Persuasive Learning Objects and Technologies
for Lifelong Learning in Europe

Progress Report Public Part

Project information

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Executive Summary

EuroPLOT plans to develop a pedagogical framework for active engagement, based on persuasive design, and to demonstrate its value by creating authoring tools for, and exemplars of, **P**ersuasive **L**earning **O**bjects and **T**echnologies (PLOTs). Learning objects and technologies are currently limited in their adaptability and how far they support active engagement from the learner. The EuroPLOT project aims to improve the use of technology to enhance creativity and interactivity in learners and to make it easier for teachers to create, adapt and share high quality, engaging digital learning resources internationally. The EuroPLOT framework incorporates persuasive design principles for designing technologies that change behaviour or attitude, for example, by using fun, simulation, competition or peer influence. It is described as persuasive learning design patterns that encapsulate particular learning activities and sequences associated with these persuasive principles. These patterns are being incorporated into two existing content authoring tools, GLOmaker and 3ET, to allow teachers to create new e-learning resources that embed persuasive learning design principles as well as to re-purpose existing resources. These modified tools together with persuasive learning designs will be made available as PLOTMaker and PLOTLearner, and the PLOTs created with them will be aimed to provide more persuasive learning resources. The tools and the learning designs will be available throughout Europe as Open Educational Resources (OER). The main sectors to be targeted in this project are those of tertiary and vocational education; in order to widen the benefits of this project to other sectors, we also will demonstrate the application within the adult and school educational sectors. Our target groups include researchers, content designers, teachers and learners, including distance learners. In four specific case studies, we are creating exemplar PLOTs to support language learning, archival studies, environmental assessment and business computing, which will be applied with user groups and will be evaluated regarding effectiveness, engagement, and persuasiveness. We intend to establish and grow an international online community of teachers and trainers interested in PLOTs to extend the use of the tools and resources. We will make the authoring tools and a collection of reusable PLOTs available.

The Consortium comprises five universities and a research organisation, all engaged in the innovative use of online communication technology for lifelong learning: Leeds Metropolitan University (UK), Aalborg University (Denmark), DHI (Denmark), London Metropolitan University (UK), Danube University Krems (Austria) and University Hradec Kralove (Czech Republic). The partners have combined expertise in the key areas of the project, which include persuasive design, learning design patterns and frameworks, learning object authoring and tools, open educational resources, repositories and evaluation.

At this interim stage of the project (May 2012), the theoretical framework of persuasiveness has been defined, and initial sets of persuasive learning designs have been prepared. These persuasive elements have been implemented in the first versions of the two software tools PLOTMaker and PLOTLearner, and within the context of four specific case studies, methods for developing PLOTs have been implemented in these tools. Plans for the execution and evaluation of the case studies have been written and will be implemented and executed in the second half of the project. The next project task is to implement these case studies and evaluate the software tools and the approach of persuasive learning/teaching. Following the feedback and evaluation from the case studies, the tools will undergo a final revision before they will be made available to the public. The tools and the case study results will be presented at a final conference at the end of the project. A series of public free webinars shows project progress and user engagement.

This interim report gives an overview of the first 18 month (half way point) of the project.

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Project Objectives

The overall aim of this EuroPLOT project is to improve the use of learning technology, to enhance creativity and interactivity in learners, and to make it easier for teachers to create, adapt, and share high quality, engaging digital learning resources, internationally, as open educational resources (OER). This will be achieved through the following objectives:

