



The Olympic Games as a Multicultural Environment and Their Relationship with Social Media

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Abstract. ‘Multicultural’ can be defined as relating to or containing several cultural or ethnic groups within a society and is used to encompass different cultures, groups, and relationships within a specific context. The sporting context of the Olympic Games could be considered a multicultural environment in addition to being a multi-sport environment and a mega sporting event. It is also an arena for intercultural adaptation as the athletes, event staff, visitors and audience are exposed to social media at the event. The athletes establish and maintain relationships among each other and with others in their own countries and the international audience also interacts and communicates with the athletes and the Games via social media. This communication and interaction affect and reinforce the intercultural adaptation and the multi-cultural environment of the Olympic Games.

Much has been made of the preparations for the Tokyo 2020 Olympic and Paralympic Games, with the media dubbing the games the most ‘futuristic’ yet, given the advanced technology and innovation of Japan. Social media is considered an important component of the Olympic games, in the lead up to and at each edition of the games. These aspects of sport and social media at the Olympic Games are of interest due to their interaction and the creation and reinforcement of a multicultural environment. This paper will explore the social media impact and the multicultural environment of the Olympic Games through a review of social media usage leading up to the Tokyo 2020 games.

Keywords: Social media · Olympic games · Multicultural environment

1 Background

In ancient Greece the Olympic Games represented an event that focused on the educational, religious, athletic and self-development aspects of the human condition. It promoted the integral development of body and mind, in tandem, to produce an athlete whose performance at the games would match this ideal as well as contribute to the development of society. In addition, the period of travel to and from the games, the event itself and the city of Olympia were protected by the ‘Olympic Truce’, when all

armed conflict between warring states was suspended and as such represent early Olympism and unique peace building efforts [1]. The unity of the body and mind, the development of human beings and self-improvement through participation in sport are the components that Pierre de Coubertin would later focus on in his efforts to revive the Olympic Games [2]. Therefore, the Olympic Games were not just a sporting event, but they also served socio-cultural purposes and provided a multi-cultural, educational, religious and sporting environment in which the athletes, protagonists and public interacted. Elements of these concepts have been implemented within the Olympic movement since the first modern Olympic Games in 1896. Media was used in 1896 to report on the Games, but the limited technology of the written press and newsreels meant the impact of the medium was distant from the actual events of the Games. However, the development of media had an incremental effect on engagement and connectiveness of the public and the athletes with the Games, culminating in the present with social media positioning itself as an influential medium of communication and significant contributor to the creation of a global multicultural environment within the context of the Olympic Games.

2 Introduction

Much has been made of the preparations for the Tokyo 2020 Olympic and Paralympic Games in the media, which have dubbed the games the most ‘futuristic’ yet, given the advanced technology and innovation expected to be on show for the global audience [3]. It is assumed that the Games will use cutting-edge technology to “ensure the security of contestants and the public, to bring unprecedented coverage to a global audience, and to provide seamless convenience for visitors” [4]. Continuing the tradition of media innovation at the Olympics “Tokyo 2020 will use new technology and media platforms to ensure Olympic fans everywhere can take part in the Olympic atmosphere” [5]. These initiatives follow on from the increasing and diversified use of media platforms in previous Olympics. Very few people have the opportunity to attend the Olympic Games in person, therefore the dissemination of the Olympic Games, the Olympic atmosphere and the Olympic values is necessary to bridge the engagement gap between the Olympics as a mega sports event and the public as the watchers, consumers, associates or participants. The sheer size and scope of the Olympic Games, hosting athletes from various countries (206 countries for Rio 2016) and hosting an audience of billions via various forms of media suggest that it could be considered the largest multicultural event in the world.

Culture has always been an integral part of the ancient and modern Olympic Games; the culture and traditions derived from the Greek games; the culture of the hosting city and country; the athlete culture of the participants; and since the advent of media, the culture of engagement and interaction during the Olympic Games by the public as consumers and social participants. Prior to the advent of media, public exposure to the Olympic Games was less diverse. In this sense, the Olympic Games can be considered a sporting and a social event [6] not only for the athletes, but also for the public who are socially and culturally engaged for the duration of the games. The rapid and extensive changes in broadcasting forms for Athens (2004), Beijing (2008) and

London (2012) onwards highlight the impact of social media on the Olympic games as a cultural and multicultural sporting event [7]. The term ‘socialympics’, used initially in relation to London 2012, has been used to define the rapid proliferation and use of social media at the Olympic Games and the facilitation of communication and interaction between the diverse global communities.

