Project #pstn: engaging pre-service teachers in the Twitterverse

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Abstract

This paper discusses the beginning stages of the #pstn project. #pstn is seeking to introduce pre-service teachers (PSTs) to online networking to help fill in some of those (often huge) gaps between university courses and what actually happens in the classroom. The contribution of this paper is capturing the stories of the research team from very different perspectives around the early stages of #pstn and the insights these stories may hold for the broader practice of encouraging the formation of PLEs within formal education. Insights which suggest the existence of chasms between PSTs and the project members; between the nature of PLEs/PLNs and formal approaches to education; and, the culture of social media for personal and professional reasons. Chasms that need to be explored and bridged before a project like #pstn and perhaps the broader concepts of PLE/PLN can achieve broader success.

Key words: Twitter; Pre-service teachers; PLN; PLE; Informal Learning

INTRODUCTION: TWITTER AS A SOLUTION FOR MANY OF THE PROBLEMS OF TEACHER EDUCATION

There is considerable support in the literature for community-based networking in pre-service teacher programs, and anecdotal evidence from pre-service teachers engaged in this type of online community shows significant benefits in such engagement (Goos & Bennison, 2006; Redman & Mander, 2009; Balatti, et al, 2010). However, pre-service students (PSTs) tend not to engage in online communities for professional networking without encouragement and support (Barab, et al, 2001; Redman & Mander, 2009; Foulger, et al, 2009). The absence of these networks has repercussions when teachers enter the profession. Many early career teachers feel under prepared, under supported, and overwhelmed, something, which manifests itself in a high dropout rate of early career teachers from the profession (Darling-Hammond, et al, 2002; Zeichner, 2003; Kenny, 2009). In an effort to ease this pressure, we sought to help PSTs start building a professional learning network before they enter the profession with the #pstn project.

This participatory observation research study tells the story so far from our own perspective as researchers and educators. As the research team we have varied backgrounds in education but we do have a united focus – to find a solution for many of the problems with teacher education and the integration of technology. Our stories capture the insights from very different perspectives around one aspect of Personal Learning Environments (PLEs), institutions, PLNs, and informal and contextual learning.

@LAURENFORNER/LAUREN'S STORY
I am a graduate teacher. I have previously blogged about the need for <u>increased technology integration</u> and more emphasis on developing a supportive PLN during pre-service education, and <u>boosting the self-efficacy of early career teachers</u>. In my own participation in pre-service education I found that much of my professional conversations came from outside this space. My search for information and my capacity to ask questions developed through being mentored via Twitter and the lovely people from my PLN. It was the end of my studies where this way of networking became increasingly evident. Upon reading the selection criteria for graduate positions which is used by the state level department of education to assess candidates, I realized that the majority of my answers to the possible questions I could be asked were not gained from university study, but were instead a result of information I've been given, resources which have been shared with me, or areas which I have been directed towards researching myself via my PLN on Twitter. I felt so well prepared for the interview that I didn't even need to rehearse, write myself notes or "study", I felt confident in the wide knowledge base which was a result of so many wonderful and experienced teachers sharing their experience with me virtually.

I think Twitter (and social networking with other professionals in general) needs to become a compulsory part of any education course in order to get PSTs into the habit of sharing resources with others, seeking assistance, and constantly innovating and being inspired to try new things and take risks with their students. Right now it seems to be something, which is covered in technology subjects at university, but needs to be integrated into mainstream methodology subjects.

It was the thinking that centered on what could be possible through facilitation and mentoring that caught the attention of Sarah. I had posed in my blogging that an experienced teacher (and experienced Tweep) could take a PST Tweep under their wing, and introduce them to the ways in which they can use Twitter effectively in their professional development. My idea was that in this way teachers who are currently stretched for time could still offer their expertise to others while recognition can also be given to the potential of social media for professional development.

@STHCRFT/SARAH'S STORY
Early in 2010 I started drafting a project that involved working with pre-service teachers to develop an online networking presence. Having only ventured into online networking myself once moving into academia and observing the benefits I had experienced would have assisted me hugely when I first began my teaching career, I felt that there were rather significant gaps in pre-service teacher training programs in this regard. As things transpired the project didn't go ahead at that point.

Towards the end of 2011, I was reading <u>Lauren's blog post</u> on recognising a similar need for professional networking experience in pre-service teacher training. A few comments and tweets later, a project was born. A call out to the Twitterverse resulted in David and Narelle joining the project with their respective pre-service teacher cohorts.

