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From television to YouTube: digitalised sport mega-events in the platform society

Jan Andre Lee Ludvigsen [a] and Renan Petersen-Wagner [b]

[a]School of Humanities and Social Science, Liverpool John Moores University, Liverpool, UK; [b]Carnegie School of Sport, Leeds Beckett University, Leeds, UK

ABSTRACT

Technological changes have dramatically transformed the ways in which contemporary sport mega-events are produced and consumed worldwide. As the production and consumption of these global spectacles have moved beyond the traditional television and radio broadcast, this article examines and reflects on the hyper-digitalisation of sport mega-events. More specifically, we explore how one emerging platform presents a window for examining questions of power and inequality; social integration and identity; social change and development, and finally, the experience of time and space related to sport mega-events in the present-day. By employing video-sharing platform YouTube as a paradigmatic case study of the Olympic Games' digital shift, the paper contributes towards an enhanced understanding of mega-events, technologies and digital platforms. We argue that systematic efforts to understand the digital manifestations of mega-events in a 'platform society' remain extremely crucial when situated against the emerging but overlapping fields of digital sociology, digital leisure studies and digital football studies in which mega-events feature.

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Introduction

By focusing on the case of YouTube, this article examines the increasingly digital consumption and production of sport mega-events as it seeks to answer the research question of how an analysis of YouTube can reinforce the study of mega-events, digital leisure and media. In *On Television* (1998), Pierre Bourdieu provided a sociological account of television broadcasting and the news media. However, Bourdieu, who clearly saw the social scientific value of sport and leisure, also provided us a glimpse of the highly significant relationship between global sport mega-events and television as the 'traditional' media platform. As a part of the book's appendix, Bourdieu included a short chapter on the Olympic Games in which he asked, 'What exactly do we mean when we talk about the Olympics?' (p. 79). In his response, Bourdieu argued that the Olympics are *produced twice*. Firstly, the physical stadium 'spectacle' consisting of sports stars, nationalist rituals and formal ceremonies. Second, the 'television show', as the 'ensemble of representations of the first spectacle, as it is filmed and broadcast by television in selections which, since the competition is international, appear unmarked by national bias' (p. 79).

Notwithstanding, since the mid-1990s, the relationship between sport mega-events (like the Olympics, Paralympics or FIFA World Cup) and the media has continued to undergo transformations in accordance with emerging digital technologies (McGillivray, 2014; Petersen-Wagner, 2022;

CONTACT Jan Andre Lee Ludvigsen j.a.ludvigsen@ljmu.ac.uk School of Humanities and Social Science, LiverpoolJohn Moores University, Liverpool, UK

Tang & Cooper, 2018; Wenner & Billings, 2017). Mega-events, essentially, are no longer merely (re-)produced or consumed through traditional media such as the television, radio, or print. Rather, present-day sport mega-events are produced (and consumed) in a threefold or even fourfold of ways: in the Western world, they play out on *inter alia*, Facebook, Instagram, Snapchat, TikTok and, the platform we examine, YouTube. Indeed, this is also accounted for by International Olympic Committee (IOC) (2022) which, in the aftermath of the 2020 Tokyo Olympics, confirmed that the event exceeded far beyond traditional audiences and saw unprecedented digital numbers and coverage. Thus, the availability of new digital technologies has transformed how sport mega-events are planned, mediatised, reported, consumed (McGillivray, 2014) and even resisted by anti-bid protest movements (McGillivray et al., 2021). To fully appreciate the digital leisure cultures (Silk et al., 2016) which contemporary mega-events are embedded within, we maintain that it is necessary to engage with mega-events' digital worlds and manifestations continually and critically.

Against this backdrop, and by utilising the IOC's official channels and presence on YouTube as a case study – because this platform represents one alternative to television – this article explores how sport mega-events have become increasingly digitalised in their production and consumption. As such, we reflect a wider digital turn in mega-event studies and simultaneously reconsider – and provide a timely update of – Bourdieu's (1998) interesting take on Olympic media production in *On Television*. By doing this, we focus primarily on YouTube because we argue that this platform, first, epitomises the digital turn of sport mega-events, and second, how emerging platforms on which mega-events are produced, consumed and prosumed provide a myriad of opportunities for inter-disciplinary researchers attempting to keep up with twenty-first-century mega-events in a 'platform society' (van Dijck et al., 2018). This, we argue, remains particularly pertinent in a time where examinations of *the digital* within sociology (Lupton, 2014), leisure studies (Redhead, 2016) and football studies (Lawrence & Crawford, 2022) have demonstrated the importance of committing to a study of mega-events and digital media. Notwithstanding, less is known academically about how exactly mega-events are consumed or (co-)produced on YouTube which, essentially, has been dubbed 'television 2.0' (van Dijck, 2007) and is considered a 'dynamic space with a great diversity of content' (Borah et al., 2018, p. 230) in the present-day. Hence, this article will add to extant work on sport mega-events, YouTube and digital cultures.

Moving forward, we begin by contextualising the relationship between mega-events and the media and we position this nexus in a socio-historical context. Then, the article surveys the contours of the existing work on digital technologies and sport mega-events, before turning to our paradigmatic case example of YouTube where we unpack insights from the IOC's official channels. Finally, the article's central arguments are summarised whilst we reflect on how YouTube has implications for the study of digital leisure, media and sport mega-events.

The media, television and sport mega-events

The production and consumption of sport mega-events has, in line with wider trends, become increasingly digital. Bellamy (2006, p. 64) reminds us that the 'full blooming' of the intersecting media/sport relationship occurred in parallel with the development of television which 'continued and expanded the nationalisation of sports begun by radio'. In the context of the symbiotic media/sport relationship, this section positions the mediation and media landscapes of sport mega-events within a socio-historical context. At a basic level, it remains necessary to highlight that sport more broadly, since the twentieth century, has represented a 'cornerstone of the television industry' (Hutchins et al., 2019, p. 976). And indeed, both in the broadcasting of, and the social study of sport, mega-events occupy a highly valuable and special position.

