Transformative Service Research and major sport event accessibility

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Abstract

This paper examines the service dimensions required to be inclusive of people with access needs within a major-sport event context. The UN Convention on the Rights of Persons with Disabilities seeks to counter disability discrimination and enable citizenship rights of people with disabilities, including access to goods and services, across all dimensions of social participation including major-sport events. Providing for people with disability and access needs is also an emerging tourism focus with initiatives addressing accessible tourism included in the World Tourism Organization’s mission and recent strategic destination plans. To enhance the understanding of service delivery for an accessible tourism market in a major-sport event context, a case study of the Vancouver Fan Zone for the FIFA Women’s World Cup, 2015 is analyzed through the lens of transformative services. From this analysis future research directions are identified to benefit those with access needs who wish to participate in major-sport events.

Keywords: sport event; transformative services; accessibility; citizenship rights; disability
Introduction

While sport, and sport events, are part of the services industry, there is little research investigating sport events from a service design and delivery perspective. Major sport events are episodic, usually only seen once in a lifetime for host communities. Examples include the Olympics and Paralympics, FIFA World Cup, ICC Cricket World Cup and the Rugby World Cup (Dickson, Benson, Blackman, & Terwiel, 2013). These events are usually awarded to the hosts based upon a bid process. Frequently the rhetoric surrounding these events includes the potential for social legacies from hosting these events such as volunteering, infrastructure and also sport participation. One chorus that is increasingly being sung by event organizers is that these events are considerate of the needs of people with disabilities, yet there is little research that has explored this area nor the resultant legacies for host communities.

Accessible tourism, or tourism for all, is more than disability, it can address the needs of seniors, people travelling with young children and even workers moving supplies and equipment (Darcy & Dickson, 2009). Recently the World Tourism Organization (WTO) highlighted that the demand for accessible tourism market is, ‘growing; multi-customer, since each person with disability tends to be accompanied; an image-booster for the destination; non-seasonal, especially with regard to beach tourism; and capable of generating higher income than the average for conventional tourism’ (UNWTO, 2015, p. xi).

This paper brings together areas of literature not usually considered together: mega sport events; disability citizenship and accessible tourism; and transformative service research (TSR), to explore the accessibility of the service design and delivery at the Vancouver Fan Zone at the FIFA Women’s World Cup, 2015 (FWWC15). Service researchers are increasingly looking toward the wellbeing of customers and communities through service delivery, and therefore it is relevant to consider accessibility issues in sport event service delivery. Drawing upon this case study, and the extant literature, further research opportunities are identified that will enhance the experience of people with access needs at sport events, as well as the legacy potential beyond the life of the event.

Major sport events, legacies and fan zones

Potential host cities typically bid to host a major sport event (Getz, 2008) which may be multi-sport or single-sport events, such as the Olympic and Paralympic Games, the FIFA World Cup and the Rugby World Cup. Often hosting these events will be a once in a lifetime occurrence for a city, but they are frequently marketed to host communities as opportunities to develop new assets or systems and leave legacies for future generations (e.g. Associated Press, 2005; Sochi 2014, 2010). The legacies that remain, and for whom, will depend upon the initial design, planning and budgeting for future use. Examples of built legacies include roads, railways, and urban redevelopment, while social legacies can include changing attitudes and opportunities for people with disabilities, increased sport participation and volunteering as a result of the event (Dickson, Benson, & Blackman, 2011; FIFA, 2015d; FWWC15, 2014; International Paralympic Committee, 2007; Sochi 2014, 2010; Volunteering England, 2011). The demonstration of post-event legacies, beyond the built environment, is an under-researched area (Dickson et al., 2011; Pentifallo & VanWynsbergh, 2015), but may be the more important aspect when considering the potential social legacies for people with disability.
Fan zones are areas set aside for public viewing of a major sport event, often away from the main stadium where the crowd experience is part of, and adds to, the viewers’ event experience (Uhrich & Benkenstein, 2012). Fan zones may appeal to those unable, for financial, social or accessibility reasons, or not interested in going to an event, bringing the live event experience a little closer to home. To some extent fan zones are mid-way between armchair viewing and watching live where the event crowd ambience may be replicated at but at a cheaper rate, or even free (Klauser, 2011). As with legacies from major sport events, there is limited research on fan zones for sport events, with most previous research focusing upon the security aspects, especially in football-related fan zones where crowds may reach 40,000 or more (Klauser, 2011; e.g. Lauss & Szigetvari, 2010; Millward, 2009; e.g. Taylor & Toohey, 2011). None has explored the fan zone experience nor the accessibility of fan zones.

