Please cite the Published Version

Edensor, Tim , Millington, Steve, Steadman, Chloe, and Taecharungroj, Viriya (2021) Towards a comprehensive understanding of football stadium tourism. Journal of Sport and Tourism, 25 (3). pp. 217-235. ISSN 1029-5399

DOI: https://doi.org/10.1080/14775085.2021.1884589

Publisher: Taylor & Francis (Routledge)

Version: Accepted Version

Downloaded from: https://e-space.mmu.ac.uk/627245/

Usage rights: O In Copyright

Additional Information: This is an Author Accepted Manuscript of an article published in Journal

of Sport and Tourism.

Enquiries:

If you have questions about this document, contact openresearch@mmu.ac.uk. Please include the URL of the record in e-space. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from https://www.mmu.ac.uk/library/using-the-library/policies-and-guidelines)

"Towards a comprehensive understanding of football stadium tourism"

Tim Edensor, Steve Millington, Chloe Steadman, & Viriya Taecharungroj

Journal of Sport & Tourism; Accepted, pre-publication version.

Abstract

Whereas stadium tourism is a growing area within sports tourism, football stadium tourism

remains underexplored. Existing research largely focuses on match-day or heritage

experiences, drawing on single case studies, with no current study comprehensively exploring

the multiplicity of touristic experiences across a sizeable range of stadia. We address this

neglect through an extensive investigation of football stadia as tourism destinations, using a

novel methodology, latent Dirichlet allocation, to examine 28,298 TripAdvisor reviews of the

44 football stadia in the English Premier League and Championship (2019-2020 season),

accompanied by a thematic analysis of reviews. This approach enables an investigation of

multiple touristic experiences across many diverse sites. The study confirms previous findings

about how stadia function as experiential sites of pilgrimage and heritage. However, two new

dimensions of this visitor experience are revealed that demonstrate how stadia function as

restaurants and possess prosaic and functional attributes that are significant dimensions of

visitor experience.

Keywords: English football; football stadia; sports tourism; stadium tourism; TripAdvisor reviews

1

Introduction

Sports stadia have been referred to as the 'sleeping giants' of the tourism industry (Ramshaw & Gammon, 2010; Stevens & Wootton, 1997), yet there remains limited research focusing on stadium tourism experiences (though see Gammon, 2010; Ginesta, 2017). Indeed, Ramshaw and Gammon (2010, p. 88) observe how "few research studies have explicitly addressed stadia sites as either tourism or heritage locations". This lacuna is surprising given how many cities across the world have developed sports stadia, not only to attract visitors to sporting events, but also to sustain all-year activity through integration with conventions, hotels, evening economy (Ginesta, 2017) and other tourist offerings (Stevens, 2005). While a bourgeoning literature investigates heritage experiences of museum and stadium tours, such studies typically explore one or two case study sites, often privileging more spectacular venues and activities (Frost, 2005; Ramshaw, 2010).

This absence of stadium tourism research is particularly surprising in the context of football, with its numerous stadia attracting local and international visitors. Many football clubs are adding new usages within stadia to attract diverse types of visitor throughout the year (Paramio, Buraimo, & Campos, 2008), with some moving to new multi-functional arenas. Despite these developments, many existing studies remain narrowly focused on routine match-day experiences of local fans, neglecting the experiences of more occasional visitors who seek experiences other than watching football matches, and more geographically-dispersed fans (Edensor & Millington, 2010; Steadman, Roberts, Medway, Millington, & Platt, 2020).

In endeavouring to underline the growing diversity of tourism provision at football stadia, this paper contributes a more comprehensive understanding by employing a topic-modelling algorithm, latent Dirichlet allocation, to investigate the multiplicity of visitor experiences

across the 44 football stadia in the 2019-2020 English Premier League and Championship. We first discuss literature about stadium tourism and the evolution, commercialisation and growing multi-functionality of English football stadia. Second, we outline our novel methodology that utilises extensive quantitative and qualitative analysis of 28,298 TripAdvisor reviews. We subsequently reveal four dimensions of football stadia tourism experiences: stadium as museum, pilgrimage site, event venue and restaurant, before concluding with research implications.

Stadium tourism

Touristic experiences in football stadia

Sports tourism is an established field with several prominent themes identified (for extensive reviews see Weed, 2006, 2009). Influential work investigates how sporting (mega)events attract visitors to places and generate significant economic impacts (Lee and Taylor, 2005; Fourie & Santana-Gallego, 2011), with recent research focusing more on cultural and social impacts (Brown, Smith, & Assaker, 2016). Other accounts explore how sports stadia increasingly offer tourism experiences beyond sporting events, functioning as multifaceted venues providing multiple and over-layered experiences (Stevens, 2005), including shopping (Bale, 2000), corporate events (S. Lee, Parrish, & Kim, 2015; Stevens & Wootton, 1997), weddings and family celebrations (Ginesta, 2017), concerts (Zinganel, 2010), and health promotion (Ramshaw, 2017). Related research explores heritage experiences at sports halls of fame, stadium and museum tours (Frost, 2005; Gammon & Fear, 2013; Ramshaw & Gammon, 2005, 2010). Such work draws attention to the affective aspects of stadium tourism, some alluding to how sports stadia are secular "pilgrimage sites", provoking "intense feelings of awe and wonderment, similar to those experienced by pilgrims at religious shrines" (Gammon, 2004, p. 41). Ramshaw (2019: 37) draws attention to how sports stadia are tangible "...repositories for individual and collective memories... sites of important sporting moments

and feats...", which some visitors may wish to encounter - or re-live - during stadium tours. While these explorations are important, we also consider the more prosaic and functional qualities of football stadium experiences.

Indeed, few studies investigate football stadia as venues for a multiplicity of tourist activities (though see Ginesta, 2017). Sheard (2005) suggests that 'first generation' football grounds were functional, single-purpose arenas, primarily serving local fans, designed to accommodate mass crowds on match days, and located in working class neighbourhoods (Edensor & Millington, 2010). Until the late 20th century, there was little consideration of how football stadia might play a strategic role in a city's wider tourist offer. In recent decades, however, top-level football clubs have received an influx of investment from broadcasting rights and corporate sponsorship. With football's status as the world's most popular spectator sport, club owners and stadium managers are capitalising on the potential commercial opportunities of stadia tourism, for compared to other sporting arenas, football stadia can sustain regular touristic activity at high volume.

Giulianotti (2002) uses the term 'commodification' to account for this growing commercialism, a process that extends to the repositioning of visitors who unlike traditional supporters, primarily relate to football clubs as consumers. Whilst this advent of 'inauthentic' tourists displeases some longstanding local supporters (Edensor, 2015; Evans and Norcliffe, 2016), traditional fans may acknowledge the need to attract them for the club to progress and accumulate more resources (Giulianotti, 2002). Subsequently, top-level football clubs now commonly attract and service international spectators through marketing and stadium based interventions (Cordina, Gannon, & Croall, 2019), besides providing an expanding range of activities for local fans and other visitors.

