

Image-sharing in Twitter-based professional conversations

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Abstract

This paper reports on ongoing research into the image-sharing practices of two informal professional networks on Twitter. Each network is brought together through regular, loosely synchronous Twitter conversations that have been initiated with the explicit intention of creating a space for sharing ideas, practice, experience and opinions. It is suggested that studying the images that populate these conversation-spaces, together with the related activities of conversation participants, may yield useful insights into the forces affecting the flows of information, opinion and affect amongst the groups, and thus affordances for informal professional learning. Deleuze's concepts of lines of articulation, lines of flight and knots are used to draw out some of these forces and to better understand the conversation-spaces they create.

Keywords

Twitter, professional learning, images, lines of articulation and flight.

Introduction

This paper reports on ongoing research into the image-sharing practices of two informal, fluid professional networks – one dedicated to teaching and the other midwifery – on Twitter. Each network is brought together through regular, loosely synchronous Twitter conversations that have been initiated with the explicit intention of creating a space for sharing ideas, practice, experience and opinion. It is suggested that tweeted images provide useful entry points into the conversation-spaces, as well as insights into the practices, values and ongoing professional learning of the participants. The paper starts with a consideration of the affordances that Twitter offers as a social medium. The growing importance of shared images is highlighted, and existing branches of research into Twitter's uses in educational contexts are noted. The methods used to acquire and analyse data in the current study are briefly described. By conceptualising the conversations as spaces of varying degrees of smoothness and striation, and using Deleuze's (Deleuze & Guattari, 1988) concepts of lines of articulation that follow the striations and lines of flight that move unpredictably over smoother areas, some of the forces that shape the flows of information, opinion and affect, and thus affordances for professional learning, are identified.

What Twitter offers

Before its potential as a site for professional learning can be considered, the affordances for communication Twitter provides need to be understood. At present, Twitter allows users to "tweet" (send messages of 140 characters or less, with image or video files if desired); to follow other users (and thus automatically receive the tweets they broadcast); to "retweet" (send a tweet posted by another user to their own followers and others); to "favourite" (register approval of a tweet); to reply to a tweet; to "Direct Message" individuals who follow them (effectively private channel tweets); and to search for tweets based on criteria such as keywords and/or originating user. With the exception of the last two categories, all other actions are visible to anyone who looks at a user's profile or uses Twitter's search function, regardless of whether the observer has a Twitter account.

Bruns and Moe (2013) suggest Twitter is unique among social media platforms because of its layering and connecting of different communication spaces. Drawing on Schmidt's (2014) notion of personal publics, they suggest that Twitter offers three interconnected layers of communication: the meso, micro and macro levels. The meso level, which they see as the foundational level of communication on Twitter, consists of tweets read within personal-public follower networks – that is, messages posted with the assumption that they will be read by the group of Twitter account holders who have actively chosen to follow the originator of those messages. They liken this layer of communication to public statements to a group of friends and acquaintances, such as "a speech at a family gathering, or a lecture to a class of students" (Bruns and Moe, 2013 p17). The micro level is comprised of replies to tweets. Bruns and Moe compare this level to conversations with a single individual in a personal-public space – such as a conversation at a party, where others present might or might not listen and

interject. Direct Messaging, which is not covered by Bruns and Moe, might be characterised as a nano level, with communication visible to only one pair of users. Finally, the macro level is communication centred on the use of hashtags: keywords that users choose for themselves, that can be searched for and that therefore allow messages to be spread beyond the boundaries of existing follower networks. This type of communication "resembles a speech at a public gathering ... of participants who do not necessarily know each other, but have been brought together by a shared theme, interest or concern" (ibid., p18).

The Twitter conversations that are the focus of the present work knit together all these levels. Organised around hashtags, they are loosely synchronous, taking place within defined and regular periods of time. Participants include anyone interested in sharing professional practice with other teachers or midwives; but participants' tweets are broadcast to all their followers, and retweeting with different hashtags renders the boundaries of these networks potentially highly porous. In addition their conversational nature means that communication at the micro and nano levels, involving both public replies and private Direct Messaging, are key components.