1. The main objective of EuroPLOT is to develop a framework that incorporates persuasive design principles into pedagogical design. The concept of “Persuasive Technology” has been outlined by B.J Fogg (2003) and since then has inspired researchers and developers in technology-enhanced learning to explore the possibilities of this paradigm (e.g. Tran, 2008).
2. In order to make use of this persuasive framework, it will be described as a series of persuasive learning design patterns (PLDs).
3. Two tools will be developed and extended, using this framework, to support the creation of persuasive learning objects and technologies (PLOTs). These tools will be based on existing tools for creating learning obiects, GLOmaker and 3ET. In EuroPLOT, these will be re-branded as PLOTMaker and PLOTLearner, together with the included PLDs.
4. These tools will be used to create exemplar PLOTs to support language learning, archival studies, environmental assessment, and business computing.
5. These tools and the developed PLOTs will be applied in four exemplary case studies which relate to the above four teaching areas. The PLOTs of these case studies will be adapted for other sectoral contexts and for the use in different European countries.
6. The PLOTs of these four case studies will be evaluated with learners, including distance learners, and the tools will be evaluated with teachers.
7. An international online community of teachers and trainers who are interested in PLOTs will be established and grown, to extend the use of the tools and resources.
8. The outputs will be disseminated widely through local, regional, national, and international networks and will be made available using Creative Commons licensing.

Benefits to and involvement of the users

The two tools for creating PLOTs, PLOTLearner and PLOTMaker, will allow teachers and trainers, without specialist IT knowledge and skills, to develop quality, reusable and engaging electronic learning resources, which are adaptable in different contexts.

Specifically the sectors represented in the project are tertiary education, vocational education, school and adult education and include learners within traditional environments, industrial settings, outside the classroom with cultural organizations, and online. The persuasive framework that is being developed will allow engaging learning activities to be embedded within learning resources, for example, providing simulation, problem-based learning and social learning. It will also contribute open educational resources (OER) in four subject areas, as well as encouraging adoption of OER by making engaging resources easier to create and reuse and thereby allowing more teachers (and consequently more learners) access to electronic learning resources. Our focus on social persuasion offers support for collaborative

learning to address complex problems; the generation of exercises based on corpus data facilitates problem-based learning, and the development of stand-alone learning objects and resources allows for remote learning for each of these.

The initial testers and users of these tools are all members of the project consortium, and as such are playing a substantial role in the design and agile development of PLOTs. In addition, international associated project partners will be included to widen the project's impact.

The Case Studies

In particular, four case studies in EuroPLOT will directly address user communities. Each of the case studies has been chosen to provide direct benefits to the target user groups.

1. Archival studies

The **Kaj Munk Research Centre** will involve tertiary learners in teaching about the work and significance of Kaj Munk, who was a Danish playwright and pastor, and is commemorated for his role in the Danish resistance against Nazism. At the Kaj Munk Museum in Vedersø (Denmark), adult learners and school children will be able to use the PLOTs to learn about Kaj Munk's life, work, and death. PLOTlearner will be used to develop resources for problem based learning, and the Centre would particularly benefit from persuasive learning objects being executed via mobile devices. If students were located at the scene where material in the learning object were being presented, they might gain a greater understanding of the events surrounding the emergence of that material, and allowing the student to learn when they feel motivated. The PLOTs will enable archive-based learning for envisioned 50 tertiary students, and will also engage adult learners and school children (about 200).

2. Language Learning

Learning the Hebrew Language of the Bible is very difficult. The PLOTs developed in EuroPLOT are aimed at increasing the learner engagement and student motivation. Hereby one of the challenges is to bring alive a basically non-spoken (dead) language. One method that is applied in the PLOTs is to let students actively experiment with language sentence construction in given contexts. User groups to be involved are the Copenhagen Lutheran School of Theology. Furthermore, there will be 70 vocational learners at the Graduate School of Lutheran Theology in Madagascar, and 40 tertiary learners at the Gothenburg University Oriental Institute (Sweden). The wide range of learners will give a representative cross section across different types of students.

3. Environmental Science

The company **DHI** (in Copenhagen) will develop and test PLOTs which teach adult learners about dangers of chemicals in professional and industrial context. The user group here will be comprised of 15 vocational learners (from SMEs) who need to be made aware of the hazards of chemicals in their professional environment, and who need to learn safe handling of these chemicals. In addition, 65 tertiary students will use these PLOTs in learning about environmental science. One of the difficulties for this industry in meeting new regulatory requirements, is how to communicate information on the safe use of chemical mixtures. A persuasive e-learning resource will be a beneficial tool for teaching individual employees in formulating industries how to develop correct exposure scenarios for mixtures in an appropriate way. These example simulations would enable the student to gain first-hand experience without imposing any real danger on anyone.

