

UNDERSTANDING INTRA-GOVERNANCE STRUCTURES FOR ACADEMIC LEGACY: THE CASE OF A UNIVERSITY—SPORT EVENT PARTNERSHIP

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Abstract

Using social network analysis this study investigated the legacy of a partnership formed between a Canadian university and a multi-sport national event. The research questions that guided this work were: (1) What are the intra-university collaborative ties among individuals involved in the partnership? and (2) What types of legacies are associated with this higher education institution (HEI) partnership? Quantitative and qualitative data were collected from faculty, staff, and senior administrators who participated in committees designed to achieve academic and operational objectives. Quantitative data were analyzed using UCINET 6.0, which provided insights into the collaborative ties that were formed. Qualitative data obtained through interviews were coded and analyzed to determine participants' perceptions about these collaborations and resulting legacies. Findings indicated a dispersed pattern of ties linked to the newly formed governance structure contributed to the development of new ties, enhanced professional awareness, and increased institutional knowledge for study participants. A key legacy was an intra-governance structure that facilitated the formation of new collaborations and ensured the sport event partnership served the academic mission of the university.

Keywords: intra-university, partnership, higher education, sport management, social network analysis, collaboration

Résumé

Cette étude a utilisé l'analyse des réseaux sociaux pour examiner le legs d'un partenariat établi entre une université canadienne et un événement sportif national multisports. Les questions de recherche qui ont guidé ce travail sont les suivantes : 1) quels sont les liens de collaboration intra-universitaires entre les personnes impliquées dans le partenariat? et 2) quels types de legs sont associés à ce partenariat entre un établissement d'enseignement supérieur (EES) et l'événement sportif? Des données quantitatives et qualitatives ont été recueillies auprès de membres du corps professoral, du personnel et de cadres supérieurs ayant participé à des comités visant à atteindre des objectifs universitaires et opérationnels. Les données quantitatives ont été analysées à l'aide d'UCINET 6.0 afin d'examiner les liens de collaboration établis. Les données qualitatives issues d'entrevues ont été codées et analysées afin de déterminer les perceptions des participants à l'égard de ces collaborations et des legs qui en ont découlé. Les résultats ont révélé que la structure dispersée des liens, associée à la nouvelle structure de gouvernance, a contribué à l'établissement de nouveaux liens, à une meilleure connaissance professionnelle et à l'accroissement des connaissances institutionnelles chez les participants. L'un des principaux legs est une structure de gouvernance intra-universitaire qui a facilité l'établissement de nouvelles collaborations, permettant ainsi au partenariat avec l'événement sportif de soutenir la mission éducative de l'établissement.

Mots-clés: intra-universitaire, partenariat, enseignement supérieur, gestion du sport, analyse des réseaux sociaux, collaboration

INTRODUCTION

Publicly funded higher education institutions (HEIs) in Canada face an array of pressures that place their sustainability at risk. Fiscal shortfalls resulting from inflation, tuition freezes, government policy, and corporate interference have collectively restricted HEIs' autonomy and their ability to offset rising costs (Crawley, 2023; Stack & Hossein, 2024; Vigas, 2023). In addition, productivity and accountability indicators in the form of economic and community performance metrics by governments have been imposed, such as the series of Strategic Mandate Agreements by the Government of Ontario (Ontario Ministry of Colleges and Universities, n.d.). Within the Ontario context, the 2023 Ontario Blue Ribbon Panel on Postsecondary Education Financial Sustainability recommended that the provincial government make changes to the

funding model. On the cost-saving side, the panel recommended HEIs consider internal efficiencies and partnerships to enhance organizational capacity (Harrison, 2023). In its formal response to the report, the Council of Ontario Universities affirmed the importance of partnerships, noting that collaboration across all sectors is necessary in order to remain fiscally responsible and drive innovation (Council of Ontario Universities, 2023). One under-utilized domain in which to expand partnerships are sport events, as HEIs have historically provided facility and operations support to event hosts (Taks et al., 2014) and are an educational stakeholder within domestic and international sport event networks (Naraine et al., 2016). However, a gap in understanding exists on HEIs and sport events in relation to how such partnerships benefit the academic mission of the HEI.

Community-campus interactions are complex and difficult to monitor (Nichols et al., 2014; Plummer et al., 2021). Given this, the context of this study was the intra-university committee structure that was designed to foster on-campus relationships to support a HEI-sport event partnership. The committee structure was framed around the strategic plan of the university to leverage research, curriculum development, and student engagement benefits from the sport event. Hence, the purpose of this article is to examine the intra-university governance structure, particularly the collaborative ties created within the campus, and resulting legacies formed as part of a four-year partnership between an HEI and a multi-sport national event.

LITERATURE REVIEW

In order to enhance the impact of HEI partnerships, more research is needed to inform partnership practices within HEIs themselves (Buys & Bursnall, 2007). Plummer et al. (2021) suggest internal HEI structural configurations tend to remain entrenched within past ways of managing such partnerships. They contend that, despite the explicit mandate for positioning community partnerships as an institutional priority, the tension between ways to support and ways to evaluate HEI partnerships inhibits improvement in this strategic area of the institution. The success of such collaborations depends upon an organizational design that facilitates connections and supports project coordination, including structures and processes within the HEI (Nichols et al., 2014). Yet, as Plummer et al. (2021) conclude, despite the explicit mandate for positioning community partnerships as an institutional priority, there are tensions between available resources being directed toward how to support collaboration and how we evaluate partnerships (Plummer et al., 2021). Hence, understanding HEI partnerships across contexts and through varied perspectives offers valuable insight.

A social network is considered a set or sets of actors who generate relational information and function as a unique type of governance (Borgatti et al., 2018; Kollock, 2013; Scott,

1991). Social network analysis (SNA) allows for an understanding of these relationships and explores the patterns and implications of these relationships (Borgatti et al., 2018; Wasserman & Faust, 1994). Within the last 10 years, network theory has been considered an emerging paradigm applied to the sport context. Illustratively, Wasche et al. (2017) propose that the distinctive feature of SNA is that it examines the relational interconnections and interdependence between sport organizations and those actors or individuals who provide services and resources. Within the realm of sport, SNA may be applied to a variety of networks that include competitive, interactive, inter-organizational, and intra-organizational social environments. Social network analysis has been used to examine trust and collaborative ties among community sport organizations (Barnes et al., 2018), organizational capacity and inter-organizational relationships in minor sport (Willis & Barnes, 2023), capacity building among sport development agencies (Hambrick et al., 2019), concussion understanding, stakeholder knowledge translation among collegiate athletes (Giguere et al., 2024), and regional sport hosting (Rich et al., 2024).