Within sport mega-event studies, researchers have since the late 1990s explored mega-events' associated rhetoric or discourses, their security and material 'impacts' and 'legacies' (Lee Ludvigsen, 2022; Horne, 2007; Roche, 2003) or asked what exactly makes a mega-event *'mega'* (Müller, 2015). However, there is also a significant part of the mega-event lexicon that explores the media

landscapes or mediation of mega-event spectacles (Bourdieu, 1998; Compton, 2016; Roche, 2002; Rowe, 2019; Wenner & Billings, 2017). One of the key reasons behind this is mega-events' role as 'media events' in globalised societies. As such, it is possible to argue that those events become 'mega' because of their diffusion in media, similarly to what Boorstin (1961) characterised as pseudo-events. Further, Roche (2002, p. 3) notes that mega-events provide occasions in which the 'whole world' watches televised and broadcasted events and moments that are played on the 'global commons'.

Key developments within the fields of technology and mass communications (i.e. satellite television) generated a global appetite for sport mega-events in the twentieth century. Concurrently, this assisted the mega-event owners' interests, as they sought to maximise their events' global reach, brand, revenue and commercial activities (Boykoff, 2016). Host countries, too, have utilised this opportunity to promote their cities to the global audiences (McGillivray, 2014). Thus, since 1960, national and transnational broadcasting networks have increasingly competed for the rights to broadcast the Olympics and the FIFA World Cup, which have increased substantially in value (Horne & Manzenreiter, 2006). One contemporary illustrator of this is the National Broadcasting Company (NBC) which, in 2014, reportedly paid $7.75 billion to acquire the Olympic broadcasting rights in the US until 2030 (The Guardian, 2021).

It is not merely the enormous economic figures of the rights to mediatise sport mega-events that remain highly significant in this setting. Similar to other realms of sport, such as football (Millward, 2017), the popularity of sport mega-events and their broadcasting have influenced the ways in which they are consumed. Whilst the recent figures from the 2018 Men's World Cup – which attracted 517 million TV viewers (Statista, 2022) – demonstrate that individuals still watch live events on television, mega-events are no longer consumed solely through television or stadium attendance. Significantly, in addition to television, the broadcasting of sport is now delivered via smartphones, tablets and laptops. These technological developments have collectively secured live sports' position as:

> the most valuable form of premium content in the global media marketplace, supplying spectacular content for media events (e.g. the Olympic Games and FIFA World Cup) and reliably routine coverage of elite level leagues and competitions on all continents. *(Hutchins et al., 2019, p. 976)*

Naturally, this must be viewed in context of the rise of the Internet, which has enabled new opportunities for event owners, commercial partners and sponsors, whereas it also provides consumers and fans with a myriad of new ways of following and engaging with mega-events (Petersen-Wagner, 2022). Ultimately, the consumption of sport mega-events now occurs via traditional *and* 'newer' platforms, which also reinforces that 'audiences have substantially changed the way they consume big-event sports' (Tang & Cooper, 2013, p. 851). However, it remains crucial to highlight that this does not translate into a 'zero sum game' where the 'use of one medium or platform simply replaces another' (Tang & Cooper, 2013, p. 855), rather they take place as part of a convergence culture wherein both *old* and *new* co-exist (Jenkins, 2006).

Hence, whereas one can consider television (and radio) as the 'traditional' media of sport mega-event production/consumption (cf. Bourdieu, 1998) (that, undeniably, still remain relevant), it is also crucial to acknowledge that the mediation of sport mega-events has acquired new layers and become increasingly digital as the 'production and consumption of mega sporting events are now frequently subject to the transformations wrought by an accelerating leisure and media culture' (McGillivray, 2014, p. 99; see also Redhead, 2016). Perhaps most notably, this involves social media platforms and over-the-top (OTT) streaming or media services (Petersen-Wagner, 2022; Hutchins et al., 2019) which researchers have been alive to.

The digital turn of mega-events and its accompanying scholarship

Novel platforms have considerably expanded the opportunities of the digitally networked media-sport complex (Compton, 2016). As such, one may observe a growth in scholarship focused on the relationships between digital media and/or cultures, leisure (Redhead, 2016; Silk et al., 2016) and sport (Hutchins & Rowe, 2012; Lawrence & Crawford, 2022). Perhaps most notably – in contrast to traditional analogue media – digital media revolves around four key features (Petersen-Wagner, 2022). Drawing upon McQuail and Deuze's (2020) work, these involve (1) the capacity for interactivity, (2) on-demand and real-time access, (3) users becoming consumers and producers and finally (4) the hybridity of communications. These four affordances have the *potential* to transform broader relationships between media and society speaking to *power and inequality*, *social integration and identity*, *social change and development*, and finally the experience of *time and space* (McQuail and Deuze, 2020). As our reading of the mega-event relevant literature suggests, a number of these frames can be firmly situated in the (new) media practices of twenty-first-century sport mega-events. Hence, whereas this article, for reasons of brevity, cannot provide an exhaustive account of *all* the digital elements or manifestations of sport mega-events that have been addressed, it remains possibly to identify trends in the relevant literatures that fit within or across McQuail and Deuze's frames.

Power and (in)equality

As Herman and Chomsky (1988) argue, the power of traditional media resided on the five editorial filters that determined what was newsworthy, impacting both framing and agenda setting (Goffman, 1986; McCombs, 2005). As Poell et al. (2022) submit, the editorial logic of mass media gives way to the algorithm logic of platforms transforming both the *power* of news media when acting as platform complementators (e.g. a newspaper page on Facebook), but also the perceived once *powerless audience* in shaping the frame and agenda in the different social media platforms (e.g. Twitter trending topics). In terms of its impact on the digitally mediated sport mega-events, it is possible to see how social media platforms transform notions of 'power' when athletes become content creators and can bypass editorial gatekeepers and present themselves particularly during backstage moments (Sauder & Blaszka, 2018), providing a new mediatised moment for the audience gaze.