Images on Twitter

Although, as its popularity has increased and stabilised, Twitter has become the subject of a great deal of research attention, the sharing of images on Twitter remained rather under-researched until relatively recently. Vis et al.'s (2013) work on the role of images in the transmission of both eyewitness reporting and rumour during the 2011 "London Riots" is a notable exception, and represents a recent interest in the use of images in public and institutional responses to crisis events. However, images shared on Twitter within professional groups remain largely neglected. Yet they offer a powerful means to subvert Twitter's 140-character limit – as one of the participants in the research below said, "pictures really do speak a thousand words"; as another observed, images seem to be processed more immediately and somehow more intuitively than text. They therefore offer a potentially rich and complementary alternative to analysis that focuses on the text of tweets.

Outside the research context, professional bodies such as Scotland's General Teaching Council (GTCS) and the Nursing and Midwifery Council (NMC) have issued guidelines and codes of practice regarding use of social media. At present, these barely touch upon image-sharing, but where they do, they warn professionals not to post images with inappropriate sexual content, or bar them from posting any professional-related images at all.

Twitter in educational contexts

Research on Twitter use in educational contexts has primarily focussed on its use in formal class contexts (see, e.g., Forgie, Duff, & Ross, 2013; Kassens-Noor, 2012; Seo, 2012; Trueman & Miles, 2011), with a great deal of interest in the use of Twitter to create and orchestrate learning communities or facilitate communication among large classes in Higher Education. Another tranche of education-related research touching upon Twitter has focused on education for professionalism, including a perceived need to warn students of the dangers of unprofessional behaviour recorded in online spaces (e.g. Cain, Scott, & Akers, 2009; Greysen, Kind, & Chretien, 2010; Osborne & Connelly, 2015). Very recently, research attention has started to focus on the use of Twitter conversations in professional learning (Bingham & Conner, 2015; Evans, 2015; McCulloch, McIntosh, & Barrett, 2011). The present work complements such studies with a new focus on image-sharing.

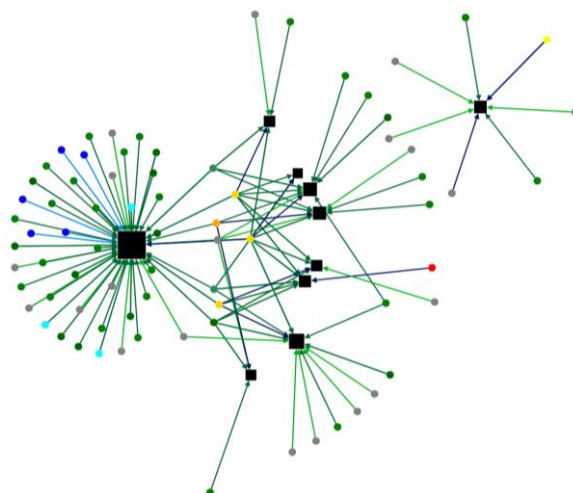
Study Overview

The present study focuses on two informal, grass-roots professional conversations, one for teachers and one for midwives. Both conversations were started by practitioners with the explicit aim of sharing practice and experiences, and with implicit aims of creating supportive professional networks. Both rely on volunteers from within the practitioner/user community to provide both promotion and facilitation. Both were also initially UK-based, but have subsequently attracted participants based in other countries.

The research comprises three overlapping stages. The first stage involved observation of activities within the two conversations over an extended period of time. The second involved image-elicitation based interviews with a small number of professionals active in the two conversations. The final stage, which is currently underway, involves image-elicitation based workshops with pre-service students, aiming to compare what is and is not noticed in the images by novices and experienced professionals. For the purposes of the present paper, only the aspects of the first stage relevant to exploring the image-spaces formed by the conversations will be described, before moving to an exploration of the activities of professionals within those spaces.

Exploring user-image interactions

During the initial observational stage, details of interactions with images tweeted in the two professional spaces were recorded. Data on midwives were collected over six months; the much higher frequency of image-tweets among teachers led to the cessation of data collection after two months. During these periods, data regarding 428/87 images posted by teachers/midwives were recorded, with a total of 5593/1242 visible interactions (tweets, retweets, replies and favourites). The analysis focused on how much visible attention the images elicited – that is, the number of retweets, replies and favourites – as well as connections between images and the



ways in which images connected users. Drawing on visualisation techniques employed in Social Network Analysis, this stage of the research enabled the identification of both images and users for follow-up work.

