

Understanding how social networking influences perceived satisfaction with conference experiences

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Social networking is a key benefit derived from participation in conferences that bind the ties of a professional community. Building social networks can lead to satisfactory experiences while furthering participants' long- and short-term career goals. Although investigations of social networking can lend insight into how to effectively engage individuals and groups within a professional cohort, this area has been largely overlooked in past research. The present study investigates the relationship between social networking and satisfaction with the 10th Biennial Conference of Research on the Colorado Plateau using structural equation modelling. Results partially support the hypothesis that three dimensions of social networking – interpersonal connections, social cohesion, and secondary associations – positively contribute to the performance of various conference attributes identified in two focus group sessions. The theoretical and applied contributions of this paper shed light on the social systems formed within professional communities and resource allocation among service providers.

Keywords: conference experiences; satisfaction; social networking; southwestern United States

Introduction

Professional socialization and networking are central to participation in conferences that draw together leisure and outdoor recreation professionals. Conference organizers are presented with the challenging task of providing satisfactory experiences shaped by social interaction and involvement in activities that are routinely provided to attendees. Many associations support general post-conference evaluations; however, there remains a limited understanding of factors that influence the perceived quality of conference experiences and specific language for discussing how to most effectively engage members of a professional community. It would behoove any organization to evaluate critically how their time, energy, and programming can mobilize resources that foster social networks and accomplish the long-term goals of an organization (Hall and Steelman 2007, Lee *et al.* 2012). Better understanding the predictors of satisfaction within the context of a professional community can shed light on the ties that bind social actors (individuals and groups) to a larger organization and the process of realizing positive experiential outcomes.

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This paper presents the results from a case study of the 10th Biennial Conference of Research on the Colorado Plateau (COPL), which focuses on the integration of research into resource management activities in the southwestern United States. Similar to many professional organizations in the field of leisure studies, the COPL conference aims to enhance social networks through discussion, information sharing, and productive communication among scientists, managers, administrators, and student attendees (van Riper *et al.* 2010). These efforts draw together the members of organizations and provide a context to examine the interpersonal relations, linkages among social actors, and emergent networks (rather than individual experiences) that lead to desirable outcomes (Stokowski 1994). This case study examined the social structure of the COPL conference and the performance (i.e. satisfaction) of professional development opportunities provided by the organizers. Specifically, the relationship between social networking and satisfaction was empirically tested to gain a better understanding of the factors that contributed to a high quality conference experience.

Review of relevant literature

This paper's conceptual framework is guided by part of the COPL conference mission to foster social interactions and relationships on formal and informal bases (van Riper and Cole 2004). These interactions were thought to influence satisfaction among members of a community galvanized within a professional setting. The research approach adopted for this case study was derived from the idea that conferences provide an external social structure that allows attendees to generate networks of secondary associations, form high levels of interpersonal trust, perceive mutual aid, and recognize feelings of reciprocity (Arai and Pedlar 2003, Glover and Hemingway 2005, Putnam 2007). Conference-going is considered a voluntary undertaking that fosters collective decisions and yields positive experiential outcomes that are freely chosen (Neulinger 1981). There are restorative qualities that consequently emerge from this activity, which allow individuals to attain personal and social benefits such as cohesion within a broader organization (de Grazia 1964, Kelly 1996). In other words, the act of attending conferences and the social conditions fostered through participation are considered vehicles through which individuals share contemplation and celebration (Godbey 1999).

The social actors engaged in a conference become linked through 'social cement' that is an important element of professional organizations (Glover and Hemingway 2005, Putnam 2007). In this sense, the ties that bind conference attendees and individuals associated with a broader group generate social capital, which is theorized to arise from relationships, sociability, and informal interactions (Coleman 1988, Putnam 2007). The network structures generated through interactions with members of a professional community are based on access to resources made available through participation in an activity (Bourdieu 1986). Social capital is collectively built among members of a community by creating networks, norms of reciprocity, and interpersonal trust (Putnam 1995). Researchers have explored these underpinning themes of social capital in the context of leisure studies (Glover and Hemingway 2005), examining how resources shared through leisure pursuits can contribute to an individual's changing identity and social relations within a community (Arai and Pedlar 2003). Many of these themes align with the career-oriented benefits provided to attendees by the COPL conference organizers.