Moreover, it is not only athletes who can bypass editorial gatekeepers after the consolidation of social media platforms, as fans are now able to express their views in both written (D'Andréa & Stauff, 2022; Rodriguez, 2017; Petersen-Wagner & Lee Ludvigsen, 2022; and visual formats (Toffoletti et al., 2021), while international federations or the local organising committee can act much like traditional broadcast media (Frederick et al., 2015). Nevertheless, while the above examples might give the perception that the new digital media environment is more plural and equitable, it is important to acknowledge that those spaces where those activities take place are commonly privately owned by the big five infrastructural platforms (van Dijck et al., 2018). Therefore, when inspecting the impacts of digitalisation in terms of power and (in)equality it is important to discern who are the *winners* and *losers* of a predominance of a platform economy (Srnicek, 2017) that is considerably distinct from a utopian net neutrality.

Social integration and identity

As Anderson (2006) argue, mass media had an important role in the creation of imagined communities that commonly ran across the lines of the modern nation-states. With the development of digital media, those imaginary communities are not bound to the nation-state anymore but transcend them and are now based on other forms of solidarity (Petersen-Wagner, 2017; Petersen-Wagner & Lee Ludvigsen, 2022). Transferring this into the context of the digital consumption of

sport mega-events, Brown-Devlin et al. (2021) observe how social television, involving the use of social media on a 'second screen' enhanced individuals' social presence and social capital, whilst influencing team identification. Meanwhile, Petersen-Wagner & Lee Ludvigsen (2022) find how football fans used YouTube as a platform to react to the introduction of the Video Assistant Referee (VAR) in the 2018 Men's World Cup. This remains important because it suggests that YouTube provides *one* space for fans to engage in socio-cultural practices that, traditionally, occurred only in stadiums, pubs or other physical spaces, including discussing contentious situations, showing support for their teams or athletes or displaying solidarity. Similarly, Yu and Wang (2015) rely on Twitter data to understand how Twitter, during the 2014 Men's World Cup, was used to express emotions connected to watching football, such as joy, fear, anger and anticipation.

Whereas the metaphysical consumption of sport mega-events still differs qualitatively from 'being there', it provides the possibility for fans to identify with fellow fans, teams and athletes. Therefore, it is possible to think of those cultural practices as 'supporting-apart-together' (physically distance, but together in media) and 'supporting-together-apart' (physically close but disconnected because of media) (see Petersen-Wagner, 2018). Further, new technology can provide the emotional and communal experience that fans (typically) desire upon consuming sport. Nevertheless, while digital media can foster those new solidarities, it is important to acknowledge how it can also *distance* groups and individuals as witnessed with the current polarisation in the world (Urman, 2020) and constant need to be 'connected' (see Hutchins, 2016).

Social change and development

For Adorno (2001), mass media curtailed the possibilities for social transformation as its commodified cultural *products* such as sport are devoid of meaning, creating what Marcuse (2002) conceptualised as the one-dimensional *man* with their lack of individual freedom of thought because of their absorption by mass media. While the social critique of mass media primarily focused on their submissive power over audiences, social media platforms because of their participatory and collective elements (see Lévy, 1999) were seen as liberatory in their essences. Ultimately, ideas, promises or calls for social change and development lie central to mega-events which are not sociologically important for sporting reasons alone. In recent years, there has been a considerable growth of research examining social movements that question or oppose sport mega-events, their socio-urban politics, or cities' intentions to bid for their hosting rights (Boykoff, 2016; Lauermann & Vogelpohl, 2019). In this context, oppositional movements who employ new media platforms to challenge mega-events' official rhetoric and practices have emerged around most recent events (McGillivray, 2017). Thus, in line with broader trends speaking to digital activism within (Hill et al., 2018) and beyond the sports world (Castells, 2015; Joyce, 2010), opposition to mega-events also transcends digital spaces (McGillivray et al., 2021; Miah & Jones, 2012).

One such example is provided by McGillivray et al. (2021) who zoom in on the case studies of Chicago's failed 2016 Olympic bid, Boston's cancelled 2024 bid and Los Angeles successful 2028 bid. As they find, new media platforms have served to increase the visibility of bid activism. What they conceptualise as 'new media activism' has also been consciously resorted to by activists who are seeking to question or criticise the Olympic juggernaut and the event's potential negative impacts. Therefore, by appearing on and publishing information on blogs and platforms like Twitter and Facebook:

> new media has allowed activists to circumvent the legacy media monopoly over public debate and Olympic boosters' monopoly over local legacy media. It has facilitated the growth of networks of protest and enabled otherwise marginal voices to combine and amplify, countering the boosterist legacy media coverage of bids
> *(McGillivray et al., 2021, p. 79)*

Thus, the existing literature increasingly recognises how digital technologies have altered the practices of protest and activism in mega-event contexts; and have reconfigured the counter-hegemonic struggles and alternative rhetoric linked to social change and justice. Nevertheless,

while social media platforms might provide affordances for social change and development, it is important to acknowledge the fact that not all platforms are *available* across the world (e.g. *digital iron curtain* and *digital divide*), neither are they *free* in terms of being considered democratic spaces for demonstration (e.g. governmental surveillance, privately owned).

Time and space experience. As Virilio (2006) writes, mass media has altered our perceptions of time and space by creating *immediacies* (faster and closer without *mediation*) (see Tomlinson, 2007) to a point where there and here becomes indissoluble and our experiences are shaped by the speed (faster or slower) of transmission (*dromological events*). This connects with Roche (2003), who presents that mega-events are central in the public structuring of time in global societies. Accordingly, mega-events can be understood as social space-time hubs that act as reference points and timekeepers on personal, regional and global levels (Roche, 2003; Tomlinson, 2017). Thus, within discourses on *glocalisation* in sport (Giulianotti & Robertson, 2009), digital technologies have increasingly worked to bridge the distance/time gaps between the *physical* place where a mega-event is staged and its global audiences. Thus, as hinted upon, it is possible for mega-event consumers who are *not* physically or spatially in proximity to obtain a 'feel-good factor', as Meier et al. (2021) find from their analysis of Twitter users consuming or reacting to the 2018 Men's World Cup in Russia. The uses of social media during Olympics, and especially 'group viewing', is also seen as related to the redefinition of the public sphere (Tang & Cooper, 2018). In a way, this reinforces how mega-events' digital manifestations may link together groups or individuals irrespective of time/space restrictions. Nonetheless, as we have hinted upon above, the Internet while appearing to be a space of unlimited speed and devoid of barriers still affords different experiences based on individuals' physical locations and their access to technology.