4. Business Computing

Distance learning of Business Computing is offered to adult students in the business sectors who are not used to using computers on a daily basis. The aim therefore is to improve the existing approach to include persuasive design, allowing students to experience their learning with added support and help features about how to operate IT. Academic learners and teachers at higher education institutions **Leeds Met** and at **University of Hradec Kralove** will be engaged through the case study of business computing as an academic subject of 2nd year study. A group of students at each of the universities will also ensure that the PLOTs can be shared internationally. It is envisioned to include a total of 200 students.

Project Approach

Persuasive technology is broadly defined as technology that is designed to change attitudes or behaviours of the users through persuasion and social influence, but not through coercion or deception (Fogg 2003). Fogg designates a list of persuasive principles, which if implemented in accordance with the appropriate time and place, will result in persuasive technology.

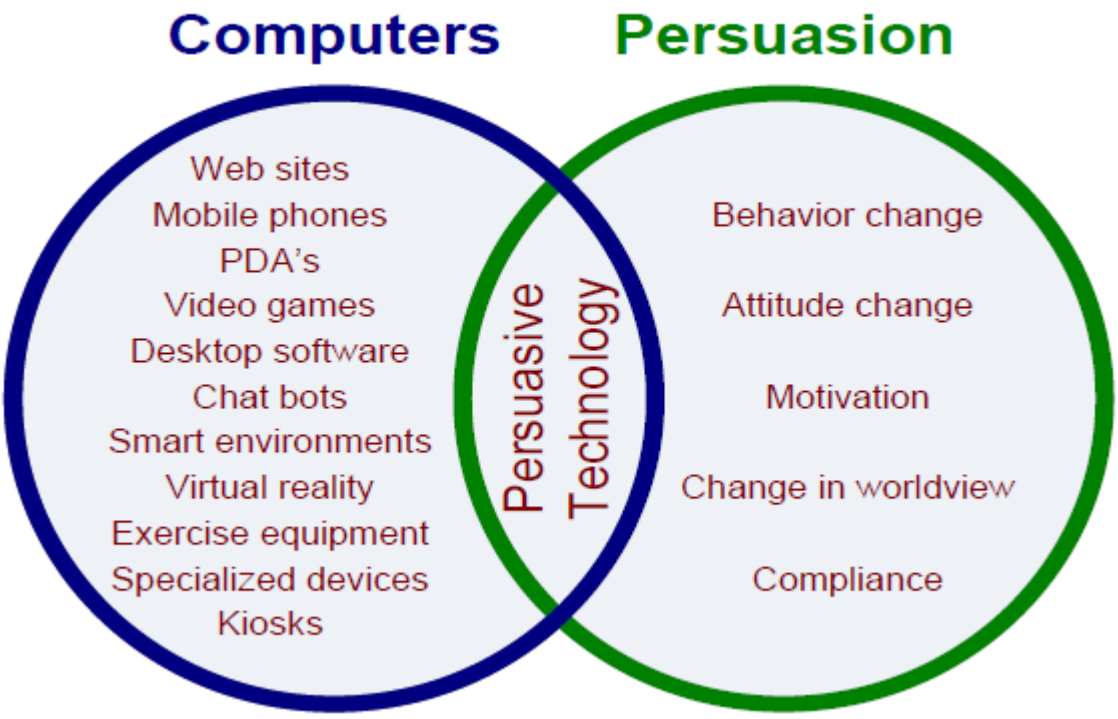

Fig. 1: Persuasive Technology at the intersection of computer technology and persuasion.

Persuasive Principles

Fogg (2003) defines a set of principles of persuasion, which influence humans to change behaviour or attitude:

Reduction: Reduction refers to the design strategy of simplifying what would otherwise be a complex process. E.g. Amazon's 1-click purchase which lets you skip a lot of time consuming navigations and tedious form filling, in order to make an instant purchase.

Tunnelling: Tunnelling is a design strategy which places the user inside a process that has a pre-determined direction. E.g. most installation processes require that the user completes several steps before the installations process is completed.

