

Teacher professional identity development with social networking technologies: learning reform through blogging

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Implementing student-centered, inquiry-based science pedagogy in secondary classrooms, though identified as the goal by all science education professional organizations, is rarely a reality in today's classrooms. Therefore, teachers committed to reform often lack a "local" network with whom they can interact around this new professional discourse of *reform*-minded teaching. Emerging social networking technologies such as blogging offer potential to support professional learning through the development of like-minded communities not geographically or temporally constrained. This article reports on how 15 secondary science teachers committed to reform used blogs to support their efforts to develop reform-based practices. Findings illuminate varied ways in which participants did so and what they gained as a result.

Le développement de l'identité professionnelle des enseignants par les technologies de mise en réseau social: apprendre la réforme par les blogs

La mise en place dans les classes du secondaire d'une pédagogie des sciences centrée sur l'étudiant et fondée sur les enquêtes, est rarement une réalité dans les classes d'aujourd'hui alors que c'est le but visé par tous les organismes professionnels d'enseignement des sciences. Il en résulte que les enseignants vraiment engagés en faveur des réformes manquent souvent d'un réseau «local« au sein duquel ils pourraient interagir autour du thème de ce nouveau discours professionnel de l'enseignement inspiré par la réforme. Le «blogging» offre un potentiel pour aider l'apprentissage professionnel grâce au développement de communautés d'intérêt. Cet article relate comment 15 professeurs de sciences du secondaire ont utilisé les commentaires d'autres professeurs sur leurs blogs pour mettre au point des pratiques fondées sur les réformes. Les résultats mettent en valeur différentes approches utilisées par les participants et le bénéfice qu'ils en ont retiré.

Professionelle Identitätsentwicklung von Lehrern mit Hilfe sozialer Vernetzungstechniken: Bildungsreform durch Blogging

Schülerzentrierter, nachfragebasierte Wissenschaftspädagogik im Unterricht der heutigen Sekundarstufe ist selten, obwohl als Ziel von allen wissenschaftsorientierten professionellen Organisationen gefordert. Deshalb fehlt ein "lokales" Netz, womit Lehrer, die Reformen durchführen wollen, zusammenarbeiten könnten, um diesen neuen professionellen Diskurs von reformorientiertem Lehren führen zu können. Blogging bietet Potential an, um professionelle Bildung durch die Entwicklung von gleichgesinnten Gemeinschaften zu unterstützen. Dieser Artikel berichtet darüber, wie 15 Naturwissenschaftslehrer der Sekundarstufe, die Kommentare anderer Lehrer über ihr Blog verwendeten, um ihre Versuche, reformbasierte Übungen zu entwickeln, zu unterstützen. Die Ergebnisse zeigten zahlreiche Beispiele auf, in denen Teilnehmer erfolgreich so handelten.

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El desarrollo de la identidad de los profesores a través de las tecnologías de operación de redes sociales: aprender a reformar a través del 'blogging'

Aunque la puesta en práctica en los colegios de una pedagogía de las ciencias centrada en el alumno y basada en investigación, está identificada como la meta por todas las organizaciones profesionales de educación para la ciencia, la realidad es que se encuentra pocas veces en las aulas de hoy. Por lo tanto a los profesores comprometidos a la reforma muchas veces les hace falta una red «local» con la cual podrían interactuar sobre ese nuevo discurso profesional sobre la enseñanza de espiritu reformista. El «blogging« ofrece un potencial para sostener el aprendizaje profesional a través del desarrollo de comunidades que comparten la misma visión. Este artículo relata como 15 profesores de ciencia del secundario aprovecharon los comentarios de otros profesores en su «blog» para sostener sus esfuerzos para desarrollar prácticas basadas en la reforma. Los resultados dan relieve a varios modos utilizados por los participantes y el provecho que sacaron al final.

Keywords: social networking; blogging; learning; teacher; science; identity development; reform; new media literacies

Introduction

Science teachers today are involved in a revolution – at least that is the hope of those involved in developing and defining the vision for the profession. Though there is consensus around new goals for science education, finding evidence of these pedagogical commitments in practice is still rare (e.g. Anderson, 2002; Chinn & Malhotra, 2002). Given this reality, teachers who *are* committed to developing reform-based practices most often lack *local* social networks that are able and willing to support them in their growth and development. Social networking technologies may have the potential to offer reform-minded teachers such a like-minded professional community that is not geographically nor temporally bounded. This study examines how blogging, a specific social networking technology, offered a space for meaningful interactions between like-minded professionals and provided various opportunities for learning about reform-based practices to a group of 15 practicing science teachers.

