ACEC2014 - Professional Learning in 140 Characters

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Abstract

The World Wide Web has grown into a global information and communication space with more than a billion users and has entered a new, more social and participatory phase where people create and manage online content rather than just viewing it; a place where people can communicate knowledge, share resources and participate in social networks. Online social networks are being used to support professional learning where groups of people are using the Web to communicate and collaborate in order to build and share knowledge and form professional learning networks (PLNs). This paper presents the results of research into how microblogging, a form of online social networking, is being employed by educators to support their professional learning. The study examined activities and perceptions of a group of educators in order to provide an insight into how and why they engage in microblogging and the value they place on microblogging as a professional learning tool. The paper outlines the range of behaviours and activities that are undertaken to support professional learning; the advantage of microblogging as a professional learning tool; and implications for practice.

Background

My interest in the use of online social networking for professional learning emerged from my own use of microblogging. I observed through my connections with teachers and teacher educators from around the world that educators were using microblogging to share ideas and resources and to ask each other for professional help and support across a variety of topics and issues. Members of the network began referring to the group as their PLN and an online discussion ensued as to whether the "P" in PLN referred to one's "personal" or "professional" learning network. It is to be noted that the borders between personal and professional learning networks are blurred (Ivanova, 2009) and PLN is variously used to mean personal or professional learning network in the literature. For the purposes of this study, PLN was taken to mean one's professional learning network.

Professional Learning

Professional learning is a long-term process characterised by self-evaluation, reflective practice and continuing personal and professional development (Neil & Morgan, 2003). Professional development programs for educators were traditionally designed to change behaviour (Duncan-Howell, 2007), however, Masie (2008) contended that there has been a shift away from single-source knowledge and learners are turning to a wider set of resources for information and knowledge. The true competence for a learner of the knowledge society is the capability to stay connected and belong to digital communities in which interests are continuously shared (Pettenati & Cigognini, 2007). Learning is a social process in which interactions with the environment, both human and non-human, play an important role (Divjak, 2004) and it occurs not as a response to teaching, but as a result of a social framework that fosters learning (Brown & Duguid, 2002).

Simons and Ruijters (2001) highlighted the importance of profession-related collective learning and differentiated between collective learning, where learners consciously strive for outcomes; and learning in social interactions. The second of these, learning in social interactions, is the type of professional learning that was of interest to this study, that is, where people undertake learning together without any intended collective outcomes and which results in the learning *processes* being collective but the learning *outcomes* being individual.

Professional Learning Networks (PLNs)

Educators, like other professionals, can no longer rely on their original professional training and are required to maintain dynamically changing network connections (Hakkarainen, Palonen, Paavola, & Lehtinen, 2004). Networking is not new to educators, they have networked for many years in order to share practice; valuing contact with colleagues in similar and different settings (GTCE, 2005). What is new, is the fact that the Web can facilitate networking across greater geographical distances (Sliwka, 2003) and individuals are personalising their own social networks with the help of the Web (Wellman, Boase, & Chen, 2002). Not only are these online social networks being used for social connections, they also provide tools for personalising learning (Ala-Mutka, 2009) and have the ability to facilitate personal learning networks (PLNs) (Grosseck & Holotescu, 2008).

The concept of learning networks was presented by Illich (1971) when he posed the question, "What kinds of things and people might learners want to be in contact with in order to learn?" (p. 78). Illich noted that information could be stored in things and in people, and that in order to learn, one needs both information and critical response to its use from somebody else. The origin of the term professional (or personal) learning network (PLN) is difficult to ascertain (Downes, 2009) and it is challenging to find a definition for the concept of PLN (Couros, 2008). The term appears to have been first used by Tobin (1998) who described a PLN as "a group of people who can guide your learning, point you to learning opportunities, answer your questions, and give you the benefit of their own knowledge and experience". More recently, professional learning networks have been variously described in the literature as: a collection of people and resources that guide learning, point one to learning opportunities, answer questions, and give one the benefit of their knowledge and experience (Nielsen, 2008); a place where one creates their own classrooms, curricula and textbooks for study of whatever one is passionate about (Richardson, 2008); a system of interpersonal connections and resources that support informal learning (Trust, 2012); and a technology-supported community of people who help each other better understand certain events and concepts in work or life (Koper, 2009).

