Tagging, Recognition, Acknowledgment of Informal Learning experiences (TRAILER)

KA3 Multilateral project

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Abstract

Learners do not only learn in the institutions, they learn during their live in different contexts, with different resources and from the interaction with different persons. This kind of learning that is not always intentionally carried out is known as informal learning. The application of Information and Communication Technologies to learning and teaching processes facilitates making visible such kind of learning for the institutions. However the nature of formal and non-formal, course-based, approaches to learning has made it hard to accommodate these informal processes satisfactorily. The project aims to facilitate first the identification by the learner (as the last responsible of the learning process), and then the recognition by the

institution, in dialogue with the learner, of this learning. To do so a methodology and a technological framework to support it have been implemented and tested.

Keywords: *Informal Learning, Service-based framework, Personal Learning Network, Decision Making*

1 INTRODUCTION

Learning is something that is not always linked to an institutional environment. Learners learn along their life, from the experience, interacting with peers, looking for information in the Internet, etc. These are learning activities that take place outside the institution and can be planned or not. This kind of learning is known as informal learning.

Technological and organizational innovations, and the affordances of the Internet, are facilitating increased access to knowledge and training for individuals that range from formal courses to informal ad hoc learning. However, the greater part of the informal learning that takes place, both within and outside institutional and organizational contexts, remains unacknowledged. Though informal learning has always taken place, the advent of ICT and, particularly, social media approaches, have facilitated these processes and, at the same time, have made them more visible.

Informal is increasingly seen as an aspect of learning that deserves special attention, because of: 1) The recognition that the Bologna process is giving to informal learning [1] as a basic element in lifelong learning; 2) The pressing need to be able to demonstrate learning that in many cases is obtained by observation and experience [2]; and 3) because of the emergence of the Internet, mobile devices and 2.0 Web tools that facilitate such kind of learning [3-5].

In the workplace the recognition of informal learning is especially relevant because of different factors. Among others [6, 7]: it enhances employability and produces positive benefits for managers and companies; it can develop task skills and knowhow and communicates "social" norms and preferred patterns of behavior; It gives employees the opportunity to learn and keep their skills up-to-date, while being part of the overall workplace culture rather than just its training regime; etc. These issues lead to an interest in informal learning from corporate world, driven by the desire to capitalize on the intellectual assets of the workforce, to manage organizational knowledge and in recognition that informal learning may prove a cost effective way of developing competence [2].

There are several initiatives that try to facilitate recognition and assessment of informal learning. However they are mainly focused on the validation of informal learning and, particularly, on the development of issues relating to certification and qualification with a view to the recognition of competences. Less attention is paid to aspects relating to the support for, and facilitation of informal learning so that learners can integrate it in their portfolio. Though the recognition, conceived as certification of informal learning, is important, it is necessary to go beyond it in order to move towards its integration with other learning contexts and, in order to do so, TRAILER (Tagging, Recognition and Acknowledgment of Informal Learning ExpeRiences) project is defined.

TRAILER project [8-10], an ICT multilateral project funded by the European Commission, started on January 2012. For two years, a group of researchers from seven European institutions are working together to develop an innovative ICT-based service, which should allow the learner to identify episodes and evidences of informal learning and which should allow the institution to recognize those informal learning activities in dialogue with the learner.

This work presents a description of TRAILER project, its main objectives and outcomes, and also outlines some conclusions of the project.

2   DESCRIPTION

2.1   Objetives

The main objective of the project is to incorporate the consciousness of informal learning as part of an individual's development; this starts 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 will be done by developing methodologies and tools that will facilitate this process, making it transparent both to learners and institutions and allowing all the stakeholders involved to make the most out of these processes.

2.2   OUTCOMES

The TRAILER project involves learners and institutions. 'Learners' may be workers in a workplace, or traditional learners in an educational institution. Through transparency of communication, the TRAILER environment enables discussion between the different stakeholders and institutions concerning informal learning activities, the associated competences and how this information can be exploited. In order to achieve this, a staged methodology supported by a technological framework has been deployed, so this are the two main outcomes of the project.

The TRAILER methodology comprises a framework with several components and interfaces to make possible the interaction required [8]. The framework is described in Fig. 1 where it is possible to see a Personal Learning Network (PLN) that groups the tools that the user employ to learn in an informal way such could be Wikipedia, Youtube, Games, Social Networks, LMS, Remote Labs, Expert Forums, Twitter, etc [11]. One of the tools included in such component is the portfolio in which informal, non-formal and formal learning experiences can be stored and published [12]. Such tool has an interface to facilitate gathering informal learning activities the informal learning collector (ILC). On the other hand there are several institutional tools. These are: a Competence Catalog that facilitates a way to categorize informal learning experiences taking into account learner or institutional perspectives; an Institutional Environment that facilitates the analysis of the published information in order support dialog with the learner and to facilitate decision-making concerning learning issues within the institution (for example, accreditation processes) [13].