Similarly, the preparations for Tokyo 2020 also represent aspects of the incorporation and adaptation of social media for sporting events and a recognition of its significance. The importance of social media within the Olympic context is shown by the creation of guidelines related to social media and the Olympics by the International Olympic Committee (IOC) initially for the London 2012 Olympics [8] and later amended for other editions of the Games. The IOC can, to some extent, control the images of the Games that are disseminated around the world; however, technology develops so quickly that, in order to have some input into the process of dissemination, it must also relinquish some control. Social media therefore is considered an important component of the Olympic games, both during the lead up to and at each edition of the games itself.

Social media interactions provide the basis for communication and adaptation within the multicultural and intercultural environment of the Olympic Games which must be acknowledged. Thomas Bach, the president of the International Olympic Committee (IOC) stated: “People today are connecting with the Olympic Games in more ways than ever before, they are doing so digitally, and they are doing so on mobile. This is not a challenge to overcome. This is a huge opportunity to reach even more people with the values of sport and the magic of the Olympic Games” [9]. Therefore, the digitalization of the Games and by extension the adaptation, implementation and focus on portable media use highlight the importance of social media within this environment. The extent to which athletes, the audience, the public and the community interact and communicate via social media in relation to the Olympic Games is becoming increasingly important.

Considering this mega sport event environment and its relationship with social media, these interactions are played out within a multicultural global context. The sport event reflects a multicultural environment due to the combination and interaction of the athletes, associates and the social participants from various nations. For the period of the Games, different cultures are mixed, merged, blended and dispersed via the personal and interpersonal contact of social media. During the Olympic Games, all those who connect with the Games in some way, however brief, become a part of the Olympic family, and media, and more recently social media, have played a dominant role. Sugden and Tomlinson suggest that global sporting events such as the Olympic Games are unique in that they play a distinct role in the creation, management and mediation of cultural meanings [10]. This is especially true within the context of connecting with the Games. These myriad ways of creating and maintaining engagement, connections and interactions provide the mechanism by which the Olympic Games mediate and reflect multiculturalism as a core component of the social milieu and outreach of the event.

3 Multiculturalism

In its broadest sense, the term ‘multicultural’ is defined as “relating to or containing several cultural or ethnic groups within a society” [11]. As such, the term can be used to encompass different cultures, groups and relationships within a specific context. This assumes the acceptance and integration of diverse groups within a nation or cultural group. If the Olympic Games is considered a cultural group (i.e. sport) as well as a multicultural environment, the interactivity and integration between the participants and the public must also be understood within the sport event and social media context. According to Traganou [12], although based on a universal narrative, the Olympics also reflect the idea of ‘nation’ and of the world being divided into nations. Despite the competitive aspect of the Games, it is an interesting juxtaposition, given its aim of inclusiveness and the multicultural environment represented, disseminated and reinforced by the use of media to connect people with the games and provide opportunities for interaction. This multicultural aspect of the games is advanced through media and reinforced by the use of social media, as it removes the engagement/interaction gap between the Olympic Games, the athletes and the public.

4 Intercultural Adaptation

This gap creates an environment whereby connections are brought closer, made, enhanced, re-made, redefined, extended or cut, as people come together either physically or digitally, by connecting with the Olympic Games. Involvement with the Games, within the context of social media, therefore, does not necessitate the presence of the actor (although presence is possible) at the Olympic Games, given that the interactions that help create this multicultural environment are dispersed. This creates an environment of interculturalism and intercultural adaptation between the different groups. Interculturalism refers to the interaction, understanding and communication of people from different cultural and ethnic backgrounds when they associate with each other. Within the context of the Games, this can be understood to mean the connection or association of people via social media.

Due to the myriad of interactions that occur between people of diverse cultural and social backgrounds and geographical distances, social media becomes one vehicle through which people engage with each other at the Games. This engagement also requires intercultural adaptation to mitigate the multicultural aspects of engagement at the event. The Olympic Games is a unique event held every four years and provides a challenging competitive environment for the participating athletes who must adapt to often strange conditions. Athlete or sport cultures may vary between nations, teams or groups of athletes within the same team, creating circumstances whereby adaptation is necessary. Social media provides a medium for athletes to communicate and interact with others from their own cultural, ethnic and national communities, facilitating long-distance intercultural adaptation through communication. Likewise, the audience gains access to the multicultural environment via their interaction with the various media.