Having unpacked the above frames, it is apparent that the continuously expanding *digital elements* of sport mega-events' consumption, politics, broadcasting and fandom practices have been recognised by a set of scholars across, *inter alia*, leisure studies, the sociology of sport, and communication studies in the last decade. Notwithstanding, with regards to YouTube, it can still be argued that there is a need to better understand not merely how this is a platform of interest or relevance (see Burgess & Green, 2018), but a site with legitimate data sources that reinforce or reconfigure the production of mega-event shows. Some questions that emerge include the following: how can researchers utilise digital platforms for research purposes? What should (or could) researchers look for specifically? What content or content strategies may be found on social media as published by event organisers or sports organisations? Who consumes this; and why? In order to elaborate on this and answer some of these questions, we now set out to employ YouTube as a case study. As argued, the video-sharing platform YouTube provides a paradigmatic example of how social media platforms are key sites for understanding modern mega-events, their complex existence *beyond television* and their wider digital manifestations.

Sport mega-events on YouTube: Olympic rhythm and legitimate data sources

Data and approach

The context of the Olympics 'offers a unique opportunity to examine the relationship between the global mediatisation of sport" (Licen et al., 2022, p. 2). Simultaneously, it provides a unique window for examining the digitalisation of sport mega-events, as the insights from the IOC's official YouTube channels presented below underpins. Our work subscribes to the digital sociological turn (see Lupton, 2014; Marres, 2017) by taking what happens *in* the media seriously. Furthermore, not only do we seek to expand the boundaries of what is researched in the field of leisure studies (e.g. what happens *in* media) but we take to the fore new methodological approaches that rest on access to user generated data via connections to Application Programming Interfaces (APIs) of different social media platforms.

To clarify, the section draws from data automatically scraped via YouTube Data Tools (Rieder, 2015), a web interface to connect in a more user-friendly manner to YouTube API v3. This specific method was selected in order to, first, capture the nature of platform-specific digital changes within past Olympic editions' contexts. Second, because it allowed for better understanding the user engagement of those on the receiving end of this production; the YouTube users or, indeed, Olympic consumers. The tools allow researchers to extract data through different web modules such as channel info, channel search, channel network, video list, video network, and video info and comments. For this study, we used the video list module to automatically collect all metrics such as likes, comments, length of video in ISO8061 format (e.g. PT4H3M40S), date of publication for all videos in the following playlists on the 'Olympics' YouTube channel: Highlights | #Tokyo2020 (English), Highlights | #Tokyo2020 (Spanish), Highlights/हाइलाइट | #Tokyo2020 (Hindi), Главные моменты | #Tokyo2020 (Russian); Australia | Rio 2016 Games, Brazil | Rio 2016 Games, China | Rio 2016 Games, France | Rio 2016 Games, Great Britain | Rio 2016 Games, Germany | Rio 2016 Games, Italy | Rio 2016 Games, Japan | Rio 2016 Games, Korea | Rio 2016 Games, U.S.A | Rio 2016 Games; and #Shorts. In terms of 'IOC Media', we collected similar metrics from all videos posted on the channel. The data collected reflects what was posted on the two channels/playlists up until the beginning of May 2022. Finally, we also collected metrics for all videos posted by the 'Olympics' channel in order to discuss the *periodisation* of Olympic media production.

We have further manipulated the data on Excel for Mac (Microsoft, 2022) to transform length of video into seconds, calculate the age of publication based on the day of collection, and created further secondary metrics such as total active engagement (sum of likes and comments), ratio of active per passive (views) and views per day for all videos. The playlists from the different languages/countries were also condensed into either being from Tokyo 2020 or Rio 2016, whereas all the data were analysed on SPSS v27 for Mac (IBM, 2021).

The Olympics on YouTube

Since its inception in 2005, video-sharing platform YouTube has developed into a broadcasting platform, interactive social network and media archive that very much reflects the Internet's distinct phases (Burgess & Green, 2018). Initially conceived as a platform that removed the technological barriers for non-professionals to share videos online, it has now transformed itself to an alternative to TV, thus making YouTube operating in a multi-sided market by *exercising control* over multiple stakeholders such as amateur creators, professional creators such as influencers and brands, advertisers, and multi-channel networks (Burgess & Green, 2018). Inscribed within the wider platformisation of society (van Dijck et al., 2018) and most importantly impacting directly on the cultural industry (Poell et al., 2022) including sport (see Petersen-Wagner & Lee Ludvigsen, 2022), the affordances of the platform have the potential to transform the cultural consumption of content it hosts. As a *live* platform, YouTube has, over the years, altered its technological affordances by, for example, allowing all users to post videos over 15 minutes (YouTube, 2022), live streaming entire events – such as when in the United Kingdom, BT Sport broadcasted the UEFA Champions League and Europa League finals (Petersen-Wagner, 2022) – and monetise content in different ways (YouTube, 2010, 2022b).

In terms of the IOC's presence on YouTube, the Olympic channel was created in 2006 (YouTube, 2022c) and counts 9.8 million subscribers to its 11,219-video library (the oldest video in the library is from January 2010). Moreover, the IOC also curates the IOC Media channel (YouTube, 2022d) created in 2009 and counting 43,600 subscribers to its 1,026-video library (the oldest video in the library is from October 2009). Thus, the IOC can be considered as an early adopter of the platform by joining during its first years of existence. By examining the IOC's presence on YouTube through the four frames discussed earlier, it is possible to recognise how digitalisation, and more specifically platformisation, has impacted in the curation of content over the years. Taken together, the results

presented demonstrate how the Olympics have been affected by YouTube as the platform provides the IOC the opportunity to directly produce and curate their own selective and digital version – not as mediated by broadcasters – of the Olympic highlights, spectacles and its social ramifications. They also indicate, as we unpack, how YouTube provides an element of immediacy for users that is distinct from the 'traditional' television.