There are various forms of social networks that can emerge among members of a professional community (Ballet *et al.* 2007). These connections can expand and promote social cohesion while also encouraging new relationships outside existing networks (Gargiulo and Benassi 2000). In this sense, both positive and negative outcomes can result from social networks created in a professional setting. Newman and Dale (2007) argue that social capital is comprised of ‘bridging’ and ‘bonding’ ties. Bridging ties refer to intergroup relationships that promote diverse, flexible, and adaptive networks. Bonding ties, on the other hand, refer to interpersonal relations that exist within a close-knit group of individuals. These bonding ties are often homogenous and centralized, which can potentially impede the formation of new connections. The emergent benefits of engaging in conference activities can be evaluated in terms of bridging and bonding ties.

Social networking through bridging and bonding influences the quality of conference experiences and perceived satisfaction with professionally-relevant content of leisure and recreation-related meetings (van Riper and Healy 2008). The suite of opportunities routinely provided to conference attendees facilitates communication about research findings, provides insight on methods to integrate research into management activities, and enhances professional skills. Several examples of conference attributes include paper and poster presentations given by academic and agency professionals, panel discussions, informational sessions, and field trips. The COPL conference organizers strived to provide high quality experiences for attendees through the provision of these various activities.

Study purpose

This case study examined the relationship between social networking and the performance of conference attributes. Two focus groups were conducted to identify the most important elements of the COPL conference and a survey was administered to explore the dimensions of a social system formed within this professional community. Specifically, this paper explores the relationship between social networking and satisfaction with the COPL conference. Results provide insight into how leisure and outdoor recreation organizations can most effectively allocate resources to increase satisfactory conference experiences.

Methods

Survey questionnaire

The COPL conference was evaluated through an online survey of participants using Survey Monkey™ following methods outlined in Dillman (2007). Electronic survey questionnaires were distributed to all conference attendees with valid email addresses one month after the meeting (Lee *et al.* 2012). A total of 336 attendees were contacted by email and then sent the first follow-up reminder one week later and a second reminder three weeks after the initial email contact. A total of 169 respondents completed the survey (50% response rate). The questionnaire was divided into four sections: 1) background information on respondents and their participation; 2) measures of social networking; 3) respondent evaluations of the importance of and satisfaction with the COPL conference attributes; and 4) socio-demographic questions.

Survey measures and analyses

Social networking was examined using survey items derived from past research (Arai and Pedlar 2003, van Riper and Healy, 2008) and measured on a 5-point Likert-type scale that ranged from 'Strongly Agree' to 'Strongly Disagree'. Three dimensions that reflected bonding and bridging ties (Newman and Dale 2007) were identified based on *a priori* understandings of how the survey items would relate conceptually to the idea of social networking. Three interpretive labels were assigned to these dimensions including: *Interpersonal Connections* (e.g. 'I connected with individuals outside of my area of expertise at the 10th Biennial Conference'); *Social Cohesion* (e.g. 'The 10th Biennial Conference helps to build a sense of community in my area of expertise'); and *Secondary Associations* (e.g. 'The 10th Biennial Conference brings together people who come from different areas of expertise'). By assessing these dimensions, conference organizers can target different facets of social networks throughout the process of designing professional meetings.

The suite of COPL conference attributes included in the survey questionnaire were derived from the results of two focus group sessions. The first focus group was held during the 8th COPL conference in Flagstaff, Arizona. All conference attendees were invited to a lunchtime session about conference planning on 31 October 2007. Five people attended and four participated. A modified nominal group process was employed, which began with a five-minute period of silence for attendees to respond to the question, 'What are the attributes of an excellent conference?' Following individual writing, a round-robin recording of ideas was carried out to reflect all participants' thoughts on a flip chart. Five minutes were set aside for clarification of individual responses. Each participant was then given six coloured 'importance' dots and told to place their dots on what they thought were the six most important attributes of the COPL conference. Results were tallied based on the frequency of responses by item.