5 Multiculturalism at the Olympic Games

The proliferation of social media has ensured that during the brief period of the Olympic Games, this mega sport event encompasses a multi-cultural global environment which extends beyond usual geographical and community interactions. As such, the sporting environment, specifically the Olympic Games, could be considered a manifestation of a multicultural environment in addition to being a multi-sport environment and a mega sporting event. It is an event that facilitates and exhibits Verkuytens's [13] contention that the fostering of multiculturalism requires a necessary understanding and appreciation of ethnic diversity as well as the inclusion of minority cultures and identities. A recent example of this in relation to the Games is the creation of the 'Refugee Olympic Team' for the Rio 2016 Olympic Games and its reconstitution for the Tokyo 2020 Olympic and Paralympic Games [14].

This action reinforces the multiculturalism inherent in the Olympic Games as an event and the associated ethics of equality that are implied in the Olympic values of *friendship, respect* and *excellence*, the Paralympic values of *determination, inspiration, courage* and *equality*, and the UN Sustainable Development Goals of *gender equality* (Goal 5) and *reduced inequality* (Goal 10) [15]. These values provide the ethical and philosophical foundations of universal principles that are applied together with multiculturalism and diversity within the context of the Olympic Games in order to foster the same in lives and society. As well as being a multicultural environment, the Olympic Games is also an arena for intercultural adaptation as the athletes, event staff, visitors and even the audience are exposed to social media as a vehicle to learn about the host country's culture and vice versa. The athletes also establish and maintain relationships among each other and stay in touch with events in their own countries and conversely the international audience also interacts and communicates with the athletes and the Games through the provision of media and social media. As such, the communication and interaction occurring through the influences of media and social media also affects and reinforces the intercultural adaptation and the multicultural environment of the Olympic Games.

6 Media and the Olympic Games

The IOC broadcast policy is described in Rule 48 of the Olympic Charter as, "the IOC takes all necessary steps in order to ensure the fullest coverage by the different media and the widest possible audience in the world for the Olympic Games." [16]. Table 1 shows the progression, media type, content and first usage of the various media since the revival of the modern Olympic Games in 1896. Looking at the adoption and adaptation of new technology in successive Games, it is clear that the IOC from its inception sought to engage and encourage participation in the Olympic Games by the public audience. A milestone in media provision occurred with the creation of the Olympic Broadcasting Service in 2001 to serve as the host broadcaster for all Olympic editions, thereby negating the need to rebuild the broadcast operation for each new edition of the Games [17]. In recent times, the level of engagement has increased exponentially through the proliferation of digital platforms and content, emphasizing that the IOC has adapted well to the new media environment launching its own YouTube channel, the Olympic news channel and Olympic video player app.

Table 1. Development and implementation of media at the Olympic Games.

Olympics (*denotes winter Games)	Year	Media type, content and first usage
Athens	1896	Written press Newsreels (screened within weeks) [18]
Stockholm	1912	Newsreels (screened within days), Film [18]
Paris	1924	Limited live radio [18]
Berlin	1936	Full length feature film Television broadcast via closed circuit TV Live radio in 28 languages and 2,500 broadcasts [18]
London	1948	Worldwide radio broadcast Television broadcast up to 200 km from the Games venue [18]
Rome	1960	Live broadcast to 18 European countries [17]
Tokyo	1964	Satellite broadcast relays images overseas [17]
Mexico	1968	Slow motion footage available live [17]
*Sapporo	1972	Television feed provided to broadcasters [17]
*Lillehammer	1994	Satellite broadcasts to Africa begin [17]
*Nagano	1998	Video on demand and 3-D high definition [17]
Sydney	2000	Internet provision of specific news and results [19]
*Salt Lake City	2002	All winter events covered live [17]
Athens	2004	Internet streaming [18]
*Turin	2006	HDTV coverage Coverage available on mobile phones [17]
Beijing	2008	High definition broadcast Global digital coverage Digital platforms provide live and VOD access VOD, internet coverage & highlight clips for mobile phones IOC launches Beijing YouTube internet channel [20]
*Vancouver	2010	Full coverage on digital media coverage Debut of 24-h Olympic News Channel Mobile phone feed [21]
London	2012	Internet, mobile and other digital platforms exceed TV coverage for the first time Live 3-D coverage of opening and closing ceremonies and selected events [22]
*Sochi	2014	Digital coverage exceeds traditional broadcasting (winter games context) Launch of Olympic video player app. [17]
Rio	2016	Most consumed Games ever Digital coverage exceeds traditional broadcasting (summer games context) [17]
*Pyeong Chang	2018	Increased digital coverage over multiple platforms Biggest games ever on social media platforms [17]

