

Social Networking and Teachers' Professional Development

Paula Antunes^{1,3}, Isabel Barbosa^{2,3}, and António Moreira³

¹ Research Center CIDTFF – Universidade de Aveiro

Sponsored by Foundation for Science and Technology's Portugal (SFRH/BD/70607/2010)

² Research Center CIDTFF – Universidade de Aveiro

Sponsored by Foundation for Science and Technology's Portugal (SFRH/BD/69151/2010)

³ Universidade de Aveiro - Portugal

{paulucha.antunes, immbarbosa}@gmail.com, moreira@ua.pt

Abstract. Are teachers able to take advantage of technological tools to informally promote their professional development? On one hand, we acknowledge the utility of 2.0 tools for teaching and learning - connecting, communicating, sharing and collaborating, the pillars of knowledge development in the global society. On the other hand teachers face new challenges as educators and professionals in the global society of the 21st century. This is the underlying research question of two joint investigations – a survey and a case study – that aim to investigate to what extent professional networks, as informal learning environments, can contribute towards teachers' growth. The survey intends to investigate if teachers perceived digital skills are conditioning their participation in online professional networks, as well as the importance teachers give to these communities for their professional development, and the impacts they perceive. The case study will analyze an online teacher's network, investigating the reasons and motivations that drive teachers to belong to the community, as well as the interactions established. The data collected will contribute to a better understanding of the potential of professional networks in lifelong learning for teachers.

Keywords: ICT Skills; Informal Learning; Professional Development; Social Networking; Web 2.0.

1 Web 2.0 and Knowledge Building

Information and communication technology (ICT) has irreversibly changed the way people work, communicate, interact, invest, learn and spend their leisure time [1]. During the last decade evidence has revealed that a crucial shift occurred in the way knowledge is acquired, mainly related to the context in which knowledge is available, its characteristics and ways of dissemination [2]. The generation of learners of the digital age, the “New Millennium Learners” or the “digital natives” use computers on a daily basis and are excellent multitaskers, easily shifting between tasks [3]. They are

also autonomous and independent in their learning processes, but more outgoing and more involved in group work. The knowledge society expects individuals to be independent thinkers, collaborative, and "The critical community of learners ... encourages cognitive Interdependence simultaneously" [4] resulting from the fusion of two different worlds, an individual and a shared one.

Knowledge is built from the relationships and the interactions established between individuals [2]. Siemens described the basic principles of connectivism, a theory that aims to characterize learning in the digital era: learning and knowledge are drawn from a multiplicity of opinions, in a process of linking nodes or sources of knowledge. So, in order to increase and update knowledge throughout life, a concept inherent to New Millennium Learners (NML), it is mandatory to nurture and maintain links between individuals, particularly through the use of Web 2.0 tools, through a learning process that combines conversation/communication, interaction, sharing, creation and participation [5].

2 Informal Learning and Teachers' Continuous Professional Development

Learning is a lifelong, permanent process, built individually or in a community [2]. Alongside the formal learning in educational institutions in order to obtain a certification or a diploma, there is non-formal learning, parallel to the above, which is not validated by a formal certification and may be provided by work institutions or through activities sponsored by organizations or civil society groups. Furthermore, informal learning is a non-intentional form of learning and results from everyday experiences [6].

The contexts of informal learning are regarded as alternative learning models that are generally time-consuming, poorly organized, difficult to assess, but perhaps more effective in a process of changing practices and innovation [7]. Nonetheless, the formal context of teacher training can offer some gains, if supported by the use of social software and, at the same time, provide the required certification. This understanding can enhance formal training, creating informal learning approaches and environments that may increase a more reflective learning attitude.

As an alternative to a more formal training, informal training supported by Web 2.0 tools, well known by teachers who use them mainly for personal purposes, can facilitate their integration in online teachers' communities. Social networking is a potential informal learning context, because it promotes an inevitable exchange and sharing of knowledge and experience. Hi5, Facebook, Plaxo, Twitter, Ning and other 2.0 tools allow teachers to get in touch with the Web in an intuitive way and can lead to eliminate professional development in a collaborative environment, providing not only the development of ICT skills, but also the scientific and pedagogical teachers' skills necessary to increase innovation in education and establish a better "connection" with their students – "The net generation" [8].

The report "Implementing Web 2.0 in Secondary Schools: Impacts, Barriers and Issues" [9] gives further evidence that the use of Web 2.0 contributes to a greater autonomy and creativity, as it allows teachers to publish content on the Web, fosters collaborative learning activities and promotes the development of lifelong learning.