Theoretical framework

Learning to be a reform-minded science teacher as identity work

Identity has been argued to be a valuable lens for teacher learning and development as it foregrounds the personal and multifaceted nature of learning in this profession (e.g. Alsup, 2006; Luehmann, 2007). In this study, we focus on the process of learning to become a reform-minded teacher. Borrowing from Gee's (2001) definition of identity, we define this professional identity as "being recognized by self or others as a reform-minded science teacher."

Developing an identity as a reform-minded science teaching involves *participating* and *being recognized* as a competent and contributing member of a new professional discourse. This new discourse is quite different from the traditional discourse of science education most science teachers experienced as learners, as opposed to treating students as passive recipients of scientific information and portraying science as a body of facts to be understood and memorized as truth, reform-based science teaching engages students actively in critically consuming and constructing scientific knowledge while prioritizing and building on students' prior knowledge and interests. Even teachers committed to reform have much to learn about the meaning of "reform," effective reform-based pedagogical strategies, and ways to negotiate new cultural and political expectations with students and other stakeholders (e.g. Crawford, 2000; Windschitl, 2002). How can teacher-learners be supported in

developing this new identity? Even more specifically, how can their recognition work be supported by connecting with a like-minded community when one does not exist in the learner's most immediate professional context? We suggest that blogging has this potential.

Blogging as a new media literacy

New forms of media literacies have been argued to offer learners unique opportunities and resources, as these new literacies are the result of a dramatic shift in how we are beginning to interact with one another and what we are coming to value. Specifically, this new shift in thinking emphasizes tools that prioritize mediating and relating as opposed to producing; focuses on collective as opposed to individual intelligence; and realizes and values expertise and authority that are distributed as opposed to expertise that is "located" in the individual (Lankshear & Knobel, 2006). These new ways of interacting and valuing foreground and prioritize the social interaction occurring in literacy meaning-making practices, and they do so by capitalizing on the affordances of new technologies (Lankshear & Knobel, 2007).

Blogging, among the many tools currently available, can offer new avenues for professional learning by providing teachers with new forms of participation and unique learning opportunities. For example, Davies and Merchant (2007, p. 168) identify the following potential benefits available through blogging:

New affordances include textual connections with others on and offline; the facility to comment on others' blog posts and the possibility of replying to comments on one's own; hyperlinks to information sources; site meters which monitor visits from others; RSS feeds which alert subscribed readers to other newly updated sites; the facility to embed other texts within one's own and the possibility of including a range of modalities from audio podcasts to video streams.

Of the various networking technologies available, blogging was selected to support the teachers in this study for several reasons. Blogs allow for self-direction (focus, purpose and method of writing) within a public forum (Winer, 2003). While self-directed, this published work remains open for public scrutiny and support by offering the benefit of community validation (Efimova & Fielder, 2004). Articulating ideas in a narrative personal space encourages "social cross-fertilization" and results in perspective-making and taking (Boland, Jr., & Tenkasi, 1995) that supports new ideas (de Moor & Efimova, 2004) and affirms otherwise less popular perspectives. Though open to input from a broad community having diverse perspectives, often, as in the case of this study, a blogger's particular community is often nurtured to consist, at least in part, of people who share common perspectives, visions, and commitments.

Methods

Overview of the research design

This qualitative study was designed to contribute to the work investigating how new media literacies can contribute to school-based education (Lankshear & Knobel, 2006). Specifically, we examined the ways in which blog-based social interactions nurtured the development of professional identities of teachers trying to bring reform-based practices to their science classroom. The research question that guided this work was: "In what ways did blogging provide opportunities for social interaction that supported learning among 15 practicing science teachers?"

Participants and context

Participants in this study were 15 practicing secondary science teachers who enrolled in a year-long graduate-level seminar (fall 2007–spring 2008) entitled "Implementing Curricular Reform in Science Education" at a Research One university in Western New York. This course met for three hours once every two weeks for a total of 14 class sessions. As a component of course requirements, students were asked to maintain a personal, professional blog by constructing and publishing at least two posts between class sessions; participants were also expected to read and respond to each other's blogs. Only four blog posts had assigned topics. Of the 15 practicing teachers, 10 were male, 5 female, and all taught at school districts within 40 miles of the university. All participants were Caucasian with the exception of one Indian female and one Puerto Rican male. All 15 teachers had obtained their masters degree in secondary science education and two students, both male, were working toward their doctoral degree at the time of this study.