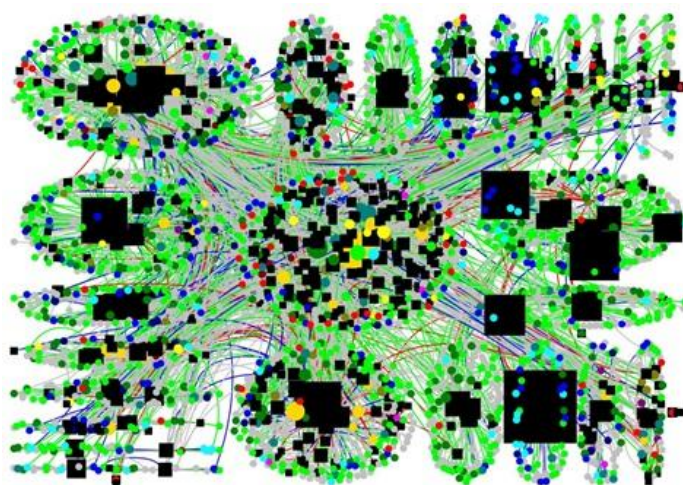


Figure 1: Images and users in a single midwives' Twitter chat session

Figure 2: Ongoing teachers' conversation on Twitter

Figure 1 shows a typical visualisation of a midwives' chat session. The black squares represent images, while the coloured discs represent users. The size of a square corresponds to the number of visible interactions observed to have occurred with that image. The colours of the discs indicate the nature of the interactions that users engaged in. For example, grey discs represent users who only favourite, and never tweet, retweet or reply to images. Red discs, in contrast, indicate users who only tweet images themselves, and never interact with images posted by others. Other colours represent other interaction combinations – for example, yellow discs represent users who engage in all types of image-connected activity.

This particular visualisation, representing a time-limited, topic-based Twitter chat, is relatively easy to comprehend. One can see that one particular image attracts the most attention, and that there are many users who interact with only one image during the chat. In contrast, there are a small number of users who interact with almost all of the images posted. There is also what appears to be a separate or parallel conversation, involving a different group of users linked by a single image. This raises questions about what attracts or repels interaction, and thus accelerates or impedes the flows of knowledge and affect carried by images.

While the teachers' chats are also themed and nominally time-limited (happening every Friday), teachers occasionally tweet with the conversation's hashtag at other times of the week; the theme is essentially unchanging; and the hashtag attracts a larger number of users than in the midwives' conversations. The resulting data cannot easily be broken down into individual chats, and connections between images and users weave in increasing complexity. This can be seen in Figure 2, which is a visualisation of all of the data collected from the teachers' chats. Because of the complexity of the data, the visualisation includes a clustering algorithm to help render the degree of connectedness between different users and images more obvious, but it is important to note that other algorithmic choices result in visually very different images.

Forces shaping the spaces and practices within them

The visualisations presented above and others like them provided a way in to the sea of images and users, surfacing both types and instances of images that tend to provoke or elicit responses, and illustrating the different ways in which users participate in their respective professional conversations. The data were used to select users who were relatively frequent participants, but who participated in varying ways: these were approached via Twitter with a request to be interviewed. For each interview, the researcher chose a small number of images, including some that the interviewee had visibly interacted with and others that had elicited large numbers of visible interactions that had not included the interviewee, to use as prompt materials. Interviews were conducted with six teachers and six midwives via Skype, Google Hangouts or face-to-face.

The interviews were analysed "thinking with" (Mazzei and McCoy, 2010) some of Deleuze's spatial concepts (Deleuze and Guattari, 1988). Conceptualising the conversation-spaces as variously striated and smooth, flows of knowledge and affect within the spaces will be patterned along lines of articulation – channels or grooves that constrain and direct, ruts that are made deeper by their repeated going over, or flow freely and unpredictably along lines of flight – bursts of energy or differentiation that point to escape, to a vanishing point that is outside of the well-trodden space. While the discussions in the interviews were prompted by tweeted images, they frequently went beyond these images to describe other experiences and practices. Lines of articulation were indicated by interviewees' descriptions of both consciously and unconsciously controlled behaviours, or situations in which there was no ambiguity regarding what was the appropriate course of action or decision. Lines of flight, in contrast, were indicated by uncertainty or unpredictability. As the analysis was conducted, the ways in which these lines twist and knot also appeared to be important (de Freitas, 2012).