The transformation of English football stadia

While the transformation of football stadia is an international trend, there has been particularly dramatic change in England in recent decades. Top-flight English clubs were compelled to convert their stadia into all-seater arenas in concordance with the recommendations of the 1989 Taylor Report into the Hillsborough stadium disaster (Steadman et al., 2020). The abandonment of large standing terraces led to a dramatic reduction in capacity and loss of match day revenue that prompted clubs to invest in expanded seating areas. These developments accompanied the formation of the English Premier League in 1992, now the world's most valuable and most extensively broadcast football league, accumulating 3.2 billion television viewers for all programming during the 2018-2019 season. During the 2016-2017 season, the EPL also achieved stadium attendance at 97% of capacity, the highest among European football leagues, and attracted 686,000 international visitors to the stadia of its clubs (EY, 2019).

With increased television revenues, wealthier British clubs have invested in expensive, innovative stadia design, enhanced comfort, corporate boxes, hospitality provision, accessibility and crucially, on commercial areas beyond football and the match day experience (Paramio et al., 2008; Sheard, 2005). Manchester United's Old Trafford, actively promoted by Visit Manchester, the city's Destination Marketing Organisation, is one of the biggest tourist attractions in the city of Manchester, UK, attracting 109,000 overseas visitors in 2014 (Brooks-Sykes, 2016). Evans and Norcliffe (2016) similarly report how Liverpool FC's Museum and Anfield Tour adds an additional 143,122 visits per year on non-match days and is the city's fifth most popular tourist attraction.

Meanwhile, other clubs have abandoned their antiquated stadia for new purpose built stadiums, working with local government and the property sector to create multifunctional visitor destinations. In 2003, Manchester City Football Club, working with the municipality, moved from their old Maine Road ground to the new Etihad Stadium (Edensor & Millington, 2010; Steadman et al., 2020). The Etihad anchors a wider brownfield regeneration scheme, comprising the National Cycling Centre, regional squash, tennis and athletics facilities. Following the club's 2008 takeover by wealthy Abu Dhabi investors (Steadman et al., 2020), the main stadium has been expanded to accommodate 55,000 spectators and is used for conferences, business meetings, and music concerts. The complex is linked to the city's tram network to facilitate connectivity to the city centre, which coupled with proposals to create Europe's largest indoor arena at the site, with retail, food and accommodation services, consolidate the area's status as an international sports and leisure destination (Makwana, 2020).

Though such transformations may have rendered football stadia more attractive sites for tourism, concerns they have undermined their homely qualities and constrained fan expression have intensified (Steadman et al., 2020). While stadium experiences are often shaped by the atmosphere generated by local fans during matches (Edensor, 2015), in maximising revenues and capacity stadium managers must appeal to a wider constituency (Edensor & Millington, 2008), including core local fans besides occasional visitors to matches and non-sporting events, and more geographically-dispersed tourists whose visits are part of a broader touristic experience (Weed & Bull, 2004). Accordingly, we argue that research on football stadia experiences needs to consider this wider touristic potential. Building on Ramshaw and Gammon's (2010) observation of stadium tourism being under-researched, we contribute a more comprehensive understanding through revealing the multiplicity of tourist encounters at

these sites, including matchday experiences, stadium tours and museums, and non-sporting events such as concerts and hospitality experiences, amongst others.

Methodology

Sample and TripAdvisor reviews

Weed (2006, 2009) has called for greater methodological diversity in sports tourism, beyond typical survey methods. To comprehensively investigate visitor experiences within football stadia, this study draws on TripAdvisor reviews across the 44 English football stadia found in the top-tier English Premier League (n=20) and second-tier English Football League Championship (n=24) in the 2019-2020 season (Table 1). The recent proliferation of data in the form of online reviews from websites such as TripAdvisor opens up new opportunities to more thoroughly study tourism experiences, including of football stadia. Such digital transformations have promoted a new stream of research utilising a combination of web crawling, computational linguistics, data mining and machine learning to collect, analyse and interpret this material (Xiang, Du, Ma, & Fan, 2017). Online reviews provide a mixture of facts, opinions, impressions and visitor sentiments, in addition to descriptions of behaviours and experiences (Ye, Li, Wang, & Law, 2014), thereby providing researchers with a key archive for understanding visitor experience. Online reviews have been analysed to improve visitor experience in tourist attractions, exploring multi-dimensional experiences and identifying distinct dimensions that help managers to understand the complexity of their offerings (see Taecharungroj & Mathayomchan, 2019). This paper employs an unsupervised machine learning algorithm - latent Dirichlet allocation (LDA) - to examine TripAdvisor reviews of the 44 football stadia in the EPL and Championship, and explore key dimensions of tourist experiences.

Table 1: Stadia in the study

No.	Club	Abbr.	Stadium	Reviews	
1	Arsenal	ARS	Emirates Stadium	1,115	
2	Aston Villa	AST	Villa Park	936	
3	Bournemouth	BOU	Vitality Stadium	65	
4	Brighton and Hove	BHA	Amex Stadium	483	
5	Burnley	BUR	Turf Moor	33	
6	Chelsea	CHE	Stamford Bridge	1,659	
7	Crystal Palace	PAL	Selhurst Park	143	
8	Everton	EVE	Goodison Park	454	
9	Leicester	LEI	King Power Stadium	439	
10	Liverpool	LIV	Anfield	5,645	
11	Manchester City	MCI	Etihad Stadium	4,296	
12	Manchester United	MAN	Old Trafford	4,992	
13	Newcastle	NEW	St. James' Park	1,258	
14	Norwich	NOR	Carrow Road	170	
15	Sheffield United	SHU	Bramall Lane	156	
16	Southampton	SOT	St. Mary's Stadium	491	
17	Tottenham	TOT	Tottenham Hotspur Stadium	111	
18	Watford	WAT	Vicarage Road	78	
19	West Ham	WHU	London Stadium	1,538	
20	Wolverhampton	WOL	Molineux Stadium	50	
21	Barnsley	BAR	Oakwell Stadium	80	
22	Birmingham	BIR	St. Andrew's Stadium	129	
23	Blackburn	BLA	Ewood Park	132	
24	Brentford	BRE	Griffin Park	89	
25	Bristol	BRI	Ashton Gate	141	
26	Cardiff	CAR	Cardiff City Stadium	255	
27	Charlton	CHA	The Valley	70	
28	Derby	DER	Pride Park	386	
29	Fulham	FUL	Craven Cottage	240	
30	Huddersfield	HUD	The John Smith's Stadium	143	
31	Hull	HUL	The KCOM Stadium	197	
32	Leeds	LEE	Elland Road	440	
33	Luton	LUT	Kenilworth Road	75	
34	Middlesbrough	MID	The Riverside Stadium	287	
35	Millwall	MIL	The Den	126	
36	Nottingham Forest	FOR	The City Ground	91	
37	Preston North End	PRE	Deepdale	64	
38	Queens Park Rangers	QPR	Loftus Road	108	
39	Reading	REA	The Madejski Stadium	241	
40	Sheffield Wednesday	SHW	Hillsborough	159	
41	Stoke	STO	The Britannia Stadium	242	
42	Swansea City	SWA	The Liberty Stadium	165	
43	West Bromwich Albion	WBA	The Hawthorns	86	
44	Wigan	WIG	DW Stadium	240	