The second focus group was held during the Grand Canyon Monitoring and Research Center COPL conference in Scottsdale, Arizona on 20 November 2008. Similar to the first session, all attendees were given an open invitation to participate in a conference planning discussion. A total of 21 people participated by responding to the same question – 'What are the attributes of an excellent conference?' – and engaging in a nominal group process. Approximately five minutes were set aside for individual quiet time to respond, followed by a 30-minute round-robin recording of ideas on a flip chart and then five minutes for clarification. Each participant received seven 'importance' dots and was instructed to vote for the seven most important items. Again, the recorded results were tallied and combined with the results derived from the first focus group to identify the most salient themes of the COPL conference.

The conference attributes identified in the two focus group sessions were measured on a 5-point Likert-type scale that ranged from 'Very Satisfied' to 'Very Dissatisfied'. All survey items were entered into an exploratory factor analysis (EFA) in SPSS version 18.0 to determine how they naturally fell into conceptual categories. Oblique (Promax) rotation was used and eigenvalues greater than 1.0 were accepted. The EFA procedure yielded four dimensions that accounted for 62.9% of variance in the data: 1) *Overarching Characteristics* (e.g. 'Applications to resource management were evident'); 2) *Outside Activities* (e.g. 'Field trips'); 3) *Administration* (e.g. 'Conference organizer contact information was made readily available'); and 4)

Networking (e.g. 'Networking opportunities at the conference'). Summative scores of the survey items that loaded onto these four dimensions of the COPL conference experience were created for subsequent analysis (Hall *et al.* 1999).

Survey data representing the two constructs of interest – social networking and perceived satisfaction – were first screened and corrected for missing values using a multiple imputation procedure in PRELIS 8.70. Missing values were calculated for all scale items, excluding socio-demographic characteristics, to maintain the original variability of the dataset and provide unbiased estimates with acceptable standard errors (Collins *et al.* 2001, Graham *et al.* 2003, Schafer and Graham 2002). Drawing on the conceptual underpinnings of social networking suggested in past research and results from the EFA of satisfaction measures, a structural equation model was performed using LISREL 8.70 (Anderson and Gerbing 1988, Jöreskog and Sörbom 2004). This procedure tested the hypothesis that three dimensions of social networking positively predicted satisfaction with the COPL conference attributes (see Figure 1).

Results

Profile of survey respondents

A profile of survey respondents and their level of participation in the COPL conference indicated high levels of education, considerable employment longevity across agencies, and attendance at previous COPL conferences (see Tables 1 and 2). Nearly all respondents had a minimum of a Bachelor's degree and three-quarters had at least a Master's or PhD degree. Gender was almost equally divided between men (43%) and women (57%). Close to 40% of the attendees worked for the federal government, 30% for a university, 11% were associated with nonprofit organizations, 9% worked for state or county government, and 5% were students. Survey respondents were active participants in the COPL conference in that 48% gave a paper or a talk while 14% had prepared a poster. Just over half (54%) were first time attendees at the COPL conference. Nearly half (46%) of individuals that had

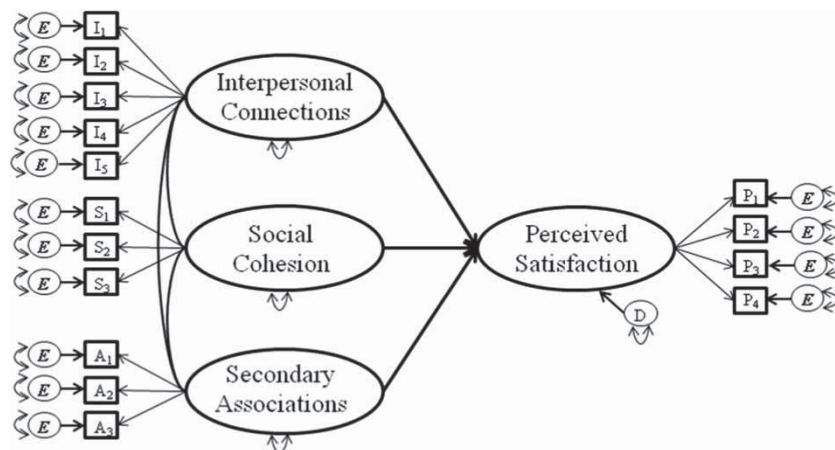


Figure 1. Hypothesized model linking perceived satisfaction with the attributes of the Colorado Plateau Biennial Conference experience to three dimensions of social networking including interpersonal connections, social cohesion, and secondary associations.

