Beyond the backchannel: Leveraging Twitter to enact learning processes

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Abstract
Conferences provide opportunities for participants to learn with each other through social discovery, interaction and knowledge development. Increasingly, Twitter provides an online backchannel surrounding conference activities. This backchannel both augments in-person interactions, and provides a means for people not in attendance to follow and contribute to the dialogue. Thus, Twitter backchannels provide learning opportunities both for those in attendance, and for others in the wider Twitter-verse. Given that conferences are a forum in which interactive learning takes place, how might Twitter participation at conferences facilitate learning? This session intends to initiate a collaborative dialogue around this inquiry using Twitter as a catalyst, complementing the existing iConference Twitter backchannel. This exploration will focus on content and network analysis methods, discussions on learning networks, and ideation around Twitter as a learning tool. We invite participation both through attendance in the introductory and concluding sessions, as well as via Twitter throughout the conference.

Keywords: learning, social network analysis, Twitter

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1 Introduction
Conferences draw together a crowd of researchers, students, and practitioners with shared interests, and offer them opportunities to make connections, exchange information, learn, and foster a robust dialogue that contributes to knowledge development. Increasingly, Twitter use at conferences has become the norm, providing a backchannel – i.e., a collection of thoughts, comments, queries, and summaries of key ideas or events presented at the conference and shared by those in attendance – that affords learning opportunities through the sharing of and engagement with information relevant to the conference. This practice has helped blend the peer-based interactions and information sharing situated in the face-to-face realm of conferences with networked interactions that take place in Twitter and other online spaces. Additionally, this backchannel allows those who are not in attendance to follow along and even contribute to dialogue surrounding the conference, thus expanding the network of interested participants beyond the temporal and spatial constraints of the conference itself.

The combination of information and actors involved in a Twitter stream surrounding a conference aids community development (Ebner & Reinhardt, 2009), social presence (Dunlap & Lowenthal, 2009) and information sharing (Reinhardt, Ebner, Beham & Costa, 2009; Vega, Parthasarathy, & Torres, 2010; Chen, 2011). We posit that this community also forms a learning environment for those who participate, and that conference Twitter networks can facilitate learning experiences. The participatory, networked nature of Twitter fosters a collaborative, social means of learning based on discovery of individuals and communities with a shared learning interest, forming connections, exchanging resources, and harnessing information flows. The data resulting from Twitter learning networks provides an opportunity to examine who learns what, from whom, and via what means. Using content and social network analyses of Twitter texts and networks, we can gain insight on the observed and potential use of Twitter for teaching and learning.

This interactive session seeks to explore these ideas further by initiating collaboration and dialogue around several related queries:

- How can connections in the Twitter backchannel at conferences foster learning and engagement?
- What directed tasks or activities can be modeled using Twitter to facilitate learning?
• What evidence of learning can be gleaned from the resultant data of a conference Twitter network?
• Does Twitter use at conferences foster engagement among attendees, or is it a distraction?

The goals of this interactive session are as follows:

1. To disseminate knowledge of Social Network Analysis (SNA) methods and concepts amongst the iConference community, and specifically, to explore how SNA can be used to identify or inform potential learning processes that take place in Twitter.
2. To investigate how Twitter can be used to enact learning processes beyond the backchannel.
3. To crowdsource our inquiry by providing opportunities for collaboration and discussion (during both face to face sessions, and throughout the conference on Twitter).

2 Activity Plan

Our session for interaction and engagement has three distinct parts, spread over the duration of the conference. Ongoing interaction, discussion, and collaboration will be patterned on Twitter throughout the conference, alongside the usual backchannel interaction that takes place. The online activity will be bookended by face-to-face sessions: an introductory session at the beginning of the conference, and a concluding session towards the end of the conference.

2.1 Part 1: Introductory session [1 hour]

We begin the session with a brief introduction of our research goals and the current work undertaken in the Project for Learning Analytics in the Social Media Age (pLASMA), led by Anatoliy Gruzd and Caroline Haythornthwaite (Gruzd, Haythornthwaite, Paulin, Absar & Huggett, 2014). We will then introduce basic concepts around Learning Networks, and Social Network Analysis (Borgatti, Everett & Johnson, 2013; Haythornthwaite, 2008; Haythornthwaite & de Laat, 2010) along with relevant theories of learning.

The session will then move towards application of these concepts in a collaborative activity. The participants and organizers will be arranged in smaller groups, allowing people to meet each other, engage in discussion, and find common interests. Each group will be given an artifact or example to discuss or collaboratively analyze: some data, a social network diagram, or both, along with a question or statement to help focus discussion. These artifacts and discussion prompts will also be shared on Twitter, using both the conference hashtag and a session-specific hashtag. Towards the end of the session, group members will be encouraged to share some of their thoughts, either directly on Twitter, or aloud to the rest of the participants in attendance (which will be tweeted out by one of the organizers).

2.2 Part 2: Twitter interaction during the conference

We will share artifacts and discussion prompts – for example, an image of a social network diagram accompanied by probing questions - on Twitter regularly throughout the conference to stimulate responses and discussions on Twitter and at the conference. A similar approach was successfully used by Gruzd, et al. (2014). Session organizers and their colleagues – both those present at the conference, and those who are not attending – will facilitate this interaction by providing prompts, queries, retweets, and relevant mentions in Twitter, encouraging further discussion and participation in the network. This activity is meant to complement the Twitter backchannel present at the conference.

2.3 Part 3: Synthesis and Review [1 hour]

The session will begin with a presentation and discussion of basic social network and content analyses from the iConference Twitter backchannel, using the conference hashtag. To generate discussion on approaches to analysis of learning networks, we describe an approach we took that explored expertise and network centrality as a way to understand how learning was facilitated in a conference Twitter network (Gilbert & Paulin, 2015). We will then review some of the contributions made to the directed activities and discussion, and conclude with an open discussion, inviting ideas and conversation on how Twitter and other social media could be or have been used towards learning. After the conference, we will produce and share a summary of the sessions and related Twitter activity.

3 Relevance

The iSchool community represents a number of disciplines and perspectives with a shared focus on the points of intersection between information, technology, and people. Thus, we believe a discussion
centered on the potential relationships between Twitter and learning will be of great interest to this community. This belief is encouraged by the quality and scale of Twitter use at previous iConferences, indicating that there will be interest both in the topics we plan to explore, and in the participatory manner in which we will explore them.

3.1 Intended audience
The session will attract participants who have an interest in SNA, learning networks, social media, and/or crowdsourcing. Those who are active on Twitter will be likely to gain the most as they will be able to participate in patterned activities that will take place in Twitter throughout the conference, and have a first-hand experience of Twitter to draw upon. Those who do not plan to engage on Twitter are welcome to attend and participate in the discussions that take place in the introductory and concluding sessions.

References