Within the field of higher education, social networks have also been recognized as an approach that generates new knowledge, fosters innovation, contributes to change initiatives, and enhances student experience (Birkholz & Shields, 2017). Social network analysis challenges assumptions about the meaningfulness of formally constituted organizational structures and examines how informal networks of relationships have a major impact on whether individuals participate in innovation or change behaviour (Kezar, 2014). The higher education and innovation research literature reflects a wide array of studies that have examined the impact of social networks in analyzing behaviour and effecting change. These include the central aspect of student experience such as the promotion of instructional change (Quardokus & Henderson, 2015), the implementation of transformative curricular approaches (Davis & Jacobsen, 2014; McClure, 2015), technology adoption (Mirriahi et al., 2012), the quality

of student service (Sultan & Wong, 2013), the nature of student social integration (Thomas, 2000; Traud et al., 2011), student learning (Lee & Bonk, 2016; Russo & Koesten, 2005), and student engagement in campus recreational sport (Prochnow et al., 2025). Other work, such as leadership development (Stawnychko, 2024) and institutional and research collaboration (Marion et al., 2003; Otte & Rousseau, 2002), relate to the organization of HEIs, which is an aspect that connects to this study on intra-organizational structure and partnership.

Contributing to our understanding of HEI partnerships and social networks is the concept of legacy within a sport event context. Since a definition of legacy was put forth by Preuss (2007) that suggests “all planned and unplanned, positive and negative, tangible and intangible structures created for and by a sport event that remain longer than the event itself” (p. 211), scholars have been researching the impact of these events and providing insights. Much of the early work focused on international mega-events, which by their very costly nature tend to highlight the economic challenges of such events (Molloy & Chetty, 2015; Reis et al., 2023). Alternatively, broader ways of thinking about legacy that move beyond financial impacts have resulted in the categorization of legacy impacts and developing measures that include socio-economic impacts (Cashman, 2005; Li & McCabe, 2013). Intangible sport event legacies such as civic pride or increased rates of volunteerism (Doherty, 2009) have been suggested as valuable social indicators. Bridging tangible and intangible legacy indicators has also been analyzed, such as work by Wilson and Millar (2022), who found both sport participation and multipurpose facility construction were examples of post-event legacies.

However, Thomson et al. (2019) note that legacy scholarship is not readily available within higher education literature. Consequently, Brand (2006) argues that this dearth of information may be largely attributed to the fact that members of the academy often maintain biases and preconceptions about athletics and sport—believing it to be an extracurricular activity that

is seen in opposition to an educational mission. Given this inherent bias, the opportunity to leverage a sporting event for the purpose of enhancing the academic mission of a university presents fundamental opportunities that may be better understood through research. Hence, the research questions that guided this work were: (1) What are the intra-university collaborative ties amongst individuals involved in partnership? and (2) What types of legacies are associated with this HEI partnership?

METHODS

Study Design and Context

This research was guided by a mixed-methods, sequential study design that first gathered quantitative survey data that then informed qualitative data management (Creswell & Plano Clark, 2023). Institutional ethics approval was granted prior to the collection of data. Sampling was purposeful and included participants from a Canadian university who served on at least one of several intra-university committees as part of a partnership with a sport event host organization. Participants were recruited via email to take part in both surveys and interviews. Data were used to understand how participants perceived the nature of their intra-university collaborations.

The sport event involved in this partnership is held every four years under the direction of a national federation and the management of a local host organization. The event provides an opportunity for approximately 5,000 youth, showcasing athletic excellence from amateur athletes with and without physical or intellectual disabilities. Planning spans four or more years and culminates in the staging of a two-week competition. As part of this host organization's legacy plan, the university provided land on which a new facility was built, housed the Athletes Village, and provided sport competition and practice venues.

The intra-university committee structure established for the planning and operations of the HEI-sport event (SE) partnership included three main executive, academic, and opera-

tional committees. The Executive Committee, Operations Service Team, and Facility Advisory Group held oversight of capital infrastructure and operational matters relating to sport venues and athlete housing, food, and logistics. The Academic Committee, along with three subcommittees dedicated to research, curriculum, and community, as well as a working group for student volunteerism, focused on building SE-related academic outcomes. The HEI–SE initiative was a campus-wide collaboration that involved faculty members and staff from each teaching faculty, the library, and 28 administration and service units. Faculty, staff, and administrators contributed nearly 2,000 hours of collective commitment over a four-year period that spanned from the initiation of the partnership to the completion of the sport event. This effort entailed approximately 50 committee meetings to plan and deliver academic initiatives and prepare operational readiness in advance of the athletes' arrival on campus. Participation on the academic committees was voluntary and achieved via a campus-wide call for interest while participation on the executive, operations, and facility committees fell within the formal workload of committee members.

Survey Data

A 10-question self-administered survey based on existing literature (Yousefi-Nooraie et al., 2015) was developed to gain insights into the collaborative ties and outcomes experienced by HEI–SE committee participants. Five questions included name, number of years worked at the university, current and previous positions at the university, and the HEI–SE committee(s) on which one served. Two questions asked respondents to identify up to five individuals (and their position) with whom they collaborated, and any new collaborations that resulted from their involvement in the SE partnership. These questions were presented in an open-ended format (Borgatti et al., 2018). The remaining three questions asked about institutional knowledge, intended future collaborations, and legacy impacts.