From the Global to the Local: Disability, Accessibility, accessible tourism and sport literature

There has been a burgeoning literature examining disability citizenship (Darcy & Taylor, 2009; Kayess & French, 2008; Meekosha & Dowse, 1997; Oliver, 1996), accessible tourism (Buhalis & Darcy, 2011; Yaniv, Arie, & Yael, 2011) and inclusive sport (DePauw & Gavron, 2005) that the services literature and this paper takes direction from. Theorizing disability has moved from the medicalized approaches to social model frameworks that have been at the foundation of the UN Convention on the Rights of Persons with Disabilities (CRPWD) (Kayess & French, 2008; United Nations, 2006) which has been signed by over 160 countries (United Nations, 2015). The principles upon which the CRPWD are based on are far more encompassing than simple notions of "accessibility". From the service perspective each of the eight principles need to be considered within services research and operationalized to co-create greater consumer wellbeing for people with disability. They are:

a. respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons;
b. nondiscrimination;
c. full and effective participation and inclusion in society;
d. respect difference and acceptance of persons with disabilities as part of human diversity and humanity;
e. equality of opportunity;
f. accessibility;
g. equality between men and women;
h. respect for the evolving capacities of children with disabilities and respect for the rights of children with disabilities to preserve their identities.

Specifically, Article 30 identifies the participation and cultural life, recreation, leisure, sport and tourism as central to citizenship such as sport event, including fan zones. The implications of operationalizing the CRPWD for this paper also require an understanding of the concepts considered in “universal design” (Center for Universal Design, 2009; Mace, 1985). Universal design seeks to design products, environments programs and services to be usable by all people without the need for "adaption or specialized" design. This approach of designing for all creates a welcoming environment for people with disability and others rather than they being the "other" through having "special", or as others have put it, "segregated" areas that have been likened to "social apartheid" based on having a disability vs. nondisabled (Goggin & Newell, 2005).
In the emerging field of disability tourism now known as “accessible tourism”, there has been a growing body of knowledge to both conceptually develop the field and empirically test concept development. One of the first attempts to define the field sought to incorporate the principles of the CRPWD and universal design into a definition:

Accessible tourism is a form of tourism that involves collaborative processes between stakeholders that enables people with access requirements, including mobility, vision, hearing and cognitive dimensions of access, to function independently and with equity and dignity through the delivery of universally designed tourism products, services and environments. This definition adopts a whole of life approach where people through their lifespan benefit from accessible tourism provision. These include people with permanent and temporary disabilities, seniors, the obese, families with young children and those working in safer and more socially sustainably designed environments (Darcy & Buhalis, 2011, pp. 10-11 adapted from; Darcy & Dickson, 2009, p. 34).

In a service context, this definition is highly generalizable and includes an understanding that disability service provision requires an understanding that it is a collaborative and co-creative process between stakeholders who come together to provide services for this consumer group. As noted before, the WTO indicated that the accessible tourism market is growing and has the potential to generate greater income for businesses and destinations (UNWTO, 2015). Therefore, research that provides insight and direction about how best to design and provide services to this important consumer group is essential.

Most disability tourism and disability research generally focuses on one or another disability type, however, in a service context, disability has an "inherent complexity" (Darcy, 2010) if it is to strive to achieve: the principles of the CRPWD; universal design where disability is heterogeneous; is dependent on the unique support needs of the individual; and those that they are involved with and is an ongoing interaction between person, environment and social attitudes (Packer, McKercher, & Yau, 2007). From the service perspective, this involves considering the different dimensions of disability (e.g. mobility, vision, hearing and cognitive as the major fault groups), the relative level of support that individuals require (e.g. independent through to full time assistance) and the methods of communication (e.g. speech to text, W3C website compliance, the written word etc.).

From an organizational perspective disability is an issue of service provision (e.g. consumer, spectator, member, shareholder); a human right obligations; building code compliance; and an issue of responsibility to staff (e.g. employees and volunteers). This requires both a front of house and the back of the house understanding of service provision and work conditions. This is particularly important with major sport event environments where volunteer workforces are so critical to overall event and service delivery and potentially provide another avenue for people with access support needs to participate in a sport event experience (Darcy, Dickson, & Benson, 2014).

In examining major sport event delivery, legacy research has identified that infrastructure development, inclusion and accessibility have been the foundations to recent successful bids (Gold & Gold, 2007; Gold & Gold, 2010; Legg & Gilbert, 2011; Misener, Darcy, Legg, & Gilbert, 2013; Sochi 2014, 2014). Yet, there are still no global standards for disability, access, inclusion or universal design (Imrie, 1996), despite the CRPWD. Further,
each nation state and in many cases, provinces, states or cities, have their own environmental planning and development control processes that may or may not include these built environment provisions let alone the desired transformative service delivery. This creates an interesting conundrum for the accessibility of major events generally, and major sport events specifically.

For major sport events such as the Olympic and Paralympic games, since Sydney 2000 the Olympic and Paralympic games has been an operational partnership between the International Olympic Committee (IOC), the International Paralympic Committee (IPC), as well as the host, represented by the Organizing Committee, to deliver the games. As Darcy and Taylor (2013) identified, the partnership has developed in its sophistication where from Beijing 2008 onwards, the built environment accessibility principles are delivered through the wider organization facilitating infrastructure across the Games’ sites (International Paralympic Committee, 2012). In particular, there are detailed accessibility guidelines (International Paralympic Committee, 2009). Importantly from a service perspective the guidelines recognize the importance of creating accessible experiences for athletes, officials, volunteers, employees, spectators and tourists, together with enhancing local residents with disabilities opportunities to participate as a legacy outcome (International Paralympic Committee, 2007).

