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SOCIAL NETWORK ANALYSIS
Towards an approach for football studies
Paul Widdop and Mike Collins

Introduction
In a reflection of the uses of social network analysis, Crossley (2011) noted that perhaps the most appropriate analytic tool for the scientific study of social life, which includes football, is the network of social relations and interactions between actors, both human and corporate. While students of association football and sport in general, are increasingly adopting network concepts and perspectives in their work (Millward, 2006, 2011), the application of social network analysis as a theory and methodology, at least that intended by Crossley, has been rather limited. Yet, the social world of football in essence is fundamentally patterned and structured by visible and non-visible networks. Some are enduring and institutionalised. Others are transient and informal. Some are big, others small, commercial, virtual and global, and so on. The social network concept can capture and facilitate analysis of this variation. As Crossley et al. (2014) note, it is not a prescriptive concept, but a sensitising one, which invites open-minded empirical enquiry and comparison. For example, historians of football would be interested in how networks of like-minded individuals and through collective action in the mid to late 1800s, established clubs, which through time and repeated interaction, would become social institutions. Sociologists of football might be interested in collective action and the division of labour involved in all aspects of the sport. They may also be interested in football as an indicator of social capital and taste formation (cultural capital). Football criminologists might be attracted to covert networks of hooliganism. Scholars of football business might be concerned with the international football trade networks, or networks of sponsorship at mega events, while geographers of football might be interested in the network of global migration of players. Networks are inseparable from the social and corporate world of football and constantly in flux.

Networks
Social network analysis (hereafter SNA) takes as its foundation the premise that social life is created primarily and most importantly by relations and the patterns formed by these relations (Marin and Wellman, 2011). As its basic element SNA consists of a set of nodes (individuals/organisations, etc.) and a set (or sets) of ties (relations which can be of different types). These
nodes and their ties are the building blocks of social worlds. SNA takes the view that people are not just isolated individuals but that they conduct most of their social relations in groups, given (family, school/workmates) or chosen (peers/friends); such groups may become formalised as associations or organisations, represented by individuals who make the contacts, and even institutionalised. SNA examines the nature, strength and extent of these human interactions. Along these linkages resources of social capital, information, finance, influence, and power may flow in one or both ways.

SNA then is about structure and position. As Borgatti et al. (2013) note, the field has developed an impressive array of concepts to characterise position and structure and tools to explore them. Some scholars study relationships and positions in whole networks (Burt, 1992; Crossley, 2008; Padgett and Ansell, 1993; Roethlisberger and Dickson, 1939; Urry, 2006). In whole network studies, how far actors are connected may be a key indicator of the ‘cohesion’, (Burris, 2005; Fominaya, 2007; Moody and White, 2003; Sanders and Nauta, 2004) ‘solidarity’, ‘moral density’ and complexity of the social organisation (Crossley, 2008; Urry, 2006) (Hanneman and Riddle, 2011). Network scholars as well as being concerned with components or subsets and their structure within whole networks (cliques; block modelling; core–periphery structures), also examine an individual’s (node’s) centrality within it; strength of ties within a network (Granovetter, 1973) and structural holes (Burt, 2004), that mediate and constrain resources passing through it. Some network scholars (Borgatti and Halgin, 2011; Davis et al., 1941; Giuffre, 1999) collect two-mode data or affiliation networks, generally this type of study looks at relations which consist of membership or attendance at events. Other network scholars, mainly out of data limitations, but also through conceptual and methodological constraints, have concentrated on egocentric social networks with individuals as the focus of attention (Nixon, 1993). Typically, in these studies properties of a network are used as an explanatory variable in multivariate analysis (for example social capital measured by Lin, 2002; cultural capital Widdop et al., 2014).

Following the lead of DiMaggio (2011), who looks at cultural networks, this chapter places SNA as the natural methodological framework for empirically developing insights from leading theoretical approaches to football in society. What follows are specific examples and types of explicitly or implicitly network-related to football research, examined at different levels of analysis, micro-, meso- and macro-level studies. At many points the chapter departs from being focused exclusively on football studies, and incorporates the wider field of sport, leisure and sociology to support the evidence of a move towards a social network approach to football.