The survey was administered through an online platform commonly used to collect quantitative data (Qualtrics). As described, the committee structure was designed to operationalize the HEI–SE partnership and achieve academic and operations measures of success. The original list of invited participants included 55 individuals who served on at least one of the HEI–SE committees at some time during the final two years of sport event preparation. Each of these individuals was recruited via their work email to participate in an online survey soon after the completion of the sport event. When the initial recruitment email was sent, nine invitees indicated they lacked adequate committee involvement to respond, had retired, or had left their position at the university. Consequently, the final population was 44 individuals, which reflects the individuals who felt adequately informed about, and engaged in, the planning and implementation of the HEI–SE partnership. In total, 34 university members completed the survey. This represents a 77.3% response rate—consistent with existing literature (Holladay et al., 2017) and above the recommendation of a 75% response rate for social network analysis studies (Hambrick, 2019).

Interview Data

Survey respondents were then invited to participate in the semi-structured interviews, and 11 survey participants completed an interview. Based on the findings from the open-ended survey results, a modified semi-structured interview guide was developed. Questions included four topic areas: legacy impact, positive outcomes, challenges, and suggestions for improvement. Shortly after the completion of the surveys, semi-structured interviews were conducted virtually via Teams by a research assistant with verbal consent being obtained. Interviews were audio-recorded and ranged from 20 to 40 minutes in length.

Data Analysis

Using a contiguous approach to integration, data analysis occurred sequentially, with quantitative results reported first, followed by contextual qualitative findings (Creswell & Plano Clark, 2023; Fetter et al., 2013). First, a social network analysis software, UCINET 6.0 (Borgatti et al., 2002), was used to analyze closed-ended survey items. In addition to offering statistical procedures for analyzing networks, UCINET 6.0 software offers a visual representation function called NETDRAW. Data from the question that asked respondents “to list up to five individuals who they collaborated with in the lead up and/or during the [event name]” were input into a matrix whereby the presence of a tie was indicated with 1’s and the absence of a tie was indicated with 0’s. The data were relational (i.e., dyadic), meaning that pairs of actors form the primary units of analysis (Borgatti et al., 2002).

A number of measures may be used to determine the nature of the whole network as well as the roles of individual actors within the network. Whole network metrics—those measures that help to describe how the overall network functions—included density and centralization (Borgatti et al., 2018). Density helps us understand how connected actors are across the network and/or points to levels of cohesion (Borgatti et al., 2018). Density values are expressed as one number between .000 (no relationships exist between network actors) and 1.000 (every network actor shares a relationship with every other network actor; Hambrick, 2019). Average degree, by some to be considered a better measure of density for comparison purposes, is simply the “average number of ties that each node has” (Borgatti et al., 2018, p. 176). Centralization uses one number to characterize the whole network (Borgatti et al., 2018) so as to determine whether the network is dominated by one node (actor) or by many nodes (actors). Centralization values fall between 0.000 (no single node dominates the network) and 1.000 (one node is central and dominates entire network; Hambrick, 2019). Reported centralization values below .40 reflect a decentralized network whereby power and influence are widely shared.

By comparison, a centralization value of .60 suggests that one node (actor) holds power and influence (Poole, 2008).

To identify how individual nodes function in a network, centrality is a valuable concept because it speaks to the many ways a node contributes to a network (Borgatti et al., 2018). In-degree centrality “counts the number of incoming ties” (Borgatti, 2018, p. 202). In this study, in-degree centrality reports the number of times an individual was listed as a collaborator on SE-related matters. Given that in-degree centrality reports on the number of incoming ties, it alludes to “prestige” (Borgatti et al., 2018, p. 202), influence, and activity in the network. The greater the in-degree values, the greater the influence. In comparison, out-degree centrality “counts the number of outgoing ties” (Borgatti et al., 2018, p. 202) and alludes to the “expansiveness” of the node (Borgatti et al., 2018). In this research, out-degree centrality counts the number of ties formed as a result of an actor reaching out to collaborate with other university employees (Hambrick, 2019). The greater the out-degree value, the more expansive their role is in the network.

Lastly, sociograms can be used in social network analysis research to gain insights into the prominence (or lack thereof) of each network member (Hambrick, 2019). Squares represent nodes (i.e., actors) and lines connecting squares represent a tie—meaning one or both of the actors indicated collaborating on the sport event.

Following quantitative data analysis, interview data were analyzed using a thematic analysis method that included open coding, axial coding, and theming by three members of the research team (Creswell & Plano Clark, 2023). All interviews were transcribed verbatim using the Microsoft Teams auto-transcription service. Each transcription was checked for accuracy by the research assistant who de-identified transcripts prior to being sent to the research team for analysis. Participants were given pseudonyms. Three members of the research team engaged in each level of the analysis process and then engaged in critical discussion after each of the open and axial coding stages. Using

an intercoder agreement among the researchers allowed for themes to emerge from coded data as a final level of interpretation (MacPhail et al., 2016). Themes were then compared and contrasted, and critical discussion among the research team ensued until theme saturation was reached (Guest et al., 2020). This process allowed for rich, thick data to be iteratively analyzed as part of the conceptualization process to explain how participants collaborated in their relationships within the network.

RESULTS

Quantitative

Network data provided by the 34 survey respondents resulted in a network of 75 nodes and 124 ties. A breakdown of the nodes according to participant (employee) role is provided in Table 1. As indicated, network actors defined as “staff” members represented the most common role within the network (40) by a significant margin. All survey respondents were full-time employees with an average of 16 years working at the university. All teaching faculties and the library were represented by at least one faculty member, noting that there were more faculty members that represented the units with a health, sports, and wellness focus.

Table 1
Employee Role of Network Actors at University

Employee Role at University	Frequency	Sociogram Colour
Staff	40	Dark blue
Faculty	19	Light/neon blue
Senior Administrators	14	Red
Missing	2	
Total	75	

Results also indicate that participants gained new knowledge and collaborations as a result of their HEI-SE committee work. Half (50%) of the faculty respondents indicated that they had collaborations with other faculty members from across the university. On the staff side, over half (66%) reported that they had worked with colleagues outside their regular scope of work. When asked about new collaborations across campus, 40% of faculty respondents and 45% of staff respondents indicated that they did intend to forge new collaborations. When asked if their institutional knowledge had broadened as a result of their university-SE committee involvement, a majority of faculty (80%) and staff (72%) responded yes.