Data collection

The two primary data sources used for this investigation were: (1) the content of each participants' blog throughout the graduate course, consisting of 395 posts and 551 comments; and (2) teachers' survey responses that indicated their perceptions of the value of blogging. The survey, administered January 8, 2008, included two questions most relevant to this study: (a) the open-ended question "How, if at all, has blogging (reading and writing) been able to support your work as a reform-minded teacher?" and (b) responding to the statement "I have been successful in nurturing a community on my blog" with either "strongly disagree," "disagree," "neutral," "agree," or "strongly agree." The survey was administered at the beginning of a class meeting and was not graded, though participants were required to submit a completed form.

Data analysis

In order to understand how teachers capitalized on the social networking opportunities provided by the blog, we began by determining the extent to which they used the tool. This effort was measured by counting the number of posts, number of comments and the number of words within each post and comment; we also counted the number of times within a post that a blogger made explicit connections to other bloggers through the use of hyperlinks, references or dialogues.

We used a grounded theory approach (Lincoln & Guba, 1985) to analyze the content of the blogs to allow themes to emerge about the purpose for each post and comment, which we labeled as "types of participation" (see Table 1 for the list of final "types" and their definition). Specifically, we read the entire set of blogs (395 posts and 551 comments for 15 teachers over the course of one academic year) independently a first time and then met to develop a codebook. Each researcher then re-read the entire data set and assigned initial codes to sections of posts and comments (a "section" was defined as a piece of text that had a natural beginning and ending and could be one sentence in length or longer). After coding independently, we met to discuss the results, collapsed and combined codes that appeared to overlap and dropped those less informative, reaching the final list reported in Table 1. We then counted the number of posts and comments for each code, as well as looked for patterns to indicate what kind of posts seemed to elicit certain types of comments and interactions.

Table 1. Types of participation and recognition evident in blog posts and comments by 15 practicing science teachers over the course of one academic year.

Types of participation/ recognition work	Operationalized definition	Blog posts	Blog comments
Cognitive work		252	8
Wrestling	Articulating and weighing the pros and cons of an issue	115	6
Displaying competence	Demonstrating confidence in what had been accomplished and/or in future plans	90	2
Critiquing self	Identifying personal strengths and weaknesses	27	0
Experimenting	Detailing efforts and outcomes of uncertain pedagogical events	20	0
Affective work		222	54
Sharing emotions	Describing emotional experiences or reactions	152	27
Advocating	Taking a stance and using passionate argument to persuade the reader	70	27
Social work		236	685
Encouraging	Offering support pertaining to professional practices	4	158
Commiserating	Sharing experiences related to post	2	121
Mentoring	Offering details and advice about particular aspects of professional work	1	106
Sharing resources	Describing or offering access to information of various resources	27	62
Dialoguing	Engaging in conversation by asking or responding to questions or comments	106	144
Connecting	Explicitly mentioning one or more fellow bloggers by name or nickname	96	94
Totals	Total number of blog posts and total number of blog comments	395	551

Trustworthiness

Lincoln and Guba (1985) outline various ways a researcher can increase the trustworthiness of qualitative research by addressing issues of credibility, transferability, dependability, and confirmability. We have thoughtfully considered each of these in the design and implementation of this study. Specifically we addressed issues of credibility through the triangulation of data sources using two complementary primary data sources (i.e. participant surveys and content of the blogs). We addressed issues of transferability by including contextual information that will allow readers to determine the applicability of these results to another context. We addressed issues of dependability by making constant comparisons between multiple data sources within and across the cases as well as with the literature, noting and seeking explanations for discrepancies when they arose. Finally, we addressed issues of confirmability by maintaining an "audit trail" of research documents including field notes, coded transcripts, reports of coded quotations, and research journals throughout the duration of the study.