Our sample of TripAdvisor reviewers does not capture the stadium experiences of all visitors; online reviewers are less likely to represent those spectators with more routinised and local club connections (Figure 1). Figure 1 was produced by counting the number of reviewers whose location is similar to the home town of the club (e.g., London for Arsenal) to the total number of reviewers who reported the hometown as values on x axis. The values on y axis were calculated from the proportion of reviewers who indicated UK as a home country. High profile EPL clubs such as Manchester United (MAN), Liverpool (LIV), Arsenal (ARS) and Chelsea (CHE) have a high proportion of international (40% or higher) and 'out-of-town' TripAdvisor reviewers (80% or higher). Nonetheless, this data crucially enables us to explore the experiences of more geographically-dispersed football stadium visitors whose experiences are typically neglected.

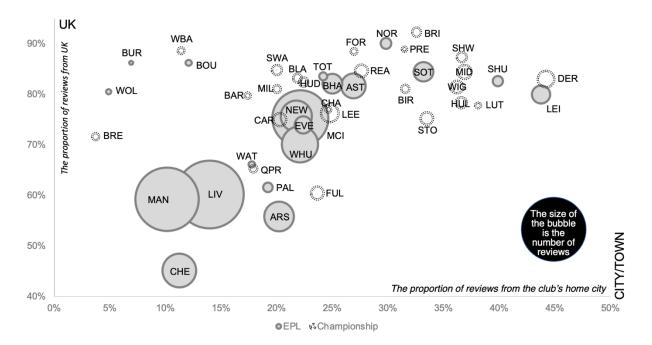


Figure 1: Location of TripAdvisor reviewers according to profiles

Data pre-processing

In September 2019, 28,298 TripAdvisor reviews of all EPL and Championship football stadia were collected using a Python script. First, the body and title of each review were combined, and duplicated reviews removed. Reviews were pre-processed and analysed using KNIME

Analytics Platform 3.7.1. Data pre-processing steps include a punctuation eraser, a case converter, a number filter, an N chars filter (removing reviews with fewer than a specific number of characters), and a stop word filter (removing insignificant words). This study used the initial list of common English stop words by XPO6 and removed proper nouns. Further, all words were stemmed using an algorithm by Porter (1980).

Data analysis

To identify the experiential dimensions of visitors, LDA, a topic modelling algorithm that is efficient in managing big data (Blei, Ng, & Jordan, 2003) was conducted. LDA assumes the existence of a hidden structure in the whole corpus of reviews, using the co-occurrence of words to infer key dimensions – latent constructs distributed over a vocabulary of words used by visitors to describe stadia (Tirunillai & Tellis, 2014). It provides a three-level Bayesian probability model whereby each document (*review*) represents a probability distribution over topics (or *dimensions*) and each topic represents a probability distribution over *words* (R. Wang et al., 2019). Figure 2 is the graphical representation of LDA (adapted from Blei et al., 2003).

The *corpus-level* hyperparameters, alpha (α) and beta (β), were sampled once in the process. The alpha value defines the Dirichlet prior to the per-document topic distributions; higher alpha values denote that each review has more topics (dimensions) and vice versa. The beta value defines the prior on per-topic multinomial distribution over words; thus, higher beta values signify more words in each topic. Alpha (α) and beta (β) were set at 0.1 and 0.01, respectively (see Newman, Asuncion, Smyth, & Welling, 2009). Theta (θ) is a *document-level* (review-level) variable that refers to the probability that a review will contain each dimension (combined probabilities equal to 1). Finally, z and w are *word-level* variables for each review, where w is the word and z is the dimension to which it is assigned.

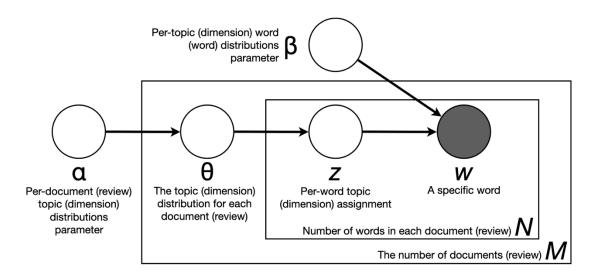


Figure 2: Graphical representation of LDA

The optimum number of dimensions – four - was initially determined using the elbow method (Xiang et al., 2017). Then, the open-source package in R language "LDATuning" was used (Nikita, 2019) to perform four algorithms by Arun, Suresh, Madhavan, and Murthy (2010); Cao, Xia, Li, Zhang, and Tang (2009); Deveaud, SanJuan, and Bellot (2014); and Griffiths and Steyvers (2004), confirming the suitable number of dimensions (see Figures 3 and 4). Subsequently, the dimensions were extracted using LDA modelling; this study used the simple distributed LDA algorithm with SparseLDA sampling scheme and data structure (Yao, Mimno, & McCallum, 2009). Accordingly, four key dimensions of football stadium experience were identified, each containing 20 most frequently found words (Table 2).

Finally, based on the quantitative LDA results, a smaller sub-set of highly representative reviews relating to each of the four dimensions – those which have more than 95% probability of representing that particular dimension – were identified from the total sample (for the distribution of probabilities by dimension, see Figure 5). Investigation of highly representative reviews helped elucidate the meaning, narratives, and contexts of each dimension which were

absent from the LDA results. Using a qualitative thematic approach (Braun & Clarke, 2006), key sub-themes within these illustrative reviews were identified.