Tailoring: Tailoring is the degree to which a site or a program presents relevant content to individual users or user groups. Navigational options, filtering mechanisms and labelling systems can all be adapted to reflect user demographics.

Suggestion: Suggestion is the persuasive design strategy of delivering a message at the opportune moment. E.g. when Amazon suggests extra books which are closely related to the one you were just about to buy.

Self-Monitoring: Self-monitoring is the design strategy which allows you to monitor progress. E.g. sites which require a log-in and then enables the user to monitor the progress of weight loss.

Surveillance: Surveillance is closely related to self-monitoring; however the monitoring is not done by the user but by the system or the owners of the system. E.g. when using a weight loss website, users may be motivated not only by monitoring their own progress, but also by sharing experience and receiving feedback from other users who are struggling with similar issues. By sharing statistics, diet-plans etc. users feel more related to each other and may be inspired by actions taken by others.

Conditioning: Conditioning refers to the strategy of embedding emotional feedback into a design. It is often expressed as praise and rewards, but in a slightly more subtle manner than be the case with Persuasive Social Actors. E.g. when forums reward users with increasingly lofty titles (or user rights) in correlation to the number of posts made by the user.

Simulation: Simulation is a design strategy which enables the user to explore and experiment in a safe, nonthreatening environment. It shows a link between cause and effect clearly and immediately, and may appear as a subtle type of persuasion, as the user builds personal experience though the simulation

Social Signals: Social signals is the type of design principles which – like conditioning – embeds emotional feedback into a design, but which may be considered more direct. E.g. rewarding users with positive feedback and providing social support. Examples of persuasive social actors are the chat bots which are seen on websites such as SAS and IKEA, where the computer gives advice and feedback in a human like manner. Social signals also include the impact of physical attractiveness.

Relevance for Learning

The above persuasive principles have been illustrated by examples in which user behavior is changed. The goal of EuroPLOT is to harness these principles for the learning process. Of particular importance is hereby the notion of **Kairos**, which means that information or learning content is presented “at the right time, at the right place”. In a technical context, this can be achieved through **mobile and ubiquitous technology**, which is able to provide content when the user/learner really needs it.

Constructivist Learning is another concept which contributes to persuasive learning: the learners build their knowledge through active engagement and experimentation with the topics they are supposed to learn.

Inspiration card workshop:

Participatory design methods have been applied in WP3 in terms of an Inspiration card workshop held during the face-to-face meeting in Aalborg in May 2011, which sought to uncover a more nuanced understanding of the challenges related to the individual work cases,

and to establish a mutual responsibility and a common language between developers, designers and case representatives. The results of the workshop were presented in and the process was published in form of a peer reviewed paper and presented at Interact 2011
The aim of the workshop was to create a social context in which the individual case representatives were given the opportunity to explain and elaborate upon their individual challenges in teaching and learning, and for the additional members of the consortium to ask questions and reflect upon the different case scenarios.

Development of Software Tools

The original project plan was to first define the principles of persuasion, then implement these in the software tools, and then test them in case studies. However, during the theoretical analysis of the tools and while defining specific requirements, it became apparent that this simple “waterfall approach” for software development was not feasible: persuasion as a principle depends very strongly on the context, and therefore, it was not possible to develop a general template for a persuasive learning design. Instead, it was decided to have a closer look at the case studies and the application scenarios, and to involve these at an earlier point in the project than originally planned. The advantage of this move is that specific case study requirements were considered at a much earlier stage than planned in the original project proposal. Therefore, the learning designs which became available in May 2012, were targeted to specific requirements from the case studies. This shift in the project plan had no impact on other deliverables and on the further schedule of the project.

