

## ECER 2014: The Past, the Present and Future of Educational Research in Europe

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### **Personal Learning Networks (PLN) in emerging distance education environments: genesis and dynamics of the PLN in a community of researchers**

#### Author Information

Nuno Ricardo Oliveira (presenting / submitting)

Universidade Aberta

Alpiarça

Lina Morgado

Universidade Aberta, Portugal

Author(s):

[Nuno Ricardo Oliveira](#)(presenting / submitting)

[Lina Morgado](#)

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## Contribution

This research project addresses issues related to what is currently the digital identity of the researcher in the field of Online Distance Education and eLearning and his/her personal learning environment, researching the genesis, management and dynamics of the personal learning network of each member in a community of researchers.

For an effective contextualization of the problem, the study involves the analysis of three concepts: digital identity, personal learning environment and personal learning network. It seeks to answer the following main question: How does the researcher create, manage and stimulate his/her digital identity to build his/her Personal Learning Network (PLN)?

This main question is intended to address the following objectives:

- To identify the PLN of researchers in a research community, in order to identify how they handle its construction, management and dynamics;
- To identify the researchers' digital identity;
- To define how students identify and create the online relationships for their PLN;
- To identify the structural factors that enable a collaborative learning through a PLN.

Learning collaboratively through a network of social connections depends on the correct use of digital media by researchers (Castells, 2001). Hence, there is a tendency to optimise learning by using digital technologies made available to the individual through the network. The evolution raises an awareness of the need to promote new ways to learn, collaborate and disclose one's work, as part of his/her digital presence, both personally, academically or professionally (Costa & Torres, 2011). Digital presence is the creation of a Digital Identity through the presence the researcher has in the several web spaces he or she is registered in and where he or she publishes something of his/her own, such as the social networks.

To sum up, the technological evolution poses new challenges to education and researchers, as we live more and more connected. The network is composed by individuals that are part of our daily lives, with whom we share interests, resources, ideas, hyperlinks and insights, among others, but who essentially enrich our professional, academic and personal life (Weller, 2011). Sharing happens mainly through the social networks and Web 2.0 tools, that promote and make it easier to edit, simulate, comment, share text, sound, image and video, stimulating and adding value to the Personal Learning Environment (PLE) and network learning (Mota, 2009b), enabling a collaborative and open learning through each person's Personal Learning Network

(PLN) (Brown, 2002). Each researcher's PLNs enable the access to knowledge and experts 24 hours a day (Richardson, 2013).

The PLN allows the individual to learn and, thus, to improve his or her practice, in a networked environment (Castañeda & Adell, 2013b; Costa, 2010; Costa, Keegan, & Attwell, 2009). According to Costa (2011), PLNs are essential to create interactions among individuals, through the Web 2.0 tools. Holding an online PLN contributes for self-emancipation.

Rajagopal, Brinke, Bruggen, & Sloep (2011) have conducted a study to present a professional networking model to create a Personal learning Network, based on Johnson (2008) and Nardi, Whittaker, & Schwarz (2000) have demonstrated the importance of interaction among professionals and experts, for a more prolific learning. Based on a qualitative research on the role of tridimensional virtual environments on creating and developing a PLN, Nikolaou & Tsolakidis (2013) concluded that digital evolution demands from the individual a lifelong update and learning.

The study thus seeks to contribute to the understanding of how the research community builds, maintains and nurtures their personal learning network, in a useful way for their learning process. In other words, how the PLN can be a means for the researcher to disclose his/her identity in the network (Castañeda & Adell, 2013).

## **Method**

In educational research, quantitative and qualitative research paradigms are often portrayed as distinct and incompatible (Shaffer & Serlin, 2004). However, authors such as Jick (1979), Tashakkori & Teddlie (1998), Driscoll, Salib, & Rupert (2007), Morais & Neves (2007) assume the importance and advantage of the mixed nature of research, integrating quantitative and qualitative data. Initially, a questionnaire will be applied to the research community, in order to characterise their profile and define the features of their "Digital Identity", as well as to understand its importance and influence in networked learning, to describe their PLE and study how their PLN is created, maintained and nurtured. The target public are PHD researchers from the 2nd, 3rd and 4th editions (2011 – 2013) of the Doctoral Programme in Distance Learning and eLearning of Universidade Aberta. In a second stage, a semi-structured interview will be conducted to a group of nine PHD researchers, selected according to their participation in social networks and their digital presence, representing each edition. The interview has the objective of deepening some of the issues enquired about in the questionnaire. The data of the semi-structured interviews will be collected through Skype or Hangout, to be recorded and later transcribed. In the third and last stage, the social networks of the previously interviewed researchers will be carried out through the SNA methodology. All research stages will be supported by digital tools for data analysis, qualitative and quantitative: SPSS, NVivo and spreadsheets will be used for data treatment and analysis in the first two stages; in the third

stage, free SNA tools will be tested according to the research objectives, in order to select the software that best suits the social network to be analysed; for example, NetDraw, Ucinet, Gephi, GUESS or others. The data will be collected between October and December 2014.

### **Expected Outcomes**

Whether in the educational context in general, as well as in online distance education and in particular in the context of Open Universities internationally, there are no studies with the same objectives we propose for this research. There are also few studies that focus on the personal learning network (PLN), in the perception that from the network of contacts emerges a platform in which interaction and communication (conversations and dialogues) can occur, allowing non-formal learning, on an individual basis (Eraut, 2000). Learning is usually associated to a formal context and institutional platforms, but in the digital age, where there is a strong participation in the web and students and researchers seek to connect among them and with experts in their field of interest, learning at an informal level can be promoted. Thus, the contribution of this study is to understand how researchers create, maintain and nurture their personal learning network (PLN), so that they can use it for the learning process (and research) as well as to understand how the PLN can promote the disclosure of the researcher's digital identity. As a result, we intend to conclude: how the researcher creates, manages and stimulates his/her PLN; how that network is an example and reflection of his/her digital identity, through sharing, collaborating and cooperating in the learning process of the members of his/her network; how knowledge is acquired in the networks the researcher is part of.

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