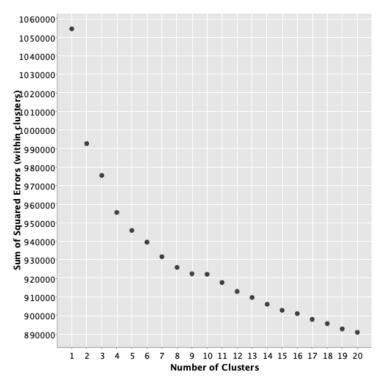


Figure 3: The elbow method

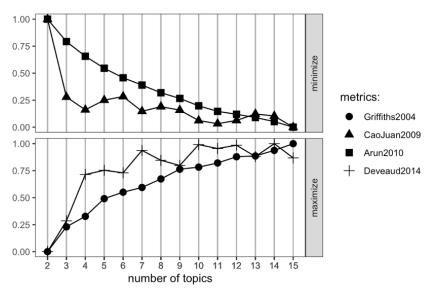


Figure 4: The four algorithms from "LDATuning" package in R language

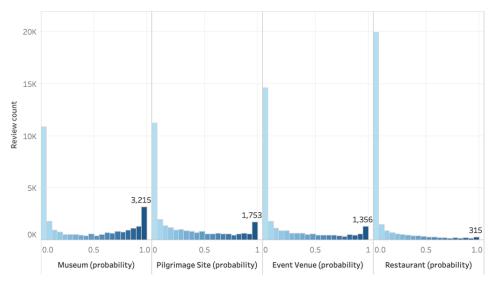


Figure 5: The distribution of review by topic probabilities

Findings: Four dimensions of football stadia experience

Table 2 shows words that represent each identified dimension of football stadium experience from the analysis: *Stadium as Museum*, *Stadium as Pilgrimage Site*, *Stadium as Event Venue*, and *Stadium as Restaurant*. Unique words of each dimension are italicised. Weights represent a number of times the word was assigned to a particular dimension.

Table 2: The four dimensions of football stadia

Museum		Pilgrimage Site		Event Venue		Restaurant	
Word	Weight	Word	Weight	Word	Weight	Word	Weight
tour	28708	stadium	8960	stadium	7239	great	2775
stadium	9062	great	5526	good	4152	food	2469
guide	8486	football	5385	ground	3255	staff	2048
fan	7068	fan	4756	seat	3197	good	1927
great	7006	atmosphere	4379	park	2982	day	1790
room	5284	game	3798	away	2359	match	1518
visit	4819	visit	3786	food	2280	friendly	1025
museum	4446	match	3074	great	2272	drink	979
real	4005	place	2855	view	2115	game	950
day	3830	best	2793	drink	1872	excellent	944
club	3601	ground	2614	time	1805	service	913
football	3396	team	2379	walk	1743	hospitality	892
time	3255	club	2280	stand	1699	experience	839
recommend	3044	home	2226	people	1672	time	817
experience	3041	watch	2197	ticket	1640	help	780
inform	2854	day	2164	game	1632	meal	772
interest	2707	experience	2104	easy	1602	seat	764
love	2597	amazing	2012	concert	1570	real	704
knowledge	2578	time	1721	fan	1475	love	700
enjoy	2569	love	1601	visit	1469	stadium	654

Stadium as Museum: A place for a family excursion

Building on burgeoning literature exploring heritage experiences in sports museums (Gammon & Fear, 2013; Ramshaw, 2010, 2017), the first dimension concerns hitherto neglected practice of visiting the football stadium as a museum. Words including *tour*, *museum*, *stadium*, and *room* (Table 2) reveal the growth in the idea of the stadium as a place for education, family, and sociality, aligning with Ramshaw's (2019) observation that sports heritage experiences can inform, entertain and educate. This reflects the growing commercialisation and multifunctionality of stadia whereby clubs increasingly provide events, services, and activities beyond football matches for regular local fans, occasional visitors, and those visiting as part of a sports tourism experience (Ginesta, 2017; Paramio et al., 2008). Online reviews reveal how club museums and tours of press rooms, pitches, tunnels, changing rooms and trophy cabinets often form part of familial celebrations, birthday events and Christmas gifts:

What an experience from start to finish; would highly recommend this tour. My son is a big Manchester United Fan and we were all over for the very first time for the Manchester United vs Swansea Match as it was my son's Christmas present (Old Trafford, May 2017).

As well as fans learning about the (selective) club history narrated through these guided tours, as Gammon and Fear (2013, p. 247; original emphasis) note, they also provide "not just the experience of actually *being there* but also the opportunity to experience of what it's like being *behind here*", with 'backstage' areas, such as changing rooms, not usually open to the tourist gaze during 'frontstage' match-days. Such tourism experiences can thus provide visitors with a greater sense of intimacy with the sport, club, players, and place that would not ordinarily be realised during a match-day (Gammon, 2010). As one online reviewer commented, "kids loved

the fact that they were accessing areas that the players actually go to!" (Goodison Park, February 2019). This dimension reveals more broadly how family tourism is often neglected in favour of the lone traveller in research (Schänzel, Yeoman, & Backer, 2012). Nonetheless, football stadium managers are capitalising on the potential for family provision in developing tourism experiences. Such experiences exemplify the ever-expanding absorption of particular realms into the orbit of tourism (MacCannell, 1973), and highlight the potential for stadium and museum tours to appeal to tourists beyond the interests of the invested football fan:

Took my 6-year-old daughter for her birthday. At only 6 I wasn't sure she would stay interested - she was mesmerized the entire time! As a non-football-fan myself I didn't expect to enjoy it - however I loved it and would recommend it to anyone (Stamford Bridge, November 2017).

The idea that a football stadium may constitute a venue for a family day out for both fans and non-fans is further exemplified by a reviewer who explains: "I dragged my girlfriend along with me and she wasn't as excited but once we started, she loved every minute of the tour" (Villa Park, December 2014). Increasingly then, many stadia are akin to a museum or heritage site that incorporate the immersive, dramaturgical and audio-visual elements staged at other tourist attractions, reflecting the era of 'new museology' (Ramshaw, 2010) and extending the affective and emotional engagement of visitors (Edensor, 2001). Indeed, Ramshaw (2019) insists that heritage sport tourism development is informed by emergent trends around experiential and active sports tourism rather than merely promoting passive consumption.

These interactive aspects beyond a detached 'tourist gaze' are further intensified by the performances of tour guides – indeed, the word "guide" is one of the most defining characteristics of this dimension (Table 2). A visitor to Villa Park commented how "Keith, the tour guide, was very knowledgeable" (Villa Park, March 2019), while a visitor to Chelsea's

Stamford Bridge focused on how "Mandy [the tour guide] was very bubbly and engaging" (Stamford Bridge, February 2017). These comments support Gammon and Fear's (2013) insights into how such guides perform as both entertainers and educators, underlining the broader tendencies of tourist provision to increasingly offer both informational and affective experiences, thereby appealing to a clientele beyond invested and long-term football fans.

Subsequently, this dimension underlines how football stadia increasingly offer experiences beyond sporting events, appealing not only to lone travellers or fans, but also offering activities as part of social or familial excursions. Moreover, stadium and tourism managers increasingly consider how such activities may be anchored in a wider touristic offer, maximising the potential for joint ticketing ventures or inter-stadia museum tours across cities.