First, in terms of *power and (in)equality*, one may see from Table 1 the scalability of the platform can be evidenced by the number of videos being produced and shared when we compare the last two editions of the Summer Olympic Games and their associated playlists. In a way, to maintain its relevance in the algorithm logic of platforms complementators *must* be constantly creating new content to please the *algorithm gatekeepers*, so not only has the IOC shared more videos during the Tokyo 2020 in comparison to Rio 2016, but it has also embarked in the production and curation of a Shorts playlist (YouTube, 2020) that already counts 300 Shorts. It is important to highlight that Olympics' first Short was posted in February 2021 and the platform only rolled it out of beta to the U.S. market in March 2021, demonstrating how the IOC has been adapting to the directions of the platform affordances and business decisions to counteract other competing short video format platforms like TikTok and Instagram.

Other evidence in terms of *power and (in)equality* can be seen in Table 2 and Figure 1, like the way individuals are culturally consuming is becoming more active, shows how *algorithm gatekeepers* have a direct impact on content curation. This trend of more active consumption (Figure 1) can be read in conjunction with the changes the IOC made to its content between the two Summer Olympics, as longer videos in the Rio 2016 playlist had better engagement (views, comments, likes) and during Tokyo 2020 they have increased the average length of videos by almost 100%. Nevertheless, by comparing the two Olympics with the new Shorts playlist, it is possible to acknowledge how Shorts are not only getting more views, comments and likes on average (see Table 1) but also have a *better* active/passive ratio that ultimately impacts the algorithm in terms of channel growth (YouTube, 2022e).

In terms of *social integration and identity*, it was possible to recognise how the IOC sought to connect with different geographical audiences by curating playlists based on nation-states (Rio 2016) or languages (Tokyo 2020) (see Table 3). On a basic level, from the descriptive analysis, we observe how different nation-states have received more *attention* by the IOC because of the number of videos curated in each channel. Unsurprisingly, the U.S.A led the list followed by China and Great Britain giving an insight which *markets* that the IOC believes are the most important.

Table 1. Descriptive analysis playlists.

Descriptive Statistics						
Playlists		N	Minimum	Maximum	Mean	Std. Deviation
Rio 2016	durationSec	245	33	172	90	26
	viewCount	245	697	12,998,537	503,965	1,526,515
	likeCount	245	6	232,534	3,681	18,453
	commentCount	245	0	6,747	114	506
	Active/Passive	245	.00139	.02340	.00573	.00265
	Valid N (listwise)	245				
Shorts	durationSec	300	4	132	25	15
	viewCount	300	2729	74,238,813	1,138,191	7,439,330
	likeCount	300	93	3,359,007	37,887	289,843
	commentCount	300	0	22,016	266	1,860
	Active/Passive	300	.00597	.09711	.03373	.01413
	Valid N (listwise)	300				
Tokyo 2020	durationSec	635	30	1,184	179	83
	viewCount	635	95	22,122,672	467,526	1,363,929
	likeCount	635	0	1,005,924	10,682	47,204
	commentCount	635	0	29,009	421	1,458
	Active/Passive	635	.00000	.06273	.01760	.00824
	Valid N (listwise)	635				

Table 2. Correlations playlists.

Correlations								
Playlists				durationSec	viewCount	likeCount	commentCount	Active/ Passive
Rio 2016	Spearman's rho	durationSec	Correlation Coefficient	1.000	.325**	.317**	.310**	−.042
			Sig. (2-tailed)	.	.000	.000	.000	.510
			N	245	245	245	245	245
		viewCount	Correlation Coefficient	.325**	1.000	.981**	.944**	−.044
			Sig. (2-tailed)	.000	.	.000	.000	.488
			N	245	245	245	245	245
		likeCount	Correlation Coefficient	.317**	.981**	1.000	.948**	.116
			Sig. (2-tailed)	.000	.000	.	.000	.071
			N	245	245	245	245	245
		commentCount	Correlation Coefficient	.310**	.944**	.948**	1.000	.070
			Sig. (2-tailed)	.000	.000	.000	.	.275
			N	245	245	245	245	245
		Active/Passive	Correlation Coefficient	−.042	−.044	.116	.070	1.000
			Sig. (2-tailed)	.510	.488	.071	.275	.
			N	245	245	245	245	245
Shorts	Spearman's rho	durationSec	Correlation Coefficient	1.000	−.388**	−.317**	−.265**	.467**
			Sig. (2-tailed)	.	.000	.000	.000	.000
			N	300	300	300	300	300
		viewCount	Correlation Coefficient	−.388**	1.000	.968**	.854**	−.609**
			Sig. (2-tailed)	.000	.	.000	.000	.000
			N	300	300	300	300	300
		likeCount	Correlation Coefficient	−.317**	.968**	1.000	.884**	−.428**
			Sig. (2-tailed)	.000	.000	.	.000	.000
			N	300	300	300	300	300
		commentCount	Correlation Coefficient	−.265**	.854**	.884**	1.000	−.331**
			Sig. (2-tailed)	.000	.000	.000	.	.000
			N	300	300	300	300	300
		Active/Passive	Correlation Coefficient	.467**	−.609**	−.428**	−.331**	1.000
			Sig. (2-tailed)	.000	.000	.000	.000	.
			N	300	300	300	300	300
Tokyo 2020	Spearman's rho	durationSec	Correlation Coefficient	1.000	−.050	−.073	−.053	−.192**
			Sig. (2-tailed)	.	.208	.065	.184	.000
			N	635	635	635	635	635
		viewCount	Correlation Coefficient	−.050	1.000	.978**	.934**	.093*
			Sig. (2-tailed)	.208	.	.000	.000	.019
			N	635	635	635	635	635
		likeCount	Correlation Coefficient	−.073	.978**	1.000	.947**	.275**
			Sig. (2-tailed)	.065	.000	.	.000	.000
			N	635	635	635	635	635
		commentCount	Correlation Coefficient	−.053	.934**	.947**	1.000	.264**
			Sig. (2-tailed)	.184	.000	.000	.	.000
			N	635	635	635	635	635
		Active/Passive	Correlation Coefficient	−.192**	.093*	.275**	.264**	1.000
			Sig. (2-tailed)	.000	.019	.000	.000	.
			N	635	635	635	635	635

