Malta meeting, in order to discuss issues related to ontology development, especially with respect to DOLCE, the use of ontologies in eLearning and possibilities for project results exchange. We have also assessed that there are common interests wrt. the exploitation of semantic knowledge in eLearning, especially wrt. activities aiming at integration of the Mediterranean Countries through eLearning.
- The dissemination meeting organized during the Malta meeting was also particularly

relevant to assess the expertise of University of Malta in the field of eLearning and mobile learning. Contacts have been established with an SME in Malta (Across Limits - Angele Giuliano) in the context of re-use of project results wrt. activities aiming at integration of the Mediterranean Countries through eLearning. AcrossLimits is partner in another FP6 eLearning project, that is Arise (<http://www.arise-project.org/>)

- 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. Viktoria Pammer and Stefanie Lindstaed have given a talk in this respect at the workshop we have organized in Prague.
- We have reinforced our collaboration with Paul Buitelaar (member of the user panel) who was invited to the Prague workshop and results have been exchanged between the LT4eL project and the SmartWeb project (<http://www.smartweb-projekt.de/>) in the area of ontology development.
- Iryna Gurevich (member of the user panel) was invited at our RANLP workshop and she has provided useful feedback to the LT4eL project especially in the area of semantic knowledge for eLearning and ontology evaluation. We plan to exchange results in the context of her semantic information retrieval project (<http://www.ukp.tu-darmstadt.de/projects/sir>).
- In the context of exploitation and commercialization of the LT4eL results, further contacts have been established by Paola Monachesi with Giunti Labs and Fabrizio Giorgini during the EC-TEL conference in Crete. They will monitor the development of the project. This is also the case for Tjerk van Dijk (ProVer) who has been developing a multilingual semantic based search engine for the province Friesland and could benefit from our results.
- The ILIAS team is part of a German network of eLearning developers called Campussource (<http://www.campussource.de/org/>) and can use this channel for dissemination of results.
- Partner ZHW has established contacts with different e-learning centers (e.g. the eLearning Centre of the ZHW <http://elearning.zhwin.ch>) and with the Competence Service Production Center (CSPC) in St Gallen, Chur and Rapperswil (cf. <http://www.e-learning.zfh.ch> or <http://elearningfho.fh-htwchur.ch/>).
- Partner UTU participated in a meeting of a newly launched Special Interest Group "NLP and eLearning" under the auspices of the German "Gesellschaft für Linguistische Datenverarbeitung", 12 participants. There, they presented Lt4EL and its current results.
- Contacts have been established by Paola Monachesi with the Bazaar project in order to disseminate the results of the LT4eL project to that community of teachers and trainers.
- Contacts have been established through Matthias Kunkel with the Share project, that might be interested in the tools developed in the LT4eL project to develop metadata semi-automatically.

3.5.2 Planned activities

- We believe the time is now ripe to exploit the network mentioned above in order to establish common projects for the re-usability of the tools developed within the LT4eL project as well as to assess the impact that language technologies can have in other

areas of elearning such as that of attention.

- More concretely the results of the LT4eL project will be employed in the new EU step project 'Language Technology for LifeLong learning' which will be carried out in collaboration with OU-NL.

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 webservices, and the project will establish contact with other open source LMSs developer teams and update them on all relevant project results.

3.6.1 Past activities

- at this stage, we have ensured visibility of our results for other 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>)
- Contacts have been established by Paola Monachesi with Utrecht University ICT center to assess possibility of support development of open sources functionalities and LMS. However, the results are not encouraging due to a blind policy wrt. commercial products.

3.6.2 Planned Activities

- As soon as we have our first official release (M24) packaged and available, ETHZ would like to feature it in the LMS communities (forums) and send e-mails to leading developers such as Moodle and Olat.
- The new functionalities will be explained and advertised in the next ILIAS newsletter.
- At the Langtech 2008 conference (<http://www.lang-tech.org/>), dissemination material on the project will be disseminated. Besides, a demo will be given of ILIAS with the new functionalities by Matthias Kunkel.
- The eLearning Centre of the ZHW has direct contact with Moodle, OLAT and ML3 and will be used together with Campussource as starting point to establish collaborations.
- 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 extended and now includes more members from the eLearning community. The panel now has 21 members, of which 9 are eLearning experts, 10 are Language Technology experts and 7 are Semantic Web experts.
- Information about the user panel and the possibility to subscribe has been added to the LT4eL web page.
- 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, but individual meetings have been organized. In addition a workshop has been organized in June in Prague and co-located with ACL with some of the members of the user panel. During the workshop, the project has been presented and feedback has been received by the members of the panel who have also presented their most recent achievements in relevant areas for the LT4eL project.

3.7.2 Members

Here is an updated list of the members:

- 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, but mostly via direct contact during the validation phase of the project (WP5) starting from June 2007. 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 Past activities

- Project poster presentation at KP7-congress organised by EG-liaison for the Dutch ministry of economic affairs and the Ministry of science, culture and education.

The LT4eL is included in the official webpage of the Romanian Ministry of Research, more specifically on the National Authority for Scientific Research webpages, as an on-going FP6 project. The details about LT4eL are at www.mct.ro/anacs_web/index.php?action=viewart&artid=855&idcat=368&sub=&ssub=&PHPSESSID=92375dad8e11795b3417cabea745de2 Dissemination activities have been carried out in this respect by the UAIC group.

3.8.2 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 of the coordinator of CLARIN facilitating thus the connection.