The development of the software tools PLOTmaker and PLOTlearner is planned in three main stages:

1. The first version is basically the already existing software (GLOmaker and 3ET), augmented by persuasive learning designs. PLOTlearner has been available since November 2011 and has already been employed in the language learning context. The development of PLOTmaker has been delayed, due to the earlier integration of the case studies, and the first version is now scheduled to be available in June 2012.
2. The second version of each software will include more functionality, in addition to the persuasive learning designs. This will be the version with which the first set of evaluations will be conducted.
3. The third release of the software tools will be based on feedback from the evaluations. This will be the version that will be disseminated for public use (although the previous versions will also be available publicly for testing). This version will be documented with handbook and user guide.

The naming of these two software tools PLOTmaker and PLOTlearner seems to imply that one is an authoring toolkit and the other one a learning delivery tool. This perception is, however, incorrect. The name PLOTmaker comes from the further development of the existing tool GLOmaker. This tool provides authoring as well as replay and learning delivery. The PLOTlearner is based on the existing tool 3ET, which mainly focuses on learning delivery from a textual database (EMDROS) and is tailored for language learning. It also provides features for authoring as well as for learning delivery. It was decided to keep these two names for easier branding within EuroPLOT, but users need to be aware that PLOTmaker and PLOTlearner are not exclusively focusing onto either creating or learning, but they combine both aspects.

Evaluation Strategy

The consortium agreed on an evaluation plan which defines the evaluation methodology, target groups and samples, plus a detailed definition of evaluation activities and instruments applied in the project. The evaluation uses a mixture of qualitative and quantitative methods and instruments, i.e. formative evaluation based on semi-structured feedback collection, summative evaluation as well as reflection groups and interviews (with the primary target group, i.e. developers, learners, trainers). Evaluation has been planned to be implemented throughout 3 phases of the project: pre-testing, prototyping and piloting phase.

Dissemination and Exploitation Strategy

Our dissemination strategy is premised on two-way communication with user groups and educational communities in all partner states. Wide dissemination and exploitation is ensured by the use of varied communication approaches for the different target groups. This includes face-to-face teaching, working through workshops and events, interacting through social networks and the website and also through presentations and publications. The aim is to make the wider educational communities aware of the work of the project and to be inclined and enabled to use the tools we are producing. This aim is supported by including user representatives within the project partner consortium and ensuring their feedback informs the development of the tools, leading to the production of useable learning materials, promoting student engagement through persuasion.

We have set up a wide variety of online dissemination avenues, allowing a large group of people to link with our project in their own preferred way of interaction. The main website is to be found at www.eplot.eu. This is the main portal for public dissemination, providing general information about the project and project partners, and will be the point of information and repository for webinars, exploitation workshops and any materials created from EuroPLOT. A page on Facebook (https://www.facebook.com/europlot) was created to provide a more informal venue for dissemination of project news and to link with the online technology-enhanced-learning communities, and a blog has been set up at http://europlot.blogspot.com/. This allows postings about the project, together with public comments and links to Facebook and Twitter (@europlot). We also have setup a LinkedIn group http://www.linkedin.com/groups/EuroPLOT-4455243 for networking on a professional level. Furthermore we have accepted the invitation to join the KA3 ICT collaboration community http://eacea-llp-ict.ning.com.

A set of formalised dissemination activities has been planned: A series of international webinars will encourage dialogue with the wider community. Two successful webinars have already been held on the topics of Persuasive Learning Design, and Learning Outcomes. Key findings from the project will be published nationally and internationally, and a final conference will be held in Leeds in October 2013 to present the work of the project. To aid sustainability, all web based resources will remain available for at least three years after the end of the project, and the social media plan will develop a community of stakeholders, which we hope will continue to grow beyond the life of the project.

Webinar Series

We have begun a series of free online webinars, informing possible stakeholders about progress of this project.

The first two webinars were held, and the recordings are available for viewing/listening:

24.April	Towards Didactic Variety - Learning Outcomes as a core element of	Peter Baumgartner,	recording (needs JAVA installed)

2012	Learning Design	Danube University Krems	
1.March 2012	An approach to Persuasive Learning Design	Sandra Burri Gram-Hansen, Aalborg University	recording (needs JAVA installed)

There are further webinars scheduled for the coming months:

June 2012	User experience of PLOTLearner	Aalborg Uni
September 2012	GLOMaker with a mobile foc	London Met
November 2012	Case study: chemical exposure scenarios	DHI
February 2013	Case study: business computing	Uni Hradec Kralove
September 2013	First strands of persuasive learning	Danube Uni Krems
October 2013	Outlook around the final EuroPLOT conference	LeedsMet

Information about the webinars is online: http://www.eplot.eu/webinars

This page also has the link for accessing the live webinar.