The project was designed to mirror the organic nature of PLN creation while offering a quest structure for those participants who needed more guidance. Functionally a 'landing' environment was built using Wordpress - this hosted the quest log and all project information - and was accompanied by a Hootcourse as a way to aggregate all the project interaction into one place. Both environments were interlinked and drew on the use of the primary tool - Twitter.

My role in the project has primarily been that of facilitator, as I do not teach pre-service teacher courses, nor am I a pre-service teacher. After initially setting up the infrastructure for the project, I instead opted to approach academic staff in the Bachelor of Education (BEd) and Bachelor of Teaching (BTeach) programs to table the project. Participation in #pstn was then offered to around 40 unit cohorts as a

'useful optional'. However, while quite a few UNE students investigated #pstn, few actually joined the project to participate.

@RELLYPOPS/NARELLE'S STORY

In my exploration on Twitter within conversations about education and technology I had connected with @sthcrft as part of my PLN. It was the tweet requesting advice from someone in teacher education about using Twitter in the classroom that took my attention. The immediacy of connecting to content ignited a lengthy and exciting conversation. The connection to @LaurenForner was also made in this interaction. From three difference stance points, there was a united interest to share our own personal rewards in engaging with Twitter as a PLN with the teacher education audience.

In the second year core course of Visual Arts across the Bachelor of Education programs at two different campuses of RMIT University in Melbourne, Australia, PSTs were invited to begin to identify and build their PLN. The pre-service teachers (PSTs) were invited to participate in two options to extend their professional networks and digital access to content - Twitter and Delicious. The concept was unfamiliar to many with only 8 of the 151 PSTs having a Twitter account and in reality only three occasionally using Twitter for personal communication with friends. In regards to Twitter, the notion of introducing this social media was to consider it for professional interactions; to access ideas, opportunities, networks, and possibilities for education (learning and teaching AND arts education). The collation of networks was the focus of this approach and it ran parallel to assessment tasks (pass or fail participation) and course content. The PSTs were encouraged to share ideas about weekly workshop themes and strategies as well as resources, work in progress and ideas for future learning and teaching opportunities. Arts education was often the stimulus for content although it was seen more as a lead into exploring and problem solving active use of Twitter while also engaging with content on a professional level. At the time of writing this paper, the semester was just beginning to conclude and preliminary data indicates all PSTs engaged with Twitter to a basic level through profile establishment and initial tweets. What was evident was that many struggled in seeing Twitter as a social media for professional use having been indoctrinated with use of other mediums for personal sharing of content. Those who were explorers interacted in different ways – many in class time and others when they were reminded while a few became regular shares of content both class related and professionally related. Future directions will lead into looking carefully at the interactions, content and regularity shared to better understand how the PSTs engaged with Twitter.

@ DJPLANNER/DAVID'S STORY

2010 was an interesting year for me. After almost two decades as a University academic, first within Information Technology and then in e-learning support, I started a one-year pre-service teacher qualification with the intent of becoming a high-school Information Technology and Mathematics teacher. Even before I started the qualification I started reconstructing my PLN to better suit the new direction. Like @LaurenForner, I learned more of direct value to me from my PLN and the broader Internet than through my formal studies. That said, my formal studies did provide the motivation and a foundation for my "PLN learning". I was sold on the benefits of a project like #pstn.

By the end of 2010 the wheel had turned and I was set to return to life as a University academic. This time within a Faculty of Education teaching a 3rd year course "ICTs and Pedagogy". Around this time I became aware of the plans for #pstn and saw benefits for the students (120 studying online, and 130 at three different campuses) in my course. While timing would prevent any significant modification of the existing course, it was decided to introduce the use of #pstn/Twitter, blogs, and social bookmarking (Diigo) as optional activities. As term draws to an end, Diigo has been by far the most widely adopted with 100+ students joining the course Diigo group. Only a small handful of students have started using Twitter, with a similar number starting an individual blog. Participation in #pstn has been very limited.

WHY?

The initial design of #pstn was based on reducing factors - forced participation, over-scaffolding, specific time frames and targeted participation – that were perceived as being likely to hamper participation. It seems that these decisions while appropriate for the project team, may offer one useful perspective about the limited engagement with #pstn. Geoghegan (1994) suggested that instructional technology's limited uptake within higher education was due to a chasm between the promoters/innovators of technology (e.g. #pstn project team) and the pragmatic majority (e.g. #pstn participants) and an ignorance of that chasm. Table 1 gives an overview of this chasm as it applies to #pstn and the following expands upon this idea.