Findings

As we coded blog posts and comments, it became clear that teachers were indeed learning through their interactions with other reform-minded science teachers. This was demonstrated,

first of all, by the participants' high level of comments (a total of 551; 504 written by other participants and 47 written by local colleagues and family members, for a total of 63,326 words). The following excerpt, consisting of a blog post and four of the seven comments it received, will serve as a qualitative illustration of the depth and richness of interaction that participants' blogs stimulated (Note: the bolded words in square brackets have been added by the authors to show how this excerpt was coded—see Table 1 for a definition of each code):

Today was a tough day. I felt like I was all alone in teaching on many fronts [sharing emotions]... sometimes I feel like all these things I am doing or trying in the effort to teach to how people actually learn (based on research) is just shrugged off as "the new fad" being pursued by the young, inexperienced teacher "trying to reinvent the wheel" [wrestling with dilemmas]. I get that friendly but annoying proverbial pat on the shoulder meaning, "someday you'll just settle into teaching". Ugh. I hope I never settle. At that point, I know it'll be time to exit [self-directing] Anyway, after that depressing vent (sorry!), I am doing plate tectonics, which absolutely fascinates me ... I was searching around the internet and found some great pictures and tours [sharing resources] of the San Andreas Fault and the volcanoes of the cascades mountain range in N. California, Oregon and Washington. I would love to someday reinvent this unit through the history of the modern theory of plate tectonics, have kids argue and debate like scientists did about how the plates moved and do case studies on modern earthquakes and volcanoes. Maybe a trip to UB's earthquake research center and life size house on a shake table? [experimenting] I feel better already about my rough day ... thanks science education blog! (MS, 11/13/07)

Sorry to hear about your frustrations ... The whole being alone and uninfluential thing is totally bunk ... And by the way, the wheel sucks, reinvent it. [encouragement] – Gary

Just thinking out loud, here, but another idea that pops into my head is doing something about index fossils. And another involves exploring the geologic history of the place where your students live (see the link) http://www.priweb.org/ed/TFGuide/NE/ne_main.htm Hope these ideas at least help your thinking. I'll send along more as I think of them. [sharing resources] – Sam

Take, say, maybe one research-based idea and introduce it to the faculty – have them explore the whys and wherefores of it; bring in some folks who have successfully implemented the idea – and go from there. [mentoring] – Paul

This frustration you are feeling is because the current system IS a bunch of facts with tests that don't always foster authentic learning ... I appreciate your comments, and I don't know if it helps to know that I am still feeling the same frustrations about the curriculum and the tests in my 12th year of teaching (or maybe that is too depressing?) [commiserating] – Annie

In order to fully appreciate the significance of the social networking taking place through the comments, it is important to take a moment to understand Maya's learning work and needs as reflected in her blog post. In this post, Maya's narrative offers a window into her perceptions of her own identity development as a reform-minded teacher in several ways. First of all, she used her post to express frustrations about feeling alone and unsupported by her colleagues in her efforts to implement reform-based practices. Her self-described dilemma is focused on how others in the school perceive her as an "inexperienced teacher." Her self-direction is demonstrated in her statement of an unwillingness to "settle," and she subsequently shares her ideas for future plans that align with reform. It is important to note how the post reveals Maya's awareness of her readership. For example, the acknowledgement of the post as depressing indicated that she expected her readership to be like-minded as she expected them to also perceive her dilemma as depressing. While Maya's participation within this online space provided a venue for her to express her identity development

as she used the blog to portray herself as a certain type of teacher engaged in particular practices and facing certain dilemmas (and thus self-recognize her own priorities and practices), recognition for her developing identity as a science-minded teacher came also through the comments she received.

A total of seven comments were made in response to this post, four of which were included in our excerpt to demonstrate each of the types of recognition work that emerged as most important from this study. First, Gary acknowledged Maya as feeling frustrated and unsupported and offered *encouragement* by sharing similar feelings about traditional classroom practices ("the wheel sucks, reinvent it") thereby identifying a shared identity committed to reform. As can be seen from Table 1, *encouragement* was the most common type of comment made (29% of all comments), with each person receiving at least three encouraging comments and eight receiving 10 or more during the 14 weeks of this study. It's interesting to note that five (one-third) received, on average, one or more encouraging comments per week, most if not all having to do with implementing reform. Specifically, *encouraging* comments included ones that substantiated blogger's claims and position statements with statements of agreement or additional support, "backed up" teachers who had talked about standing up for their reform-minded beliefs, and pushed (sometimes in the form of a compliment) to continue on a similar path.