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

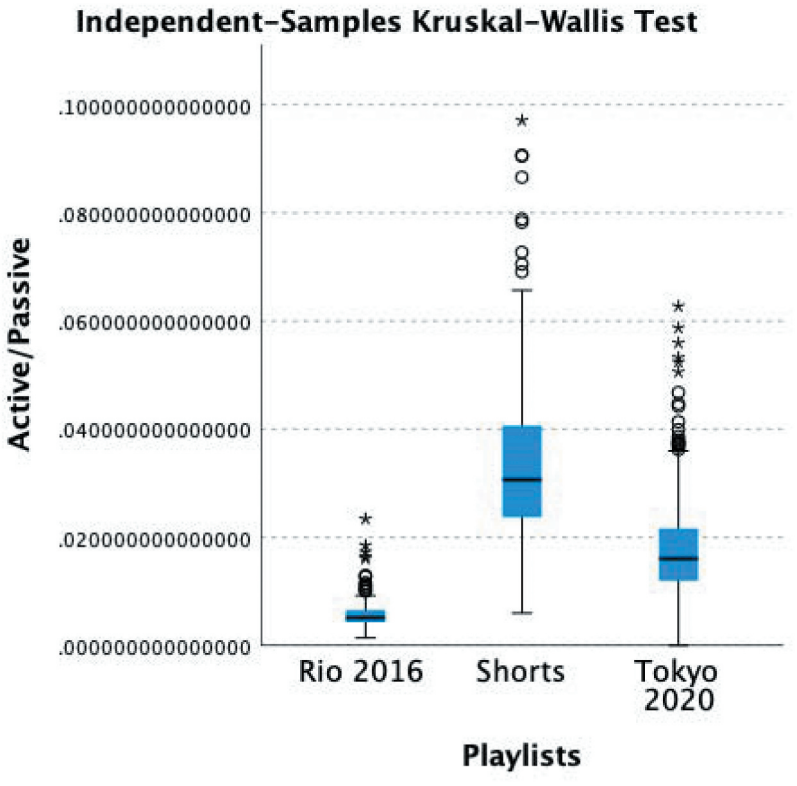

Figure 1. Active/passive playlists.

Secondly, by performing a Kruskal–Wallis test on the different playlists of Rio 2016, what we encountered was that the only metric where the distribution was similar across the different playlists was the length of video, while all the others we have analysed (views, likes, comments, passive/active) being different. Taking active/passive as an exemplar, it was possible to perceive how the Brazil playlist has performed better with videos such as the story of Vanderlei de Lima who lit the Olympic Cauldron, the Olympics' fastest goal in football by Neymar, and Rafaela Silva's gold medal in Judo (see Figure 2).

Concerning *social change and development*, we examined the IOC Media channel and its video library focusing primarily on the different projects delivered by the IOC. Distinctively from the Olympic channel that we have discussed until now, the IOC Media channel is aimed at other stakeholders like media organisations, by streaming some of IOC's daily briefings during Summer and Winter games, press conferences, IOC sessions and videos from TOP sponsors and on Olympic legacies. While those topics covered by the channel are of importance to many and have been on the public agenda (Kim et al., 2015; Sant & Mason, 2015), it has failed to receive the same attention as other videos from the Olympics channel, as we can attest from Table 4. Thus, while ideas of *social change and development* lie at the centre of Olympic movement and sport mega-events (Boykoff, 2016), it seems that by storing those more *institutional* videos within the IOC Media library, it does not reach a wider audience.

Finally, in terms of *time and space experience*, what our analyses from both channels and the different playlists indicate is that the IOC generally uses all the different technological affordances of the platform to have content that can be consumed both synchronously and asynchronously. Moreover, although the algorithm logic favours newness, having a *historical* library of the different events (e.g. Winter and Summer Olympic Games, Winter and Summer Youth Olympic Games)

Table 3. Descriptive Rio 2016 playlists.

Descriptive Statistics						
Playlist		N	Minimum	Maximum	Mean	Std. Deviation
Rio 2016 Australia	durationSec	15	39	116	74	21
	viewCount	15	697	477,060	64,915	125,987
	likeCount	15	6	2,227	294	588
	commentCount	15	0	149	20	43
	Active/Passive	15	.00201	.00861	.00459	.00156
	Valid N (listwise)	15				
Rio 2016 Brasil	durationSec	11	67	121	90	15
	viewCount	11	7,069	8,428,734	1,647,786	3,300,973
	likeCount	11	38	138,014	15,872	41,110
	commentCount	11	2	3,486	401	1,030
	Active/Passive	11	.00295	.02340	.00982	.00584
	Valid N (listwise)	11				
Rio 2016 China	durationSec	38	41	154	95	29
	viewCount	38	12,564	12,998,537	1,339,581	3,006,523
	likeCount	38	51	232,534	11,319	39,634
	commentCount	38	0	6,747	330	1,099
	Active/Passive	38	.00139	.01849	.00550	.00320
	Valid N (listwise)	38				
Rio 2016 France	durationSec	16	47	161	94	30
	viewCount	16	3,696	178,740	36,133	43,212
	likeCount	16	22	816	164	198
	commentCount	16	0	37	7	10
	Active/Passive	16	.00315	.00611	.00484	.00093
	Valid N (listwise)	16				
Rio 2016 GB	durationSec	35	56	166	86	25
	viewCount	35	701	1,341,794	131,437	240,414
	likeCount	35	9	11,517	820	1,997
	commentCount	35	0	352	32	69
	Active/Passive	35	.00292	.01284	.00549	.00216
	Valid N (listwise)	35				
Rio 2016 Germany	durationSec	22	37	151	92	24
	viewCount	22	4,259	3,506,834	322,152	820,730
	likeCount	22	20	25,337	2,073	5,612
	commentCount	22	1	762	59	165
	Active/Passive	22	.00314	.01006	.00611	.00163
	Valid N (listwise)	22				
Rio 2016 Italy	durationSec	9	67	133	100	22
	viewCount	9	1,403	335,698	114,476	125,593
	likeCount	9	9	1,381	510	543
	commentCount	9	0	57	16	18
	Active/Passive	9	.00352	.00724	.00516	.00145
	Valid N (listwise)	9				
Rio 2016 Japan	durationSec	20	62	127	94	19
	viewCount	20	11,767	557,274	132,776	137,200
	likeCount	20	87	2796	673	671
	commentCount	20	3	66	24	21
	Active/Passive	20	.00347	.01290	.00571	.00241
	Valid N (listwise)	20				
Rio 2016 Korea	durationSec	14	33	121	82	30
	viewCount	14	3,735	253,853	87,371	84,407
	likeCount	14	26	2,118	635	693
	commentCount	14	0	74	22	26
	Active/Passive	14	.00430	.01156	.00701	.00215
	Valid N (listwise)	14				
Rio 2016 USA	durationSec	65	44	172	92	26
	viewCount	65	2,310	4,050,884	558,359	871,271
	likeCount	65	16	40,084	2,904	5,912
	commentCount	65	1	1,211	111	210
	Active/Passive	65	.00235	.01602	.00546	.00211
	Valid N (listwise)	65				