FIFA has also acknowledged the need to make their events more accessible, with the men’s 2014 World Cup having audio match commentary as well as 1 per cent of all tickets being set aside for people with disabilities (FIFA, 2010, 2014). For the FWWC15 one of the legacy objectives of the event, Engagement and Education, assured the community that the goal of building capacity for soccer would, in part, be achieved by having a ‘player development pathway for youth and opportunities for lifelong participation for all players regardless of age, gender, ability or disability’ (FWWC15, 2014, p. 4). Yet, as noted earlier, there is little evidence to support such claims. This paper adds to the accessibility and major event research by exploring the nexus between sport events and accessibility through the application of the lens of TSR.

Transformative Service Research (TSR)

As marketing researchers have transitioned their focus from a goods-based economy to that of a service orientation (Vargo & Lusch, 2004), there is an increasing focus on how value can be created between a service provider and their customers for mutual benefit. Concurrently, there is an increasing focus in utilizing service theory for societal wellbeing, or adapting traditional service theory within a social marketing context (Gordon, Russell-Bennett, Wood, & Previte, 2013). Marketing for social wellbeing is not completely new. In some ways, connecting services marketing and the outcomes of social marketing appears to be the objective of newly defined ‘Transformative Service Research’. However, social marketing focuses more on behavior change of the consumer, while TSR aligns more with service delivery for consumer wellbeing (Johns, 2015).

TSR focuses research efforts on wellbeing and increasingly on the outcome of wellbeing through service (see Anderson et al., 2013; Ostrom et al., 2015; Ozanne & Anderson, 2010; Rosenbaum et al., 2011). As services are complex (Ostrom et al., 2010) and often personalized, it is important to deliver services which provide support to more vulnerable consumers (Ostrom et al, 2010).
Table 1 summarizes the priorities for Services Research where wellbeing is a strategy consideration for organizations. From a development perspective, it is essential for service design to be enhanced, enabling a superior service experience through co-creation between the service provider and the customer(s), at the execution level. This paper, therefore, addresses service design and how the design can facilitate the ‘full and effective participation and inclusion in society’ of people with disabilities as alluded to the CRPWD principles (United Nations, 2006).

Table 1 Service research priorities framework. Source Ostrom et al. (2010)

<table>
<thead>
<tr>
<th>Strategy priorities</th>
<th>Development priorities</th>
<th>Execution priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fostering service infusion and growth</td>
<td>Stimulating Service Innovation</td>
<td>Effectively branding and selling services</td>
</tr>
<tr>
<td>Improving well-being through Transformative Service</td>
<td>Enhancing Service Design</td>
<td>Enhancing the Service Experience through Co-creation</td>
</tr>
<tr>
<td>Creating and maintaining a Service Culture</td>
<td>Optimizing Service Networks and Value Chains</td>
<td>Measuring and Optimizing the Value of Service</td>
</tr>
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</table>

To create value with customers, it is important for organizations to understand what is of value to the target audience and to work together to create these (Gordon, Domegan, et al., 2013). Furthermore, despite the focus on TSR, a connection between research priorities and practice is still called for (Crockett, Downey, Fırat, Ozanne, & Pettigrew, 2013). Here the target audience is those people with access needs, as well as their attendants, carers and fellow-travellers.

This exploratory research draws upon TSR to consider accessibility for all fans, regardless of their disability type (e.g. mobility, vision, hearing and cognitive) or level of support needs (discussed later) through the application of service blueprinting to the case of the Vancouver Fan Zone at the FWWC15.

Service Blueprinting

A service blueprint is a ‘picture or map that accurately portrays the service system so that the different people involved in providing it can understand and deal with it objectively, regardless of their roles or their individual point of view’ (Zeithaml & Bitner, 2000, p. 277). Figure 1 provides an example of a service blueprint as portrayed in the literature.
The horizontal axis represents the actions conducted by the customer and service provider, while the vertical exist distinguishes between areas of service (Fließ & Kleinalentkamp, 2004). A simpler service blueprint can be created, with a line of visibility revealing those service points which are visible to the customer and those which must occur behind the scenes (Laws, 1998). Services are relatively unique due to the ‘process’ nature, the interaction of the ‘customer experience’ (Bitner, Ostrom, & Morgan, 2008) and the recent idea of value co-creation (Lusch & Vargo, 2006; Vargo & Lusch, 2004, 2008). Service blueprinting is deemed as way of managing the unique process. It includes five components – 1) customer actions; 2) visible contact employee actions; 3) backstage employee actions; 4) support processes and 5) physical evidence (Bitner et al., 2008). Ziethaml and Bitner’s (2000) six steps toward service blueprinting has been applied in a non-profit context (Polonsky & Garma, 2006) and highlights interactions between the parties (Polonsky and Garma, 2006), thus indicating points of possible satisfaction and frustration.

Touch-points are ‘the points of contact between a service provider and a customer’ (Clatworthy, 2011, p. 15). Although a customer’s journey is likely to vary, it is possible to predict some of the typical touch-points. Due to the intangibility of service, touch-points may influence the relationship between the customer and the service provider (Clatworthy, 2011) and therefore the customer’s perception of the brand. Touch-points are perceived as ‘tangible’ evidence of the service blueprinting process (Shostack, 1984). These touch points in particular can indicate potential areas of satisfaction or frustration for the customer.