Second, Sam recognized Maya as a reform-minded teacher through the *resources* he chose to share with her, including ideas for interactive and exploratory lessons. Table 1 reveals that this practice was not common on most blogs. Types of *resources shared* included providing web links to multimedia resources and recommending readings that might offer insight.

Third, Paul recognized that Maya is dealing with a dilemma related to being a reformminded teacher among a community of traditional teachers and offers advice for how to get others in her school to "buy in." In this type of recognition work, Paul recognized Maya's commitment to reform based practices and *mentors* in a way that aligns with her identity but has the potential to lessen her dilemma of feeling alone and being perceived as inexperienced. In general, *mentoring* comments included detailing specific classroom lessons or activities that could create a more authentic experience for students (typically in response to a post in which someone was frustrated and wrestling with how to make a specific content interesting and meaningful to students).

Finally, the comment provided by Annie also recognized Maya as a certain type of teacher as she shared similar frustrations and *commiserated* by stating she, too, still faces these dilemmas. A common form of social networking in this study, bloggers received, on average, eight commiserating comments over the 14 weeks of blogging. *Commiserating* comments were made in response to both affective issues (such as frustrations or happiness over failed or successful pedagogical attempts) and cognitive issues (such as wrestling with political, cultural dilemmas).

As a complement to this in-depth analysis of one post and its related comments, in Table 1 we have summarized quantitative results that give a sense of how frequently participants used their posts and comments to engage in specific types of participation. We have organized the codes in the following three overarching categories:

- Cognitive work, identified whenever participants displayed and discussed understandings of pedagogy, students, or other issues related to the field of teaching. It is interesting to note that almost all instances of cognitive work occurred in blog posts rather than comments.
- Affective work, which could take the form of "sharing emotions" or "advocating." Although once again we found the majority of instances of this type of work in posts,

there were a total of 27 comments in each of the two sub-categories demonstrating that both venues (posts and comments) were used for these purposes.

• Social work, in contrast, was represented overwhelmingly in comments, rather than posts. Social identity work in comments included sharing resources (11% of all comments); mentoring (19% of all comments); encouraging (29% of al comments); and commiserating (22% of all comments) – for a total of 409 of the 551 comments coded. As others read and responded to the reform-based professional work being done in the posts and engaged in these varied forms of social networking, they simultaneously recognized the blogger as participating in the discourse of reform-based teaching. As both participation and recognition (by self and others) are necessary for identity development to occur, thus the social networking and recognition work is important to teachers' learning of reform.

To complement these data, we will briefly report how the teachers themselves perceived and valued the support offered by the blogging community to their reform-based identity development, as revealed by their responses to the survey as well as spontaneous observations about blogging they chose to include in their blogs.

Almost all participants with the exception of two "agreed" or "strongly agreed" that blogging was a valuable asset to their professional learning. One participant was "neutral" on the matter; and, not surprisingly, the only one who "disagreed" engaged the least with his blog (*n*=11 posts). Participants offered additional insight into the ways in which they valued blogging as support for their professional learning through their responses to the open-ended question as well as through blog posts and comments we coded as *blogging about blogging*. For example, this published blog comment written by Rick emphasizes the affective and cognitive support that occurred through the social work of commenting:

Thanks so much for responding so quickly to my comments. It is affirming to me that the class was not a failure, and informative in that perhaps I need to practice what I preach, and get to know and use my own students' resources better!!! I never thought that that would happen through blogging, but this is cool. (Rick, 26 September 2007)

Another participant highlighted the benefits of the interpretation and recognition work being done through blogging by and for oneself as well as the importance of the interactions with the like-minded community:

But, you can also gain insight by listening to yourself as you communicate. Similar to journaling, I think that if you really listen to what you're saying, revelations can be made about the foundations, intent, strengths and weaknesses of your ideas and point of view — revelations made more apparent through the "verbal journaling" art of communication. And, equally important, are the thoughts of others, especially if they are involved in the reform with you. Not just what their thoughts are with respect to yours, but simply what their thoughts are. I'm discovering the power in listening to truly appreciate. (Victor, 1 October 2007)

Blogging affordances that participants valued included opportunities to receive encouraging and thoughtful feedback from others, reflect on professional dilemmas and events, and contribute to other reform-minded science teachers' learning.

