

A Semantic-based Knowledge Platform for Knowledge Updating of Employees in the Do-It-Yourself (DIY) Industry via Microtrainings: RELOAD

Abstract

The European funded project RELOAD aims at developing and implementing new blended learning concepts for less qualified employees in the Do-It-Yourself (DIY) industry so as to introduce them to self-directed and multimedia-based learning.

For this purpose RELOAD uses a Knowledge Platform, on which the multimedia based learning contents are connected and related in a semantic net. These contents are prepared as so called Microtrainings which are short learning units. The Microtrainings contain eLearning modules which are prepared as multimedia learning sequences like 3D models, audio- or video sequences or interactive modules. The employees can learn by accessing the Knowledge Platform during their daily working processes. In a blended-learning approach, self-learning processes are to be supported by experienced colleagues or trainers and by learning in groups.

1. Introduction and Background

With an approximate annual business volume of 37 Billions Euro in Europe the DIY branch is an important economic factor in the European Union. For this reason RELOAD focuses on the vocational training of the employees of the Do-It-Yourself (DIY) stores and their consulting skills. This plays a particularly important role in this sector as they communicate directly with the end customers in sale consultations. But as a matter of fact many employees and consultants in the DIY stores are un-trained low qualified or workers from outside the sector.

To be commercially more successful in this sector, the employees have to inform the customers about how to use and apply products more efficiently on the one hand. On the other hand the DIY industry has to deal with a variety of product information which needs to be updated constantly.

Besides this fact there are costumers who are mostly well informed through the Internet. The knowledge acquisition behaviour of the customers is a consequence of the so called „Edu-Commerce“ which is a hybrid form of eLearning and eCommerce. Therefore it is essential for the DIY stores to train their employees at least as good as the customers to ensure a good

quality of consulting services. Furthermore for this sector the maxim is true that “the knowing customer buys more”.

2. Project Objectives

For the challenges described above, RELOAD will establish a Knowledge Platform as a multimedia and semantic-based solution in the DIY stores, which contains eLearning modules to enable the employees to learn “on the job” on a self-directed and efficient way. The project primary aims at untrained and less qualified employees in the DIY-sector, who are not used to self-directed and media-based learning. A special didactical approach is required in RELOAD to motivate this target group.

To ensure an effective learning process for the target group a blended learning concept was chosen which supports self-learning processes accompanied by experienced colleagues while it takes place as collaborative learning in the group. The interaction with the Knowledge Platform, the Microtrainings and the support of experienced colleagues or trainers assure the motivation of the learners. These Microtrainings can be integrated into daily working processes more easily than common types of learning e. g. the teacher-centred learning.

Further on, RELOAD wants to support companies on their way to become a learning organisation and increase the service capabilities of employees. Therefore, the long term survival ability of the participating enterprises will be increased.

The application of the Knowledge Platform as well as the participation in and the creation of the Microtrainings implicates that the workplace of the future is differently formed and is better adapted to the new challenges of lifelong learning processes.

RELOAD has a term of two years and is coordinated by a well known European Technical University. The European DIY-Retail Association (EDRA), producers and DIY stores as well as scientific partners from the education and IT sector in Europe are part of the international consortium.

3. Methodology and Technology Used

The service website “www.k-21.net/baumarkt” provides a basis technology for the RELOAD Knowledge Platform. A centralised data pool with course and learning units concerning various DIY products has been created in close cooperation with the academy “Bauen & Wohnen” (build & live), which is a federation of German DIY branch experts.

RELOAD is an innovation transfer project applying existing technologies and concepts and doesn't aim to “reinvent the wheel”. The **Knowledge Platform**, mentioned **above**, will be used and **developed further**. The addition of Microtrainings as multimedia-based short learning units which was conceptualised in another European project will complete this Learning and Knowledge Platform. The innovation of using blended concepts and their transfer to the DIY branch is one of the unique selling points of this project.

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Microtraining is distinguished as an innovative concept which helps employees of the DIY-branch to cope with the increasing information of the manufacturers faster and integrate this information into the consultation of customers. The Microtraining learning units are integrated into this platform and are characterised by high applicability and by the attempt to reduce the units to a minimum regarding time-consumption.

The Knowledge Platform is based on a semantic net to offer flexible and non-linear ways of learning to the learners. The contents of the Platform are connected and related as instance of classes and objects to each other. The semantic-based Platform contains vital technical information about certain products like electronic tools e. g. a drill machine. This information will be visualised via the Microtrainings which are imbedded on the platform as animations, 3D models and video- or audio sequences. After learning with the help of these Microtrainings, the employees have to pass a web-based test that verifies their knowledge. After finishing the test-phases successfully, a certificate can be obtained in a final demonstration confirming the Microtraining graduation.

4. Conclusions and Summary Recommendations

A self-directed and media-supported learning is allowed to the employees of the DIY branch by the didactics specifically designed for the target group. It also enables the employees to handle the customers' rising need of information.

By a detailed needs analysis and customer strategy workshops for the employees of the DIY-markets, a didactical concept was conceived for the target group. Based on these results, the first pilot phase will start in the participating DIY markets in August 2008. After the Knowl-

edge Platform with the integrated Microtrainings is implemented in the DIY stores a first evaluation and acceptance test will follow in September. The results of these analyses will be presented at the conference in Stockholm in October 2008.

5. References

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