Papers and Publications

The consortium members will publish academic papers about their work in EuroPLOT and will disseminate results through the academic channels of conferences and journals. Several such papers have already been published:

N.Winther-Nielsen (2011). The Parker Excavations and the PLOT story. Presentation at the Ecole Biblique in Jerusalem. 13.April 2011.

E.Herber (2011). Persuasive Learning Design. Wissengemeinschaften Fachtagung (DelFI) 2011, Dresden, 7.Sept. 2011. Poster.

S.B.Gram-Hansen, H.Schaerfe, J.Dinesen (2011). Towards a Context Oriented Approach to Ethical Evaluation of Interactive Technologies. Interact 2011. Paper and Poster.

E.Guest, S.Golonka (2011). ULM Revisited: A semantic framework that incorporates syntax and informatino theory. Societas Linguistica Europeana (SLE 2011), Longrono, Spain. Presentation.

T.Boyle, N.Winther-Nielsen, C.Tøndering, N.Bergman, J.Metsämuuronen, H.Yliopisto, D.Lundsgaard Skovenborg (2011). Persuasive Learning for the Hebrew Bible. Society of Biblical Literature (SBL) International Meeting, London, 6.July 2011.

N.Winther-Nielsen (2011). Computer-assisted language learning from the Hebrew Bible. SBL Annual Meeting, San Francisco.

N.Winther-Nielsen (2012). Databases for research, training and teaching. Lorentz Colloquium on Biblical Scholarship and Humanities Computing. 12.Feb. 2012

The EuroPLOT consortium members are using the opportunity to present the approach in EuroPLOT to a wider community. For example, the poster presentation of EuroPLOT at the

DeLFI 2011 conference in Dresden, Germany, has outlined the main outcomes and the methodology of the project. In the presentation we demonstrated the value of persuasive design principles, referring in detail to some of Fogg's principles, and we discussed the impact that it can have on the design of learning resources and learning technologies.

Benefits for Users

There are several kinds of users who will directly benefit from the work in this project: the ones which are immediately involved with the testing and evaluation of the software tools and the persuasive learning designs, and those who learn about this project through our dissemination activities. These can be classified into the following four levels:

1. 16 teachers and approximately 640 learners from within the consortium.
2. Approximately 120 teachers and more than 2000 learners from outside the consortium but within existing networks of consortium partners.
3. At least 60 teachers and 1000 learners who knew about the project throughout dissemination and who decided to use the tools.
4. At least 500 others including teachers, policy makers and managers.

Project Outcomes & Results

In the first 18 months, the work in this project has focused on the theoretical aspects, the planning of the project, and on setting up the infrastructures for collaboration and dissemination.

The main result during the first half of the project has been the study of persuasiveness and the development of persuasive learning designs for the software tools. Two internal reports were authored: “Persuasion for Learning” (D3.1), and “Persuasion in Practise” (D3.2), in which the specifics of persuasive learning in EuroPLOT were outlined. The concluding report “Persuasive Learning Designs” (D3.3) which is publicly available contains an analysis of persuasive learning and the evaluation of the software tools’ capabilities regarding persuasiveness. This has contributed to objective 2 (development of persuasive learning designs), objective 3 and objective 4 (development of software tools and learning objects). This report is the basis for all subsequent work: the development of the tools and their expansion to host persuasive learning designs will follow the guidelines outlined in this report; furthermore, the case studies have already been considered in this report, and persuasive elements have been defined.

Based on these considerations, a project plan has been scheduled for the implementation and execution of the case studies. Language learning already has been tested with a preliminary set of tools, and the experience with this evaluation has fed back into the further development of PLOTlearner. The formal evaluation will begin in autumn 2012, after the second version of the software tools is ready for use.