Social Network Metrics

In terms of the SNA, there are two scores that are reported for the “overall connectedness” of the network. A very low-density score is reported, which suggests that there were many unrealized ties (see Table 2). Density may also be considered from the perspective of the average degree score, which indicates that each actor had, on average, a tie with 1.5 other actors. In terms of centralization, the reported value of 16% means that there is not one single actor around whom all actors are concentrated within this network (Borgatti et al., 2018; Poole, 2008). Rather, collaborations are scattered across the network between different actors.

Table 2
Whole Network Metrics

SNA Metric	Reported Value
# of ties	124
Density	0.022
Average Degree	1.653
Centralization	0.167

In terms of in-degree centrality, actors who receive many ties can be considered prominent and/or important in the network (Hanneman & Riddle, 2005). Table 3 reports the in-degree centrality scores and indicates that a single actor with a “faculty” designation received the high number of ties (15), followed by an actor with a “staff” designation (7). Please note that in-degree centrality scores below three (3) were not included in the chart because so many actors had three or fewer ties.

Table 3
*In-Degree Centrality Values**

Actor Type	In-Degree Centrality Values	Frequency
Faculty Dual Role	15	1
Staff	7	1
Staff	6	1
Staff	4	3
Senior Administrators	4	2

**In-degree values of 3 and less were not included.*

High out-degree centrality scores reveal those actors that are influential and able to exchange information or resources with other actors in the network. It was a “faculty” actor who held the highest centrality score of nine (9), followed by a secondary “faculty” actor and then “staff” and “senior administrators,” all who had reported values of five (5). It is worth noting that in Table 4, thirteen (13) “staff” actors had an out-degree centrality value of five (5), reinforcing the important role that staff played in this network (again, please note out-degree centrality values of three [3] or less were not reported in the table).

Table 4
*Out-Degree Centrality Values**

Actor Type	Out-Degree Centrality Values	Frequency
Faculty	9	1
Faculty	5	4
Staff	5	13
Senior Administrators	5	2
Senior Administrators	4	2
Staff	4	1

**Out-degree values of 3 or less were not included*

Sociogram

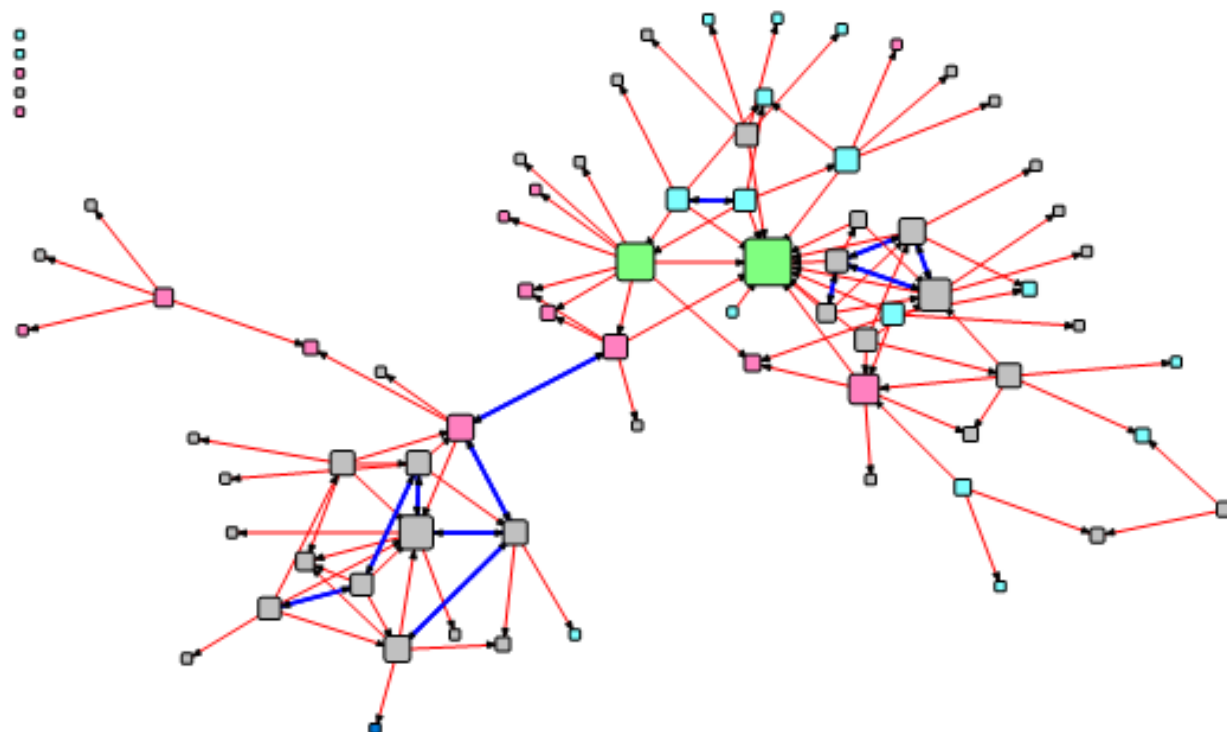
Figure 1 displays the results of the SE collaboration using a sociogram created in the NetDraw function of UCINET 6.0. This sociogram illustrates a disconnected network (as a result of the five isolates) that has two distinct areas linked by senior administrators (red nodes). In other words, the senior administrators serve a bridging role between the two areas of the network.

The sociogram also displays an area of the network that is almost entirely comprised of staff actors (grey squares) with little overlap into other university roles. By comparison, the top section of the network has many more nodes, reflects a wider array of employee roles, and is where the most influential and prominent actors are located.

Data from interviews provided insight into the value and impact of the HEI–SE committee experience. The overall theme of “collaboration” was described in relation to the development of new ties (theme 1), enhanced professional awareness (theme 2), and increased institutional knowledge (theme 3) for study participants. These themes are described in the following sections.

Figure 1

Network Map of University Actors Collaborating on a University-Sport Event



Squares are sized to reflect “degree,” which means that larger nodes were those actors most involved in collaborations on the sport event because they have more ties and are therefore more advantaged (Hanneman & Riddle, 2005). The sociogram is colour-coded according to the employee role of the actor at the university outside of the SE committee structure.