6.1 Social Media and the Olympic Games

Despite the IOC’s uptake and implementation of technology as shown in Table 1, a clear distinction needs to be made between more traditional forms of media and social media when considering media engagement at the Olympic Games in relation to the creation of a multicultural environment. This is because social media removes the gap between the audiences, the Games and the athletes, as these actors can respond immediately to digital interaction by tweet, post, blog, photo or other means. Therefore, for the purposes of this paper, social media is defined as the “digital platforms, services and apps that are built around the convergence of content sharing, public communication and interpersonal connection” [23].

Table 2 shows the development of media broadcast at the Olympic Games from Sydney 2000 until Pyeong Chang 2018. Sydney 2000 is considered to be the first Olympic Games where limited digital content was made available. The change in technology, its affordability and immediate accessibility are the prime reasons for the explosion in the use of social media at the Olympic Games from London 2012 onwards. According to the communications director of the London Organizing Committee of the Olympic Games (LOCOG), this reflects the fact that there was limited fast internet in Sydney (2000), limited access to smart phones in Athens (2004) and limited membership of social networks in Beijing 2008. As such, London 2012 is considered the first social media games because “...everyone has all that and will be consuming the games in a different way” [24]. As technology changed and it was incorporated into the Olympic Games, the way of measuring the engagement of the audience also changed.

Table 2. Olympic Games broadcast audience.

Olympic Games	Year	Television audience (billion)	Digital platforms		Social media platforms
			Unique user (billion)	Video views (billion)	Video views (billion)
Sydney [26]	2000	3.7	0.23 page views		
Salt Lake City [17]	2002	2.1			
Athens [17]	2004	3.9			
Turin [30]	2006	3.1			
Beijing [17]	2008	3.5	0.4	0.7	
Vancouver [17]	2010	1.8	0.13	0.3	
London [28]	2012	3.6	1.2	1.9	0.376 [27]
Sochi [17]	2014	2.1	0.3	1.4	
Rio de Janeiro [17]	2016	3.2	1.3	4.4	>7 [29]
Pyeong Chang [25]	2018	1.92	0.67	3.2	1.6

The provision of media and digital media content in relation to Table 2 can therefore be broken down into three distinct periods: Sydney 2000 until Beijing, Beijing 2008 until Rio and Rio 2016 onwards. For the Sydney 2000 Olympic Games, internet content/access became more widely available, although speeds were relatively low. The Sydney Olympics website received over 230 million page visits during a 17 day period [31]. This data is shown for reference only, as the data measurement and assessment for Salt Lake City, Athens and Turin varied. In addition, the IOC introduced Total Viewer Hours (TVH), a new method of measuring the Olympic television audience levels [31]. The figures in the Television Audience column represent the net number of people who saw at least one minute of the Olympic Games coverage [17]. From Beijing 2008, viewers were divided into television and digital audiences. Platform ‘unique users’ represent the number of different individuals who visit a site within a specific time frame and video views represent the number of times a video is watched [17]. From Rio 2016 onwards, viewership of the social media platforms was considered. The social media platforms ‘video views’ represent the official content viewed across platforms. The latter two editions of the Games, Pyeong Chang (winter) and Rio (summer) have the largest numbers of engagement via social media platforms.

