Lifelong
Learning
Programme

TRAILER (Tagging, Recognition and Acknowledgment of Informal Learning ExpeRiences)

Final Report   Public Part

Project information

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Executive Summary

The TRAILER project is directed at:

- Employees in companies and any other institution where people need to improve their competences in order to work in a more effectively.

- Learners in universities who need to achieve competences to enhance their future employability.

- The institutions and companies of which employees and learners are members. These organizations need more information about the activities carried out by their members in informal contexts and their associated competences. With this information it is possible on the one hand, to suggest, orientate, support, and design new training actions that match people's needs, and, on the other hand, to make decisions that affect both people and the companies.

The main objective of the project is to articulate the activity flow involved in the integration of informal learning as part of an individual's development. This starts with the identification by the learner of informal learning activities a subsequent process in which these are made visible to the institution.

In order to achieve this objective five Higher Education Institutions and a Training SME have participated in the project. They are:

- The University of Salamanca which leads the initiative and it is involved via the InterAction and eLearning Researching Group (GRIAL). This research group has extensive experience in the development of projects related to learning and knowledge management.

- The Universitat Politècnica de Catalunya, a partner with a long experience in methodological and technological areas, which is especially involved in the definition of the TRAILER project workflow and the technological support to it.

- The Open University of the Netherlands, with experience in projects related to competences and knowledge management. They contribute to several tasks and especially to the definition of the methodology and the development of an e-portfolio system.

- Instituto Politécnico do Porto is a technological partner with experience in remote labs which can be integrated as type of activity. In addition they bring their experience in the area to the coordination of piloting and dissemination.

- The University of Belgrade is a technological partner with experience in serious games, which are integrated in the ecosystem as an optional tool for gathering informal learning activities.

- The Dom Szkolen i Doradztwa Mykowska Aleksandra, a learning company with experience in content definition and distribution, that is in charge of exploitation strategies.

The partners participate in the definition of a methodology that facilitates:

1) recognition and publication of the informal learning activities of the members of an institution

2) enabling the institution to obtain knowledge about the competences of their members that would otherwise be hidden

3) establishment of communication channels based on competences, which allow that members and decision makers of an institution may discuss about the informal activities.

To carry this out first it was necessary to explore the current landscape of informal learning, which is done through several surveys and semi-structured interviews with companies provided by the partners contact networks. With this it is possible to obtain a perspective on informal learning in different countries of Europe. From this data, a workflow is defined and a technological ecosystem to support it was developed. The ecosystem integrates informal learning activities carried out in a Personal Learning Network (which can include, Internet websites, LMSs, remote labs, serious games, etc.). It is based in three main elements and a set of communication channels: a portfolio system, a competence catalogue and a decisions support system.

The ecosystem has been developed and analysed by experts during the first project year and then it has been piloted and evaluated by users in the second phase of the project. The partners have carried out two main pilots, one oriented to higher education context and one to companies and other institutions. Also during the second year, the final version of the system has been released, taking into account the feedback obtained in the pilots and now it is available in the project website.

The Project period was from January 2012 to December 2013. All information related to the development and outcomes of the project can be found in the following website http://www.trailerproject.eu.

TEEM 2013 (Technological Ecosystems for Enhancing Multiculturality) was the international conference organized as final event of the project. The website http://teemconference.eu/ offers all the proceedings of TEEM 2013 [1-2] and also information about TEEM 2014.

Following the closure of the project, TRAILER activities continue in the form of an association: TRAILS. Talking and Reflecting About Informal Learning Spaces (http://in-formal.org).

Table of Contents

1. Project Objectives

The main objective of TRAILER is to incorporate awareness of informal learning as part of an individual's development; starting with the identification by the learner of informal learning activities and the subsequent process in which these are made visible to the institution. This task is done by developing methodologies and tools that facilitate this process, making it transparent both to learners and institutions and allowing all the stakeholders involved to take the most of these processes.