LEGEND

Colour	Employee Role of Network Actor	Notes
Pink square	Senior administrator	Pink squares represent those individuals who held a senior academic position.
Teal blue square	Faculty	Teal blue squares represent those individuals who held a faculty position at the university.
Grey square	Staff	Grey squares represent those individuals who were staff and the two bright green squares indicate the individuals who held a dual role (i.e., a pre-existing role plus a SE partnership-specific role).
Green square	Dual role	Green squares represent those individuals who held both a pre-existing role plus a SE partnership-specific role.
Blue line	Reciprocal ties between actors	Blue lines reflect reciprocal ties between actors.
Red line	Non-reciprocal ties between actors	Red lines indicate non-reciprocal ties between actors.

Development of New Ties

Both faculty and staff reported that they had forged new collegial ties. One faculty member commented, “These were meetings that I was enjoying and I was looking forward to and I felt like they were way more effective, maybe because you are working across different faculties” (P 4). Similarly, one staff member reflected that their major enjoyment came from “being involved...meeting some different people and doing different things” (P 3). For some faculty, lasting collaborations were forged that might not otherwise have occurred. For instance, one faculty stated, “There is another impact that I know is lasting—the community, with community groups and member[s] with whom I worked personally” (P 1). Another faculty member noted that sitting on committees outside of their department allowed them to forge new networks. They observed, “And the network never really ends. When you meet these people and you work so hard to collaborate and do something really, really, unique for students” (P 2).

Enhanced Professional Awareness

Faculty and staff alike described new learning and an awareness about internal systems and reputational impact. One staff participant reflected, “It was exciting to be a part of it. It was really interesting to see just how many layers there are of involvement across the campus, from an academic side, from a curricular side, from a voluntary side” (P 10). Faculty respondents largely commented on new course development, research initiatives, and expanded opportunities for students. One faculty member noted, “The actual experience for the students on the ground was mind blowing. Like, absolutely incredible—the amount they learned, the roles that they had, and the people that they met” (P 2). New and modified courses that integrated SE-related material were also identified by faculty as a measure of success. One faculty member noted, “My courses that I was teaching at that time got more momentum...and I created another course specific to the [event]” (P 1), and another commented, “I developed three courses directly related

to the games that I team-taught with three other faculty” (P 2). New research initiatives were also identified. One faculty member noted, “It really allowed a lot of interesting kind[s] of research to go on” (P 9), and another observed, “It was a great opportunity for [the university] to showcase our research to the community and to show the breadth and depth of our research” (P 8).

Increased Institutional Knowledge

From the staff perspective, institutional knowledge was described through an appreciation of the improved reputation of the university and in terms of student recruitment opportunity. One staff member commented, “It really opened my eyes to events such as that being potential recruiting opportunities for the university and helping the university grow as a whole” (P 7). Another staff member commented,

But then there’s the pride of being involved in a large event like the [event name] that I think just adds to the reputation of [the university], and then also all those students that came here that summer, like they all know [the university], right, and some of them might come back. (P 6)

They learned new knowledge and gained a larger understanding of the university—thereby increasing the social capital of the institution. One staff participant reflected, “So, personally, it’s fun being involved in something that brings the university together” (P 1). Overall, our participants perceived that a positive experience was gained through the collaborative ties formed within the HEI–SE partnership network whereby “the whole university was working so hard; like people were really stepping up. I’ve never seen anything like that...it was absolutely amazing to be a part of it. It was one of the best things I’ve ever done” (P 2).

DISCUSSION

This research examined the intra-university network, specifically the committee structure, that was formed to support an HEI–SE partnership. This work informs both higher education and sport management literature because it offers a new perspective for HEI senior administrators and event organizers. Historically, sport event hosts collaborate with HEIs primarily for infrastructure and operations support. Moving forward, sport event hosts may now better understand the needs of HEIs as a stakeholder by positioning the academic mission, research, curriculum development, and community engagement at the forefront of how they work with a HEI. Quantitative results demonstrated the governance structure of the network facilitated collaborative ties while qualitative results revealed how these relationships were experienced and the legacies associated with this event. This section addresses three aspects for discussion: the dispersed configuration of the network structure, the diversity within the academic area of the network, and the legacy potential of intentionally implementing an intra-university committee governance structure for future sport-related HEI initiatives.

First, the SNA sociogram depicts two distinct areas of activity in the network—a small operational side comprised of primarily staff actors and a large academic side comprised of a faculty, staff, and administrator mix. The connection between the two areas reflects a somewhat weak tie, resulting in a dispersed network. Less than two ties for each actor reinforces the notion that this overall network was sparse, with few connections between actors. A network that is sparse suggests information is diffused slowly (Hanneman & Riddle, 2005). In terms of centralization, no single actor dominated the network. Rather, the results indicate two faculty actors had the highest centrality score and, as such, generated the most ties. This finding is consistent with Kezar’s (2014) view that “opinion leaders” have a greater impact on influencing a social network compared to a formal hierarchical structure (p. 113). Although senior administrators (e.g., the president and

vice-presidents) held organizational power, the academic lead for the HEI–SE partnership was a seconded faculty member designated as the president’s “special advisor.” This organizational leadership structure was put in place to ensure a specific individual managed and coordinated the academic activity for the SE partnership—a finding that speaks to the importance of formalized pre- and post-event communication and coordination (Wilson & Millar, 2022).

Second, the variety of actors within the large academic area of the network reveal this network was diverse. When this is coupled with the result indicating a higher out-degree centrality value of staff actors, the benefit of this diversity is evident. Specifically, the combination of “faculty influencers” and staff “with influence” indicates a tendency toward shared power, thereby broadening information and resource exchange within the network. While it is expected staff would direct the nature of exchange within the smaller, operations area of the network, it is interesting to note the influence staff also held within the larger academic area. A university involves a complex structure (Stawnychko, 2024) with “loose connections” across vertical and horizontal divisions (Kezar, 2023). Networking across staff and faculty positions can overcome this differentiation and lead to constructive outcomes, namely how actors in the network enjoyed the process, shared achievements, and felt affirmed by their experiences.