There has been very little services literature examining disability as a primary focus or context of services research (Mari & Poggesi, 2011). The extant literature points to a poor level of conceptualization of service provision and disability, and the misguided focus of initiatives undertaken by organizations (Goodrich & Ramsey, 2012; Song Ee & Xinran, 2012). Of the research that has been undertaken is a recognition of the importance of the physical environment as a starting point and not an endpoint to service provision (Kaufman–
Scarborough, 1999), the cues that consumers with disabilities recognize as welcoming (Stacey Menzel, Jonna, & Carol, 2007), and issues of service implementation of the principles of disability discrimination legislation on CBD and out of town retailers (Schmidt, Jones, & Oldfield, 2005). It would be useful to understand the service elements of consumer touchpoints and consumer blueprinting, in relation to customers with a disability within a sporting context. The agreement between the accessibility literature and the TSR literature around the need to address the individual needs of customers’ supports the use of service blueprinting in this study.

**Research Question**

Literature on sports events and accessibility has been neglected in the literature. Service delivery, particularly TSR, has not been considered within the literature either. Thus, this paper examines service delivery and the importance of wellbeing for customers with a disability at a major sport event. To assist with the study the following research question was developed: *What insights can service blueprinting provide to better understand the service design needs of people with disability within a mega event sport context?*

**Methods: A Case Study**

We use a case study to explore how the needs of people with disabilities were met in a major sport event Fan Zone through the lens of TSR. Case studies help to ‘understand complex social phenomena … [and] … to retain the holistic and meaningful characteristics of real-life events’ (Yin, 2009, p. 4). Case studies have been used in sport to examine a wide variety of phenomena and scale in sport events (Veal & Darcy, 2014). The unit of analysis is the Vancouver Fan Zone at the FWWC15. This is a single, holistic case study drawing upon multiple data sources that is informed by the extant literature on major sport events, accessibility and TSR, discussed above, in order to address this substantial gap in the literature. As recommended by Yin (2009), multiple data sources were use, including: review of international best practice; review of organization management information systems; application of an access audit schedule; on-site participant observation; interviews and visual methods (photography). Specific data sources included:

- **Websites:** FIFA, Vancouver City, Transit DB
- **Participant observation and Access Audit of Fan Zone during match times on 4 days in Vancouver (day 1, 5, 7, and 8). A fifth day was planned on Day 6, but it was just prior to the USA vs. Nigeria match in Vancouver and the Fan Zone was swamped with the 50,000 fans heading to the match**
- **Over 400 photos taken at the Fan Zone by the observer.**

An access audit refers to "a checklist of guidelines that need to be adhered to… an audit of the built environment needs to consider the day to day running of the building, building type, management issues, maintenance and safety as well as a checklist of building design criteria. An access audit should also encompass egress and needs to consider access and safety in emergency situations (safety zones, routes, signage, emergency equipment et cetera.)" (National Disability Authority, 2015). As this definition highlights, most access audits are undertaken in conjunction with a particular building whereas this research is on a temporary overlay rather than a permanent venue.

While access audits are typically complex and technical as they take into account relevant national building codes, state/province environmental planning requirements as well as disability legislation, major sport events generally attract many international visitors, as
competitors, officials, media and spectators. Thus, it is the contention of the authors, that any access design needs to transcend local differences, and reflect the diverse international audience for whom the experience is designed.

A member of the research team is an accredited access auditor with environmental planning qualifications together with a specialist professional accreditation with the Association of Consultants in Access Australia. Within the Australian context, access auditing is done in conjunction with the Building Codes of Australia (Australian Building Codes Board, 2011) and the Disability Discrimination Act's Disability Standard for Access to Premises (Commonwealth Attorney General's Dept., 2011). The Disability Standard for Access to Premises sought to harmonise the BCA and the DDA, and incorporated the detail from Standards Australia's Design for Access and Mobility Parts 1-5 (Standards Australia, 1992a, 1992b, 1992c, 2010a, 2010b). Due to the extended areas of precincts, a broader access appraisal has been adopted that is inclusive of people with mobility, vision, hearing and cognitive disabilities in providing an understanding of access and inclusion within the precinct. This approach incorporates the best practice internationally through considering criteria for usability, accessibility and performance criteria (Australian Building Codes Board, 2011; Center for Universal Design, 2009; Centre for Accessible Environments, 2015; Commonwealth Attorney General's Dept., 2011; National Disability Authority, 2015; Sawyer & Bright, 2014). This approach is then placed in context to the National and regional environmental planning considerations in Canada together with international direction taken by FIFA through their collaborative work with the IOC/IPC and the accessibility guidelines applied to stadiums (Darcy & Taylor, 2013). The access audit approach is then operationalized through application to the Vancouver Fan Zone.

The Vancouver Fan Zone access audit synthesized two main approaches, i) access audit resources (Accessible Arts NSW, 2013; Beasley & Davies, 2001; International Paralympic Committee, 2009; International Paralympic Committee, 2007; Lo Presti, 2014; Villamanta Publishing, 1997), and ii) Bitner et al. (2008; 2012) service blueprinting models.

Research context

This research was conducted on the Vancouver Fan Zone for the FWWC15 in the province of British Columbia, Canada during June, 2015. The organizing committee for the event was the Canadian Soccer Association (Canadian Soccer Association, 2014) based in the national capital, Ottawa, in the Province of Ontario.