This objective implies a series of related sub-objectives:

- To create communication channels between informal learning activity and institutional environments, which the learner will use to make the informal learning visible to the organization (employer or university) in order to enter into dialogue about the competences developed through these informal processes.

- To define procedures and tools with which the user tags instances of informal learning, and in doing so associates them with a predefined (but flexible) framework of competences.

- To create a space in which these tagged instances can be stored and then organised by the learner, in order to select instances or combinations of instances that the learner classifies as evidences of competence development and then chooses to make visible to the organisation.

- To provide the user with information about other users with similar interest, promoting social learning and collaboration between the users of the system.

- To facilitate, with a range of decision making and visualisation tools and an appropriate interface, the analysis by institution staff, such as tutors or human resources managers, of the information the learner has made visible, in order to be able to make suggestions and provide feedback and support to the learner, define possible formal and non formal actions in the light of the informal activity and enter into dialogue with the learner in relation to this activity with a view to possible promotions or recognitions of competences acquired.

- To plan and to implement dissemination actions involving all relevant stakeholders in areas such as vocational training, universities, adult learning contexts and workplace training.

- To plan and to implement exploitation actions that promote uptake of the system developed in areas such as vocational training, universities, adult learning contexts and workplace training.

The project is especially relevant to the field of informal learning recognition. By using the TRAILER methodology, informal learning experiences become transparent and useful both for the individual, who can thus monitor and justify to others the development of her competences, and also for the institution, which can follow the progress of individual and group competences, and identify emerging new

competences. In addition, these data can be used for social purposes, enabling learners to find other people with the same interests and skills, in such a way that recommendations can be made to them. The data can be used to provide relevant content and feedback to the learners to promote quasi-informal learning processes. Data are thus integrated into the institution workflow, facilitating evidence-based tutorial and institutional relations, and methodological processes that permit appropriate and timely dialogue between individual and institution. In this way the informal learning that takes place in each individual's existing personal learning network, makes a visible and recognizable contribution to the development of her range of competences.

2.   Project Approach

TRAILER is a project that facilitates the collection, tagging and analysis of data related to informal learning activities is presented. The approach is situated alongside a discourse around informal learning and the co-creation of knowledge. It is argued that the increasing fluidity of the information environment within which businesses operate necessitates richer internal reflexive communications within businesses, which entails deeper knowledge about the competencies of their staff. For learners and employees, the information environment also necessitates greater internal reflexivity and self-organization. TRAILER connects these two issues, and this means an important first step in adapting technologies to suit the needs of businesses, employees and learners.

TRAILER project defines a methodology based on a framework composed by three main elements, as seen in Figure 1. The core of this environment relies on the user's portfolio, which constitutes the nucleus and the space for user interaction with the whole system. This portfolio enables the user to tag, manage and storage learning experiences, skills and competences acquired both in formal and non-formal learning context, in a well structured but flexible environment, provided by the Competence Catalogue, which constitutes the second element of this ecosystem. The Catalogue is organized in order to provide users with a sum of pre-defined competences (general competences and institutional competences to be fulfilled by user's institution and user defined competences). Finally, the Informal Learning Collector, as the third element, consists of a tool with the aim of rapidly tagging events, information and contents throughout the Internet, in order to let the user manage a great amount of information, which could become part of Catalogue Competence as inputs or outputs related to such competencies.
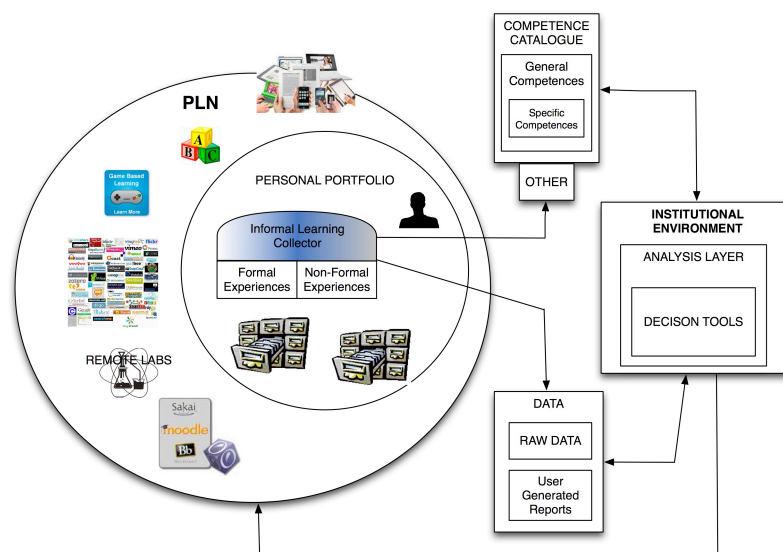