Table 1. Profile of survey respondents that attended the 10th Biennial Conference of Research on the Colorado Plateau.

Variables	Percent
<i>Education</i>	
High school graduate	0.7
Technical school or associates degree	0.7
Bachelor's degree	22.3
Master's degree	38.5
PhD, MD, JD, or equivalent	37.8
<i>Gender</i>	
Female	56.8
Male	43.2
<i>Current Employer</i>	
Federal government	38.5
State or county government	8.8
Non-profit organization	11.5
Private business	2.7
University	30.4
Not currently employed	2.7
Other (e.g. retired, international organization, self-employed)	5.4
<i>Length of time employed by current employer</i>	
Less than a year	10.1
1–5 years	36.5
6–10 years	21.0
11–20 years	20.3
More than 20 years	9.4

previously attended the COPL conference had been to two or less. In total, 79% said they were likely or very likely to attend the next meeting.

Modelling the conference experience

Two measurement models were first examined to verify the hypothesized factor structures. Fit indices suggested the models of social networking ($X^2 = 74.382$,

Table 2. Activity involvement among participants of the 10th Biennial Conference of Research on the Colorado Plateau.

Survey Item	Percent
<i>Previous conference participation</i>	
Yes	54.1
No	45.9
<i>Number of previous conference visits</i>	
1	32.4
2–3	39.7
4–5	17.6
≤5	10.3
<i>Participation in paper presentation</i>	
Yes	48.0
<i>Participation in poster presentation</i>	
Yes	14.2

df = 40; RMSEA = 0.078; CFI = 0.944; SRMR = 0.059) and perceived satisfaction with the conference attributes ($X^2 = 2.146$, df = 2; RMSEA = 0.021; CFI = 0.999; SRMR = 0.019) adequately fit the data. The dimensions within each latent construct maintained good internal consistency (Cronbach's alpha ranged from 0.759 to 0.959) (Nunnally 1978). Factor loadings greater than 0.5 were retained in the final models (Hair *et al.* 1998), resulting in two survey items being dropped from the *social cohesion* and *secondary associations* dimensions of the social networking construct. Also, two error terms were allowed to co-vary within the same dimension of *social cohesion* to account for potential method effects and raise the fit statistics to an acceptable level (Byrne *et al.* 1989). These modifications improved the fit of the social networking measurement model to the sample data, $\Delta X^2 = 47$, $p \leq 0.01$. Given adequate diagnostic measures in the measurement models, a structural model was performed using a covariance matrix that was positive definite and a robust maximum likelihood estimation procedure due to non-normally distributed data ($X^2 = 166.842$, df = 83; RMSEA = 0.077; CFI = 0.904; SRMR = 0.077) (see Table 3).

Results from the analysis of survey items reflecting three dimensions of social networking indicated high levels of agreement, especially with statements measuring the benefit of interpersonal connections and social cohesion (see Table 4). The first dimension of *interpersonal connections* (Mean (M) = 3.91) suggested that social networks were formed through new and existing professional relationships that lasted over time and that were considered to be important. The second dimension of *social cohesion* (M = 4.1) contributed to the formation of social networks. This dimension was formed around the cohesiveness of the larger COPL community. The third dimension of *secondary associations* (M = 3.8) was integral to the formation of social networks within and outside areas of expertise represented at the meeting. These three dimensions of social networking predicted satisfaction with the COPL conference attributes. Findings illustrated that *interpersonal connections* ($\beta = 0.32$) and *secondary associations* ($\beta = 1.34$) had strong positive relations with perceived satisfaction. The dimension of *social cohesion* ($\beta = -.76$), however, illustrated a negative relationship with the dependent variable.

Elements of the COPL conference that were identified in two focus groups were assigned to four dimensions (Table 5). First, the dimension of *overarching characteristics* (M = 4.4) encompassed the broader goals of the COPL meeting to accommodate participants' interests. Second, *outside activities* (M = 3.2) included opportunities for select participants such as field trips, team-building exercises, Continuing Education Units (CEU), and students activities. Third, *administration*

Table 3. Goodness of fit statistics that examined the hypothesized factor structures for social networking and perceived satisfaction with the 10th Biennial Conference of Research on the Colorado Plateau (n = 169).^a

	X^2	df	RMSEA	CFI	SRMR
Social Networking Measurement Model	74.382	40	0.078	0.944	0.059
Perceive Satisfaction Measurement Model	2.146	2	0.021	0.999	0.019
Structural Model	166.842	83	0.077	0.904	0.077

^aAcceptable fit statistics included values of the root mean square error (RMSEA) ≤ 0.08 , comparative fit index (CFI) ≥ 0.90 , and standardized root mean square residual (SRMR) ≤ 0.08 (Bentler 1990, Steiger and Lind 1980).