Finally, given that this study suggests the social network activity of the HEI–SE partnership generated favourable impacts, there may be value in extending this organizational approach to future HEI activities. The concept of legacy presents insights that can inform strategies to extend an intra-network governance approach into activities to support sustainable HEI change and innovation. The inclusion of both formal and informal collaborative ties within a social network enhances the potential for legacy. For example, in this study, network actors were comfortable talking with each other and knew the bridging actors well enough to cross boundaries, be they discipline to discipline or academic to operations. The purposeful inclusion of staff in the academic network

area led to positive experiences, and counters previous research by Salmon (2024), whose study on the strategic plans of English universities found academic staff's position in an HEI workforce to be "uncertain" and "ambiguous" (p. 2107) and noted the deteriorating working conditions in English universities. Conversely, this study demonstrates new social networks forged within the organizational hierarchy of an HEI can improve employee experiences. Given the growth of non-academic university workforces (Croucher & Woelert, 2022), the findings provide timely insight into one way the formation of new intra-university relationships might enhance collaboration among academic and non-academic HEI employees.

From the perspective of the sport event organization involved in this HEI partnership, legacy is also a key to ensure the impact of new physical (infrastructure), knowledge, and social (relationships) resources continues beyond the event (Preuss, 2019). Literature on sport event legacy identifies the importance of stakeholder collaboration (Isa et al., 2024). Strittmatter et al. (2021) discuss the role of various stakeholders in sport events while other work has explored the HEI context (Huang et al., 2019; Piccerillo et al., 2023). The desire for similar legacy-related outcomes within an HEI might heighten effort to sustain intra-committee structures intended to drive institutional innovation through sport partnerships. Overall, applying the concept of legacy to an HEI setting introduces new thinking about how sport can enhance additional aspects of an academic mission, such as research and industry engagement (Whitley et al., 2023).

FUTURE RESEARCH AND CONCLUSIONS

Kezar (2014) suggests SNA is an effective research design to better understand the nature of HEI intra-network interaction. This study revealed benefits arose through collaborative ties formed as a result of the new HEI–SE committee structure. Given this, future studies about university network members' qualities and the impact of participating in an intra-university network

would offer further insight. At this time, this study understood network member qualities simply as one's university role (faculty, staff, administrator) and the impact of participation related to new collaborations and broadened knowledge. Incorporating additional characteristics, such as gender and academic/administrative unit, as well as impacts, such as trust and effectiveness, would extend the understanding of HEI internal social networks.

These findings also address Lavigne's (2022) call to further examine challenges within higher education administration, including how an institution might support networks. This study focused upon a structure that was intentionally created to support a partnership, rather than a network that emerged organically. Though the findings are bounded to this case, exploring the transferability of this intra-university partnership committee within other HEIs would reveal the utility of the model. Future research could also examine differences between academic- and operation-bridging actors and compare planned and emergent networks within an HEI across contexts other than sport, and for varying durations. In addition, calls to expand mixed-method designs within sport event legacy research (Thomson et al., 2019) can also be considered for HEI–SE research in the future.

While this research has led to future research recommendations, it is not without limitations. Any research done post-hoc is at risk for recall bias. In order to mitigate this, surveys and interviews were conducted a short time after the completion of the sport event. Further, we used multiple forms of data, which enabled a comprehensive understanding of the phenomenon (social network) and added detail within the specific context of this HEI-sport partnership. In the end, we found that the committee structure facilitated intra-university social network activity and the collaborative relationships generated positive experiences for those involved, reflecting the legacies possible when engaging in a HEI-sport partnership.

REFERENCES

- Barnes, M., Cousens, L., & MacLean, J. (2018). Trust and collaborative ties in a community sport network. *Managing Sport and Leisure*, 22(4), 310–324. <https://doi.org/10.1080/23750472.2018.1465840>
- Birkholz, J. M., & Shields, R. (2017). The network paradigm in higher education. In J. Huisman & M. Tight (Eds.), *Theory and method in higher education research* (vol. 3; pp. 215–226). Emerald Publishing.
- Borgatti, S. P., Everett, M. G., & Freeman, L. C. (2002). *Ucinet for Windows: Software for social network analysis*. Analytic Technologies.
- Borgatti, S., Everett, M., & Johnson, G. (2018). *Analyzing social networks* (2nd ed.). SAGE.
- Brand, M. (2006). The role and value of intercollegiate athletics in universities. *Journal of the Philosophy of Sport*, 33(1), 9–20. <https://doi.org/10.1080/00948705.2006.9714687>
- Buys, N., & Bursnall, S. (2007). Establishing university-community partnerships: Processes and benefits. *Journal of Higher Education Policy and Management*, 29, 73–86. <https://doi.org/10.1080/13600800601175797>
- Cashman, R. (2005). *The bitter-sweet awakening: The legacy of the Sydney 2000 Olympic games*. Walla Walla Press.
- Council of Ontario Universities. (2023). *A plan for prosperity: ensuring the financial sustainability of Ontario's universities*. <https://ontariosuniversities.ca/wp-content/uploads/2023/07/Plan-for-Prosperty-July-2023.pdf>
- Crawley, M. (2023, November 20). *Ontario's universities face a funding crunch. Doug Ford's government is telling them to find 'efficiencies'*. CBC News. <https://www.cbc.ca/news/canada/toronto/ontario-university-finance-tuition-panel-report-doug-ford-1.7032518>
- Creswell, J. W., & Plano Clark, V. L. (2023). Revisiting mixed methods research designs twenty years later. In C. N. Poth (Ed.), *The Sage handbook of mixed methods research design* (pp. 21–36). SAGE. <https://doi.org/10.4135/9781529614572.n6>
- Croucher, G., & Woelert, P. (2022). Administrative transformation and managerial growth: A longitudinal analysis of changes in the non-academic workforce at Australian universities. *Higher Education*, 84, 159–175. <https://doi.org/10.1007/s10734-021-00759-8>
- Davis, S. N., & Jacobsen, S. K. (2014). Curricular innovation as innovation: Faculty insights on barriers to institutionalizing change. *Innovative Higher Education*, 39(1), 17–31. <https://doi.org/10.1007/s10755-013-9254-3>
- Doherty, A. (2009). The volunteer legacy of a major sport event. *Journal of Policy Research in Tourism, Leisure and Events*, 1(3), 185–207. <https://doi.org/10.1080/19407960903204356>
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs-principles and practices. *Health Services Research*, 48(6pt2), 2134–2156. <https://doi.org/10.1111/1475-6773.12117>
- Giguere, D., Barnes, M., & Faught, B. (2024) Association between concussion understanding and stakeholder knowledge translation in collegiate sports. *International Journal of Sport Science and Coaching*, 19(4), 1502–1514. <https://doi.org/10.1177/17479541231224273>
- Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PloS One*, 15(5), e0232076.
- Hambrick, M. (2019). *Social network analysis in sport research*. Cambridge Scholars.