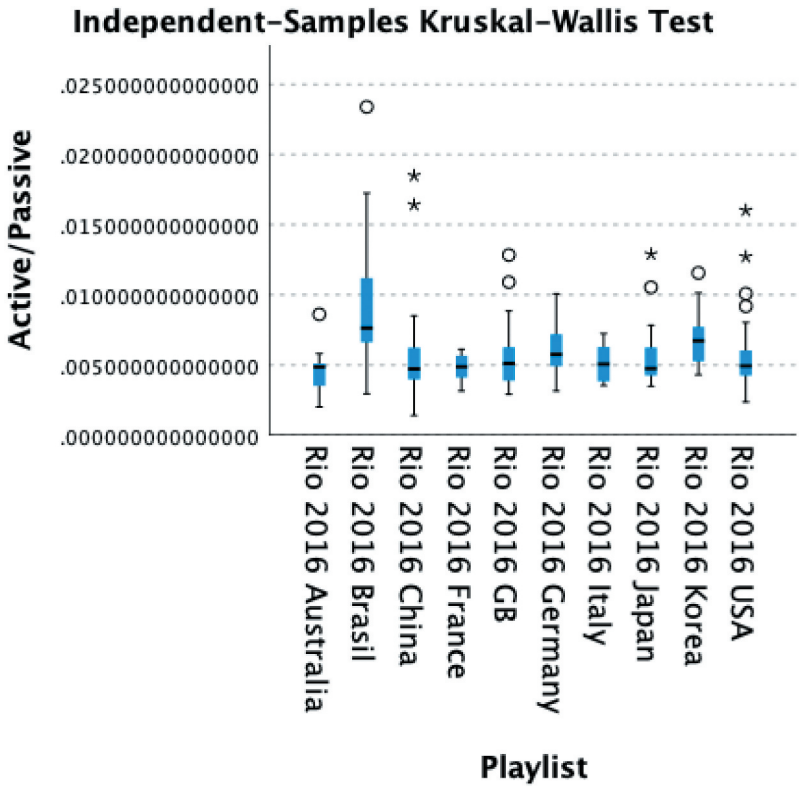

Figure 2. Active/passive Rio 2016 playlists.

Table 4. Descriptive IOC media.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
durationSec	1026	10	33,696	2,229	5,319
viewCount	1026	14	216,715	3,643	12,612
likeCount	1026	0	3,113	31	136
commentCount	938	0	243	4	16
Active/Passive	1026	.00000	.08955	.01009	.01015
Valid N (listwise)	938				

allows the IOC to constantly be available to audiences. To provide some perspective, the IOC has, on average, published at least 2 videos per day from the oldest video in the library, nevertheless it is possible to recognise peaks of production (see Figure 3) that coincide with the staging of the Olympics. Thus, while there is a constant production of content on YouTube the *time and space experience* are still very much dictated by each Olympiad.

Overall, with this section unpacking the IOC's YouTube content and engagement, it exemplifies *one* way in which sport mega-events have become increasingly digitised. Notwithstanding, this particular digitalisation speaks not merely to content of defining sporting moments or symbolic ceremonies as constituting a 'spectacle' (cf. Bourdieu, 1998); it also encompasses the Olympics' political and social aspects (i.e. sustainability programmes or Olympic legacies) which are communicated or distributed via YouTube. The above insights demonstrate, first, how the IOC has adapted to one specific platform since 2006 and target key stakeholders through distinct channels. Second,

Figure 3. Publication of videos..

the evidence points towards the emergence of what is essentially an accessible Olympic video-archive. However, this speaks to the importance of YouTube as one legitimate data source in mega-event research. As our examples illustrate, YouTube can provide scholars with overviews of content volume, strategies, and user engagement. Notwithstanding, it simultaneously yields insights into *inter alia* the official mega-event rhetoric and discourses, event promotion, visualisation of urban projects and, lastly, fans/citizens' perceptions (indicated by reactions and comments).

Notably, YouTube has emerged as another media – beyond television – through which mega-events' roles as time-structuring institutions in modern societies are manifested (Roche, 2003), as assisted by event-specific playlists and production peaks *during* editions of the Games. Collectively, this remains significant because sport mega-event studies, to date, has sought to deal with exactly the themes alluded to above: legacies, boosterism, mediation, impact on citizens, symbolism, and the social relations that emerge around these. As these issues appear on YouTube, what this section ultimately underscores, is how the digitalisation of sport mega-events has opened new ways for scholars to explore and make sense of these themes in digital contexts, complementing the work concerned with mega-events' '*offline*' settings.

Discussion: the Olympics' YouTubeisation?