Facilitating legislation

While many countries have facilitating legislation that outlines the rights of people with disabilities and the responsibilities of those providing services for them, Canada, and in particular here, the Province of British Columbia, does not have similar legislation. It can be easy to sign-off on something like the UN’s CRPWD, it requires a great deal more commitment to enact legislation or policy at national, provincial/state or local levels.

Following a period of consultation, in June 2014 the Province of British Columbia published a 10 year action plan for BC ‘to become the most accessible province in Canada for people with disabilities’ (Hon. Christy Clark, Premier of BC in Province of British Columbia, 2014a, p. 2). An example of how they hoped to leverage off sport events is within the Inclusive Communities focus where it was said they could ‘ensure the 2015 Canada
Winter Games enhance accessibility in Prince George’ (Province of British Columbia, 2014a, p. 14). The one year progress report indicated that ‘accessibility in Prince George, host of the 2015 Canada Winter Games, and other B.C. communities is being enhanced thanks to Canada Winter Games legacy projects including permanent facility and sidewalk upgrades, as well as $335,000 for the Northern Sport Accessibility 2015 partnership to help build more inclusive northern communities’ (Province of British Columbia, 2015). No comment was made of potential benefits from the FWWC15 despite its high profile.

**FWWC15 Fan Zones**

For the FWWC15 it was touted that,

‘Fan Zones are an opportunity for fans to celebrate women’s soccer, cheer on their favourite teams, and experience the unique environment that can only be provided by a significant international event such as the FIFA Women’s World Cup,’ says Peter Montopoli, Chief Executive Officer of the National Organizing Committee for the FIFA Women’s World Cup Canada 2015™ (FIFA, 2015c)

There were two types of fan zones for the FWWC15, firstly, at the stadia where entry was typically limited to people with match-day tickets. The other was a free venue, separate from the stadium and also available on days when matches were not played in the city allowing for matches from other cities to be watched such as the opening ceremony held in Edmonton.

Table 2 provides a summary of the Fan Zones availability across the six host cities drawing upon FIFA sources (FIFA, 2015a, 2015b). The analysis reveals that Vancouver was the only host city to have a free fan zone available for the duration of the competition, not just at the stadium for match-day ticket holders.

<table>
<thead>
<tr>
<th>Host City</th>
<th>Fan Zone Location</th>
<th>Availability</th>
<th>Days Open</th>
<th>Days when matches played in host city</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edmonton, AB</td>
<td>Commonwealth</td>
<td>Match ticket holders only</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Moncton, NB</td>
<td>Riverfront Park</td>
<td>Free to public</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Montreal, QB</td>
<td>Olympic Stadium</td>
<td>Free on non-match days (n=2) otherwise match ticket holders only</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Ottawa, ON</td>
<td>Lansdowne Stadium</td>
<td>Match ticket holders only</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Vancouver, BC</td>
<td>Larwill Park</td>
<td>Free to public</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Winnipeg, MB</td>
<td>Winnipeg Stadium</td>
<td>Match ticket holders only, except for Day 1 game and opening ceremony</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>

**Vancouver Fan Zone**
The Vancouver Fan Zone was a temporary overlay provided by the City of Vancouver at a cost of $1.2 million (Hon. Christy Clark, Premier of BC in Province of British Columbia, 2014a, p. 2). It was located in Larwill Park, normally a parking lot, just one block from BC Place stadium where FWWC15 matches were held, and less than 1km from the center of Vancouver. This central location meant people attending matches could drop in on their way to or from a match, as well as those unable to attend the ticketed match.

**The Fan Zone Activities**

Three main types of activities were promised at the fan zone, i) on-stage entertainment; ii) marketing activations and iii) hands-on activities. The marketing activations included Hyundai with two cars and electronic activity to test what type of fan you were; Coca Cola handing out free Coke; Adidas and Micronet with photo booths. Each were designed to get the fans interacting with the brand, trying products and having fun to increase word of mouth.

The City of Vancouver advertised that via the hands-on activities, fans could:

- Test your skills on with interactive games such as: Kick point (shoot out), reaction challenge, and goalkeeper challenge on an inflatable play area Robokeeper Ultimate Goalie Game, complete with robotic goaltender;
- Daily skill and drills activities coached by SFU and UBC women's soccer team coaches;
- Pick up tournaments with Vancouver Street Soccer League; and
- Shootout games open to the public, competing against SFU and UBC Women’s team members (Austin, 2015)

The hands on activities differed from what was advertised by the City. Across four days of observation, there was no evidence of the last three activities, nor was there any advertising of such activities. Thus, the only hands on activities were the skills tests which were generally inappropriate to anyone with access needs.

**Results**

**Access Audit of the Vancouver Fan Zone by Stage of Journey**

**Fan Zone Information**

For fans with accessibility concerns, an online search may be conducted prior to attending an event. An online search was conducted using search terms ‘Vancouver Fan Zone’ and either ‘disability’ or ‘accessibility’. Neither search revealed any information about travel to, nor access at, the Fan Zone. A search on Vancouver’s FWWC15 website ([http://vancouver.fwwc2015.ca](http://vancouver.fwwc2015.ca)) using variants or truncations of the terms disability or accessibility revealed information on accessibility for Vancouver’s public transport system. Thus it was unclear if or how accessible the venue itself was.