Microblogging

Microblogging is a form of online social networking which enables people to share limited information about themselves via their profile and share their activities in short posts of up to 140 characters. Posts are made in response to the general question "What are you doing?" and the answers include messages of context, invitation, social statements, inquiries and answers, news broadcasts and announcements. Many posts are responses to other postings, pointers to online resources that the user found interesting, musings or questions (Educause, 2007). Some common contemporary microblogging services are Twitter [www.twitter.com] on which this study was based, Plurk [www.plurk.com] and Yammer [www.yammer.com].

E. M. Rogers (1995) argued that potential adopters of a technology need the ability to experiment with an innovation before they may see its application. In the case of microblogging, educators are also adopting a new learning environment, one that is open in terms of content, instruction, climate and discourse. Couros (2006) highlighted that in relation to openness, it is not just a set of new tools that need experimentation, but also a set of values and beliefs around knowledge and collaboration. Professional learning through microblogging is premised on reciprocity and harnessing collective intelligence. Lévy (1997) warned that while new communication technologies are conducive to the pooling and exchange of experience and knowledge, which is the ideal of collective intelligence, this does not happen automatically. Although microblogging provides opportunities for learning, not all individuals are equipped with the skills or knowledge to benefit from these learning opportunities (Ala-Mutka, Punie, & Ferrari, 2009). In order to participate in microblogging there is certain knowledge and understanding of conventions required that, while obvious to experienced users, might not be known to new or intending users.

The Study

The aim of the study was to investigate how microblogging was being employed by a group of educators to support their self-directed professional learning. Through a qualitative research design using content analysis, an online survey and one-on-one interviews, the study examined activities and perceptions of a group of educators in order to provide an insight into how and why they engage in microblogging and the value they place on microblogging as a professional learning tool. An overview of data gathering through three instruments in three sequential phases is illustrated in Figure 1 and further described below.
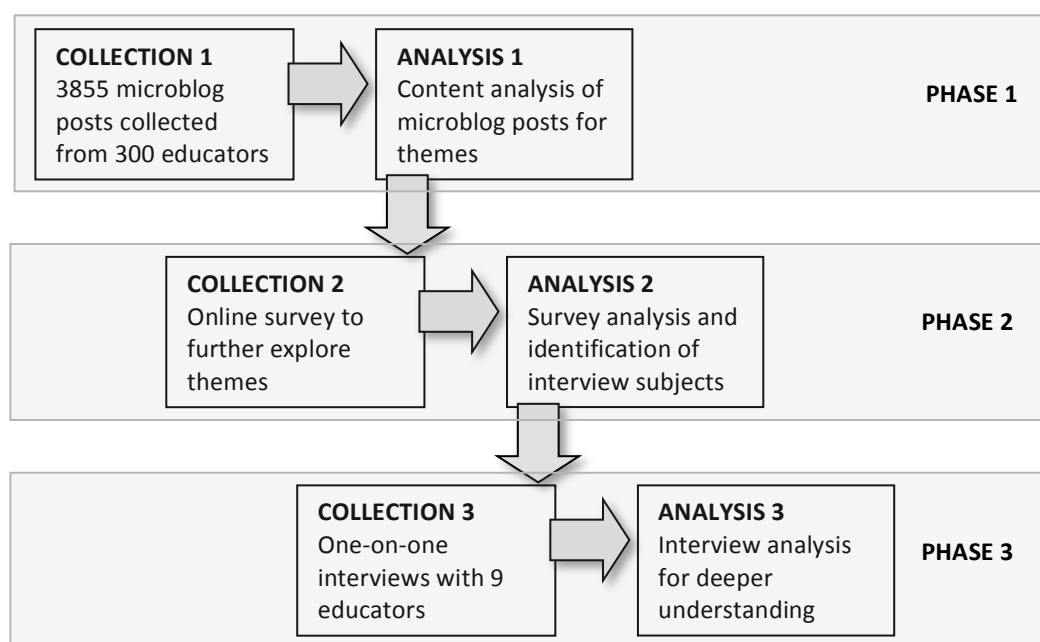