Online Access

The main web site is www.eplot.eu . Here, all publicly available information about EuroPLOT is presented: updates, resources, results, publications, webinars.

For staying up to date, users can follow the EuroPLOT blog http://europlot.blogspot.com. we also have a Twitter account @europlot where we make short announcements.

A more informal access is given through the EuroPLOT Facebook page: www.facebook.com/europlot

A professional network group has been setup on LinkedIn: http://www.linkedin.com/groups/EuroPLOT-4455243

We also have joined the KA3 ICT Discussion forum with our own project page, and we have invited all our partners: http://eacea-llp-ict.ning.com

The main email address where we can be reached is: info@eplot.eu

Project Plan Delays

The production of the Dissemination plan D2.1 was delayed due to the Project Director's extended absence through illness, but this has had no detrimental effect on the work of the project during the first reporting period (first 18 months) as the dissemination would cover work that is to be delivered within the second reporting period.

The delivery dates of Persuasive Learning Designs, D3.3 and of Plotmaker v1 D4.1 both needed to be moved back. Through the work of Aalborg University on the Persuasive Learning Design Framework (WP3), it was found that to be really effective the Persuasive Learning Designs (PLD) needed to involve the test users in the case studies right from the start , rather than later in the process when it would be difficult to adapt to individual learning scenarios. To involve the user groups in this way needed more time than was originally planned, so D3.3 was moved back by 5 months from 31/10/2011 to 31/03/2012.

Moving this deadline would inevitably impact on D4.1, the first version of the PLOTmaker software as this needed to be based on the PLD's from D3.3. Therefore the deadline for this work was also moved back to 31/03/12.

This movement of timelines will have no negative impact on the rest of the work plan, because the testing of the tools within the case studies will be starting after the revision 2 of the software tools. The earlier inclusion of the case studies in the software tool design and the persuasive learning designs will ensure more realistic implementation of persuasive principles than originally anticipated.

Partnerships

This project draws together research and developments from different member states. This has the benefit that different approaches and mentalities in learning and teaching can be examined, and this helps to ensure that the "persuasiveness" is not linked to only one country or culture. The collaboration of institutes from different countries gives real opportunities for the transfer of knowledge and experience, as the sharing of different approaches and practises widens the general understanding of the application of technology for teaching and learning. Building into the test cases the need to transpose the outcomes both trans-nationally and trans-sector really will encourage a wider applicability of the EuroPLOT approach.

Consortium Participants:

The PLOT consortium comprises partners with expertise in the key areas of the project: persuasive design (P2), learning design patterns and frameworks (P1, P5, P6), learning object authoring (P1, P3) and tools (P2, P5), OER repositories (P1, Ps) and evaluation (P6). It also has partners from target user groups (P1-4).

Leeds Metropolitan University (P1) is the lead partner on this project and has expertise in developing learning objects (participation in 2 other European projects), practical experience in OER (institutional OER and repository projects), expertise in learning design patterns (led

national project), and in natural language processing and artificial intelligence applied to education (national project).

Aalborg University (P2) is hosting the Centre for Persuasive Design (hosting the Fifth International Conference on Persuasive Technology in 2010), is the originator of the EMDROS database and the 3ET tool. P2 also provides target groups of teachers in archival work, language learning and environmental science.

The University of Hradec Kralove (P3) has led several European projects on learning objects, particularly on their creation and distribution through repositories (for example, e-dilema.uhk.cz), and is experienced in using e-learning in teaching business computing.

DHI (P4) is an international consulting and research organisation, and brings expertise in the development of technical guidance and courses for vocational training, including the application of e-learning resources and tools and represents the target group on environmental science.

London Met (P5) brings experience from the Learning Technology Research Institute with an international reputation in research on learning objects and learning design, and they are developers of GLOmaker, a generative learning object authoring tool.

Danube University Krems (P6) has a large interest in OER, the development of e-learning taxonomies and learner centred design approaches related to learning environments, and has significant experience of evaluating educational projects and expertise in learning design and pedagogic frameworks.