Figure 1. Methodological approach

To define this methodology it was necessary to explore the behaviours of the learners and institutions in the activities related to informal contexts. To this end surveys and interviews were carried out in order to gather data about how the learners consider their informal learning and the knowledge that the institutions have related to this kind of activities. This process has involved learners and people in charge of institutions of the different project partners, and from other countries too.

All the main components were implemented during the first year. In the following year, the components have been tested through several pilot experiences that have been defined at the end of the first project period. The defined components have been tested from a usability point of view at the end of the first year. In order to produce a working version of the system ready to be adopted by third parties, during the last six months of the project a final version of system have been deployed. Nowadays the final version is completely delivered within the scope of TRAILS, project exploitation association.

All TRAILER results are available through the official website of the project, http://trailerproject.eu. In addition, there are other TRAILER dissemination sites such as:

- Profiles in main important social networks:
    - Facebook – http://www.facebook.com/trailerproject.
    - Twitter – https://twitter.com/trailer_project.
    - Google+ – https://plus.google.com/117851857120649830001.

- A LinkedIn open group regarding informal learning experiences, informal competences and how this information can be used by companies and institutions (http://www.linkedin.com/groups/TRAILER-project-4446747).

- A Flickr group to share images related to the events of the project (http://www.flickr.com/groups/trailerproject).

3. Project Outcomes & Results

There are three main project outcomes.

First, the definition and application of methodologies and recommendations for the integration of informal learning both in educational institutions and the workplace.

The second outcome of the project is closely related to the first: the technological framework to support the management of the knowledge, formal and informal, in companies and educational institutions. This framework is named the TRAILER ecosystem and has evolved through the life of the project. The final version of the ecosystem is composed of three main elements, the Competence Catalogue, the Informal Learning Collector (ILC) and the Portfolio, but also includes other elements that complete the system and provide an environment to improve users' experience when they manage their knowledge (the institutional environment or Decision Support System, the educational game, the mobile version for the Portfolio and the ILC and several widgets to include in other online tools). The TRAILER ecosystem has two branches. On the one hand, an installation provided by the partners which is accessible to any user or institution interested in the project. On the other hand, there is a standalone version which can be installed and used by an specific institution.

The third outcome is a set of pilot actions that provide a complete vision of the project and which have been an important aspect of the development of the final version of the TRAILER ecosystem.

Also, a set of publications reflects the advances and evolution of the TRAILER project [3-20].

4. Partnerships

The consortium is composed by the following institutions:

- University of Salamanca - USAL (Spain).
- Universitat Politècnica de Catalunya - UPC (Spain).
- Open Universiteit Nederland - OUNL (Netherlands).
- University of Bolton - UB (United Kingdom).
- Dom Szkolen i Doradztwa Mykowska Aleksandra - DSD (Poland).
- Instituto Politécnico do Porto - IPP (Portugal).
- University of Belgrade - GB (Serbia).

All the members of the consortium have proven expertise in different areas covered by the project –methodological partners (UPC, USAL, OUNL), technical partners (UB, UPC, OUNL, IPP, GB), partners with institutional contacts and experience (DSD, UPC, IPP), and partners with European management experience (USAL, UPC, OUNL, UB)– and the capacity and skills necessary to achieve the project objectives. In addition to this, such partners have participated together in several other projects; for instance, USAL and OUNL have worked together in an Regional Excellence Project and OUNL and UB have worked together in the TENCompetence project, these relationships add value to the consortium.