Figure 1: Sequence of data collection and analysis

***Phase 1: Content Analysis*:** designed to discover the types of interactions that occur in microblogging. Microblog posts (*n*-3855) from a 24-hour period were collected and a sample (*n*-600) were analysed to determine the types of messages that were being posted. The *Community of Inquiry* (CoI) framework (Garrison, Anderson, & Archer, 2000) was used to analyse the posts. The CoI framework assumes that learning occurs within the community through the interaction of three core elements, that is, cognitive presence, social presence, teaching presence, which interact to influence and shape educational experiences. Analysis using the CoI framework allowed the researcher to categorise the types of interactions and identify themes, which would be further explored in Phase 2 of the study.

***Phase 2: Online survey*:** designed to discover why educators participate in microblogging and the perceived value of their participation in microblogging. In this study the survey was used as a qualitative research tool for gathering data (Denzin & Lincoln, 2003) with the intention of describing the nature of existing conditions (Cohen, Manion, & Morrison, 2007). The survey comprised fourteen questions, which were organised around four themes: demographics, microblog usage, microblog behaviour, and PLN use. From the survey respondents (*n*=121), nine participants were purposively chosen to participate in the third phase of the data gathering, namely, one-on-one interviews.

***Phase 3: One-on-one interviews*:** designed to further investigate how microblogging can support professional learning. The interview subjects (*n=9*) were selected from the pool of survey respondents who had indicated that their PLN was "extremely" important in their overall professional learning (*n=66*); that microblogging was "extremely" important in their PLN (*n=49*); that they considered participation in microblogging to be a meaningful form of professional learning (*n=104*) and they were willing to participate in the interview process (*n=63*). During one-on-one interviews these educators

were asked a series of six semi-structured and open-ended questions that were designed to capture their subjective experiences and attitudes towards microblogging. The interview recordings and researcher notes were analysed to determine common themes which had emerged from the content analysis of microblog posts (Phase 1) and the online survey (Phase 2), and to provide a deeper understanding of why individuals participate in microblogging and the value they perceive in their participation in microblogging.

Participants

The focus of this study was the use of microblogging for self-directed professional learning by educators who wrote their microblog posts in the English language. While individuals with a wide variety of ages and backgrounds participate in microblogging, this study explored the relationship between microblogging and professional learning by focusing on the activities of educators who currently use microblogging and would therefore be considered innovators and early adopters. Participants in the study included teachers, teacher educators, school principals, university lecturers and technology support officers. Although each of these types of "educators" work in different educational institutions with different aims, and have different concerns and practices, they have in common that they are involved in the education of others and they have individual professional learning needs.

Findings

This paper presents a summary of the findings from the study in regards to the range of microblogging behaviours and activities that are undertaken to support professional learning, the perceived value of microblogging as a professional learning tool, and the advantage of microblogging as a professional learning tool. (A full report on the study can be accessed at eprints.qut.edu.au/65854/)

Microblogging Behaviours and Activities

An online survey of educators who use microblogging (n=121) revealed that the majority use Twitter (n=112, 94.1%), have been using microblogging for 1-3 years (n=60, 50.4%) and spend 4-6 hours per week using microblogging (n=38, 31.9%). The largest category of respondents (n=54, 45.4%) belong to 4-6 social networking communities (including microblogging), while a small number (n=8, 6.7%) belong to more than 10 social networking communities. The survey revealed that most educators engage in a variety of microblogging behaviours at some time with the most frequent being:

- share a resource, for example, a website, book, or video;
- on-share a resource posted by someone in your network;
- share information from a conference/workshop using a hashtag;
- save a resource posted by someone in your network;
- go back to a saved resource posted by someone in your network;
- follow a link posted by someone in your network;
- use hashtags;
- engage in a conversation with someone in your network;
- search for content;
- ask for a resource on a specific topic;
- read activity updates of others in your network; and
- act on something you have read in a microblog post.