- Hambrick, M. E., Svensson, P. G., & Kang, S. (2019). Using social network analysis to investigate interorganizational relationships and capacity building within a sport for development coalition. *Sport Management Review*, 22(5), 708–723. <https://doi.org/10.1016/j.smr.2018.12.002>
- Hanneman, R. A., & Riddle, M. (2005). *Introduction to social network methods*. University of California.
- Harrison, A. (2023). *Ensuring financial sustainability of Ontario's postsecondary sector*. Blue-Ribbon Panel on Postsecondary Education Financial Sustainability, Government of Ontario. <https://files.ontario.ca/mcu-ensuring-financial-sustainability-for-ontarios-postsecondary-sector-en-2023-11-14.pdf>
- Holladay, P., Skibins, J., Zach, F., & Arze, M. (2017). Exploratory social network analysis of stakeholder organizations along the Illinois and Michigan canal National Heritage Corridor. *Journal of Park and Recreation Administration*, 35(4), 37–48. <https://doi.org/10.18666/JPra-2017-V35-14-7924>
- Huang, S. Y., Chiu, W. S., Lin, C. H., & Lin, K. W. (2019). Research on the marketing and public relations effect and sport event satisfaction of the Taipei 2017 Universiade. *European Journal of Physical Education and Sport Science*, 5(7), 36–46.
- Isa, K. A., Zamzuri, N. H., & Rosnan, H. (2024). Strategies for sustainable sports events: Understanding the stakeholders challenge for collaboration. *Information Management and Business Review*, 16(3(I), 1–6. [https://doi.org/10.22610/imbr.v16i3\(I\).3916](https://doi.org/10.22610/imbr.v16i3(I).3916)
- Kezar, A. (2014). Higher education change and social networks: A review of research. *The Journal of Higher Education*, 85(1), 91–125. <https://doi.org/10.1353/jhe.2014.0003>
- Kezar, A. J. (Ed.). (2023). *Rethinking leadership in a complex, multicultural, and global environment: New concepts and models for higher education*. Taylor & Francis.
- Kolleck, N. (2013). Social network analysis in innovation research: Using a mixed methods approach to analyze social innovations. *European Journal Futures Research*, 1, 1–9. <https://doi.org/10.1007/s40309-013-0025-2>
- Lavigne, E. (2022). Examining 50 years of research on administration in the Canadian Journal of Higher Education. *Canadian Journal of Higher Education*, 51(3), 115–126.
- Lee, J., & Bonk, C. J. (2016). Social network analysis of peer relationships and online interactions in a blended class using blogs. *The Internet and Higher Education*, 28, 35–44. <https://www.sciencedirect.com/science/article/abs/pii/S1096751615000597>
- Li, S., & McCabe, S. (2013). Measuring the socio-economic legacies of mega events: Concepts, propositions and indicators. *International Journal of Tourism Research*, 15, 388–402. <https://doi.org/10.1002/jtr.1885>
- MacPhail, C., Khoza, N., & Ranganathan, M. (2016). Process guidelines for establishing Inter-coder Reliability in qualitative studies. *Qualitative Research*, 16(2), 198–212. <https://doi.org/10.1016/j.iheduc.2015.09.001>
- Marion, L. S., Garfield, E., Hargens, L. L., Lievrouw, L. A., White, H. D., & Wilson, C. S. (2003). Social network analysis and citation network analysis: Complementary approaches to the study of scientific communication. *Proceedings of the American Society for Information Science and Technology*, 40(1), 486–487. <https://doi.org/10.1002/meet.1450400186>
- McClure, K. R. (2015). Exploring curricular transformation to promote innovation and entrepreneurship: An institutional case study. *Innovative Higher Education*, 40(5), 429–442. <https://doi.org/10.1007/s10755-015-9325-8>