Table 4. Factor loadings, mean values, standard deviations, and internal consistency of conference participants' agreement with statements measuring social networking (n = 169).

Social Networking Scale Items	Factor Loadings	Mean	SD	α
<i>Interpersonal Connections</i>		3.905		.877
As a result of the scientific programme sessions, I established new professional relationships at the COPL conference	.725	3.73	.93	
Through informal social interactions I established new professional relationships at the COPL conference	.669	3.81	.97	
I connected with individuals outside of my area of expertise at the COPL conference	.677	3.95	.91	
I will continue to associate with the individuals that I met at the COPL conference	.849	3.84	1.04	
I value the relationships I established with people who attended the COPL conference	.827	4.20	.87	
<i>Social Cohesion</i>		4.059		.772
The COPL conference promotes a sense of social cohesion on the Colorado Plateau	.546	4.02	.88	
The COPL conference helps to build a sense of community in my area of expertise	.589	3.69	1.17	
The connections I made at the COPL conference will benefit me in the future	.814	4.07	.91	
<i>Secondary Associations</i>		3.843		.959
The COPL conference brings together people who come from different areas of expertise	.572	4.45	.67	
This conference has helped me connect with other professionals in my area of expertise	.819	3.83	.98	
I formed a social network through informal social interactions at the conference	.828	3.33	1.16	

(M = 3.9) measured components of the meeting that were specific to the organizers and that shaped the general conference experience. Finally, *networking* (M = 4.4) examined opportunities for attendees to interact with others and engage in professional development activities. The construct of perceived satisfaction, indicated by summative scores from each of the four dimensions noted above, was influenced by social networking. Specifically, 69% of the variance in perceived satisfaction was accounted for in the measures of social networking utilized in the present study. This finding suggests that the opportunities to form social networks within and outside conference-goers' areas of expertise foster satisfactory experiences provided by the COPL organizers.

Discussion

This case study examined the relationships among three facets of social networking and perceived satisfaction with the 10th Biennial Conference of Research on the Colorado Plateau in the southwestern United States. As part of the conference experience, social networking was examined in terms of three dimensions that served to partially unite a professional community. Moving beyond a single item measure of satisfaction that is often employed in post-conference evaluations, this investigation

Table 5. Factor loadings, mean values, standard deviations, and internal consistency of COPL participants satisfaction with the 10th Biennial Conference of Research on the Colorado Plateau (n = 169).

Conference Components	Factor Loadings	Mean	SD	α
<i>Overarching characteristics</i>	.816	4.39		.881
Applications to resource management were evident	.621	4.39	.682	.68
Keynote speakers are experts in their field	.522	4.30	.863	.86
A mix of talks with specific and broader themes	.709	4.46	.715	.72
Timely programme topics	.847	4.49	.665	.67
Mixed audience of managers and scientists	.776	4.39	.647	.65
Conference topics were relevant to my job	.709	4.33	.792	.79
A conference theme that appealed to both managers and scientists	.842	4.37	.730	.73
<i>Outside activities</i>	.423	3.15		.871
Field trips	.897	3.03	.798	.80
Availability of team-building activities (e.g. hiking, kayaking)	.905	2.95	.940	9.4
Continuing Education Units (CEU) offered for attending the conference	.769	3.09	.953	.95
Professional development opportunities for students	.603	3.54	1.091	1.09
<i>Administration</i>	.680	3.88		.759
Conference organizer contact information was made readily available	.636	4.12	.901	.90
A single theme for the conference (vs multiple themes)	.608	3.85	.864	.86
Introduction and wrap-up sessions	.816	3.81	.809	.81
Interactive activities included in the agenda (e.g. workshops)	.592	3.75	.907	.91
<i>Networking</i>	.631	4.38		.765
Networking opportunities at the conference	.732	4.34	.654	.65
Opportunities to make new contacts	.701	4.40	.648	.65
Opportunities to talk with other conference participants	.732	4.41	.658	.66