Value of Microblogging as a Professional Learning Tool

The intent of this study was to investigate the value some educators place on microblogging as a professional learning tool, and the survey revealed that the majority of respondents (n=104, 92%) indicated that they considered participation in microblogging to be a meaningful form of professional learning. The majority of respondents indicated that their PLN was extremely important in their

overall professional learning (*n*=66, 58.9%) and that microblogging was extremely important (*n*=49, 43.4%) or very important (*n*=38, 33.6%) in their PLN. From comments in the survey and one-on-one interviews, eleven themes emerged regarding the value of microblogging for professional learning:

- access to timely information;
- making diverse and global connections;
- access to valuable resources;
- access to advice and support;
- ability to attend a conference "virtually" by following the hashtags posted by others;
- engaging in conversations and discussions;
- access to experts;
- keeping up with current trends;
- extending their networks beyond their local area;
- reciprocity; and
- learning.

Advantage of Microblogging as a Professional Learning Tool

The advantage of microblogging as a professional learning tool lies in its ability to link educators globally to exchange ideas from different perspectives and to share resources and teaching practices. Educators who microblog have access to relevant and timely learning that is not constrained by time or distance and can be tailored to meet their individual needs.

Although the participants in this study were enthusiastic about microblogging and believed that it contributed to their professional learning and positively impacted on their teaching practice, they described some disadvantages of microblogging. The problem common to all educators in this study was the large amount of information they received from others in their microblogging network. It was found that some educators had effective strategies for dealing with this, while others did not. Another disadvantage noted was the amount of time spent microblogging. Two educators who had been microblogging for less than three years, used the word "addictive" and said that they felt they had to constantly check their microblog streams in case they missed valuable information.

Implications for Practice

This study has shown that one group of educators finds microblogging a valuable professional learning tool and that they are enthusiastic about its use in their professional learning network (PLN). The time-efficacy of writing and reading microblog posts of 140 characters makes this an ideal medium for professional learning. Therefore, the question arises as to how microblogging could be introduced to other educators as a tool to support their professional learning.

The common perception of microblogging is one of unremitting triviality about what you are making or eating for dinner (McFedries, 2007). Once an educator overcomes this perception and decides to join microblogging, they need to know how to open an account and start building their network. Effective professional learning through microblogging involves participating in the network by sharing resources and information, and engaging in dialogue with other educators. If new members do not know how to go about finding relevant educators with whom to link, their dialogue will fall short of expectations and they will not find microblogging an effective professional learning tool.

This study showed that microblogging can be a valuable tool for professional learning, therefore, it is desirable that effective ways are employed for introducing microblogging to educators in general. I advise that educators are introduced to microblogging by an experienced user who constructs a learning scenario in which they can participate. It is recommended that an effective method for introducing a group of educators to microblogging as a professional learning tool is to initiate discussion around a topic that has meaning for the group and have them participate as a closed group. Once educators experience a meaningful dialogue and gain confidence in the use of microblogging

they can expand their professional learning network (PLN) beyond the original group.

Another implication for practice comes from the issue of recognition of microblogging as a legitimate form of professional learning. Several educators related that microblogging was a significant part of their informal professional learning, and despite evidencing this by documenting that learning reflectively, for example in a blog, this was not accepted by their employers as legitimate professional learning. Microblogging represents a significant shift in pedagogic approach, and should be seen as a completely new form of communication that can support informal learning beyond classrooms (Ebner, Lienhardt, Rohs, & Meyer, 2010). It is important that institutions understand that knowledge is distributed through different communities (and networks) and, central to such an understanding is placing control of learning in the hands of learners themselves and providing learners with the skills and competences to manage their own learning (Attwell, 2006). However, it may be some time before microblogging is accepted universally as a legitimate professional learning tool.

Conclusion

The study showed that educators who participate in microblogging consider it to be a meaningful form of professional learning and that access to information, resources, advice and support from a diverse global network was highly valued and enriched their learning experiences. The inclusion of microblogging in a PLN gives educators access to resources and information exchanges with other educators that they would not otherwise have. The ability to engage in dialogue with peers and experts outside their geographic area allowed these educators to seek advice and support from others with a wide range of experience and knowledge, and thus extend their thinking. These findings are consistent with those noted by Trust (2012), that is:

> Teachers engage in PLNs to grow professionally, learn from others, and contribute to a community. Teachers are motivated to engage in PLNs because they can solicit help and support, demonstrate their knowledge by helping others, and converse with individuals about new information and feedback. (p. 37)

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