Given this framework the starting point of the TRAILER methodology is the moment in which the user carries out an online activity, which may have a bearing on a competence. The learner can identify and match an activity with the set of possible competences presented by TRAILER, or store it and identify it later. The processes of collection, inspection and reflection result in a methodology with 3 stages (Fig 2.) [14]:

1. Identification and Storage. It implies that the user classifies the activity taking into account a competence catalogue that includes general competences, institutional competences and competences defined by the user. After that the identified activity is recorded in the portfolio.

2. Organization. Once the information of the ILA is stored, it can include information about the associated competences or can require organizing it by employing the catalog. In addition, once it is stored, it can be classified into the portfolio in different categories or views. When the information is properly organized it can be published to the institution, with the

learner determining what is published and to whom it is visible. With this information, institutions can conduct analyses on competencies, or the user could find peers with similar interests and/or worries.

3. Analysis. The public published information can be analyzed in order to make decisions about the learning requirements, tools and contents used by the institution and the skills a user has, taking into account a specific individual or a group. The publication of information and the views of the portfolio facilitate a common analysis of the gathered information, which can facilitate a dialogue among the stakeholders. The analysis system can produce recommendations regarding institutional skills or knowledge gaps or personal recommendations for the learner/employee [15]. With this dialogue and recommendations, a global portfolio of knowledge can be co-created between the user and the institution. The components involved in this stage are the Portfolio, the Catalogue and the Institutional Environment.
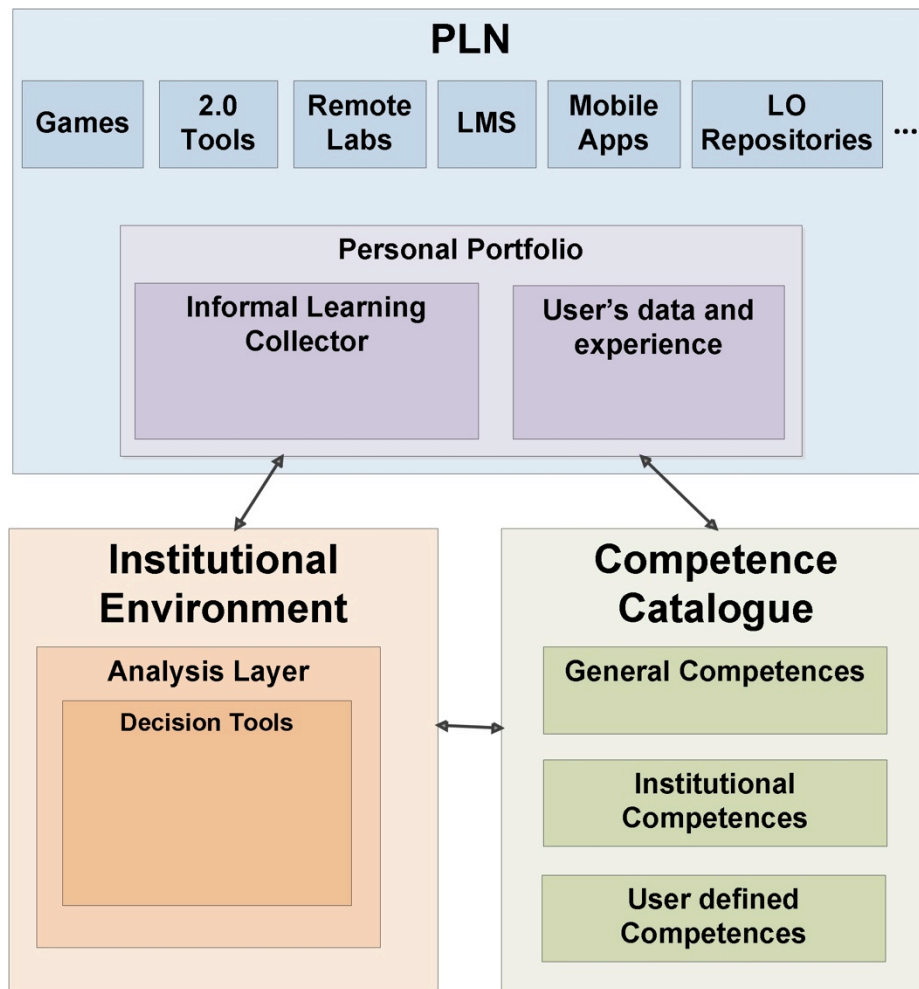

Fig 1. Technological framework to support the methodology that includes a Personal learning Network which integrates a portfolio system and some institutional tools such as an institutional environment and a competence catalog [8]

2.3 EVALUATION AND RESULTS

In order to ensure the validity of the methodology and the framework several evaluation activities were needed.