Stadium as Pilgrimage Site: A place of sacred heritage

We now explore the notion of football stadia as pilgrimage sites, with ideas of sports heritage (Ramshaw & Gammon, 2010), stadium atmosphere (Edensor, 2015), and fan identity (Edensor & Millington, 2008) central themes. Such singular or infrequent touristic adventures are expressed through words including *watch*, *match*, *day*, *experience*, *home* and *atmosphere* (Table 2). For certain tourists who lack a local spatial connection but nonetheless possess a strong emotional affinity with the club, such visits to stadia during match-days can resemble a pilgrimage (Gammon, 2004), a means of cementing their fan identity and developing a greater sense of allegiance. Indeed, Gibson et al. (2003, p. 185) find that fans travelling to the University of Florida to watch an American football game often consider these touristic journeys as "pilgrimages to the Mecca of Gator football" and the "spiritual centre" of college football.

Similarly, one Manchester United supporter commented "Old Trafford oozes history; everywhere you turn is a memory of what makes them the club with the proudest tradition in British football" (September, 2015). Such reviews confirm how stadia can have a mnemonic quality in capturing fans' match-day memories (Steadman et al., 2020) and consolidate shared histories created through mythmaking and storytelling around football club heritage (Hague & Mercer, 1998). Indeed, traditional stadia often generate nostalgic sentiments, as expressed by a visitor who commented how Sheffield Wednesday's Hillsborough ground is "[s]teeped in history and retaining the character of a traditional football ground". Even neutral tourists may express a romantic enchantment with the historic patina of a stadium, as expressed by a visitor to Everton's Goodison Park (June, 2013):

I don't support Everton but what a fantastic and friendly place. Steeped in History. Everton are the team who have been in England's top league longer than any other club - over 100 years!! Great visit to one of the cathedrals of football.

This reference to Goodison Park being akin to a 'cathedral' bolsters associations of historic sports stadia as 'spiritual homes'- places where memories accrue and sediment. For instance, Ramshaw and Gammon (2010) report that Twickenham is considered as the 'spiritual home' of rugby and the English rugby team, and a home for English identity. For newer stadia, these place-rooted memories, myths and narratives are only nascent, and might fail to generate the same sense of heritage and romanticism, as a visitor to Chelsea's Stamford Bridge remarked, "...a lot of the new arenas don't have the same history and feeling like the older ones" (November 2014). Similarly, in February 2018, a visitor to Goodison Park commented that "compared to the new characterless concrete bowls" this stadium "just oozes history and

memories". Here we foreground how those clubs that have not (yet) developed purpose-built new stadia can better appeal to romantic, heritage-laden tourist impulses to experience a more 'authentic' football place.

Atmosphere – constituted by the shifting emotions, affects, and sensations that flow across stadia (Edensor, 2015) - is also central for football pilgrims, who enthusiastically refer to the atmospheric quality of match-day experiences. After visiting Old Trafford in March 2016, one fan wrote, "fantastic first experience watching the match. In awe of this amazing arena easily accessible and really good atmosphere". However, in foregrounding ideas of "home", online reviews also reveal inter-fan animosities regarding the atmosphere of rival stadia, building on work into supporter tensions within football stadia (Steadman et al., 2020). For example, negative one-star reviews about atmospheres often come from visiting rival tourist-fans: "Reading play here, what more do I have to say, more atmosphere on the Moon. One song? They don't even have that" (The Madejski Stadium, 9th February 2014). Such contempt is often directed to home fans who allegedly fail to produce the requisite atmosphere. For instance, a visitor to Old Trafford wrote in September 2013, "It's called the Theatre of Dreams, must be because the home fans sleep through the 90 minutes?". Such predilections also resonate with the points made above about inauthentic 'other' stadia, as with a Nottingham Forest fan who referred to the City Ground as "a proper football ground" unlike other "soulless flat packed" stadia.

Conversely, reviewers proclaiming themselves to be life-long fans often express unconditional enthusiasm to publicly defend the atmosphere of their club's 'home'. Such enthusiasm is reflected in the frequency of words such as *great*, *best*, *football*, *club*, and *team* (Table 2). For instance, a Manchester United fan remarked that "[Old Trafford] has an imposing and special

feel on every visit. For the football fan it's a must visit, up there with the greatest club stadiums in the world"; while a Liverpool fan wrote in December 2015, "As an avid Liverpool supporter, I can safely say that no other stadium comes close to Anfield for atmosphere, character and emotion".

In summary, this dimension testifies to the increasing number of distant fans and tourists who visit stadia on match-days as secular pilgrimages. History, memory, and atmosphere must be carefully considered by tourism and stadium managers in maintaining the heritage of historic stadia and attending to challenges in cultivating a sense of history, home and atmosphere in newer stadia. While this dimension evokes the affective and spectacular qualities of stadium tourism, we now discuss the importance of attending to more functional provisions.

Stadium as Event Venue: A place of serviceability

Many large stadia are increasingly utilised as venues for social and corporate events (S. Lee et al., 2015), expanding revenue and utilising capacity on non-matchdays (Zinganel, 2010) and attracting visitors who may have no club affiliation. Yet, although non-sporting events such as music concerts generate powerful affective experiences, prominent in our reviews are critical assessments of the 'facilities and operations' that contribute to the overall visitor experience. Focusing on the attributes of the *seating*, the *view*, and *parking*, reviewers also often used words such as *easy*, *walk*, *stand*, *time* and *away* to explain their experiences (Table 2). This is exemplified by visitors who after attending a concert, described Manchester City's Etihad Stadium in June 2017:

The stadium provided helpful up to date information on twitter before our arrival. Parking on site was well signposted and easy to find. Manchester

city centre was a 10 min tram ride away with very trams running every few minutes for £3 return. I would definitely consider again for a music concert.

Such concerns align with Fernandes and Neves's (2014) finding that perceived service quality of stadia is influenced by good accessibility, cleanliness and efficient layout. In our study, a visitor who attended a Guns and Roses concert at West Ham United's London Stadium in June 2017 wrote, "Great new stadium with all of the modern facilities you'd expect". These qualities of visibility and accessibility in refurbished and new stadia resonate with the assessments of fans during football matches; for example, one fan commented that the Etihad Stadium is "[a] modern stadium which is clean and spacious... With the modern build, it means every seat is a good seat with no restricted views". These virtues satisfy football fans, tourists and concert goers alike, testifying to the multifunctional capacities of contemporary stadia.

However, when facilities and operations fail to live up to expectations, visitors are often dissatisfied. Negative one-star reviews include criticisms about accessibility in terms of efficient transport and entering the stadium. Regarding the former, one reviewer complains, "Access to the stadium was abysmal. What should have been a 30-minute journey to the (Amex) stadium by car turned into an hour and a half...This stadium should not have built without improvements to the already inadequate road system in the Brighton area (June 2014)". Concerning stadium entry, other reviewers protest about slow moving queues: "There was no organisation of the crowds or queues, security staff were not easily identifiable and those that were had very little to know idea what was going on" (John Smith's Stadium, June 2019). Indeed, queuing has been identified as a significant contributor to negative tourism experiences (Pearce, 1989) more broadly, echoing Steadman et al.'s (2020) observation that stadium accessibility issues can negatively disrupt visitor experience.