6.2 Use of Social Media at the Olympic Games

Social media platforms encompass and celebrate the diversity of the multicultural environment that is the Olympic Games and actively promote and encourage association with the event. Social media facilitates and allows the integration of the user with the hosting community (the Olympic Games) [32]. The proliferation of mobile platforms like Twitter, Snapchat, Facebook and Instagram provide a way of linking people together through knowledge and behaviors, thereby creating a sense of belonging to a greater (global) network, larger than the local community [33]. Figure 1-left [34] shows Australian cross-country skier Phil Bellingham taking a selfie on Thursday, Feb. 8, at the Pyeong Chang Olympic Village in South Korea, during a welcoming ceremony. Figure 1-right [35] acknowledges the public and social perception of London 2012 being the ‘social’ Games or the ‘twitter’ Games. The icons associated with the athletes are instantly recognizable – their faces (who the athletes are does not matter) blocked out to represent the encompassing nature of the social media influence at the Games.



Fig. 1. Representation of social media and the Olympic Games: Pyeong Chang 2018 (left) and London 2012 (right).

This environment is created by official social content from the IOC, International Federations, rights holders and sponsors as well by ‘unofficial’ content from athletes and attendees and those not at the event but active on social media. The iconography also speaks to the less structured aspects of social media – the IOC increasingly has less control over the content and interactions between the athletes and their online/social media fans or communities.

7 Watchers, Consumers, Associates and Participants and the Extension of the Multicultural Environment

In considering the engagement of people with media and the Olympic Games and the creation and reinforcement of their multicultural environment, it is also necessary to define the different groups who make up the overall extended multicultural community and their relationship with each other. These groups, despite their distance from the Games, are connected with each other via media and social media and they create and reinforce the concept that the Olympic Games is a multicultural environment. Watchers comprise the audience that views the Olympic Games through any type of media. This audience consists of groups or individuals who are the most distant in terms of space to the event. *Consumers* are those present at the Games, who experience the events first hand, but who are not participants. This group is present at the Games, therefore their social media profile is different from other types of audience, due to their immediacy with the event. *Associates* are the relatives, friends and communities associated or directly connected to the athlete participants; they have immediacy with the participants and reflect a different interaction. *Participants* comprise the athletes and national teams competing in the Games. All these groups interact and contribute to the intercultural adaptation and multiculturalism of the Olympic Games through their interactions. Community has evolved from being place-based to being space-based [36], as virtual communities have no constraints in relation to how, when and why they interact. The relationships of each of these groups to each other are shown in Figs. 2 and 3.

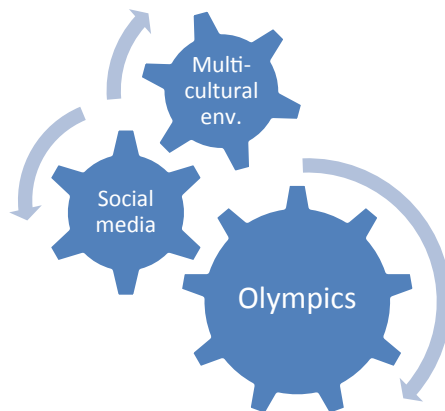


Fig. 2. Relationships between groups: components

Figure 2 shows the Olympics as the core component by which the multicultural environment of this global sporting mega event is formed and reinforced. Without the event to provide the context, ‘social media’ and ‘multicultural’ environment are disparate entities. Figure 3-left shows how social media connects the different groups to the Olympic Games, providing the impetus for engagement and closing the gap between the event, participants, audience, consumers and the associates. Chen [37] suggests that the distinctive nature of new media (e.g. social media) has facilitated the development of human interaction in an interconnected and complex way. Likewise, in Fig. 3-right the multicultural environment is created, maintained and reinforced by the connections made between the different groups. These include connections within the multicultural environment of the Olympic Games itself and within the virtual multicultural environment created and fostered through interactions on social media.

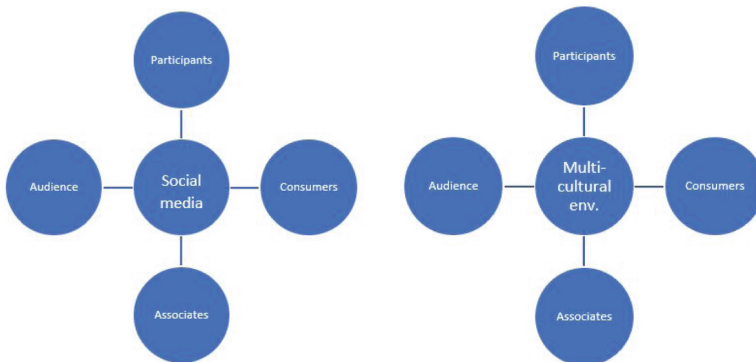


Fig. 3. Relationships between groups: social media (left), multicultural environment (right)