The influences and forces shaping the online conversations may be usefully grouped into three broad themes: (1) the technical affordances offered by the platforms, which apparently restrict possible actions; (2) users' perceptions of online professionalism; and (3) the motives that users have to take part in these conversations, together with their self-location within them. Together, these result in varied and varying practices that may shape the conversation space so as to hide aspects of professional life.

Technical affordances

The options for action during a Twitter conversation may seem simple enough: a user may tweet, retweet, reply, favourite or, like the researcher, lurk in the silent darkness between posts. However even these apparently straightforward actions may be refracted through a range of intentions and self-imposed conventions. Choices about original tweets were generally governed by users' motives for participating and professional judgment regarding appropriate content, described below. However decisions to interact with images tweeted by others also involved individual interpretations of Twitter's technical affordances. For example, one interviewee described assiduously retweeting the tweets of a particular user whose opinions coincided with hers, while others had very strong feelings about the need to be selective. Reasons given for retweeting included: validation of the 'coolness' of the content of the tweet; perceived usefulness of the content in professional practice; the recruitment of others into the current conversation; and the amplification of a message deemed important.

Favouriting was carried out for perhaps even more varied reasons, including: acknowledgement of good practice or results, analogous to the teacher placing a gold star on a pupil's piece of work; thanking users for retweeting one's own tweets; thanking users for sharing their own ideas; keeping a log of things approved of; keeping a log of things acted on; and keeping a log of things to act on in future. In addition, one interviewee described how he used favouriting to acknowledge or encourage tentative attempts at presence in the conversation-space:

There's a thing that people do that I haven't really worked out what it means, they'll send me a tweet that doesn't say anything, it'll just have ... my @ thing on it, me and a few other people ... I think it's a kind of, almost like a "hello but I haven't got the confidence to say anything, I'll just put your address on there". So I won't reply or say hello, I'll just kind of favourite it as a kind of "Well I acknowledge the fact that you put my thing on there". (T2)

Another interviewee described favouriting as a very different type of action:

Favouriting doesn't mean anything ... if it's not worth retweeting then it's not worth favouriting, do you know what I mean? I favourite things to get people to shut up normally, like "I've had a good long conversation about something and I've got nothing else to say and you say "That's brilliant" and I go "Favourite." Done. That's like a social media full-stop isn't it. (T4)

Just as important as the meanings or functions ascribed by participants to these actions were the descriptions of actions that the interviewees did not approve of. These chiefly revolved around a distaste for "white noise". Interviewees noted the sheer volume of tweets, indicating not only that they could not forward everything but also that they would not want to. This might be because of a lack of value or interest in the tweets received: "they're a bit like spam ... a little bit chain-lettery ... they just fill up your facebook or twitter feed ... it does not necessarily add to what you're wanting on social media" (M4). Or it might be because something has already been retweeted or favorited 'enough': as one interviewee put it, he did not want to be a "spamming tweetie tweeter" (T2), while another described teachers who "post things just to get retweets and attention and stuff, and I'm like get over it" or who favourite or retweet in order to "feel like you're part of something and feel like you're doing some good in the world ... but actually you're not because it's like white noise" (T4).

Together, these shared and unshared conventions form lines of articulation, simultaneously allowing and restricting the flow of information, affect and opinion within the two conversations.

Notions of online professionalism

A second set of lines of articulation relate to practitioners' notions of online professionalism. Despite the existence of formal guidelines and codes of practice mentioned above, these were only rarely mentioned in the interviews, and when they were it was often with uncertainty or disagreement. One midwife worried about the legality of posting unreferenced images: "You don't know the rights within or between countries. In relation to pictures ... I don't know what where you'd stand" (M5), while another wasn't sure what was allowed: "I personally wouldn't put up an image of myself in a uniform identifying where I was from ... And also, I'm not entirely sure it's allowed. By whoever." (M3). The only other person to refer to formal guidelines openly questioned them: "The NMC are not very happy about having pictures like that posted even if you're not discussing anything at all of a professional nature. But I'm not so sure about that ... we really need to talk about what's appropriate because these things are" (M4).