**Micro-studies: individuals and small groups**

Early descriptive social-scientific studies of networks in leisure were concerned with leaders in a society; one of the earliest in Britain was Stacey’s (1960) analysis in the small town of Banbury showing a relatively small middle-class group with interlocking networks, between the town council, school governors, Rotary Club members and the churches. Barnes (1954) examined the social network of a smaller, more remote place, a Norwegian island parish, examining class and communities through interactions. Bott (1971) showed the distinct SNs of suburban London husbands and wives, the former’s wider and more dependent on friends, the latter’s more family and home centred. Stokowski (1989) looked at local personal leisure networks, and subsequently (1994), she studied SNs in the tiny (1,000-strong) town of Eatonville, Washington, distinguishing seven types of people, three linked to immediate family, two to extended family, two to friends, and the self-explanatory isolates. Also in the US, Cheek and Burch (1976) stressed the significance of family and friends in outdoor recreation groups, while Levy (1989)
showed how boat owners at two adjacent slips formed an informal community within a marina as a whole. While Lizardo (2006) and Erickson (1996) show how cultural tastes shaped personal networks. Wellman et al. (1988) extended their mapping of the SNs in a Toronto community, East York, examining community configurations through personal communities and social worlds. Kowald and Axhausen (2012) used a snowball sample of Swiss residents to determine how face-to-face conversations, emails, telephone calls and SMS messages affected leisure trip-making. Gallie et al. (1994) in Britain showed how social, including leisure, networks attenuated once people become unemployed.

Broadly, Morrow (2001) showed how crucial the family, friendship and, to a lesser extent, neighbourhood links of 12–15-year-olds in two schools in south-east England were for quality of life, how minimally children were involved in formal groups and had few outlets for expressing their views. Marsden (1987) explored core discussion networks of Americans, while Erickson (1996) noted that knowledge of sports was important in workplace networks of Canadians. Applications in sport have looked at patterns of passing between players in football teams; early cross-sectional studies looked at a single tournament (Duch et al., 2010, in the 2008 European Cup) or even a game (Liverpool and Manchester United in the 1977 Cup Final – Gould and Gattrell, 1979), but more recently Grund (2012) longitudinally analysed 283,000 passes between players in 23 English Premier league teams, confirming that teams utilising very centralised networks of passes performed less well than those with extensive patterns. In a related study, Reifman (2006) developed a network analysis of passing patterns in basketball. Lusher et al. (2010) used a different measure of relational tie when applying SNA to team sports, specifically looking at reported friendship ties within a team, and informal connections to others. Such approaches could be used to verify or nullify a dimension of the sociological hypothesis of ‘stacking’ – that players in multicultural teams are selective in their patterns of passing, beyond descriptive sociology (Nixon, 1993). In quantifying individual performance in cricket, Mukherjee (2013) used a network analysis of batsmen and bowlers identifying that the Sri Lankan bowler Muralitharan was the most successful bowler in the history of test match cricket. Fewell et al. (2012), defining players as nodes and ball movements as links, analysed the network properties of degree centrality, clustering, entropy and flow centrality across teams and positions, to characterise basketball from a structural perspective and to determine whether their network properties could be assessed through differences in team offensive strategies.

Social mobility of players, managers and coaches has also been explored in network configurations. Sagas and Cunningham (2005) looked at how racial differences functioned between American football coaches. Loy et al. (1987) studied the relationship of playing position to managerial recruitment in Japanese baseball (Nixon, 1993). Fast and Jensen (2006) researched the interactions of professional football coaches and teams in the National Football League, forming a complex social network showing how the mentors that a coach had worked under was important to understanding how successful that coach will be when given his first head coaching position. Meanwhile, in a relational approach to coaching, Jowett and Timson-Katchis (2005) examined the network structure of parental influence on the coach–athlete relationship.

Collins and Andrew (2005) in a study of south London athletics and soccer clubs used frequency and intensity of involvement to identify five types of members:

- key member – significant involvement in training and at least one other of seven aspects;
- core player – significant involvement in training and competition;
- core organiser – significant involvement as a committee member and/or coach/referee/official or event support;
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- social/support member – involvement only in social events; and
- fringe member – no significant involvement in any aspect of the club.