Visitors also follow the expectations of tourists that they will utilise well-maintained toilets and other facilities (Catahan and Woodruffe-Burton, 2019). One reviewer complained, "Catering and toilet areas and the concourse in general far too small for the number of people. Dangerous. Disappointing" (The Hawthorns, September 2018). The functional standards of older stadia are often roundly condemned when compared to newer arenas: "Bloody hell it was like stepping back into the dark ages, overflowing toilets, loads of rats, absolutely dreadful place" (St. Andrew's Stadium, November 2016).

While existing literature focuses on the quality of the match-day services of the stadium, this is also pertinent to visitor experiences of non-football events. Our data indicates the importance of attending to mundane elements connected to the quality of facilities and efficiency of operations. While new stadia are more likely to provide higher quality facilities, it is important that all stadia manage their operations well. Such findings present a challenge for the management of expectations for visitors to stadium concerts, who may be more familiar with attending purpose-built music venues. Such findings provide a counterpoint to existing studies that primarily focus on the spectacular nature of stadia visits or as sites of atmospheric drama, in drawing attention to how prosaic attributes are paramount to stadium experience.

Stadium as Restaurant: A place for food, drink and corporate hospitality

The final dimension focuses on the stadium as a restaurant, with the importance of *food*, *drink* and *hospitality* (Table 2) provision key. While existing research acknowledges the importance of generating secondary tourism spend in restaurants near to sporting venues as part of a broader excursion (Gibson et al., 2003; Stevens & Wootton, 1997), food provision within the stadium itself has been neglected. Contrasting with traditional match-day fare, where the iconic "pie and bovril" constitutes a standardised cliché of basic sustenance (Ireland & Watkins, 2010)

during *match days* (both words are frequently found in this dimension; see Table 2), many visitors emphasised the quality of food and service as a primary desire, highlighting the increasing complexity of the match day experience.

This is especially the case for the growing number of corporate workers and guests attending matches, as traditional fan class-structures shift and blur (Giulianotti, 2002). Such visits often include hospitality packages, expanding provision beyond the sporting entertainment. This links to the growing recognition of the importance of gastro-tourism (Sims, 2009), with many visitors exclusively mentioning food and services rather than the outcome of the game. A visitor to Leicester City's King Power Stadium in April 2017 wrote, "Food is simply out of this world; paid for a 3-course meal with match tickets. The waiters and waitresses quick to attend to you, really excellent food, expensive but worth it". Likewise, a visitor to Leeds United's Elland Road Stadium remarked, "Having just finished another season as a hospitality guest. I have to complement Andy and his catering team. We've had a fabulous 5-course meal every home game".

Furthermore, reviews often detail specific food and drink consumed, underlining the importance of gastronomy to stadium experiences: "Three course meal including carvery which had a selection of roasts, fish, noodles and vegetarian options. Dessert was self-service cakes and pies with cream or cheese and fruit" (Anfield, January 2016). In addition, many reviewers foregrounded traditional English foods, suggesting a search for perceived gastronomic tradition or "authenticity" (Sims, 2009):

The choice on the menu was simple pub grub type, Pie and Chips, Sausage and Mash etc and I think they also offered a finger buffet. My two mates

opted for the Pie and Chips and I had the Sausage and Mash (Molineux Stadium, December 2017).

Quality of service also significantly affects the experience of restaurant customers (Mathayomchan & Taecharungroj, 2020), and this is also the case for diners at football stadia, with words such as *service*, *staff*, *friendly*, and *help*(ful) commonly found in our analysis (Table 2). A visitor to the Etihad Stadium in May 2017 wrote:

The welcome staff were so lovely. We were shown to our table and given instructions on the buffet service. The food was excellent and plentiful, the waitress service was a bit slow, but we did manage to get served before the match. At half time there was desserts and cheeses and tea and coffee served.

At full time a full bar service was available.

However, as Lee et al. (2015) find, gastronomic provision for conference events held at sports stadia may be more limited and of lower quality than at other venues, such as hotels. Where comestible offerings fall below expectations, as with restaurant reviews (Mathayomchan & Taecharungroj, 2020), judgements about stadia experience can be harsh:

Was looking forward to a Christmas night out with work mates and a meal at the stadium. The food was dreadful. Everyone in our party was disgusted with the awful food. Very small portion but that didn't matter as [the food] wasn't edible anyway (John Smith's Stadium, December 2018).

This example reveals that besides match-day gastronomic provision, at many large stadia, food and services are provided for small-scale wedding receptions, corporate events and Christmas

parties. A conference attendee at DW Stadium wrote in December 2015, "Used on a couple of occasions for business breakfasts and lunch great service. Great venue for small to large conference type meetings".

The quality of food and hospitality services is critical to the satisfaction of many match-day hospitality visitors and attendees to other events alike. The resemblance between football stadium and restaurant experiences creates an opportunity for stadia and tourism managers to learn from the research on restaurant and hospitality management in enhancing visitor experience with the provision of high quality food, service and value (Mathayomchan & Taecharungroj, 2020).

Conclusions

Study implications

The touristic potential of football stadia has been overlooked, with much existing research focusing on matchday experiences of local fans. By investigating visitor experiences across the 44 stadia of the English Premier League and Championship, this paper moves beyond conceptualisations of football stadia as mono-functional spaces housing matches. Instead, we reveal how such sites are increasingly multifunctional, attracting not only local football supporters but also geographically dispersed fans, casual tourists and other event-goers, with both spectacular and functional qualities informing visitor experiences. Football stadia tourism is moving beyond tours to encompass a wide range of touristic experiences.

We identify how transforming stadium designs contribute to the extension of tourism into hitherto unexploited areas and the breaking down of discrete areas of social practice through processes of 'de-differentiation' (Edensor, 2001). Through identifying the football stadium as a museum, pilgrimage site, event venue and restaurant we demonstrate how the provision of

'infotainment' 'eatertainment' and 'shoppertainment' (Gottdiener, 1997), tours, conferences and pilgrimages entangle designers and managers into catering for desires that transcend those of the match-day experience. Yet, though we largely focus on elite Premier League clubs, hundreds of lower league and non-league clubs continue to play in traditional stadia and accordingly, the time-honoured modes of watching football matches can still be experienced across England. The multifunctional new stadia thus supplement the diversity of leisure experiences offered across the English game.