Instead, interviewees described detailed but often contradictory notions of appropriate behaviour. The overarching concern was the "absolutely and utterly" (T2) public nature of the conversation-space:

Anything I'm putting online to share on Twitter I have to be aware that my students can see, parents at the school can see, the local MP ... follows me, so I know that whatever I post out there is very much – as soon as you launch it, anybody in the world could randomly see it ... you know the impact you have if you put anything out there on the internet is very very obvious. (T1)

Interviewees cited a range of reasons to worry about this. Twitter-use might produce a written record of comments made at the end of a bad day that one might regret later. One teacher described avoiding tweeting anything that might incense someone, while another described the need to maintain a professional distance from students. This was in contrast with midwives, who were often proud to be followed by women they had looked

after. Several interviewees described the need to protect the reputation of their profession as a whole, in relation to depictions of both practices and personal presentation in tweeted images; for example, five of the midwife interviewees were scandalised by a photograph of a midwife whose long hair dangled in a loose plait.

Both professional groups cited the need to obtain permission or consent when tweeting photos of people, a deep line of articulation that cuts through the conversational space. However, there was substantial variation in ideas about when permission was needed and from whom. One midwife appeared to be perhaps over-directed by such concerns, responding to an image including a barely visible figure at the end of a corridor in the far background with distress and anxiety over whether that person's consent had been gained. Some softening of this line of articulation appears in the following comment in response to a photo of the tweeter's sister and young niece:

I would never use an image without signed consent. ... if I had a photograph of my sister's child ... I wouldn't post it without her permission, put it that way. But I suppose we're all different and as long as it's not some random child then it's at her discretion ... I think it's down to the mother, really, I don't think an aunt can give consent. It depends on how close she is I suppose. It's a nice image though, so if anything her sister is probably quite proud of the picture. (M1)

Some smoothness in the space allows the interviewee to slip and slide between "never" and "at her discretion", and the loveliness of the image may be a tentative line of flight, providing a means of escape from a rigid requirement to ensure parental consent.

In contrast, in response to the same picture, another midwife went beyond the requirement for consent, suggesting that not even parents can give permission:

I don't think you've got the right to do anything like that ... even when they're giving permission. A mother who sees that at one point might have one feeling about it and then, six months down the line, in a different emotional state maybe ... it could have very negative impacts (M3)

Here, what might seem like a line of flight, as this professional does blindly adhere to guidelines or rules but rather uses her professional knowledge of emotional variability, instead produces an even deeper line of articulation barring the tweeting of any images of children under any circumstances.

One concern that only emerged in the interviews conducted with midwives, but which appeared to be an extremely important and yet variously interpreted issue for this group, was the question of identifiability. The following excerpts illustrate the unsettled striations produced by different lines of articulation. In the first, a desire to be certain of authenticity leads to a perceived requirement for identifiability:

I'd like to see a name badge or something ... I would expect especially in social media you'd expect "Hello my name is" whatever. Midwife or midwife manager ... could be a healthcare attendant, she could be a student midwife, or she could be a volunteer (M5)

However, the following excerpts argue against identifiability, to protect both clients and midwives:

This is an image of a midwife in uniform, in her place of work ... it's ill-advised, for social media. Because there's the possibility of identifying where she's from, and therefore of – well if she starts talking about any cases anonymously, to illustrate what she's saying on the chat, then there's the potential ... of looking in to who the person is she's talking about. It challenges the anonymity of her professional stories. (M4)

She's identified as a midwife and you know her place of work. Anything she now does on the internet, whether she wants to or not will be in relation to that. So if she's got a snapchat photograph of herself out with her pals in [town], it can be put side by side with that ... And judgements can be made, can be used ... she's setting herself up and so I'd say she's quite vulnerable and therefore the women she's looking after are potentially vulnerable. (M3)

Thus, as with the technical affordances, codes of practice and notions of professionalism may create tight but varying constraints on what circulates through the professional conversations, with some users potentially providing means of bypassing blockages or barriers presented by others.

Perceptions of purposes

A third force influencing the conversational flows was participants' sense of what the conversations are for and what their own role is within them. The interviews suggested a range of interacting and sometimes conflicting purposes, with some significant differences emerging between the two professional groups.