The University of Salamanca is the leader of the project. This institution possess experience in leading and participating in European, national and regional projects, as so as research experience in different areas in the fields of eLearning, LMS adaptation, mLearning, content definition, digital portfolios, interoperability, interaction, Personal Learning Environments and visual analytics.

The Universitat Politècnica de Catalunya has a extensive experience, among other areas, in mLearning, Personalization, Interoperability specifications and Standards, Learning Services and in Methodologies application.

The Open Universiteit Nederland has a range of experience, among other areas, in: lifelong learning, personalization, portfolio, learning in the work-place, informal learning, recognition of previous competences, learning networks, serious games, mobile learning, standards and specifications and so on. Also, they have participated in projects related to competence recognition such as TENCompetence.

The University of Bolton, through the Institute for Educational Cybernetics, has particular experience in the following areas: Personal Learning Environments, Learning specification and standards and analytics.

The Dom Szkolen i Doradztwa Mykowska Aleksandra is a Polish training centre that participates in tasks related to the institutional environment and companies competence, because of its extensive experience working with educational institutions.

The Instituto Politécnico do Porto has wide experience in higher education adaptation, informal tools, learner interaction and remote laboratories. They are responsible for the pilots and also for the recognition of the remote laboratories activities in the system.

Finally, the main contribution of the University of Belgrade is the integration of game based learning with the system.

With this consortium, and through the methodology definition and the exploitation and dissemination, it has been possible to establish contact with learners and institutions of the different countries, with different cultures and perspectives about informal learning and how it can be used.

5.   Plans for the Future

The **TRAILS** association has been constituted at the end of the project as an interest group open to stakeholders interested in formal and informal learning research and development.

- The name of the association is TRAILS: Talking and Reflecting About Informal Learning Spaces.

- The activity will be developed by way of the association website: http://in-formal.org, a WordPress environment.

- The mission of the association will be to promote conversations and reflections about informal learning. The existence of TRAILS will provide for the future sustainability and cross-fertilization of the work started with TRAILER.

International final event: TEEM 2013

Following the success of TEEM 2013 (http://teemconference.eu/2013/), in both scientific outcomes and human relationships and cooperation opportunities, a new edition of this event will be held in the Research Institute for Educational Sciences at the University of Salamanca (http://iuce.usal.es) October 1-3 2014.

6.   Contribution to EU policies

TRAILER links to a number of EU objectives and strategies. The project facilitates a methodology to make learners' informal activities transparent to the institution. This valuable information can be used in decision making, for example to improve internal employees' promotion or find better training investments.

Specifically, TRAILER contributes to:

1. **Making lifelong learning and mobility a reality** – ET2020 and Bologna Process. TRAILER makes visible activities that usually are hidden from institutions, but are highly relevant to them. These are carried out by people who may be remote from their institutions.

2. **Improving employability** – It is possible to apply this system to enable institutions to look for people with a specific set of competences and also to make public which kind of competences they are looking for in future employees. In addition, the TRAILER project facilitates improvement in the profile of the workers of a company, which can be linked to promotion in their job.

3. **Educational Research and Innovation** – The TRAILER workflow facilitates a dialogue between the institution and its members about the informal competences in a different and innovative way. Moreover, to know the needs of the members can lead to changes in the organization training programs that will better fit the needs of all stakeholders.

7.   More information

Several public spaces provide information about the project and promote the idea and the TRAILER tool:

- Talking and Reflecting About Informal Learning Spaces (TRAILS) http://in-formal.org

- First International Conference on Technological Ecosystems for Enhancing Multiculturality (TEEM'13) http://teemconference.eu/2013

- The project website and the different social profiles:

  o http://trailerproject.eu

  o http://facebook.com/trailerproject

  o http://twitter.com/trailer_project

  o https://plus.google.com/+TrailerprojectEu

  o http://www.flickr.com/groups/trailerproject

  o http://www.linkedin.com/groups/TRAILER-project-4446747

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