If clubs are large or multi-sport, they can cope with turnover of core personnel; if single sport or small, they may have great problems in coping with changes, with significant lack of or problems in succession planning.

Arguing that young players can be provided with tangible and social capital in clubs, Rosso and McGrath (2013) examined the transition of young (15–18-year-old) girl footballers from playing recreationally in south Australia to joining clubs, highlighting the importance within their SNs of players’ motivation and self-confidence, while issues of social status, race and culture raised questions about social exclusion. MacLean et al. (2011) used a network approach to explore power and dependence in a community basketball network in Canada. They indicated that a loosely coupled network, wherein issues of power and dependence, uncertainty and the lack of management structure to initiate and manage linkages prevailed. Numerato and Bagliani’s (2012) study of Czech and Italian sports associations argued that the dark side of social capital presents itself in situations in which trust, social ties and shared beliefs and norms that may be beneficial to some people are detrimental, to other individuals, sport movements or for society at large. The researchers interpreted the dark side of social capital as attempts to manipulate and misuse trust to try to achieve a particular interest.

There has been a noticeable interest in studies examining negative impacts of covert networks or deviant networks (Carrington, 2011; Christakis and Fowler, 2007; Houtzager and Baerveldt, 1999; McIlwain, 1999). Early research in sport and deviant networks was delivered by Nixon (1993) who noted that the negative constraints and culture of a network could lead athletes to play with pain or injury. George Mitchell (2007) illustrated a network structure of the illegal use of steroids and other performance-enhancing substances by players in major league baseball. Voorhees et al. (2005) examined the role of peer social network factors and physical activity among adolescent girls, identifying the contagious effects of inactivity. Meisel et al. (2013) used an egocentric SNA to examine pathological gambling. With the growing monetary returns from sport, it is unsurprising that negative issues have arisen. From high-profile cases such as Lance Armstrong in cycling and drug abuse in other sports; match-fixing in cricket, football and snooker; and bullying in sport, SNA perhaps is a valuable tool in uncovering and developing sociological understanding of deviance in football.

Revisiting the concept of elite/highbrow and lowbrow distinctions in culture (Peterson and Kern, 1996), including sport, Savage (2013: 11) averred that “the traditional divide between ‘snobs’ and those enjoying popular culture has been eclipsed by the rise of the ‘cultural omnivore’: those who position themselves critically with respect to both snob and popular culture and seek a more hybrid and eclectic identity which takes elements of both positions’. Indeed the exponential availability of material through the internet for the majority of people in western societies and many elsewhere to inform consumer choices and behaviours means that there is a growing degree of knowing/connoisseurship across the spectrum (see Peterson, 2005, for a systematic review of the omnivore thesis).

Recently there has been a growing literature on the importance of networks in taste formation and consumption behaviours (see Lizardo, 2011). Taking the concept of omnivorousness of the most active participants in culture and applying it to sport, Widdop et al. (2014) recently looked at sports participation (including football) through the Department of Culture Media and Sport’s 2007–8 Taking Part survey data. Using latent class analysis, they identified four groups, a large group focused in fitness, two small groups of omnivores and a large group of inactive people, as shown in Table 30.1.
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Table 30.1 Widdop et al. (2014) classes of sports participants, 2007–8

<table>
<thead>
<tr>
<th>Probabilities of activity</th>
<th>Highbrow omnivores</th>
<th>Lowbrow omnivores</th>
<th>Fitness class</th>
<th>Inactives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swimming</td>
<td>0.81</td>
<td>0.44</td>
<td>0.55</td>
<td>0.05</td>
</tr>
<tr>
<td>Cycling</td>
<td>0.66</td>
<td>0.38</td>
<td>0.20</td>
<td>0.04</td>
</tr>
<tr>
<td>Health, fitness, gym</td>
<td>0.48</td>
<td>0.33</td>
<td>0.28</td>
<td>0.04</td>
</tr>
<tr>
<td>Soccer</td>
<td>0.12</td>
<td>0.71</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Golf</td>
<td>0.25</td>
<td>0.25</td>
<td>0.07</td>
<td>0.03</td>
</tr>
<tr>
<td>Racket sports</td>
<td>0.46</td>
<td>0.29</td>
<td>0.10</td>
<td>0.00</td>
</tr>
<tr>
<td>Recreational sports</td>
<td>0.53</td>
<td>0.10</td>
<td>0.09</td>
<td>0.01</td>
</tr>
<tr>
<td>Watersports</td>
<td>0.28</td>
<td>0.06</td>
<td>0.03</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Relative size (%) 7 10 41 42

Bold figures indicate above average participation.