Figure 4-left shows people in a favela in Rio de Janeiro watching the Olympic Games on television as Rafaela Silva, also from the favela, is presented with a gold medal in judo [38]. Figure 4-right shows the public in Fiji watching the final of the rugby sevens match of Rio 2016 [39]. These images reflect Jacobsen’s [36] view that the Olympics is a profoundly social event, as people gather around various forms of technology in groups and settings to view the Games. Traditional media provides the means and social media provides the digital space or place where people around the world can feel connected to an event such as the Olympic Games, regardless of the distance that separates them. In this instance, the favela is right next to some of the Olympic Games venues, whereas Fiji is geographically distant from the same venues. The athletes and consumers at the Games are present in the existent and virtual multicultural environments of the event. This represents a multicultural environment by default – respect and recognition of other diverse cultures within the arena of digital platforms is necessary also, given the immediacy of viewing, comment and response. Television, for example, is one-dimensional in that the connection and interaction between the audience and the event is limited. The audience can choose to watch or not - turn the television off and the event becomes a recent memory. Conversely, social media provides the impetus for

continued association but also acknowledgment that the digital presence is pervasive – just one click or swipe away. This immediate access promotes engagement, but also inherent acceptance of the multicultural aspects of communication and of the environment that the Games represent.



Fig. 4. Watching the Olympic Games in a favela in Rio (left) and in Fiji (right)

7.1 Use of Social Media to Promote a Multicultural Environment

The Olympic narrative and Olympism endeavor to bring people and communities together, crossing international, national and ethnic boundaries. The Olympic Charter aims “to place sport at the service of the harmonious development of human-kind, with a view to promoting a peaceful society concerned with the preservation of human dignity” [16]. Therefore, the adoption and use of social media by the IOC in fulfillment of these aims is a powerful tool for sport and intercultural development. Social media provides the platform and thus contributes and reinforces the Olympic narrative that the Games should bring people together. Any person can experience, interact and contribute to the Games by blogging, liking, tweeting, photographing and following social media. In this instance technology provides the means to develop and expand the multicultural and intercultural interactions of the Games – expanding it beyond the confines of physical stadia.

The choice to engage with social media within the context of the Olympic Games is a communicative and social choice, but by doing so, social media users and their interactions reflect and reinforce the realities and discourse of the Olympic Games that are defined by the implementing organizations. This opportunity for engagement also reflects a sphere of influence to be utilized as the public respond and interact with social media.

This association with the social aspects of spreading information continues beyond the closing ceremony of an Olympic Games. In the context of the Tokyo 2020 Olympics, the extent to which social media has an impact on the dissemination of ‘correct’ information within an intercultural and multicultural context is considered important, as is the use and monitoring of social media [40]. These aspects of sport and social media at the Olympic Games and in respect to Tokyo 2020 are of interest from the viewpoint of their interaction and the creation, maintaining and reinforcement of a multicultural environment.

8 Social Media and Fast Forward Towards Tokyo 2020

Other aspects must be addressed when considering the impact of social media and the multicultural environment of the Olympic Games. The multicultural environment engendered by the Games has two distinct periods: the mega event and its associated competition schedule and the Olympiad. In ancient times, the Olympiad meant the span between the Olympics, but in modern times various definitions and usages have occurred. Taken in its historical and ritual context, it could also mean the time spanning the ending of one Games (e.g. the conclusion of the closing ceremony of Rio 2016) and the ending of the next Games (the conclusion of the closing ceremony of Tokyo 2020) (Alexis Lyras, personal communication, 11 March 2019). It is useful within the context of the Olympic Games, social media and multiculturalism to consider the period after one Olympic Games and the beginning of the next and to consider whether people maintain their connection with the Olympic movement in relation to their social media interactions.