Table 1: Analysis of Project #pstn against Geoghegan (1994) attributes

Attribute	#pstn Developers	Students (PSTs)
Social media experience	Long-term users of Twitter for PLN	If any experience with social media is a regular user of Facebook for personal reasons.
Focus	Helping PSTs build networks to aid their transition into the work force	Pass their current courses for which #pstn may/may not be a requirement
Risk taking	Willing to take risks	Averse to taking risks
Experimentation	Willing and keen to experiment	Prefer proven and known applications
Need for assistance	Self-sufficient	Require support

#pstn was designed on the assumption that PSTs are effective self-directed learners. However, Weimer (2012) notes that this is often not the case, and students may not have the requisite meta-cognitive awareness to identify the characteristics of autonomous/self-directed learners and their application to their own learning behaviours. Weimer's suggested self-identification survey to determine students' "self-directedness" provides one way to explore this.

Ability to overcome this barrier seems to have been greater where participation was required and supported as part of formal study (e.g. the greater level of success at RMIT). The optional use of a novel tool at USQ was perhaps a step too far. Technical factors increased the size of that step. A fail whale during a tutorial introducing on-campus students to Twitter does not create a good first impression. Nor does a University filtering system that blocks the Twitter URL shortener, drastically limiting the value of Twitter to on-campus students. In addition, PSTs engaged in formal learning may not yet value the need for support. As noted by David and Sarah's stories the value of PLNs in supporting teachers is often realised only in retrospect. It may be that #pstn is simply filling a need that is not perceived to exist.

Low participation was not restricted to PSTs. Despite an initial show of enthusiasm when the project was first tabled within our own PLNs, actual rates of participation in the project by mentors was quite low. Given that mentors have significant commonalities with the #pstn developers, this was somewhat suprising. Potential reasons, may include the limited student participation, a sense of confusion about how to effectively participate, or, the low-commitment model of participation initially intended to reduce time restrictions on in-service mentors.

CONCLUSION: GENERAL REFLECTION AND FUTURE DIRECTIONS
Project #pstn came from a grand vision from us as a collective. Our personal use of Twitter for professional connections, including the generation of planning and implementing this project all through this medium, has been incredibly successful. Sharing this with PSTs to assist them in ongoing connections and gaps in their own inquires seemed like a perfect match. The end results of our first trial has lead to considerable reflective practice on all our parts, particularly in what is perceived as inconsistent uptake, difficultly to interact regularly on a professional level, and tensions between use of other social mediums that have been for so long about personal commentaries. Our direction next is to look more closely at these areas and to collect qualitative data based on participation, content and to closely look at how PSTs engage with Twitter, their use, access points and why they do or don't connect.

At RMIT, the plan in moving forward is to look at the actual use of Twitter for PSTs in a professional role as many struggled with this notion and "didn't know what to share". Past experiences with other social media use and regular personal sharing created tensions for seeing possibilities for professional sharing. The shift was very difficult for many not only on content but also in use and language to describe usage. Although for the RMIT cohort participation was 100% as it was embedded within course and a participation assessment task, many students didn't engaged organically. The why of this needs further investigation, particularly around how PSTs perceive a PLN and its place in their development as professionals. For those engaging with Twitter, what did they share and how did they connect professionally is also of interest especially in understanding how PSTs can and could use this social media to support their study and experiences while becoming a teacher. The links between use in a course that is subject specific verses a more general theoretical course would also offer insights as many PSTs battled with sharing content connected to teaching but not specific to visual arts, as being modelled at this site.

At USQ, the plan is to bridge this chasm by embedding #pstn into the course, the assessment, and the course support structures. The formation and engagement with a PLN will become an assessable component of at least one assignment and explained as a major source of inspiration for students as they start planning ICT-rich lessons they will be required to teach later in the term. The intent is that this will provide students with what Geoghegan (1994) describes as a compelling reason to adopt. As @rellypops experience shows, this type of approach can achieve widespread adoption. This will be supplemented with a range of weekly activities that marry the #pstn and course experiences with appropriate levels of support. Particular thought, however, needs to be given to how (and if) PSTs can be encouraged and enabled to make various transitions; the transition from a user of Facebook for personal reasons to a user of Twitter and other social media for learning and professional reasons; and the transition from a user of Twitter for assessment reasons to Twitter use for reasons of value to the student.

An obvious further extension of #pstn is to actively give voice to the experience and perceptions of the #pstn participants. For subsequent implementation, Zagami's 2009 project may provide some useful indicators for scaffolding more successful implementation. His use of a targeted, unified cohort (as provided, for instance, by the USQ cohort referred to above) rather than the more diffuse, multi-institutional open call for participation that #pstn used, as well as more structured instructions and time frames, appears to have facilitated higher rates of participation.

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