Compared with the fitness group, the highbrows were well educated, quite strongly male, older, from the salariat, had a large volume of friends (demonstrating what Granovetter, much-cited (1973) called ‘the strength of weak ties’), and high degrees of trust, but interestingly distanced themselves from football participation. Indeed, it was the more masculine working-class and lower-middle classes who consumed football extensively. In contrast, the inactives were strongly lower-middle class, less well educated, younger, more female, had less developed networks of family, friends and acquaintances with whom they socialised less, and showed lower levels of trust. The fitness group was strongly female. It should be noted that the friendship networks were general, not just sporting.

Adopting social network approaches from cultural sociology offers an opportunity to expand the work of Widdop et al., explores further issues in the field of football and sport and their social impact. Erickson (1996, 2003) noted that the most widely useful cultural resource is cultural variety, and social network variety is a better source of cultural variety than social class. For Erickson variety is the key. Knowing many kinds of people in many social contexts improves one’s chances of getting a good job, developing a range of cultural interests, feeling in control of one’s life and being healthy. Kane (2004) noted that omnivorous behaviours and diverse networks may indicate an underlying desire for cosmopolitanism. Mark (1998), examining musical consumption patterns, showed that preferences are transmitted through homophilous network ties; that is, similar people interact with each other and develop similar musical tastes, ‘birds of a feather sing together’, impacting on social capital. Furthermore, Lizardo (2013), again citing Granovetter, showed how cultural variety was used in a network in order to mobilise ties to find employment. In another study, Lizardo (2011) showed how omnivorousness was associated with structural holes in a network where an individual is so sited as to have access to different social worlds and generates power through a position of brokerage.

Meso-level approaches to organisations

Whether public, commercial or voluntary, organisations and firms need on occasions to work together, as well as competing, as in trade associations, or in sport or football confederations. Community groups may be formal or informal, specialised or whole community. We look at examples, including in football and in the wider field of sport, below.

In government the use of policy networks has become widespread, in Britain especially after two Economic and Social Research Council initiatives, Marsh and Rhodes (1992: 250–2) attempted to typify networks and their characteristics. Rhodes (1986, 1990) distinguished...
between policy/territorial community, professional, producer and issue networks. David Knoke (2011) gave a masterful overview of policy networks and the different formal network decision models, identifying how political capital and policy is mediated and constrained within political networks.

**Policy networks**

These are stable and close; they usually function around a core department. Analyses can be found in the defence/arms industry, agriculture, farming and forestry (Winter, 1996). For football, having dissected the policies in England for football hooliganism, drug abuse and youth sports, Houlihan (1991: 160–249) initially described the national policy network as weak and porous to decisions made by the bigger guns of government – education, welfare, foreign policy. Later, Houlihan (1997) wondered whether it might even be weak enough to be classified as an issue network (see below). Networks involve ‘insiders’, some of whom might be ‘imprisoned’ by resource dependencies, and exclude ‘outsiders’ (Grant, 1989). Collins (2011) examined how the contentious issue of noisy sports was handled in the preciously guarded and legally protected landscapes of the Lake District. Here off-road motorsports by research and hard work on relationships, representation in planning and management groups, and willingness to cede ground in particularly contentious cases became an insider in the network, and obtained a sustainable management plan and resources to implement it. In contrast, powerboating/waterskiing failed to gain enough widespread political credibility to be more than an outsider, even a pariah because of its noise generation, and lost out when by-laws restricting boat speeds effectively banned the sport from one of its traditional bases, Lake Windermere, and damaged local boat businesses without compensation.