drew on results from two focus groups to identify the relatively important COPL conference attributes. Results suggested that the examined factors statistically explained some degree of perceived satisfaction including long-lasting professional relationships and personal associations. However, the cohesiveness of the broader COPL conference community detracted from satisfaction. Although attendees feel connected to smaller scale social networks, linkages to the broader organization may not be as pronounced and consequently do not positively contribute to the performance of conference attributes. These results are informative for resource allocation among leisure and recreation-related professional societies that strive to foster a sense of community and continued support among their clientele.

Results suggest that high quality conference experiences result from recognition of social and personal benefits by participants (Kelly 1996). The social systems that were created and fostered through attendees' voluntary engagement with other individuals in the COPL professional community contributed to perceived satisfaction. Based on the evaluations of various participants – including university faculty, federal, state, and county land managers, non-profit organization personnel, and students – future service providers should continue to manage for experiential processes of social networking that increase the quality of conference activities. Many

conference organizers currently structure programmes to provide opportunities that establish new professional relationships (*interpersonal connections*) and bring together people from diverse fields (*secondary associations*). More attention, however, should be directed toward building a sense of community (i.e. *social cohesion*) and providing access to *all* individuals including conference organizers, students, academics, and practitioners. It could be that smaller more close-knit groups at the COPL conference create barriers to forming connections across the entire organization (Newman and Dale 2007).

The COPL meeting contributed to bridging aspects of social networking that illustrated diverse and active networks through engagement with opportunities provided by conference organizers. The patterns of social structures that formed across participants reflected one approach to understanding a leisure experience (Stokowski 1994). The networks that linked participants would have been largely inaccessible without conference participation (Coleman 1988), and as such, furthered attendees' professional goals and aspirations. These outcomes enhanced the conference experience by allowing individuals at the meeting to gain access to otherwise unavailable human resources. Although social networking contributed to the advancement of ideas and relationships that defined smaller, more homogenous professional cohorts, future conference organizers should strive to break down negative barriers formed through bonding ties, reflected by the relationship between *social cohesion* and perceived satisfaction, which also shaped the COPL conference experience.

Similar to the COPL conference, the external social structure of conference participation helps connect leisure and outdoor recreation researchers, as well as individuals in other fields of study with management practice and outreach. The formal and informal interactions among individuals in a social network presumably enhance experiences on the bases of trust, perceived mutual aid, and feelings of reciprocity (Glover and Hemingway 2005), while creating an environment to make collective decisions about resource and recreation management challenges. Joint outcomes can connect participants to a larger organization through intellectual exchange (Godbey 1999) and reflect the overarching mission of conference organizers to synthesize science and management in an enjoyable context (Lee *et al.* 2012).

Conclusion

The empirical findings presented in this paper offer partial support for the hypothesized model of the relationship between social networking and perceived satisfaction with the COPL conference experience. Results from two focus groups and an exploratory factor analysis identified the most important conference attributes, which support four dimensions of perceived satisfaction. The summative scores of the dimensions that comprised satisfaction in this case study were predicted by three dimensions of social networking. Specifically, *interpersonal connections* and *secondary associations* have positive effects and *social cohesion* has a negative effect on perceived satisfaction. This paper offers specific language for talking about elements of social networking and activities currently provided by organizers, which can facilitate better conference design.

In summary, service providers are challenged not only to provide programming options (e.g. timely session topics, presentation scheduling, interesting field trips) for

their clientele, but also enhance opportunities for professional interaction (Hall and Steelman 2007). Social networking is an important by-product of the purposive actions of organizations (Glover and Hemingway 2005) and a stronger understanding of the factors influencing social outcomes is needed. Organizations such as the Australian and New Zealand Association for Leisure Studies and the National Recreation and Park Association are faced with the challenge of identifying the most beneficial elements of their professional gatherings and maintaining social networks that sustain and fulfil the quality of conference experiences and memberships more broadly. The results presented in this paper thus provide a framework for meeting the needs of clientele and understanding how social networks can influence satisfactory conference experiences.

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