Partnerships outside the Project Consortium

The project partners have links to other organisations through their professional network, which bring additional users into the case study evaluation.

Gothenburg University Oriental Institute will demonstrate how learning of small languages can continue online through persuasive learning technology using the self-tutoring text

Graduate School of Lutheran Theology, Madagascar will be testing for the EuroPLOT project, implementing the PLOTLearner for learning language from a text-database, and aims to reuse PLOTs in Malagassy with adult learning of Biblical Hebrew. Students have been selected who potentially may become future teachers and instructors and perhaps even specialize in research. We hope to use this project for capacity building and training of future teachers of the Hebrew Bible and specialisation in eLearning, and we believe that learning objects are a very important resource for global cooperation. We will hopefully by the end of the project have a full curriculum for Old Testament studies.

In addition to these two testing groups, there are now efforts to repurpose PLOTlearner for other languages, one of them being Greek.

Plans for the Future

The work from this half way point forward is to bring together all the strands of persuasive technology and persuasive design which have been created up to now, and work towards producing the re-useable designs that will help learners to learn more effectively. The four case studies have plans for the next six months (up to the next face to face partner meeting in November 2012 where we will review progress). They have tested the tools and made a 'wish list' of what they would like from the tools for their particular students and area of learning, and their feedback will further inform the software design on the two tools, PLOTmaker and PLOTlearner. The case studies will continue to implement the designs and confirm improvements. Evaluation will be conducted simultaneously with the tool development.

The main topics for the second half of the project are the finalisation of the software tools and the testing and evaluation of them through the four case studies. The software development activities will be conducted using the "Agile Programming" paradigm, which allows a rapid prototyping without a tight initial specification. This is necessary, because technology evolves rapidly, and therefore specifications will change during the course of the project.

The overall idea is to test the software tools in their 2nd revision, which includes persuasive learning designs and approaches, with the four case studies. The results from those case study evaluations will then feed into further revisions of the software, which will be available in April 2013. For the remainder of the project, these versions will then again be evaluated, and will also be disseminated to the public, to user groups, and general stakeholders in the technology-enhanced learning domain. The project will then conclude with a conference in November 2013, where all results from the project will be presented.

The overall work will follow the evaluation plan that has been outlined in Deliverable D7.1. For the next six months up to the next partner face-to-face meeting, here is what this means for each case study:

Kaj Munk Museum

This case study will feature an Augmented Reality (AR) applications based on a mobile application of PLOTmaker. A picture database will be created which will form the basis of this AR This will show the applicability of mobile/ubiquitous concepts as persuasive elements. Furthermore, the Emdros database of Kaj Munk's works will be used to provide access to the author's works. This will be done through collaboration of Aalborg University, London Metropolitan University, Leeds Metropolitan University, and the Kaj Munk Museum. The first tests are scheduled for September 2012.

Language Learning

A set of online interview sessions will be conducted in June 2012, and the first phase of the evaluation will be ready in August 2012. Then, from September on, the new PLOTlearner software version 2 will be tested in a class of 10 students, with 500 hours of work until the end of the year. Further on, the user groups in Gothenburg and Madagascar will be involved in the evaluation.

Chemical Handling

The next version of PLOTmaker will be used for developing and testing learning objects. Initial tests will already be conducted in June 2012 and will be continued in July and August.

Business Computing

This case study is a joint work between UHK and LeedsMet, who will coordinate their action. With the next version of PLOTmaker, they will refine the PLOTs and will continue the development of these learning objects for the business computing context. User tests will be started in September, and the evaluation will continue until December 2012.

Contribution to EU policies

EuroPLOT will primarily promote European cooperation in the areas covered by Erasmus and Leonardo Da Vinci, but will also demonstrate the application of the tools in the sectors covered by Gruntvig and Comenius. Leonardo is complemented as one of our key target groups are vocational learners and trainers, and the tools that are applicable to vocational contexts can be repurposed for another area. Erasmus is complemented as tertiary learners and teachers are our second key target group, where we will be working with them in four subject areas and seeking to apply experience here to vocational learners and others.

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