At present, the pervasiveness of social media is exemplified by the fact that it is estimated that there will be around 2.77 billion social media users around the globe at some point in 2019, an increase from 2.46 billion in 2017 [41]. This phenomenon, when considered from the viewpoint of an engaged multicultural community, has implications for how people interact pre, during and post Olympic Games. Liu and Guo [33] indicate that the interaction and interconnectedness of people with social media is a result of their sense of belonging with a particular brand of social media that also engenders their loyalty as this sense of connectedness and interaction is supported and maintained. From a mega sport event perspective, it is important to retain the interest of the public in the Olympic Games during the period between each edition of the Games. The association with the social and educational aspects of spreading information is important pre, during and post Games as are maintaining and enhancing the connection between the public and the Olympic movement (or family).

Table 3 details the numbers of followers for selected social media platforms (Facebook, Twitter, Instagram and YouTube) for the Olympic Federations from 2016 to 2018 [43–45]. TSE Consulting produced the first Social Media Ranking of International Sports Organizations in 2016 [42] and provides an overview of how the international sports organizations are performing on social media. The reports for 2017 and 2018 include other social media platforms than the four mentioned above, but for the purposes of this paper and comparison the benchmark platforms of 2016 will be utilized for uniformity. The release of this report in 2016 is a timely reminder of how connected and engaged the Rio Olympics were and indicates the increasing influence of social media in the past three years. Future work will consider comparison of the additional platforms. In Table 3, the counts for the various platforms were recorded in a slightly different way during the three-year period. For Facebook, in 2016 the designation counted was ‘followed’, but for 2017–2018 it was ‘most liked’. For Twitter and Instagram in 2016–2018 the counts represent the ‘most followed’ designation. For YouTube, in 2016 the category counted was ‘most followed’, which changed to ‘most subscribed’ in 2017–2018.

Table 3. Olympic federations and selected social media platforms 2016–2018.

Platform	Organization	Year 2016 [43]	Organization	Year 2017 [44]	Organization	Year 2018 [45]
Facebook	Olympics	15,080,245	Olympics	19,048,216	Olympics	19,149,424
	FIBA	3,334,657	FIBA	4,513,721	FIBA	5,945,217
	FIFA	3,165,937	FIFA	3,471,960	FIFA	3,985,621
	Olympic Channel	1,783,807	Olympic Channel	2,616,333	Olympic Channel	3,065,109
	Hockey	1,001,238	Hockey	1,078,242	FIBA 3x3	1,504,046
	Cycling	758,743	FIBA 3 × 3	1,053,725	Hockey	1,906,640
	Judo	697,379	IAAF	814,361	IAAF	850,373
	IAAF	679,041	Judo	751,058	Volleyball	800,902
	Paralympics	581,515	Volleyball	657,271	Judo	778,670
	Volleyball	524,414	Rugby 7s	620,996	Rugby 7s	716,277
Twitter	FIFA	9,567,158	FIFA	19,309,646	FIFA	21,063,758
	Olympics	5,628,977	Olympics	8,143,842	Olympics	8,749,100
	FIBA	327,417	World Rugby	495,866	World Rugby	596,114
	Cycling	310,586	FIBA	428,480	FIBA	468,824
	World Rugby	267,408	Cycling	363,207	Cycling	406,449
	IAAF	113,156	WBSC	245,325	WBSC	251,623
	Volleyball	104,579	Paralympics	217,866	Paralympics	236,249
	Hockey	104,004	IAAF	206,985	IAAF	233,219
	Skiing	100,638	Volleyball	132,832	Volleyball	190,310
	Triathlon	84,842	World wrestling	131,655	Badminton	151,377
Instagram	FIFA	3,799,463	Olympics	1,640,082	Olympics	2,000,232
	Olympics	1,534,336	World Rugby	832,179	World Rugby	1,022,783
	World Rugby	690,171	FIBA	521,717	FIBA	707,310
	FIBA	440,863	Volleyball	381,897	Cycling	534,386
	Volleyball	268,146	Cycling	350,678	Volleyball	496,385
	Cycling	213,369	Equestrian	185,158	Judo	386,443
	World Triathlon	121,431	World Triathlon	172,990	Equestrian	280,728
	Skiing	115,458	IAAF	166,128	IAAF	273,096
	Hockey	100,686	Karate	156,796	Wrestling	266,799
	Equestrian	99,051	Olympic Channel	155,196	Olympic Channel	255,216

(continued)

Table 3. (continued)