The [FIFA Vancouver Fan Zone](http://vancouver.fwwc2015.ca/fifa-fan-zone/) webpage was analyzed using a web accessibility tool, WAVE ([http://wave.webaim.org](http://wave.webaim.org)). The analysis reported 6 errors, 1 alert, 20 feature errors, 13 structural elements, 5 HTML5 and ARIA problems and 20 contrast errors. The WAVE website analysis would not allow analysis of the official ticketing website ([http://www.ticketmaster.ca](http://www.ticketmaster.ca)). The 6 errors included
missing alternative text for images, and empty or broken links; 1 skipped heading levels and 20 features missing alternative text. This meant that online information was not readily available for people with vision impairments who use a screen reader. This type of online accessibility is regarded as the foundation services marketing information outlet for organizations.

**Travel to the Fan Zone**

The trip planning website for Translink in Vancouver ([http://tripplanning.translink.ca](http://tripplanning.translink.ca)) provides a search option for wheelchair accessibility. In addition there is the HandyDART service that is a door to door service for people with cognitive or physical impairments who are not able to travel independently ([http://www.translink.ca/en/Rider-Guide/Accessible-Transit/HandyDART.aspx](http://www.translink.ca/en/Rider-Guide/Accessible-Transit/HandyDART.aspx)).

As the location is normally a parking lot the access and egress were fully wheelchair accessible as was the emergency exit, but this information was only available upon arrival. Once arriving at the Fan Zone, a display map of the Zone showed the only access-relevant information to be the location of accessible toilets.

**Watching the Match**

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*Insert Figure 2: Fan Zone Viewing area about here*

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![Figure 2 Fan Zone viewing area](image)

Two large screens were at the end of a large open-sided ‘marquee’. As a parking lot the area was mostly flat with a slight slope, the surface was ash felt. There were no residual trip hazards under the marquee from the parking lot infrastructure. Cross bracing on the marquee was of steel cable, but there was insufficient marking of these hazards to be effective for anyone with a vision impairment, the limited marking tape would not have been effective even for a sighted person.

Picnic tables were lined up throughout the marquee. Spacing was suitable for wheelchair access between the rows of tables. The under table height was suitable for wheelchair access, but the 200 mm depth was less than the recommended 485 mm (Figure 3).

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*Insert Figure 3: Accessible picnic table design about here*

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The resolution of the screen was poor, and clarity was only achieved by moving further away from the screen. However, the further you moved away from the screen, the less likely were you able to understand anything said over the sound system.

There were no captioning provided for the hearing impaired nor were sign language interpreters or live captioning provided when the MC spoke. What was even more perplexing was that there was no commentary of the matches. A vision impaired spectator would have benefited by having audio commentary of the games as was available at the Fox Sports’ media headquarters in Jack Poole Plaza, Vancouver.

**Accessible Viewing Area**

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Insert Figure 4: Accessible viewing area (Day 5) about here

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Accessible viewing areas are a contested concept. In their most primitive form where positions are only provided for those who are wheelchair users, some may consider them ‘social apartheid’ while others may deem them a reasonable adaptation to support people with access needs. However, accessible viewing areas with integrated seating for those who attend with wheelchair users can offer protected sightlines. While not relevant for this event, the wheelchair accessible viewing areas should also be available in all class of seating accommodation for sale and not just one area.

The other type of accessible viewing area are those reserved for people who are Deaf that require sign language where an area is designated close to the stage where the sign language interpreters are located. The concept of an accessible viewing area in the Fan Zone...
seemed to be a work in progress. On Day 1 there was no separate area, people who used wheelchairs were scattered throughout the audience, without any guarantee of being able to see the screen or hear the MC. By Day 5, a separate, roped-off area had been established but it was directly below the screen and adjacent to the bank of speakers. It also sloped from left to right. The resolution of the screen at that distance meant even someone with good sight could not see any detail, and the height above the person’s head would have meant viewing was uncomfortable. The speakers were too loud to be understood and the slope meant even those with average mobility would have ben challenged to sit up straight for the duration. No one was observed using it, and chairs were moved by spectators to other locations for use by people with mobility support needs.

By Days 7 and 8 that area had been overlayed with artificial grass and became a place for all people to sit or lay on the ground. Again, people using wheelchairs where scattered through out the audience.

Food and Beverages at the Fan Zone

Insert Figure 5: Example of food and beverage vendor about here

None of the food and beverage facilities were suitable for wheelchair users, for vision impaired or people short of stature, with all the food trucks having serving areas well above the reach of a person using a wheel chair or a person short of stature. To access an alcoholic drink required a three-step process, at three different stations in three locations: an age verification process, purchase of tickets and then collection of drinks which would have been challenging for someone with mobility or vision support needs.

Skills Tests at the Fan Zone

Insert Figure 5: FIFA fan experience entry and FIFA Quiz about here

Figure 5 Example of food and beverage vendor
The skills tests were mostly within the *FIFA Fan experience*, with one, the Ultimate Goalie, outdoors. Ultimate Goalie: was suitable for hearing and cognitive, not suitable for vision, limited use for mobility.