3 Ongoing Research

The two joint studies mentioned here aim to contribute to a better understanding about the potential role of social networking as an informal learning environment for teachers. The survey's objective is to describe the skills and uses of digital technologies by teachers of basic and secondary public schools from Aveiro, Portugal, (11 schools/groups of schools – about 1300 teachers), as well as the importance these teachers attribute to social professional networks for their professional development and the perceived impacts on: i) ICT skills; ii) pedagogical skills using technology; iii) subject knowledge. The skills and the uses of digital technologies refer to both basic ICT and social web skills. It is our intention to clarify if teachers consider the use of web 2.0 tools and services an important means of development of their skills. Concerning professional development, the study aims to identify the perceptions of teachers about the growing importance of lifelong learning and informal learning contexts as a recognized way of facing the challenges of the knowledge society. Another dimension present in this study is the impact teachers believe can occur from their participation in social professional networks in their practices.

The survey is designed in two phases. The first one refers to the processes required to prepare the questionnaire application, that is, contact the schools administrators to obtain data about the number of teachers and students, and the local ICT coordinator contact. Later on, ICT coordinators will be asked to give information related with the school ICT resources and services, as well as about the school context and policies on ICT use. The second phase concerns the application of the survey questionnaire. With the support of the schools administrators and ICT coordinators, the main questionnaire survey will be deployed to teachers (online survey), in order to get the data required to answer the research questions.

At this stage of the research we don't discard the possibility of conducting interviews with those teachers who declare belonging to Interactic 2.0¹ – the professional social network that is the object of the previously mentioned case study.

The case study aims to analyze and understand how social networks, as tools to create and develop online learning communities, can contribute towards teachers' professional development. In particular, we aim to explore the impact of teachers' participation in social networks on the collaborative work they develop within the online community and at school, as well as evaluate the impact of the use of a social network on the growth of a professional community of practice and verify the effects of these learning informal contexts on teachers' professional development. Thus, an online questionnaire is being applied to the members of an online teachers' community - Interactic 2.0 - , and the interactions of these teachers in forums and blogs of some specific groups (inside Interactic 2.0) will be analyzed. The case study design also contemplates interviewing Interactic 2.0 administrators to obtain data about their motivations to create this social network, as well as about their expectations and how they are being achieved.

¹ <http://interactic.ning.com>

Finally, and according to a perspective that is common to both studies, we aim to understand the teacher's needs to effectively consider their participation in a social professional network as a means of professional growth.

4 Expected Results

From this joint research we expect to obtain significant data about teachers' motivations, benefits and obstacles to the development of communities of practice supported by social networking, and find evidence of impacts of their participation in such communities on teachers' ICT skills and professional development. Simultaneously, we wish to contribute towards the promotion of consciousness about the potential growth of innovative pedagogical "spaces" as a result of more collaborative work within teachers.

The results of these studies are expected to raise the awareness for the need to prevent some flaws that condition the sustained development of teachers' social professional networking, so they can be minimized. By achieving this, we believe our findings may contribute towards supporting Interactic. 2.0.

References

1. Kozma, R.B.: Comparative analysis of policies for ICT in Education. Consultado em 10 de Fevereiro de 2010 (2008), http://robertkozma.com/images/kozma_comparative_ict_policies_chapter.pdf
2. Siemens, G.: Knowing Knowledge. A Creative Commons Licensed version - disponível, obtido em 20 de Março de 2008 (2006), <http://www.knowingknowledge.com>
3. Redecker, C.: Review of Learning 2.0 Practices: Study on the Impact of Web 2.0 Innovations on Education and Training in Europe. Office for Official Publications of the European Communities, Luxembourg (2009)
4. Garrison, D., Anderson, T.: E-Learning in the 21st Century. Routledge, New York (2003)
5. Downes, S.: An Introduction to Connective Knowledge. Consultado em 23 de Maio de 2009 (2005), <http://www.downes.ca/cgi-bin/page.cgi?post=33034>
6. Longworth, N.: Lifelong learning in action: transforming education in the 21st century. Kogan Page, London (2003)
7. Moreira, A., Loureiro, M.J.: Enquadramento das TIC na Formação Contínua de Professores. In: Competências TIC. Estudo de Implementação, GEPE, vol. 2, pp. 118–160. Editorial do Ministério de Educação, Lisboa (2009)
8. Oblinger, D., Oblinger, J.: Educating the Net Generation. Consultado em 4 de Agosto de 2008 (2005), <http://www.educause.edu/~educatingthenetgen/>
9. BECTA: Implementing Web 2.0 in Secondary Schools: Impacts, Barriers and Issues. Consultado em 09 de Julho de 2009 (2008), http://partners.becta.org.uk/upload-dir/downloads/page_documents/research/web2_benefits_barriers.pdf