In terms of small organisations – Dutch amateur football clubs, Pieters et al. (2012) showed that the clubs needed close and frequent links with their sponsors while walking the tightrope of not seeming to be too close – ‘in their sponsors’ pockets’. The authors saw other applications of SNA including player search and transfer systems. Furthermore, Velema (forthcoming) through an SNA looks at the structure of the transfer system in European football.

**Professional networks**

There is a large body of research exploring social networks of social elites (Carroll, 2009; Ruostetsaari, 2006; Scott, 1985; Useem, 1984), business elites, corporate interlocks (Carroll and Sapinski, 2011; Froud et al., 2008, Maclean et al., 2006, Scott, 1985); and trade unions (Hedstrom, 1994). Indeed, many examples can be found in established fields like law, medicine, economics, and public and civic administration. In sport, Quatman and Chelladurai (2008) described how clusters of sports management expertise developed in North America. Furthermore, Beale (2008) in a study of social networking within sport and exercise, advocated the value of the iStadia internet network for marketing sports and exercise science skills. The scope of SNA to advance knowledge in the field of football professional networks is apparent. SNA must take a prominent role in exploring business elites and flow of resources; interlocking directors across football clubs, private sector and governing bodies; sponsorship networks; trade unions and players representation; and media networks.
Producer networks


National governing bodies (NGBs) of football and sport can be considered sporting producers, and Stern (1979) examined how the voluntary National Collegiate Athletic Association transformed itself from ‘a confederation with no power over college athletics into a dominant, largely independent, control agent influencing the athletic programmes of both member and non-member schools through professionalising a ‘loosely coupled’ system, and bringing in the large finances of TV and sponsors. Later, Baxter et al. (1992) evidenced how the density of linkages in the National Collegiate Athletic Association affected sanctions for rule-breaking. Similarly, Cousens and Slack (1996, 2005) examined the strategic alliances, joint ventures and partnerships between professional sports leagues, TV networks and sponsors (e.g. the National Football League and Rupert Murdoch’s News Corporation and Fox Broadcasting, Coca-Cola and McDonald’s) and companies buying National Hockey League clubs (e.g. Little Caesar’s Pizza, Molson’s and Blockbuster Video). Sanders (2011) showed how SNs influenced readers of USA Today voting for ranking college teams for the football Bowl Championship Series.

Across the 49th parallel, Thibault and Harvey (1997) surveyed linkages in a mainly amateur sport system, and pointed out that the sort of issues that arise are power struggles, loss of autonomy, conflicts of loyalty, goal displacement, e.g. in keeping sponsors happy. In Australia, Thomson et al. (2013) mapped out how the large 2009 Master Games (27,500 competitors in 28 sports) in Sydney used inter-organisational networks to seek to provide a sports development legacy for the Sydney region, despite political sponsorship moving from the sport to the tourism portfolio.

Looking at changing influences of power in the Irish sports network, and using 50 in-depth interviews with NGBs, media, sponsorship and expert representatives, Wolfe et al. (2002) found:

1. primary actors were agreed to be the NGBs, sponsors and terrestrial and satellite media, with the latter central and actively courting the large NGBs;
2. but terrestrial TV still offered fuller market penetration; and
3. large NGBs still held power in negotiating with print media and sponsors.

Meantime, Oh et al. (2006) advocated social capital studies should be applied on three levels: personal, group and whole organisation.

Organising football markets

DiMaggio (2011) wrote about organising cultural markets and how network analysts have contributed to the idea that loosely bounded ad hoc teams are more efficient in allocating talent than formal organisations. In this area, Giuffre (1999) conceptualised artists’ careers as transitions within a constantly shifting web of relationships that is without a priori hierarchical demarcations. Boari and Corrado (2007) also studied artist and gallery networks, noting that endemic uncertainty led artists to invest heavily in identifying and occupying structural holes, producing
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A system with marked small world properties (a coincidence of strong local clustering and very short average path lengths/easy access to others in the network – Di Maggio, 2011). Foster et al. (2011) studied nightclub talent buyers in Boston (USA) who acted as gatekeepers by selecting bands to perform at their clubs. They showed that social networks varied across culturally defined niches for local rock bands. In a market niche featuring bands playing original music, gatekeepers maintained arm’s-length relations with many bands but were embedded in dense information-sharing networks with each other. In contrast, in a market niche containing bands playing familiar popular tunes (‘covers’), gatekeepers maintained close ties with a few bands, but had arm’s-length relations with each other. There is a lack of research on looking at the sports market in this way, but Giuffre (1999) was quick to highlight that it could be applied to sports teams and movement of players.