The *FIFA Fan Experience* included:

- Reaction challenge: suitable for hearing, limited use for cognitive or mobility, not suitable for vision;
- Goalkeeper Challenge: suitable for hearing, limited use for cognitive or mobility, not suitable for vision;
- Kickpoint: suitable for hearing and cognitive, limited use for mobility, not suitable for vision; and
- FIFA Quiz: suitable for hearing and mobility, not suitable for vision or cognitive.

**Washroom Facilities at the Fan Zone**

Insert Figure 7: Accessible port-a-loo about here

Port-a-loos for all spectators were in a unisex facility just inside the entry gate. There were three accessible toilets scattered amongst the array. There was no hand washing facilities in any of the toilets only hand sanitizing, but these were around 1300 mm from the ground (should be 900-1100 mm). The unisex layout ensured that carers could assist even if they were of different genders.
Based on the data collected, Table 3 provides a summary of service elements which indicate how well the service catered to fans with accessibility concerns across the four main dimensions: mobility, vision, hearing and cognitive. Italics or yellow fill indicates caution, or a warning about potential problems, while more severe problems were indicated in bold (orange). Each element, except travel, had concerns identified for one or more dimension. In particular, watching matches and participating in activities were the biggest areas of concern, both of which are the core business of a Fan Zone.

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*Insert Table 3: Traffic light service blueprint about here*

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### Table 3 Traffic light service blueprint: assessment of stages of Fan Zone experience

<table>
<thead>
<tr>
<th>STAGES</th>
<th>EVIDENCE</th>
<th>MOBILITY</th>
<th>VISION</th>
<th>HEARING</th>
<th>COGNITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and planning</td>
<td>Websites (FIFA; Vancouver City)</td>
<td>No accessibility information for Fan Zone. Links to accessible transport information</td>
<td>FIFA Website not fully WCAG 2.0 compliant</td>
<td>No accessibility information for Fan Zone</td>
<td>No accessibility information for Fan Zone</td>
</tr>
<tr>
<td>Travel</td>
<td>Websites (FIFA; Transit), Access Audit; observation</td>
<td>Public transport is accessible for independent travel</td>
<td>Transit website is not fully WCAG 2.0 compliant</td>
<td>Buses and trains have LED signs indicating next stop</td>
<td>HandyDART available for other support</td>
</tr>
<tr>
<td>Arrival</td>
<td>Access Audit; Observation, photo analysis</td>
<td>Clear path of travel</td>
<td>No tactile tiles</td>
<td>Signage is clear</td>
<td>Only one entry</td>
</tr>
<tr>
<td>Activations</td>
<td>Access Audit; Observation, photo analysis</td>
<td>No overt mobility support or participation opportunities</td>
<td>No braille information; noise levels too high to hear instructions. Most activations assume vision</td>
<td>No written information available for instructions</td>
<td>Noisy, crowded</td>
</tr>
<tr>
<td>Food and Beverages</td>
<td>Access Audit; Observation, photo analysis</td>
<td>All vendor trucks serving areas inaccessible to wheelchair users. 3 step process to buy alcoholic drinks not helpful for those with mobility needs</td>
<td>No braille information, but servers can speak to customers</td>
<td>Signage is clear</td>
<td>Typical lining up process, but no guidance about where/how to line up</td>
</tr>
<tr>
<td>Toilets</td>
<td>Access Audit; Observation, photo analysis</td>
<td>Unisex accessible portable toilets available in unisex toilet area</td>
<td>No braille information. No staff nearby to give directions</td>
<td>Signage is clear</td>
<td>Standard port-a-loos, but in unisex layout</td>
</tr>
<tr>
<td>Watching matches</td>
<td>Access Audit; Observation, photo analysis</td>
<td>Iterations of accessible viewing not appropriate; no crowd management to support viewing</td>
<td>Sound system not clear. No match commentary No hearing loops</td>
<td>No subtitles on screen. No sign language for MC</td>
<td>No ticketing, reserved seats or spaces.</td>
</tr>
<tr>
<td>Leaving &amp; emergency exits</td>
<td>Access Audit; Observation, photo analysis</td>
<td>Clear path of travel</td>
<td>No tactile tiles. Sound system did not cover all Fan Zone area if emergency exit info needed, but there were security staff and volunteers</td>
<td>Signage is clear; security staff and volunteers available</td>
<td>One main exit clearly marked; security staff and volunteers available</td>
</tr>
</tbody>
</table>

“Traffic light”: Normal font or green = OK; Italics = or yellow = caution; Bold or orange = problem. Colors chosen to support screen readers.
Discussion

With Vancouver’s previous sport event experiences and B.C.’s focus on disability (Province of British Columbia, 2014a, 2014b, 2015), it might be expected that the design and management of the Vancouver Fan Zone for the FWWC15 could have been a showcase for accessibility. Further, with FIFA’s espoused support for making events accessible and leaving legacies for people with disabilities (FIFA, 2010, 2014; FWWC15, 2014), one might also assume that all facilities would, or could be, a showcase for accessibility for future events.