Platform	Organization	Year 2016 [43]	Organization	Year 2017 [44]	Organization	Year 2018 [45]
You Tube	Olympics	1,602,630	Olympics	1,945,275	FIFA	7,424,590
	FIFA TV	1,495,663	FIFA TV	1,908,307	Olympic	3,085,799
	FIBA World	257,610	FIBA World	367,460	Badminton	789,700
	Cycling	214,170	Volleyball	317,348	FIBA	565,445
	Volleyball	170,348	World Rugby	264,382	World Rugby	428,303
	ITTF	160,054	Cycling	251,444	Volleyball	394,804
	Gymnastics	142,309	ITTF	202,364	Cycling	316,627
	Archery	80,738	FIG channel	195,511	Karate	305,813
	Hockey	79,843	FIBA 3 × 3	110,648	ITTF	287,303
	Judo	77,837	Judo	108,833	Gymnastics	273,711

The figures for 2016 indicate that the International Olympic Committee (IOC) and its associated International Sports Federations are well represented on social media and continue to maintain a presence across the four platforms. The IOC (Olympics) tops the rankings on YouTube and Facebook, with the Facebook page having in excess of fifteen million likes. The International Football Federation (FIFA) is dominant on Twitter and Instagram. The top three organizations over all platforms for 2016 are the IOC, FIFA and FIBA (International Basketball Federation). For 2017, the numbers again show that the IOC is top for Facebook, Instagram and YouTube, whereas FIFA maintains its dominance on Twitter. The IOC Olympics page is the most liked of any international organization, with over nineteen million likes. For 2018, the IOC is dominant on Facebook and Instagram, with FIFA being top on YouTube and Twitter; FIFA's YouTube presence increased dramatically, most probably due to the holding of the Football World Cup. Likewise, the IOC's presence on Facebook might be due to the Youth Olympic Games and the Pyeong Chang Winter Olympic Games. In general, since 2016, all the international federations have increased their presence on social media, with the top five organizations remaining fairly constant and positional changes in the 6-10 rankings amongst the smaller federations. It is interesting to see the increase in social media presence of the smaller federations as they endeavor to engage further with their fans. Of note is the rise in karate in 2018, presumably linked to Tokyo 2020 where it is a competitive sport for the first time.

The Tokyo Organizing Committee of the Olympic and the Paralympic Games (TOCOG) presence on social media is extensive and complements the IOC's offerings. As of 9 March 2019, the official TOCOG social media platforms of Facebook (607,741 followers) [46], Twitter (2,687 tweets and 140,000 followers) [47], Instagram (192 posts and 129,000 followers) [48], Weibo (10,533 fans) [49] and YouTube (26,777 subscribers) [50] represent a significant presence more than 500 days out from the Games [51] and is likely to increase as the Tokyo edition of the games draws nearer. The social presence of the IOC, the international federations and TOCOG reflect a high self-presentation/self-disclosure and 'medium' presence as defined by Kaplan and Heinlaen [52] in Table 4.

Table 4. Classification of social media by social presence/media richness and self-preservation/self-disclosure.

		Social presence/media richness		
		Low	Medium	High
Self-presentation/self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., second life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., world of warcraft)

Perhaps the next step in the development of a virtual multicultural environment mirroring Kaplan and Heinlaen's [52] 'high' classification would be the development of integrative technology – using virtual reality and augmented reality, as in the Japanese National Broadcaster's (NHK) virtual trip back to the 1964 Tokyo Olympics in the lead up to the 2020 Games [53].

9 Conclusion

Various terms including 'networked spectators' have been used to describe the nature of social media in relation to the Olympic Games and the dispersed nature of the interaction during this mega sporting event. The nature of social media encourages active participation in the Olympic Games by the various communities and contributes towards the establishment of virtual spaces where the different actors can communicate in contrast with the physical places usually associated with an edition of the Games. These types of interactions create virtual communities manifesting a multicultural and intercultural environment associated with the Olympic Games on a physical and virtual level. This environment is reinforced, extended and maintained by the IOC and the international federations before, during and after each edition of the Olympic Games. The increase in social media usage has facilitated an increase in the number of people interacting on social media with the various sporting organizations, creating a level of interest and engagement that is growing year by year, reinforcing the social and educational aspects of Olympism. The advent of new technology is also redefining the way people can interact and utilize social media in the lead up to Tokyo 2020.

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