Issue networks

These are narrowly focused, often around a controversy, and may easily decay. One example was found in the nuclear power industry, and another in the treasury (Heclo and Wildavsky, 1974). A classic example is the way that salmonella in eggs broke open a closed policy community between the Ministry of Agriculture and the landowning/farming lobby (Smith, 1991), later formalised when consumers were institutionalised through the Food Standards Agency. Quatman and Chelladurai (2008) and Mitchell (2007) could be regarded as studying issue networks in sport, examining sports management expertise and covert networks respectively.

Social media and online networks

Much of the research and review in this chapter has focused on face-to-face or organisation-to-organisation interactions. Yet online networks are growing ever important, not least as a medium for interaction, but also as they provide researchers access to large-scale network data and the ability to address core social-science problems (Di Maggio, 2011). Perhaps at the forefront of such work in sport has been Hamsbrick (2012), who examined how information is spread within Twitter sport social networks, finding that there was rapid spread of information through the online social network and benefits of using influential network members to facilitate information sharing.

Small group and subcultural analysis

Nixon (1993), in his excellent review of social structure in sport, emphasised how SNA is a useful method in studying small group sport and subcultures. He noted that structurally oriented network studies could provide important insights into the relational properties of sports teams, such as size, social composition, integration and solidarity, leadership and status–influence structures, personal turnover, various aspects of communication patterns and processes of cooperation, competition and conflict, on team productivity and success. This idea has parallels with Howard Becker’s social worlds (art worlds) perspective, where this chapter now turns.

Social worlds

Howard Becker’s concept of art worlds embraces the importance of interpersonal ties that shape and are shaped by the structure of the world around them. Maguire et al. (2002) used the work of Becker, Wolff, Bourdieu and Elias to map out aspects of sports worlds (akin to art worlds),
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drawing many parallels with the art worlds concept. However, both Becker and Maguire et al. are open to the same critique, that is, while referring repeatedly to SNs, they fail to develop the concept or exploit its potential as a means of exploring social structures (see Bottero and Crossley, 2011, for a detailed account of SNA and worlds). There is much scope for using SNA (together with other key mechanism of art worlds notably conventions and resources) in developing the Maguire et al.’s under-researched idea of sports worlds especially in the world of football and interpretations of success. Indeed, football products and success are produced by networks of collaborating professionals and organisations rather than by individual geniuses.

**Convergence with social capital studies**

Since the premise of social capital studies is that human wealth resides in links between people, it is perhaps surprising that it took some time for interest to converge with SNA, especially as all the traditions of social capital agree that it comprises resources embedded in networks. The progenitors of social capital were, first, Bourdieu (1984, 1986) for whom the value resided in the homogeneities and differences in cultural tastes and behaviour between groups and classes, his specific example being membership of a golf club; second, Coleman’s (1979) analysis focusing on rational choices in education, while third and most influentially, Putnam’s (2000) was based on associational belonging and trust between people; finally, Lin (1999) focused on the status within a network conferred by position.

Using the 1997–9 waves of the British Household Panel (BHP) Survey for data on 111 recreational activities, Warde and Tampubolon (2002) drew on Bourdieu and Putnam, discovering:

- 98 per cent were members of three types of association or fewer, but greater involvement correlated with frequency of participation and with civic and public participation, confirming Putnam’s finding, whereas Collins and Andrew (2005) found their London sports club members too busy for such involvement; and
- close friendships correlated with distance, and suggested that this encouraged homogeneity – clubs encouraged subcultures, but this raises questions about a chicken-and-egg effect – did clubs encourage friendship formation, or did people take pre-existing friends into clubs, as Andrew suggested? But friendships made little difference to type of associational membership.

Sadly, the reduction of the BHPS’ scope and its partial replacement by the Understanding Society survey means these questions are no longer asked.

