POINT-COUNTERPOINT

Application of Social Network Theory: Doctoral Students' Experiences in Conferences

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As regular attendees at the Academy of Human Resource Development (AHRD) Conference, we enjoyed interacting with the highly relevant study by Diane Chapman and her colleagues (Chapman, Wiessner, Morton, Fire, Jones, & Majekodunmi, 2009). In the study, they use several theoretical tools to understand the learning experiences of doctoral students at a professional conference. In our view, the concept of the *learning organization* serves as a foundation for the creation of new knowledge at conferences. *Communities of practice* and the idea of *legitimate peripheral participation* represent the process that occurs at conferences. *Knowledge creation* is the outcome of these events. We concluded that an additional tool, *social network analysis*, could help to expand these ideas further. In this reaction article, we explain how the tools of social network analysis might be used to enhance our understanding of doctoral student participation in scholarly conferences.

As formation of developmental relationships is central to the purpose of scholarly conferences such as AHRD, it is worth exploring the ties that doctoral students might develop in these conferences through the lens of Social Network Theory (Haythornthwaite, 1996). Principles of social network analysis can be applied to comprehend the possible barriers and bridges that the doctoral students might experience in scholarly conferences. Social network analysis is an accepted methodology applied by sociologists that has a goal to identify "who the key actors are and what positions and actions they are likely to take" (Krackhardt, 1996, p. 161). According to Krackhardt (1996), the interactions and connections in social network analysis are represented as networks where the nodes are either individuals or organizations with the edges representing the associations between them.

Social network analysts, such as Haythornthwaite (1996), approach social interactions from either the perspective of an actor in an environment (egocentric approach) or from the perspective of the environment itself (whole network approach). If approaching the social interactions of doctoral students from the actor's egocentric perspective, the doctoral students would be profiled in a comprehensive manner in order to understand typical relationships for certain types of doctoral students. As noted in the study by Chapman et al. (2009), the group of doctoral students might not be entirely homogeneous and might consist of a mix of doctoral

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students who are first time attendees and students who are regular attendees. Doctoral students might also have different career goals because some aspire to be professors and others might want to become or continue as practitioners. Because these differences likely influence student expectations from scholarly conferences, an egocentric social network perspective would reflect awareness of such differences in the profiles of the doctoral students. Alternatively, if considering doctoral students' conference interactions from a whole network perspective, interviews with individuals from all groups of attendees would heighten understanding of the potential ties developed with doctoral students. Such an approach could help us understand doctoral student ties with the new faculty members, the experienced faculty members, the post-doctoral research fellows, the editors of journals, and the practitioners. The egocentric approach might restrict our vision to the typical behaviors of groups of doctoral students whereas the whole network perspective would help us to identify some ties that are not common and are unique to individual doctoral students (e.g., a doctoral student approaching the editor of a journal to discuss research of relevance to the editor's journal).

The whole network perspective might help in identification of a structural hole (Burt, 1992). Structural holes provide an opportunity for information providers to fill the information gap by allowing access to information. These gaps represent a lack of a connection that can facilitate information exchange between two or more groups. In the context of scholarly conferences, identification of such structural holes might illustrate the need for a mediator who could act as an information provider to bridge the gap between the doctoral students and the experienced scholars and professionals. Such a mediator could assist doctoral students in moving from the periphery to the center of a Community of Practice (CoP; Wenger & Snyder, 2000). This process could be facilitated through informal gatherings that introduce doctoral students' research work or dissertation work to experienced scholars in the conference. For example, conference organizers can provide the list of experienced scholars who register for the conference to doctoral students attending the conference so that the students can plan to network with the scholars whom they can associate with. This can be followed up with an informal meeting in the conference where the conference organizers introduce experienced scholars to student attendees. Prior information about the scholars can help the doctoral students to utilize such an informal gathering to share their research work with the scholars and form developmental ties.

Moreover, the role of such mediators or conference organizers becomes crucial in developing the *content, direction, and strength* of the ties that the doctoral students might form in conferences (Haythornthwaite, 1996). From a social network perspective, social relationships might vary according to three attributes such as the content, the direction, and the strength of the relationship. First, the content of a relationship is defined by the sharing, delivery, or exchange of resources and information in that relationship (Haythornthwaite, 1996). Conference organizers can contribute toward the exchange of resources among doctoral students and various groups of attendees in a conference by first determining the dimensions of the doctoral students' expectations from scholarly conferences. Examples of such exchanges include writing collaboratively with peers and faculty from different universities, seeking emotional support from fellow doctoral students and faculty, sharing of research information with fellow doctoral students and experienced scholars, and making connections with editors. Scholarly conferences can facilitate opportunities for doctoral students to form strongly bonded communities. At

AHRD, the Emerging Scholars Pre-Conference is an important step in that direction. Perhaps organizers of such events can facilitate more opportunities for doctoral students to discuss potential collaborative projects aimed at publication with students from other institutions. These relationships continue after graduate school as scholars move further in their faculty and practitioner careers.

Second, social relationships can be either *unidirectional, bidirectional, or undirected* (Haythornthwaite, 1996).Doctoral students might prefer to develop either a unidirectional or a bidirectional relationship with experienced scholars at conferences. In unidirectional developmental relationships they might primarily engage in learning from the expertise and experience of scholars they associate with. In bidirectional relationships, they might engage in a reciprocal information exchange that would allow them to contribute toward the scholar's learning as well. Collaborative relationships, the direction of the flow of information is not of any significant relevance as long as the information shared by one party complements the other.

Conference organizers can consider all three kinds of relationships in order to understand the possible barriers that doctoral students might face in developing unidirectional, bidirectional, and undirected relationships at conferences. For example, experienced scholars might be reluctant to develop unidirectional relationships and might not engage in extensive conversations with doctoral students unless they foresee a reciprocal benefit of collaborating or learning something new from the student. It is important for conference organizers to identify the expectations that experienced scholars might have from doctoral students. This information could predict possible barriers hindering doctoral students from moving from the periphery to the center of the CoP in a conference. Similar reasoning can be used to identify the expectations of all other possible groups of conference attendees (e.g., new faculty, post-doctorate research fellows, and journal editors). The whole network approach, as advocated by social network theory, can help the organizers achieve such awareness and integration.

Third, social relationships might vary according to the *frequency of communication* (Haythornthwaite, 1996) between the parties involved in the relationship. Frequent communication or exchange of information can make a relationship strong whereas infrequent association might make a relationship relatively weak. However, as noted by Granovetter (1973) (cited by Haythornthwaite, 1996), although weak ties might be formed between individuals belonging to different functional areas, such associations might provide significant help for acquiring knowledge typically unavailable within one's usual circle. It is important to encourage doctoral students to form ties with fellow students and experienced scholars with differing research interests. Such relationships might be weak in comparison to the doctoral students' collaborative associations with professors and peers who share their primary research interests. However, such weak relationships can direct doctoral students to Chapman et al. (2009), we argue that weak ties with senior scholars at conferences are not inherently problematic. These weak ties can result in unidirectional ties and information flow of great value to conference participants.

Social network theory offers an alternative view point that emphasizes the role that conference organizers can play in eliminating barriers and facilitating the formation of ties between doctoral students and other conference attendees. The authors are correct in noting that doctoral students hold the primary responsibility of forming bridges with their peers and significant scholars. However, conference organizers can act as facilitators by providing opportunities to develop strong and weak ties with other attendees.

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