Nine of 15 participants perceived themselves to have been successful with nurturing a community on their blog, while four disagreed and two were neutral. Interestingly, 12 of 15 spoke to the interaction and engagement with others through the blog as supportive of their learning in the open-ended survey question. One participant who reported "disagreeing" that she had been able to nurture a community indicated in her open-ended response that

blogging had supported her learning by providing a forum in which to "get my ideas out and get encouragement/feedback from peers that are contemplating the same issues." In addition, it is interesting to note that this same participant had the second highest number of comments on her blog when compared with her peers.

Discussion

Science teachers committed to reform have a daunting, career-long task ahead of them that is ripe with dilemmas (Windschitl, 2002) and challenges (Crawford, 2000). Developing such an identity requires having supported opportunities to participate in this relatively unfamiliar discourse (involving both cognitive work such as wrestling as well as affective work such as sorting out the emotions associated with being an agent of change) but also opportunities to have this work recognized by self and others. This study confirmed the complicated breadth of work that needs to be done to develop professionally as a reformminded science teacher.

As a public venue for professional work, the blog posts constructed and published by the teachers constituted an important form of social interaction and networking. In the context of these posts, participating teachers shared their interpretations of and experiences with their day-to-day efforts to implement reform. As we saw in Maya's blog post above, infused in these meaning-making efforts were expressions of emotions, statements of pedagogical commitments and priorities, and lists of potential resources and approaches. Though focused around Maya's own personal practice and current professional wrestlings, her narrative was conversational in nature and demonstrated her awareness of her blogging community's presence. In her post, she intentionally invited her community to support her in her reform-based work while simultaneously offering support to them through her experiences, interpretations, and resources. As could be seen in this study, participating teachers chose to use their blog post writing to engage in meaningful professional work both cognitive work such as wrestling with dilemmas, documenting personal competence, engaging in personal self-critique, and experimenting with different instructional decisions, as well as affective work such as sharing the emotional aspects of professionally growing and advocating for a certain vision of science education.

While writing posts offered the teachers opportunities to publicly and thus socially wrestle with dilemmas inherent to being a reform-minded science teacher as well as engage in and address the range of emotions inherent in facing these challenging dilemmas, the type of recognition work offered by blog readers through comments offered encouragement and support from others that have shared experiences and share pedagogical values. Encouragement and commiseration emerged as the most important social aspects of recognition work. Fellow bloggers responded to bids for engagement and responded in ways that nurtured peers' identity development. Contributions provided supportive advice or information specific to the personal dilemmas revealed through posts. Connections were made between and among participants throughout the blog posts and comments. Teachers referred to dilemmas that others had described, offered support by means of relating shared experiences, and "pushed" one another's conceptual and pedagogical thinking. Connecting like-minded colleagues through social networking technologies was shown in this study to offer participants opportunities to engage in meaningful discussions that contributed to learning and professional identity development.

Clearly, much of the benefits of a social networking tool, such as blogging, are dependent upon this access to others, and like-minded others more specifically. Developing a blogging community is a difficult and effort-filled process (Herring et al., 2005; Luehmann,

2008). This finding speaks to the need to focus on community-building as an integral aspect of blogging practice. Careful consideration of who constitutes these "others" and how to intentionally invite their participation and engage them in meaningful ways need to be integral considerations of instructional design for professional development providers seeking to use blogging to support professional learning. While maintaining a personalized web space contributes to the learning and professional development of teachers (and in this case to the development of teachers' committed to reform) the social networking function, namely, the comments that were pervasive throughout these blogs, contributed greatly to the identity development of teachers in this study.

Conclusion

This study illuminates the potential of social networking technologies such as blogging to effectively support like-minded professionals engaged in reform as this medium gave participants opportunities to both engage in the discourse of reform-minded practice and have that participation recognize through collaborative interpretation, encouragement and advice offered through the comments. Though demonstrated to be valuable from both outsiders' perspectives through our analyses and from insiders' perspectives through self-report, the affordances and benefits of blogging were realized by individuals to varying degrees. The results of this study can inform future study regarding specific ways teacher-learners can be supported in professional blogging to maximize its learning potential addressing such questions as "How can reform-based resources be collected and shared through a blog?," "What counts as a community?," and "How can a like-minded community be nurtured?" Working with reform-based teacher-bloggers to explore these and other questions could open powerful new doors to supporting the important and challenging work of these agents of change.

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