- Mirriahi, N., Dawson, S., & Hoven, D. (2012). Identifying key actors for technology adoption in higher education: A social network approach. In M. Brown, M. Hartnett, & T. Stewart (Eds.), *2012: ASCILITE 2012 conference proceedings: FUTURE CHALLENGES | SUSTAINABLE FUTURES* (pp. 664–674). <https://doi.org/10.14742/apubs.2012.1559>
- Molloy, E., & Chetty, T. (2015). The rocky road to legacy: Lessons from the 2010 FIFA World Cup South Africa stadium program. *Project Management Journal*, 46(3), 88–107. <https://doi.org/10.1002/pmj.21502>
- Naraine, M. L., Schenk, J., & Parent, M. M. (2016). Coordination in international and domestic sports events: Examining stakeholder network governance. *Journal of Sport Management*, 30(5), 521–537. <https://doi.org/10.1123/jsm.2015-027>
- Nichols, N., Phipps, D., Gaetz, S., & Fisher, A. L. (2014). Revealing the complexity of community-campus interactions. *Canadian Journal of Higher Education*, 44(1), 69–94. <https://doi.org/10.47678/cjhe.v44i1.183548>
- Ontario Ministry of Colleges and Universities. (n.d.) *Strategic mandate agreements, 2020–2025*. Government of Ontario. <https://www.ontario.ca/page/college-and-university-strategic-mandate-agreements-2020-2025>
- Otte, E., & Rousseau, R. (2002). Social network analysis: A powerful strategy. *Journal of Information Science*, 28(6), 441–451. <https://doi.org/10.1177/016555150202800601>
- Piccerillo, L., Misiti, F., & Digennaro, S. (2023). Assessing the environmental impact of a university sport event: The case of the 75th Italian National University Championships. *Sustainability*, 15(3), 2267. <https://doi.org/10.3390/su15032267>
- Plummer, R., Witkowski, S., Smits, A., & Dale, C. G. (2021). The issue of performance in higher education institution - community partnerships: A Canadian perspective. *Journal of Higher Education Policy and Management*, 43(5), 537–556. <https://doi.org/10.1080/1360080X.2020.1858386>
- Poole, D. (2008). Organizational networks of collaboration for community-based living. *Nonprofit Management and Leadership*, 18(3), 275–293. <https://doi.org/10.1002/nml.186>
- Preuss, H. (2007). The conceptualisation and measurement of mega sport event legacies. *Journal of Sport & Tourism*, 12(3–4), 207–228. <https://doi.org/10.1080/14775080701736957>
- Preuss, H. (2019). Event legacy framework and measurement. *International Journal of Sport Policy and Politics*, 11(1), 103–118. <https://doi.org/10.1080/19406940.2018.1490336>
- Prochnow, T., Park, J.-H., & Patterson, M. (2025). Intramural sports social networks and implications for college student physical activity, sense of community and retention. *Journal of American College Health*, 73(3), 1183–1189. <https://doi.org/10.1080/07448481.2023.2239367>
- Quardokus, K., & Henderson, C. (2015). Promoting instructional change: Using social network analysis to understand the informal structure of academic departments. *Higher Education*, 70(3), 315–335. <https://doi.org/10.1007/s10734-014-9831-0>
- Reis, R. M., Telles, S. C., & Teixeira, M. (2023). Measuring the legacies of sports mega events: A systematic review. *Journal of Physical Education and Sport*, 2(4), 996–1009. <https://doi.org/10.7752/jpes.2023.04125>

- Rich, K., Sharpe, E., Barnes, M., Phillips, C., & Romano, E. (2024). Municipal perspectives on collaboration in regional sport event hosting: A case study of the Niagara 2022 Canada Summer Games. *Event Management*, 28(3), 461–476. <https://doi.org/10.3727/152599523X17025088793838>
- Russo, T. C., & Koesten, J. (2005). Prestige, centrality, and learning: A social network analysis of an online class. *Communication Education*, 54(3), 254–261. <https://doi.org/10.1080/03634520500356394>
- Salmon, M. (2024). Representation of the academic workforce in English university strategy making: An exploratory study. *Higher Education*, 88, 2107–2121. <https://doi.org/10.1007/s10734-024-01203-3>
- Scott, J. (1991). *Social network analysis*. SAGE.
- Stack, M., & Hossein, C. (2024, February 21). *Universities should respond to cuts and corporate influence with co-operative governance*. The Conversation. <https://theconversation.com/universities-should-respond-to-cuts-and-corporate-influence-with-co-operative-governance-223434>
- Stawnychko, L. (2024). The strategic role of social networks in academic leadership development. *Canadian Journal of Higher Education*, 54(1), 42–54. <https://doi.org/10.47678/cjhe.v54i1.190159>
- Strittmatter, A., Fahlén, H., & Houlihan, B. (Eds.). (2021). *Stakeholder analysis and sport organisations*. Routledge.
- Sultan, P., & Wong, H. Y. (2013). Antecedents and consequences of service quality in a higher education context. *Quality Assurance in Education*, 21(1), 70–95. <https://doi.org/10.1108/09684881311293070>
- Taks, M., Green, B. C., Misener, L., & Chalip, L. (2014). Evaluating sport development outcomes: The case of a medium-sized international sport event. *European Sport Management Quarterly*, 14(3), 213–237. <https://doi.org/10.1080/16184742.2014.882370>
- Thomas, S. (2000). Ties that bind: A social network approach to understanding student integration and persistence. *The Journal of Higher Education*, 71(5), 591–615. <https://doi.org/10.2307/2649261>
- Thomson, A., Cuskelly, G., Toohey, K., Kennelly, M., Burton, P., & Fredline, L. (2019). Sport event legacy: A systematic quantitative review of literature. *Sport Management Review*, 22(3), 295–321. <https://doi.org/10.1016/j.smr.2018.06.011>
- Traud, A. L., Kelsic, E. D., Mucha, P. J., & Porter, M. A. (2011). Comparing community structure to characteristics in online collegiate social networks. *SIAM Review*, 53(3), 526–543. <https://doi.org/10.1137/080734315>
- Vigas, V. (2023, October 23). This is how much tuition for Canadians and international students has gone up this year. *National Post*. <https://nationalpost.com/news/canada/statcan-tuition-for-canadians-and-international-students>
- Wasche, H., Dickson, G., Woll, A., & Brandes, U. (2017). Social network analysis in sport research: An emerging paradigm. *European Journal for Sport and Society*, 14(2), 138–165. <https://doi.org/10.1080/16138171.2017.1318198>
- Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge University Press.
- Whitley, M. A., Peachey, J. W., Leitermann, J., Shin, N., & Cohen, A. (2023). University organization collaboration in sport for development: Understanding practitioners' perspectives and experiences in research and evaluation partnerships. *Journal of Sport Management*, 37(6), 389–402. <https://doi.org/10.1123/jsm.2022-0236>

- Willis, J., & Barnes, M. (2023). Exploring the link between interorganizational relationships and organizational capacity in a youth baseball network. *The International Journal of Sport and Society*, 15(1), 73–93. <https://doi.org/10.18848/2152-7857/CGP/v15i01/73-93>
- Wilson, K., & Millar, P. (2022). Investigating the sport participation legacy of a major event: The case of one multi-use sport facility. *International Journal of Sport Management and Marketing*, 22(5/6), 315–329. <https://doi.org/10.1504/IJSM.2022.128623>
- Yousefi-Nooraie, R., Dobbins, M., Marin, A., Hanneman, R., & Lohfeld, L. (2015). The evolution of social networks through the implementation of evidence-informed decision making interventions: A longitudinal analysis of three public health units in Canada. *Implementation Science*, 10(1), 166. <https://doi.org/10.1186/s13012-015-0355-5>