

Professional Learning in Europe and beyond Structures for sustainable TEL-Research

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Abstract. This paper outlines how the Network of Excellence in professional learning (PROLEARN) influences European and world-wide research in the area of technology enhanced professional learning. Two new European projects, iCamp and Prolix serve as excellent examples of the impact of PROLEARN. The establishment of the professional learning cluster (PRO-LC) that bases on PROLEARN and its results further proves the urgency for a European wide organization in the area of research in technology enhanced professional learning.

Network of Excellence in Professional Learning – PROLEARN

While eLearning is increasingly influencing university and workplace education in Europe, several critical issues still have to be solved in order to achieve the full potential of technology enhanced learning in many of these learning scenarios. The EU/IST FP6 PROLEARN Network of Excellence in Technology Enhanced Learning (<http://www.prolearn-project.org/>) is focussing on these issues, and advancing the state of the art in this area, through a large concerted effort of more than 350 research institutions and companies working together in the PROLEARN Consortium and as PROLEARN Associated Partners. The PROLEARN key areas cover the use of software systems like brokerage platforms and services, appropriate business models and networks for specific markets, and advanced workplace arrangements integrating eLearning and knowledge work management with social software. Key issues also involve advanced production, deployment and exchange of professional learning resources and the use of these learning resources for professional training in small and medium-sized enterprises (SME) and larger companies.

It is the goal of the PROLEARN Network of Excellence to substantially increase the interlinking between these communities and to integrate the various research communities as well as eLearning providers and companies through joint research,

grand challenge workshops, best practice forums and initiatives for enhancing the quality of eLearning in crucial application areas. In the context of the PROLEARN *Academy*, the PROLEARN summer schools specifically target young researchers and professionals to advance their knowledge on the state of the art in technology enhanced learning, as well as their networking in a joint research environment. The PROLEARN Virtual Competence Centre embeds consulting services, dissemination and networking initiatives between research and company partners, and tightly couple advanced research and application scenarios for technology enhanced (workplace) learning in the PROLEARN context [5].

Two PROLEARN driven results clearly show the impact of its identified future developments inside and outside the participating partners. Inside the consortium, PROLEARN established a new working area on Social Software to address the emerging research issues. Based on the understanding that knowledge management and professional learning are tightly coupled, the PROLEARN partners will investigate the use of social software in the context of professional workplaces and how it supports the creation of social networks and communities.

While social software was not intended to be used in the context of Professional Learning a lot of challenges are raised by the enormous acceptance of these technologies by the people. The integration of social software within learning management systems and professional learning settings requires an intensive discourse between practitioners, professionals, and scientists from both. The established project iCamp (<http://www.icamp-project.org/>) addresses these needs in its research by creating an infrastructure for collaboration and networking across systems, countries, and disciplines. It is specifically targeting higher education, research bases on constructivist learning theories that put emphasis on self-organized learning, social networking and the changing roles of educators.

The area of competence modelling, development and the integration into professional learning is also one of the established focus areas in PROLEARN. It is becoming obvious that competency models can facilitate the combination and integration of work and learning scenarios. In this context, PROLEARNs partner were able to successfully propose the EU/IST funded integrated project PROLIX (<http://www.prolixproject.org/>) that aims to combine business with learning processes. The past has proven that effective business operations can only be reached by critically rethinking organizational structures and business processes focussing on an optimized relation to internal and external target groups [4]. Promising concepts for the acceleration, cost reduction and transparency of business processes result from the process-oriented approaches such as Business Process Reengineering [2] and Continuous Process Improvement [3; 7]. The implementation of enhanced or new (designed) processes – usually supported by adequate ICT infrastructure – shall lead to the targeted improvements of efficiency and effectiveness. While setting up such new processes, the impact of knowledge and competence is still frequently neglected or at least not well supported. As the knowledge at the workplace affects exceedingly the execution of business processes and its performance, it should be in the centre of contemplation: The employees act as a central resource that holds the companies “intellectual asset”. Thus, their current qualification as well as the constant enhancement of their knowledge constitutes an important precondition for process optimization and its benefits. Therefore, the inherent mutual interdependencies

between business processes and corporate training ask for accommodation by developing methods, technologies and tools to implement this linkage.

In order to leverage the true potential of technology enhanced learning within companies, PROLIX considers tight integration between corporate training efforts and the business processes carried out at the workplace of paramount importance.

Furthermore, the newly established professional learning cluster (PRO-LC) integrates the relevant European projects in the area of professional learning to achieve an even tighter integration of the European research area. PRO-LC facilitates activities of the participating projects in areas like dissemination and standardization, but also aims at identifying new research topics and striking up new research areas.

Naturally is PROLIX together with PROLEARN a founding member of the PRO-LC cluster. How these projects will work together within the PRO-L cluster will be described in the next chapter.

Professional Learning Cluster – PRO-LC

The Professional Learning Cluster (PRO-LC – <http://www.professional-learning-cluster.org/>) clusters the major European research projects in the area of Technology Enhanced Learning focusing on professional learning. It is driven by the recognition of the EC that the communication between research areas must be one of the priorities in Europe [6]. In establishing and organising the cluster, we put into practice the suggestions of communicating European research as developed by the European Commission and outlined in [1]. Beside PROLEARN, iCamp and PROLIX the cluster consist of the IP PROLIX, APOSDLE and TENCompetence, the Specific Targeted Research Project COOPER, BASE2 as well as the affiliated projects “Embedding ICT/Multimedia Standardisation Initiatives into European Vocational Training Development Strategies” (Leonardo-da-Vinci), EUCAM (Multilingual Communication in European Car Manufacturing). The close cooperation of these projects will increasingly strengthen European research and industry in the area of technology enhanced (professional) learning, e.g. through joint work in standardization bodies like CEN/ISSS and IEEE, e.g. the standardization of the Simple query Interface (SQI) for federated search.

Each project targets specific aspects of technology enhanced professional learning. For example, PROLIX will provide solutions for the modular combination of eLearning environments with business process modelling tools, TENCompetence (<http://www.tencompetence.org>) will support lifelong competence development of individuals, teams and organisations by developing a service-based and open source European infrastructure. APOSDLE (<http://www.aposdle.org/>) will enhance knowledge worker productivity by supporting informal learning activities in the context of knowledge workers' everyday work processes and within their computational work environments.

The main goals of the professional learning cluster are the provision of a forum for communication within the projects, joint forces in dissemination and best exploitation of results, standardization, and sharing research results with the focus on future

developments in TEL. The participating projects are supported by the European Commission.

Joint activities include coordination and dissemination actions. Apart from the standard tool for cooperation like joint mailing lists, we envision joint project meetings and workshops to exchange and discuss the research findings and identify new challenges. Furthermore, we will jointly identify and define target groups and ways on how to promote our findings among them to bridge the gap between science and implementation in real learning environments. The target groups will enable the cluster to promote its findings tailored to the requirements of each group, thus improving the throughput of research findings from academia into industry. At the same time, this linkage of industry and academia will allow for the simplified intake of requirements from the industrial and economical world into research, so that the influence of industry on ongoing and emerging research fields improves significantly.

Conclusion

This paper outlines the evolution of PROLEARN inside the consortium and outside. With the establishment of the research area on social software PROLEARN tackles the most recent and emerging future research needs stemming from combining advanced knowledge management with professional learning. By focussing on competency modelling and knowledge workers PROLEARN establishes a tight coupling also into the third key area of professional learning, namely direct business and industry needs. The PRO-L cluster will provide the necessary sustainability for PROLEARN to carry its work on after the initial EU funding in an established excellent joint European research network.

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