**Macro and international studies**

As Crossley (2011) noted, it is not just human actors that interact and connect but nation states, large transnational organisations and international trade organisations. For Crossley, corporate actors are macro-actors and their networks and interactions constitute an important dimension of the social macrocosm. These networks might consist of trade and peace agreements, they are big actors whose actions often have big consequences and their networks comprise a macro-level of social life (Crossley, 2010).

Networks grow quicker than research or legislation and become transnational or global. Studies of these are more difficult or costly to do, unless commissioned by international actors. Heinelt and Smith (1996) dissected the disbursement of European Structural funds, while,
recognising the artificiality of political boundaries, a new ecological and conservation network incorporating the EU, national governments and scientific and lobbying pressure groups – ECONET – has been officially blessed and supported (Bennett, 1994).

Smith (1991: 234) suggested ‘policy communities develop where the state needs highly resourced groups to assist in policy implementation, and issue networks develop in areas of lesser importance or where there is a high level of political controversy’. Rhodes (1986) concurred, seeing leisure as relatively unimportant to macro-policy. Evidence from non-western countries, where sport is strong, such as Japan, Cuba or Kenya, might lead to a different conclusion.

Over 20 years ago, Atkinson and Coleman (1992) saw four new challenges to network analysis, of which studies in sport have only tackled the first to date, to:

- encompass growing complexity and new interests (as Cousens and Slack showed with TV and sponsors in US professional sport);
- cope with political change and new regulatory regimes e.g. from sport for good to sport for sport’s sake in the UK (Collins, 2010);
- reaggregate now-disaggregated views of the state and yet cope with different styles of polity – the ‘adversarial’ in UK, US and Canada, ‘accommodative, liberal, corporatist’ in Germany – which could only be done in transnational studies;
- the study of international networks and their influence on national ones – obvious targets are international sports federations, and the International Olympic Committee.

As they pointed out (1992: 156–7) different networks function in different fashions.

**Critiques of social networks**

After reviewing four approaches, Blackshaw and Long (1998: 246) concluded SNA ‘lacked the research instruments and research procedures to deliver its own promises’ as a new paradigm, specifically rebutting the claims made by the pioneering work in the social structure of leisure by Patricia Stokowski (1994); in particular they wanted muscles of qualitative understanding to be put on the bones of linkage analysis. Crosley (2010) noted that the quantitative tools of SNA process the hurly-burly of social life in such a way as to create a very abstract, formal and structural mapping of it. While identifying that could be a strength, Crosley (2010) saw this as a weakness, because for many sociological purposes SNA’s mapping is too abstract, overly formal and insufficiently attentive to inter-agency and interpersonal processes. It filters out important elements of social life, standardising observations in a way that sometimes obscures important concrete particulars.

But things have moved on. Methodologically, SNA has become very sophisticated, but equally the growing mixed methods approach (combining qualitative and quantitative frameworks) to SNA exemplified by, among others, Crosley (2010), Edwards (2010), and Bottero (Bottero and Crosley, 2011), has added depth to the field and expelled many of the weaknesses of the more traditional quantitative approach. Edwards (2010) noted that SNA offers a particular opportunity for mixing methods because networks are simultaneously both structure and process, and therefore evade simple categorisation as either quantitative or qualitative phenomena.
Putting SNA into football studies and future directions

SNA is an increasingly common form of studying human interaction; Everett (2011) pointed out that compared to 20 papers between 1969 and 1974, there were 13,600 between 2004 and 2009, with an increasing range of applications. There are now three specialist journals and a large, international Sunbelt conference annually. Practitioners have extended from anthropologists, psychologists and sociologists, and organisation theorists, especially in business, to political scientists, mathematicians/statisticians, physicists, biotechnologists, biologists, ecologists, criminologists, computer/media specialists. Applications may be as diverse as routing urban freight traffic, school catchments and accessibility to other facilities, analysing links between film producers and actors, gossip networks, networks in anti-HIV/AIDS drugs campaigning, and pottery finds in archaeology.