To address the primary research question: What insights can service blueprinting provide to better understand the service design needs of people with disability within a mega event sport context? the lens of TSR, where well-being is a core consideration, informed an access audit with service blueprinting. Several problems were identified in the temporary overlay of the Vancouver Fan Zone that reflects either a lack of knowledge or commitment to providing equitable experiences.

The access audit, observation and photographs, summarized in the traffic light service blueprint (Table 3) indicated that travel to and from the venue was accessible reflecting Vancouver City’s broader accessibility strategy rather than new efforts from the FWWC15. However, the core experiences of the Fan Zone, watching matches and the FIFA Fan Zone Experience, were generally not well designed for those needing access support.

In contrast, within the Fan Zone the research suggests a patchy response, with mobility most effectively addressed across the service touchpoints. There appears little consideration by the experience designers of the other dimensions of access needs of spectators in all aspects, from viewing to participation in skills activities as well independent access to food and beverage facilities. The changing nature of the accessible viewing area over the four days of observation further suggests a lack of prior planning or consultation regarding suitable design. Food and beverage access did not support independent travel by people with different dimensions of access, while the football skills activities did not reflect a vision for people with disabilities, despite that being one of their legacy objectives. This highlights the opportunity for co-creation between those with a variety of access needs and the experience designers and service providers at mega sport events to provide for their ‘full and effective participation and inclusion in society’ (United Nations, 2006), such as major sport events and fan zones, but also to provide a model for future event designers of inclusivity, universal design and access for all.

The combined insights from the research highlights the need to consider the whole of the visitor’s journey when seeking to design and deliver good service for people needing access support. This will facilitate the person’s planning and active participation in the event as alluded to under a range of local and international policies, plans and frameworks (Canadian Soccer Association, 2014; FWWC15, 2014; Province of British Columbia, 2014a; United Nations, 2006).

It is essential to ensure all consumers have access to facilities and events for which access-for-all, Universal Design principles and the UN’s CRPWD provide insight and direction to ensure an effective accessible design and delivery of sport event services. This case study provides evidence for future event managers that utilizing service blueprinting will provide guidance to ensure greater access for consumers with disabilities. Organizations
should undertake an access audit for all events, and work through the consumer touchpoints, within a service blueprinting framework, to ensure all aspects of service have been considered in the design and delivery. This includes both visible and behind the scenes service elements which may impact on the customer experience. Organizations should seek to get feedback from customers after each major event. Although major events are generally only hosted once per community, feedback would assist event developers in coordination of the next event within the next community. Within a framework of consumer wellbeing, it is important that all fans are able to attend sporting events and support their sports of choice.

Service blueprinting provided an effective means for understanding, from the organization and consumer perspectives, service delivery, and consumer touchpoints. Through service blueprinting problems were identified across a number of areas, from which event managers may gain insight into how to co-create and to simulate the service elements for their consumers with access support needs. This study has indicated that service blueprinting can provide a useful understanding of the customer’s view of the service elements for event designers and managers in sport events and beyond.

Limitations

There is an inherent limitation of most case studies in that it is difficult to generalize beyond the specific case that was studied. However, the value of this research for future sport events and research is that this case was located within a time, place and event culture that purported to support sport event accessibility thus being able to evaluate the extent of their vision and commitment.

Future Research

This exploratory research highlights gaps and research opportunities that exist in the nexus between sport events and accessibility, within services research as discussed by Ostrom et al. (2010). Future research could consider many aspects not yet explored, such as:

- The application of service blueprinting to service delivery in permanent sporting venues for both major, one-off events, as well as regular sporting activities;
- Sport service design to support participation by employees and volunteers with disabilities;
- Defining and operationalizing well-being and co-creation in the context of sport and accessibility;
- Mega sport event design and delivery that facilitates enduring social legacies for people with disabilities;
- Accessible stadia design beyond social apartheid; and
- Extending Transformative Service Research beyond its conceptual foundations toward a greater understanding of disability access in sports and sport events.

Conclusion

Major sport events provide a unique opportunity to achieve a range of legacies for host communities, of which an enhanced accessibly community is one example within social legacies. Through the lenses of transformative service research and accessibility this research has highlighted gaps in the service design of the temporary overlay of the Vancouver Fan
Zone, missing an opportunity both to showcase the potential, but also to provide an accessible experience for all.

The lens of TSR and the use of service blueprinting in this case study of accessibility at a temporary venue at a major sport event provides insights for future event planners and managers highlighting the areas for future development across the visitor’s journey from planning, travel, entry/exit, activity participation, viewing and use of facilities. Even though major events are only hosted once per community or, in this case, part of a temporary venue, does not absolve event planners and managers from their moral and legal requirements to address accessibility in sport event service delivery. The findings indicate that event managers must consider service delivery aspects for consumers with disability in more detail incorporating service research elements such as service culture and co-creation through event design, delivery and evaluation. It would be particularly useful for event organizers to consider service blueprinting and to support customers with a disability, their carers and fellow travellers, from the design phase and not just at the conclusion of the event. Furthermore, access audits provide a useful way of evaluating service, that may also be applied before and during the event. Combining the use of this audit with the detailed customer blueprint would enable a greater understanding of service delivery, and enhanced ability for people with access needs to fully participate and be included in society beyond the life of the event.

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