We have inferred that club tours and museums should invest in recruiting and training knowledgeable, friendly guides and offer activities that satisfy family groups and non-fans. And although heritage, history and success cannot be strategically created, clubs need to be aware of the emerging segment of geographically-dispersed fans who travel more infrequently to their 'spiritual homes'. The increasing deployment of stadia as venues for large-scale events also needs to cater for those non-fans who seek operational efficiency in and around the stadium. Moreover, in increasingly offering gastronomic experiences, clubs should focus on enhancing the quality of food and service in stadia to reinforce positive visitor experience. For enjoyable experiences are likely to promote positive reviews on TripAdvisor, their own social networks or by word of mouth, potentially stimulating greater revenues.

Our findings suggest that stadia management can be integrated within wider tourist strategies that account for accessibility, crowd organisation and efficient transport infrastructures. Stadium tourism might be incorporated into more extensive city-wide tours to appeal to educational, cultural and gastro tourists through joint ticketing and promotion, for both football fans and non-fans. In developing more specialist tourist provision in the UK, since many iconic stadia are located in close proximity, there is scope for inter-city stadia tours comprising visits

to multiple destinations as part of a football holiday, including heritage-laden stadia that belong to less high-profile clubs.

By combining a comprehensive LDA analysis of TripAdvisor reviews with qualitative analysis, we offer a novel methodological approach that could potentially extend the scope of future studies into stadia and other forms of tourism. We contend that our focus on online representations is critical in understanding new modes of marketing since contemporary tourism is increasingly fuelled by an intensified mediatisation. This has been exacerbated by the rise of social media as a milieu through which to disseminate non-expert opinions, generate lay reviews and detail experiences that increasingly influence destination choice and brand awareness (Xiang et al., 2017); this is especially salient in the case of TripAdvisor (Miguéns, Baggio, & Costa, 2008). In expanding the economic value of sports tourism, we argue that a grasp of these processes is integral to developing new tourist uses, reconfigured service skills, forms of marketing and expanded facilities.

Limitations and future research

This current research has a platform bias wherein all data was collected from TripAdvisor which though extensive, cannot represent the experiences of all tourists to football stadia. Accordingly, some aspects of stadium tourism may have been overlooked using this approach, such as in-stadium retail, which is usually tied to other experiences like tours and could form the focus of future research using techniques such as interviews. Second, although data was collected from 44 clubs, most reviews are from 'big clubs'; findings could not therefore capture the nuances of visitors to the smaller stadia of lower league and non-league clubs, and future research could be extended to explore tourist experiences at more diverse football venues. Third, big data analytics is a rapidly evolving field of research and future research could

compare alternative LDA algorithms and accompanying techniques such as number of topic (dimension) and hyperparameters (alpha and beta) optimisation. Fourth, at the time of writing, many sporting events have been cancelled (Weed, 2020) and football stadia closed due to the COVID-19 pandemic. It is thus timely to ask how the economic viability of football clubs and stadia will be affected during this prolonged shutdown. One thing is for sure: those stadia offering a more diverse range of fan and tourist activities are likely to be better placed to recover from this economic hammer blow.

References

- Arun, R., Suresh, V., Madhavan, C. V., & Murthy, M. N. (2010, June). On finding the natural number of topics with latent dirichlet allocation: Some observations. In *Pacific-Asia conference on knowledge discovery and data mining* (pp. 391-402). Springer, Berlin, Heidelberg.
- Bale, J. (2000). The changing face of football: Stadiums and communities. *Soccer & Society,* I(1), 91-101.
- Blei, D. M., Ng, A. Y., & Jordan, M. I. (2003). Latent dirichlet allocation. *Journal of machine Learning research*, 3(Jan), 993-1022.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research* in psychology, 3(2), 77-101.
- Brooks-Sykes, N. (2016, 11 August 2016). How football tourism boosts the Manchester economy. Retrieved from https://marketingmanchesterblog.wordpress.com/2016/08/11/football-tourism-boosts-manchester-economy/
- Brown, G., Smith, A., & Assaker, G. (2016). Revisiting the host city: An empirical examination of sport involvement, place attachment, event satisfaction and spectator intentions at the London Olympics. *Tourism management*, 55, 160-172.

- Cao, J., Xia, T., Li, J., Zhang, Y., & Tang, S. (2009). A density-based method for adaptive LDA model selection. *Neurocomputing*, 72(7-9), 1775-1781.
- Catahan, N., & Woodruffe-Burton, H. (2019). The view, brew and loo: perceptions of botanic gardens? *Journal of Place Management and Development*.
- Cordina, R., Gannon, M. J., & Croall, R. (2019). Over and over: local fans and spectator sport tourist engagement. *The Service Industries Journal*, *39*(7-8), 590-608.
- Deveaud, R., SanJuan, E., & Bellot, P. (2014). Accurate and effective latent concept modeling for ad hoc information retrieval. *Document numérique*, *17*(1), 61-84.
- Edensor, T. (2001). Performing tourism, staging tourism: (Re) producing tourist space and practice. *Tourist studies*, *1*(1), 59-81.
- Edensor, T. (2015). Producing atmospheres at the match: Fan cultures, commercialisation and mood management in English football. *Emotion, Space and Society, 15*, 82-89.
- Edensor, T., & Millington, S. (2008). 'This is Our City': branding football and local embeddedness. *Global Networks*, 8(2), 172-193.
- Edensor, T., & Millington, S. (2010). Going to the match: The transformation of the match-day routine at Manchester City FC. *Stadium Worlds: Football, Space and the Built Environment*, 146-162.
- Evans, D., & Norcliffe, G. (2016). Local identities in a global game: the social production of football space in Liverpool. *Journal of Sport & Tourism*, 20(3-4), 217-232.
- EY. (2019). *Premier League Economic and social impact*. Retrieved from London:

 https://assets.ey.com/content/dam/ey-sites/ey-com/pt_br/topics/ey-economic-advisory-/ey-premier-league-economic-and-social-impact-january-2019.pdf
- Fernandes, T., & Neves, S. (2014). The role of servicescape as a driver of customer value in experience-centric service organizations: the Dragon Football Stadium case. *Journal of Strategic Marketing*, 22(6), 548-560.