Analysis was with network concentration/cohesion and centrality of position, visualisation and statistical modelling (e.g. of emails, memos, telephone conversations and meetings) and now is moving towards the dynamics of networks, how they form, are broken into, and decay, and in areas such as the economy, terrorism and crime, and above all from initial studies, the internet and social media. Some of these methods and issues can apply to football and sport, where, as our above analysis has shown, only modest inroads have been made. Football studies, for example, still needs to look at the strength and nature of linkages in networks, whether personal networks make friendships or pre-existing friendships are a basis for networks, especially in clubs: Andrew in south London (Collins, 2005) found more evidence for the latter than the former. Parkhe et al. (2008) also supported more work on processes in networks and international studies. Viewing how studies of corporate power have moved from North America to East Asia, Scott (1991) noted how future work needed to be aware of cultural historic and cultural embeddedness and the context of personal capital and commercial relations. Techniques like multiple correspondence analysis confirm Prieur and Savage’s (2013: 262–3) assertion that ‘class inequalities in cultural consumption remain profound – but they have changed their form … class-structured cultural differences prevail, even if classical high culture enjoys a more inclusive status than before’ (i.e. in Bourdieu’s time). Omnivores have taken over. Sadly, the Centres for Longitudinal Studies in the CASE studies, DCMS in short-sighted rationalisation and bean-counting based on active people’s large annual cross-sectional samples have made sure that we have no current nor future major dataset where football and sport may be analysed in its cultural and social contexts. This is another example of sport’s ‘lowbrow’ approach to social research affecting sport, eschewing all but the most obvious routes.

Finally we reflect on ways in which scholars interested in applying SNA to football might make a contribution to the field. This is not an exhaustive list, rather it is intended to illustrate the types of research studies that network analysts might address.

At the micro level, analysts have had an interest in game performance. For example, Knoke (2008) noted that a baseball team’s aggregate win–loss record indicates its relative performance, but the ratio of victory to defeat for each pair of teams may reveal subtleties in a league’s power structure. This can be applied to football and numerous other sports. From a sociological perspective, an analyst might use networks to study inequality in football teams and playing positions (developing the study of staking); local discussion groups and friendship ties within teams and the locale; and incidence of depression and suicide. Employment, migration and emigration patterns of football players, men and women, could also be developed; for example, a two-mode network of players in a football team in England might allow us to look at migration patterns and the structure of the market, but also how successful a club may be. A network analyst might be interested in how members of a club (including workplace units) share a
preference for football and play and watch (socialise) together, as these affiliations express institutional arrangements and because institutions structure society. Negative outcomes of networks would also be of interest for a network analyst. For example, does the prevailing culture or emerging properties of a network impact on football players who use doping methods, and is this contagious? Borrowing from cultural sociology, are personal networks and variety of networks important in developing football preferences, and how does this impact upon social capital, well-being and civic engagement.

At the meso level, formal network decision models of policy networks in football would be a welcome addition to the field of sports policy. Running alongside a network analysis there may be interest in linkages between football clubs (from grass roots to elite) and government, or between iconic sports clubs (for example professional football clubs) and community and voluntary groups. Sport business and sports management students might have interest in sponsorship networks centred on major events, or the allocation of tendering projects to deliver these types of events. Furthermore, there may be an interest in football elites and how power is distributed in a network, or how voting preferences are influenced by positions and structures of organisations such as FIFA, UEFA or the IOC. Analysts of football and sport can use networks to start to address heavyweight sociological frameworks, namely social capital; Howard Becker’s art worlds, and serious leisure. The power of online networks and social media can also be used to look at how football players and football events use networks to increase exposure. Furthermore, networks can be used to examine success, talent and celebrity, especially in the idea that football products and success are produced by networks of collaborating professionals and organisations rather than by individual geniuses.

Finally at the macro level a network analyst might look at how football is used within exchanges between nation states, or large, transnational corporations. Aspects of globalisation in football and especially in relation to the media of exchange (technology and communications innovations); broadcast networks, and policy directed across the world from NGBs such as for sport and peace.

To conclude, we hope this chapter has partially addressed Di Maggio’s (2011) idea that SNA is the natural methodological framework for empirically developing insights from leading theoretical approaches to football in society.

References


Social network analysis


Social network analysis


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