Both groups described wanting to engage in dialogue; encourage pride in one's work; boost morale; create supportive connections; and promote a positive image of the profession. Among the teachers, there was also a strong emphasis on sharing/spreading good practice and ideas; and freely sharing resources; and a weaker emphasis on self-improvement and the creation of a space where others might have positive experiences of celebrating their practice. For midwives, the emphasis shifted to reminding peers of what constitutes good practice; promoting a philosophy or advocating for a cause; and attempting to change practice. Within these contexts, participants saw themselves variously as hubs for the flow of ideas and resources; voices of experience and authority; suppliers of emotional support and nurture; and champions of a philosophy or form of practice.

Knots

The forces described above appear to create both lines of articulation, determining how participants enabled or blocked the flow of tweets, and lines of flight connecting participants to new ideas, new practices and new networks. However, they also seem to create knots that enclose darker aspects of professional life. The conversations are deliberately positive, so that negative comments are never made, even when something is perceived as a bad idea. Thus the flow of bad practice might be temporarily slowed or blocked, but not countered:

I don't think I've ever said anything critical to be honest. No I haven't. I'd have to go back through my thousands of comments no I don't think I have. If somebody posts something that isn't good, I just ignore it. And I think many people just ignore it or something because I don't think I've ever even seen a critical comment. (T3)

This line of articulation around positivity leads even a passionate advocate for natural birth to leave a tweet that includes an image that goes against her beliefs unchallenged:

I wouldn't want to publicly knock somebody. Because I don't think that's appropriate ... you can't say "Oh the medicalisation of childbirth" with somebody sat there, because that's like saying "You've medicalised all the women that you look after" ... I wouldn't want to knock her (M3)

Low morale, isolation, lack of support in workplaces and bullying were also regularly mentioned in the interviews with both professional groups. Sometimes this was only hinted at in phrases such as "You know what, I still love me job" (T2) and "You know, hang on, it's going to be alright" (T4). Sometimes it was more explicit, as in the following comments made by a teacher and a midwife:

... let's celebrate the good stuff we do do and enjoy what we do about our profession ... You know, the astute members of the community are very very aware of why we need positive influences and spread positivity throughout the community ... Statistics for teacher suicides are massively on the rise, the amount of teachers leaving the profession, schools closing, massive levels of underperformance due to changing games ... we know that this is not the most comfortable and stable time for our profession. (T1)

... on labour words if there's an example of something going wrong, the midwives won't usually stand up for each other, they'll pull each other apart ... we don't kind of support each other, if you're down and out they'll give you a good kicking. (M3)

Participating in the Twitter conversations was seen as a way of countering these issues. One teacher described his reaction on first discovering the conversation he engaged in:

I thought "This is fantastic! People sharing inspirational ideas and celebrating the end of the teaching week." Rather than going home to drink a bottle of red wine and pass out, dreading the return of Monday morning. (T1)

But they were definitely not seen as forums for opening up, discussing and challenging such problems:

... the profession doesn't need people constantly going on about their failures and moaning and so on and so forth. There's frankly enough negativity out there. (T1)

One midwife commented that "there's enough backstabbing in midwifery" and suggested this contributed to the relentlessly caring tone of the Twitter conversations:

... there is also this noticeable on social media sites of midwives ... trying to create a more nurturing, positive atmosphere. So you see all that compassionate, caring, emotional work etc., you know if we don't, we can't look after ourselves, how do we look after anyone else? (M2)

While most interviewees appeared determined to maintain their Twitter conversations as sanctuaries of positivity and nurture, glimpses of the potential futility of this attitude occasionally showed through:

There's an element of me thinking this is just papering over the cracks ... it's like sticking a plaster on a haemorrhage, it's a nice idea but it doesn't do much. (M3)

One interviewee suggested that the publicly visible conversations were just the surface in terms of support:

if you got into consent for private messages that's where the real support is. The amount of private messages is phenomenal. So what you capture on the surface ... if you actually look deeper, you know the tweets are the context but then you have the private messages go on in between, that's where the real rich stuff is in relation to support (M5)

The bright, shiny exteriority of these public conversations may thus be a knot which encloses a more desperate current of communication at Twitter's nano level, as well as the darker aspects of professional life itself.

Conclusion

Twitter conversations among professionals offer opportunities to study the flows of information, resources, and affect in informal professional development. It seems that tweeted images can provide both effective entry points into these conversations and prompts for eliciting insights from participants, provoking sometimes complex and powerful responses. Analysis of such responses suggests at least three forces shaping the conversation-spaces and thus the opportunities for professional learning that inevitably unfold within them.

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