Firstly, it was necessary to evaluate usage information and expectations that students have on informal learning. This was done trough some surveys and interviews with learners and people in charge of the institutions. From this activity the conclusion was that the institutions and even more so the companies see the informal learning as something useful that should be taken into account, they do not have the necessary protocols and tools to support its validation and recognition [8]. The methodology and the technological framework were necessary.

Secondly the framework was implemented as a proof of concept. This was done in order to validate the framework before to carry out different pilots. The implementation was checked by a panel of experts taking several usability factors into account. Through this testing it was possible to discover several breakdowns that were solved before the pilots were carried out [16] and to improve the usability of the implementation developed.

Finally several pilots were carried with different organizations, taken into account the companies and learners perspective and the allow us to show the validity of the methodology and the technological framework, however it would be desirable to improve the implementation carried out in order to make the dialog easier and more transparent [17-22].
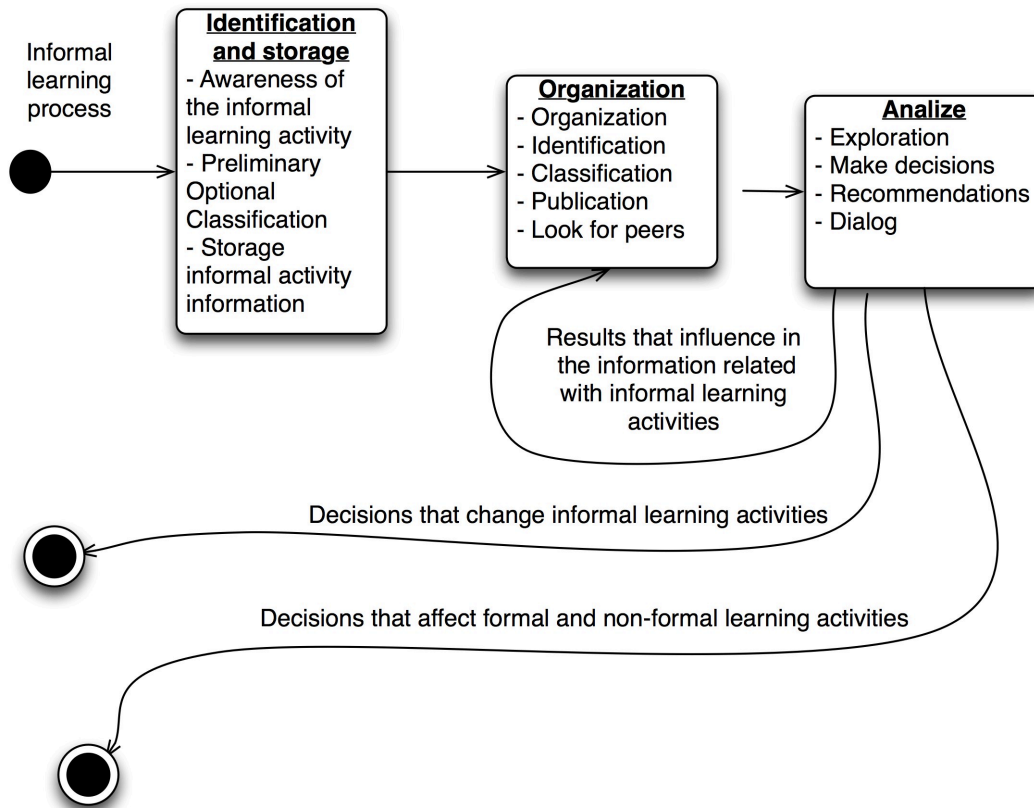
Fig 2. Stages of the methodology that facilitate dialogue to recognize the informal learning activity among the learner and the institution and thus facilitates the co-creation process of a competence portfolio for the institution and the individual

3   CONCLUSIONS

Nowadays informal learning has gained special attention and has specially impact in the workplace and educational contexts. Employees need to show what they have learnt beyond the institution in order to promote in their jobs and/or find new ones. In addition the institutions needs to know the competences their employees have, in other to make decisions and to determine

the tasks they can or cannot carry out. In the case of learners they can show to the institution what they know and the people in charge of them can adapt learning pathways depending on this knowledge background. This implies the articulation of a dialogue related to informal learning activities between employees/learners and people in charge of institutions. TRAILER project facilitates a methodology and a technological framework to do this.

The framework has been implemented as proof of concept and tested through several pilots. The results show that a dialogue based on informal learning between the institutions and their learners is possible. However other challenges are still open such as if the informal learning is really being considered in the companies, if what is needed is a technological solution, if it is necessary to measure and recognize all person merits, etc. From a technological point of view the system can be improved introducing ways to deal with competences ambiguity, sematic layers enhance the decision support system and to propose competences to the learners, etc.

Finally it can be said that TRAILER project facilitates a dialogue to make visible informal learning but there is a need to see how informal learning can be really exploited.

4   ACKNOWLEDGMENTS

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