This section discusses the implications of this article's YouTube case study, and how this has consequences for sociologists of media, digital, sport and leisure whom, to date, have investigated the mediation of the Olympics (McGillivray et al., 2021; McGillivray, 2014; Tang & Cooper, 2013). By making a return to Bourdieu's's (1998) writings on the production processes of the Olympics, he emphasised the importance of analysing the social construction of the Olympics and how its *dual* production demonstrates both the event owner's and media networks' desires to reach as large audiences as possible. Whilst Bourdieu focused primarily on what he called the Olympics' *televised show*, this article has built upon this to explore what we can consider the '*YouTubeisation*' (see Heinze, 2013) of the Olympics.

Although set in a new digital age (as compared to Bourdieu), we still observe how new audiences (unsurprisingly) are desired and how multiple media constructions of the same event or occasions co-exist (Jenkins, 2006), reflecting the shared interests of event owners and media organisations.

Further, as similar to the televised Olympic product which, according to Bourdieu's's (1998, p. 80), had to be 'timed to be shown on prime time in economically dominant countries', the IOC's YouTube 'production' similarly underscores the importance of *timing* insofar it peaked during the editions of the Olympics, and in terms of markets – either language or country specific – as seen in the different available playlists. In a way, this speaks to how YouTube has been understood to emulate television's practices (Snickars & Vonderau, 2009), which here refers to how it is employed to capitalise on the global but often time-specific interest in the Olympics.

However, our analysis of YouTube simultaneously demonstrates how the platform, as a cultural phenomenon impacting the institutional schemes of broadcasting and viewers (van Dijck, 2007), allows for an increasingly *constant* content production (unlike that of television, which is periodically intense) and a historical repository or archive of Olympic content that can be rewatched, 'liked', shared or commented on. This is important because, overall, it speaks to how YouTube adds another unique dimension to the 'Olympic production' and how a platform-specific 'show *within* the show' follows each Olympic edition, complements the traditional television production and remains available post-event. Yet, crucially, this dimension is controlled and curated directly by IOC – the event owner – rather than the media organisations who possess the television rights to the Olympic events and can choose and dictate how they seek to re-mediate the Olympic images generated by the Olympic Broadcasting Services (OBS). In this context, it is clear that YouTube directly assists the IOC's (2022b) aim of not merely attracting followers *during* the Olympics, but between each edition.

Again, this raises questions about the implications of mega-events' settled presence on YouTube. Based on the above section, we argue that YouTube offers a window through which we can understand how sport's mediation has not merely evolved, but how the characteristic dynamics and features of the distinct platforms (e.g. the current focus on YouTube Shorts) allow for unique content strategies directed towards devices such as smartphones, tablets, laptops or even 'Smart TVs' with integrated YouTube applications (Snickars & Vonderau, 2009). Thus, this article demonstrates that the *Olympic experience* on YouTube is uniquely designed to be instant, selective and to alter how consumers and media stakeholders watch, engage and learn about the Olympics in a time where the IOC (2022) is alive to a changing media landscape and hence conscious about the need to provide content to global viewers and adapt to new platforms. Indeed, the IOC's (2022b) digital strategy following the adoption of the 'Olympic Agenda 2020 + 5' focused on the growth of digital engagement and, as demonstrated here, YouTube provide an exemplary tool through which this is pursued.

Conclusions

Digital technologies, as Lupton (2016, p. 709) holds, have transformed 'many areas of life into leisure pursuits in unprecedented ways, expanding the purview of leisure studies in several interesting dimensions'. Indeed, recent years have seen the (sub-)disciplinary emergence of 'digital sociology' (Lupton, 2014), 'digital leisure studies' (Redhead, 2016) and 'digital football studies' (Lawrence & Crawford, 2022) as these respective fields have endeavoured to 'catch up' with the accelerated digital world. As we maintain, mega-events such as the Olympics and their media production and consumption may be located at the intersection of these fields as they facilitate for digital leisure cultures whereby social actors engage, co-watch or interact on digital platforms, as our case study of YouTube demonstrates.

Mega-events represent 'recurrent sociocultural phenomenon' (Rowe, 2019, p. 4) and, since the 1990s, we have witnessed a transformative migration of sport mega-events from television (Bourdieu, 1998) to co-existing, emerging platforms such as YouTube (Petersen-Wagner, 2022), Twitter (Meier et al., 2021) and Facebook (Tang & Cooper, 2018). Whilst this, in itself, illustrates accurately how sport mega-events are fruitful sites of analysis for wider societal and technological changes, this shift also remains sociologically significant because it demonstrates how sport mega-events have become increasingly digital in their production and consumption. Whilst scholars have observed this (McGillivray et al., 2021; McGillivray, 2014; Tang & Cooper, 2013), this article drives

forward our understanding of the relationship between YouTube and the Olympics. This relationship should be deemed crucial in the twenty-first century, as the lessons from digital leisure and football studies tell us about the importance of taking sport and leisure's digital manifestations and affordances seriously in scholarly examinations.

The purpose of this study was to capture the digital manifestations of modern mega-events through an Olympic-YouTube case study. As contended, the four digital transformative areas of (1) power and inequality, (2) social integration and identity, (3) social change and development and (4) experience of time/space (McQuail & Deuze, 2020) follow most, if not all sport mega-events in the current '(post-)pandemic' society (see Boykoff, 2016; Horne, 2007; Lee Ludvigsen, (2022)). Crucially, as we argue, these key areas are increasingly possible to study, and engage with in a digital setting like YouTube, as this article underpins. Thus, this article makes original contributions to the extant literature focused on the relationship between 'new media' and mega-events (e.g. Hutchins & Rowe, 2012; McGillivray, 2014) and to our understanding of how sport mega-events such as the Olympics play out and are consumed on YouTube, which is a distinctive alternative to television due to its role as 'Television 2.0' (see van Dijck, 2007). Finally, this paper also acts as an *invitation* to scholars in diverse fields for future work, not as confined to any specific platforms, on the power relations, consumption activities and individual experiences related to sport mega-events and, crucially, their digital and social worlds. As a final note, such research remains extremely pertinent as these giant events continuously move not merely between cities in the world society, but across new and distinctive platforms too.

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No potential conflict of interest was reported by the author(s).

ORCID

Jan Andre Lee Ludvigsen http://orcid.org/0000-0002-0085-2321
Renan Petersen-Wagner http://orcid.org/0000-0002-0770-6722

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