Learning Networks for Professional Development: Current Research Approaches and Future Trends

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Introduction

Learning networks are technology supported communities through which learners share knowledge with each other and jointly develop new knowledge (Sloep & Berlanga, 2011). This way, learning networks enrich the experience of continuous professional development and lifelong learning. Examples of learning networks for professional development are communities of employees who want to improve customer services, lawyers who want exchange knowledge and experience, and communities of teachers who exchange their experiences and seek for collaboration.

Learning networks that support activities for educational professionals is enjoying increasing interest, see for instance Cloudworks (<u>http://cloudworks.ac.uk/</u>), Tapped-In (<u>http://tappedin.org</u>), or eTwinning (<u>www.etwinning.net</u>). However, the full potential and added value of these networks could be maximised if new frameworks, tools and techniques would be developed (Schlager, et al., 2009).

A case in point is the European project Teacher's Lifelong Learning Networks (Tellnet). This project aims to study professional development networks by exploring analysis and visualisation techniques to identify relevant structures and patterns, and to specify performance indicators for facilitating collaboration, innovation and creativity of teachers. Tools are investigated to foster peer-support, collaboration, and increase social capital. Moreover, specific future scenarios on the role of teacher networks for learning are developed, bringing together the evidence found with emerging social and technical trends in Europe.

The above mentioned eTwinning network is taken as study case. eTwinning promotes teacher and school collaboration through the use of ICT. It is a large online network (over 150.000 European teachers) in which teachers can work with each other and learn from each other. Through this network, collaborative cross-border school projects can be started on a wide variety of subjects, e.g. having multiple primary school students working together and learning about different cultures. Additionally, teachers can attend a variety of professional development activities, such as online Groups or Learning Labs to improving both personal and professional teaching skills.

The aim of this symposium is to present current Tellnet efforts that aim to understand and enhance learning networks for professional development. This includes contributions that attempt to answer questions such as: how network learning can contribute to successful continuous professional development and competence building? How could learning analytics be used in order to identify benefits of learning networks, such as social capital? What will be the role of networks in the coming years? Answering these questions requires a holistic approach that considers pedagogical and technical underpinnings, as well as individual, social and organizational aspects.

The three papers presented in this symposium discuss these issues exploring different techniques, proposing new tools, and conducting prospective studies:

1. The paper "*Learning Analytics in a Teachers' Social Network*" presents a new approach of Social Network Analysis to identify metrics that can discover teacher's social capital and the evolution of communities. It presents an approach, validated in eTwinning, that explores network properties with selected centrality measures, and collects and observes the large network data set about members' interactions.

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- 2. The paper "Supporting Teachers' Networked Learning Skills for More Online Engagement" elaborates on the technological affordances that are needed to foster participation in networks. It explores how technology can help to deal with the problem of members' engagement in learning networks. The paper presents an approach that focuses in knowledge articulation, and the supportive tooling that can be offered to individual learners for this purpose.
- 3. The paper "*Teacher Collaboration in the Context of Networked Learning. Current eTwinning Practices and Future Perspectives*" elaborates on the role of professional networks in the coming years. It presents an overview of emerging trends and challenges for teacher networking based on a review of existing literature and on consultations with stakeholders. The paper argues that eTwinning is an important case study to take into account when discussing the future of teacher collaboration networks.

The symposium has, furthermore, a keynote by Riina Vuorikari: "*Studying Informal Technology-Mediated Learning Networks: A Case Study on eTwinning Analytics*". The keynote outlines the context for the Tellnet research and its chosen methods to study professional social networks (e.g. social network analysis, information visualisation, future forecasting), and illustrates the value of analysing users' interactions with various tools and interfaces to provide insights into professional networks regarding cooperation and collaboration.

References

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