- Fourie, J., & Santana-Gallego, M. (2011). The impact of mega-sport events on tourist arrivals. *Tourism management*, *32*(6), 1364-1370.
- Frost, W. (2005). The sustainability of sports heritage attractions: lessons from the Australian football league hall of fame. *Journal of Sport & Tourism*, 10(4), 295-305
- Gammon, S. (2004). Secular pilgrimage and sport tourism. *Sport tourism: Interrelationships, impacts and issues*, 30-45.
- Gammon, S. (2010). "Sporting" new attractions? The commodification of the sleeping stadium. *Tourism experiences: Contemporary perspectives*, 115-126.
- Gammon, S., & Fear, V. (2013). 3. Stadia Tours and the Power of Backstage. In *Heritage, Sport and Tourism* (pp. 33-42): Routledge.
- Gibson, H. J., Willming, C., & Holdnak, A. (2003). Small-scale event sport tourism: Fans as tourists. *Tourism management*, 24(2), 181-190.
- Ginesta, X. (2017). The business of stadia: Maximizing the use of Spanish football venues. *Tourism and Hospitality Research*, 17(4), 411-423.
- Giulianotti, R. (2002). Supporters, followers, fans, and flaneurs: A taxonomy of spectator identities in football. *Journal of sport and social issues*, *26*(1), 25-46.
- Gottdiener, M. (1997). The theming of America. Boulder, CO: Westview.
- Griffiths, T. L., & Steyvers, M. (2004). Finding scientific topics. *Proceedings of the National academy of Sciences*, 101(suppl 1), 5228-5235.
- Hague, E., & Mercer, J. (1998). Geographical memory and urban identity in Scotland: Raith Rovers FC and Kirkcaldy. *Geography*, 83(2), 105.
- Ireland, R., & Watkins, F. (2010). Football fans and food: a case study of a football club in the English Premier League. *Public health nutrition*, *13*(5), 682-687.
- Lee, C.-K., & Taylor, T. (2005). Critical reflections on the economic impact assessment of a mega-event: the case of 2002 FIFA World Cup. *Tourism management*, *26*(4), 595-603.

- Lee, S., Parrish, C., & Kim, J.-H. (2015). Sports stadiums as meeting and corporate/social event venues: A perspective from meeting/event planners and sport facility administrators. *Journal of Quality Assurance in Hospitality & Tourism, 16*(2), 164-180.
- MacCannell, D. (1973). Staged authenticity: Arrangements of social space in tourist settings. *American journal of Sociology*, 79(3), 589-603.
- Makwana, R. (2020, 11 March 2020). Manchester Arena set to become Europe's largest indoor arena. Retrieved from https://www.propertyweek.com/news/manchester-arena-set-to-become-europes-largest-indoor-arena/5106808.article
- Mathayomchan, B., & Taecharungroj, V. (2020). "How was your meal?" Examining customer experience using Google maps reviews. *International Journal of Hospitality Management*, 90, 102641.
- Miguéns, J., Baggio, R., & Costa, C. (2008). Social media and tourism destinations: TripAdvisor case study. *Advances in tourism research*, 26(28), 1-6.
- Newman, D., Asuncion, A., Smyth, P., & Welling, M. (2009). Distributed Algorithms for Topic Models. *Journal of Machine Learning Research*, 10(Aug), 1801-1828.
- Nikita, M. (2019). Select number of topics for LDA model. Retrieved from https://cran.r-project.org/web/packages/ldatuning/ vignettes/topics.html#references
- Paramio, J. L., Buraimo, B., & Campos, C. (2008). From modern to postmodern: the development of football stadia in Europe. *Sport in Society*, *11*(5), 517-534.
- Pearce, P. L. (1989). Towards the better management of tourist queues. *Tourism management*, 10(4), 279-284.
- Porter, M. F. (1980). An algorithm for suffix stripping. *Program*, 14(3), 130-137.

- Ramshaw, G. (2010). Living heritage and the sports museum: athletes, legacy and the Olympic Hall of Fame and Museum, Canada Olympic Park. *Journal of Sport & Tourism*, *15*(1), 45-70.
- Ramshaw, G. (2017). Sport heritage and the healthy stadia agenda: an overview. *Sport in Society*, 20(2), 219-225.
- Ramshaw, G. (2019). Heritage and Sport: An Introduction. Bristol: Channel View.
- Ramshaw, G., & Gammon, S. (2005). More than just nostalgia? Exploring the heritage/sport tourism nexus. *Journal of sport tourism*, 10(4), 229-241.
- Ramshaw, G., & Gammon, S. (2010). On home ground? Twickenham Stadium Tours and the construction of sport heritage. *Journal of Heritage Tourism*, *5*(2), 87-102.
- Schänzel, H., Yeoman, I., & Backer, E. (2012). *Family tourism: Multidisciplinary perspectives* (Vol. 56): Channel View Publications.
- Sheard, R. (2005). The stadium: architecture for the new global culture. In. Berkeley: Periplus Editions.
- Sims, R. (2009). Food, place and authenticity: local food and the sustainable tourism experience. *Journal of sustainable tourism*, 17(3), 321-336.
- Steadman, C., Roberts, G., Medway, D., Millington, S., & Platt, L. (2020). (Re)thinking place atmospheres in marketing theory. *Marketing theory*.
- Stevens, T. (2005). Sport and Urban Tourism Destinations: The Evolving Sport, Tourism and Leisure Functions of the Modern Stadium. In: J. Higham (ed.) *Sport Tourism Destinations*. Elsevier, Oxford.
- Stevens, T., & Wootton, G. (1997). Sports stadia and arena: realising their full potential. *Tourism Recreation Research*, 22(2), 49-56.
- Taecharungroj, V., & Mathayomchan, B. (2019). Analysing TripAdvisor reviews of tourist attractions in Phuket, Thailand. *Tourism Management*, 75, 550-568.

- Tirunillai, S., & Tellis, G. J. (2014). Mining marketing meaning from online chatter: Strategic brand analysis of big data using latent dirichlet allocation. *Journal of Marketing Research*, *51*(4), 463-479.
- Weed, M. (2006). Sports tourism research 2000–2004: A systematic review of knowledge and a meta-evaluation of methods. *Journal of Sport & Tourism*, 11(1), 5-30.
- Weed, M. (2009). Progress in sports tourism research? A meta-review and exploration of futures. *Tourism management*, 30(5), 615-628.
- Weed, M. (2020). The role of the interface of sport and tourism in the response to the COVID-19 pandemic. *Journal of Sport & Tourism*. Online First: 10.1080/14775085.2020.1794351
- Weed, M., & Bull, C. (2004). Sports Tourism: Participants. *Policy and Providers. Oxford:*Elsevier.
- Xiang, Z., Du, Q., Ma, Y., & Fan, W. (2017). A comparative analysis of major online review platforms: Implications for social media analytics in hospitality and tourism. *Tourism management*, 58, 51-65.
- Yao, L., Mimno, D., & McCallum, A. (2009). Efficient Methods for Topic Model Inference on Streaming Document Collections. Paper presented at the Proceedings of the 15th ACM SIGKDD international conference on Knowledge discovery and data mining.
- Ye, Q., Li, H., Wang, Z., & Law, R. (2014). The influence of hotel price on perceived service quality and value in e-tourism: An empirical investigation based on online traveler reviews. *Journal of Hospitality & Tourism Research*, 38(1), 23-39.
- Zinganel, M. (2010). The stadium as cash machine. *Stadium worlds: Football, space and built environment. London: Routledge*, 77-97.