Izvorni znanstveni rad
UDK: 004.738.5:796.06:659.4
10. II. 2026.
DOI 10.47960/2712-0457.2026.1.8.17

DRAŽEN MALEŠ*
MARTIN LABAŠ**

OPTIMIZING DIGITAL PRESENCE: A CONTENT ANALYSIS OF MAJOR SPORTING EVENTS WEBSITES OVER A TEN-YEAR PERIOD

ABSTRACT

The focus of this study are informational, media-oriented, and multimedia features and practices that most commonly characterize official websites of major international sporting events. A quantitative content analysis of 140 official websites was conducted allowing trend detection across a decade. The corpus of events embraces 34 sports spanning nine macro-categories. Data collection was performed via quantitative content analysis using a custom-developed coding matrix comprising 23 binary variables grouped into five thematic categories. Results indicate that while official websites reliably fulfil basic informational functions - such as event news, schedules, and results - they often lack advanced communication services aimed at enhancing media coverage and audience engagement. About one-third publish press releases, just over half include promotional content about the host destination, one-fifth offer press kits, and one-quarter provide live streaming, with a notable post-pandemic increase. Team sports events showed significantly higher press release publication rates than individual sports, however, differences in the presence of dedicated media sections based on event type or geographical level were not statistically significant. The majority of event websites use independent ".com" domains, with about one-quarter hosted within the web architecture of a governing federation. The most common URL naming structure combined host city and event year in a stand-alone domain. Major sport event organizers can use insights from this research to reposition their websites as comprehensive hubs integrating multimedia, enriching narratives and regularly updated media resources, all optimized for mobile users and cross-platform consistency.

Keywords: digital communication; major sporting events; websites; media relations; content analysis.

* Catholic University of Croatia, Zagreb, Croatia, drazen.males@unicath.hr
** Catholic University of Croatia, Zagreb, Croatia, martin.labas@unicath.hr

INTRODUCTION

Official websites are considered as "the most valuable piece of digital real estate you will ever own" (Ryan, 2016, p. 40, as cited in Stoldt et al., 2021, p. 77), and they have significantly reshaped how sports information is exchanged (Hutchins et al., 2009), while having themselves become naturalized as "central, familiar, and routine sites of sport-media consumption, progressively influencing and guiding sport fan practices" (Rowe et al., 2010, as cited in Billings & Hardin, 2014, p. 331). Sports federations can keep their audience up to date with all important information thanks to strong relationships built by regular usage of digital channels like website and social media updates (Estanyol et al., 2023), which is "now the primary means that many people get their sport news" (Evans, 2015, p. 17, as cited in Pedersen et al., 2021, p. 103). There are many studies in the field of digital communication in sports that have focused specifically on social media platforms and their role in creating and maintaining relations with fans and the motivation of different audiences in following official accounts of athletes, clubs, organizations and federations, along with sports events and leagues on those platforms (Wallace et al., 2011; Park & Dittmore, 2014; Siguencia et al., 2017; Fan et al., 2020; Su et al., 2020). Some of that studies suggests that major sports organizations do not use social media channels to their full potential, given that they mainly share one-way information (Winand et al., 2019), while the other researchers suggest that hyperlinks, hashtags, public messages and retweets as most frequently utilized tools of relationship-building on social media (Wang, 2021). Among the content that is shared on official social media channels, it is very common to share the content that is linked to different web sources (Hambrick, 2012), especially official websites (Maderer et al., 2018). The purposeful spreading of information such as reposting of athletes, staff and fan updates while directing followers to official websites and affiliated channels, amplifies reach and tightens the connection between social media and the website (Abeza et al., 2017). Sports communication aligned among social media, along with other marketing tools is the key to effective relationship marketing (Filo et al., 2015), and the official websites are used regularly to cultivate fan relationships (Achen et al., 2018). Empirical evidence indicates that when event websites steer visitors toward specific information clusters, they amplify initial push motivations with information-driven pull cues, increasing satisfaction and strengthening their intentions to attend sport events (Filo et al., 2009). The COVID-19 shutdowns prompted sports organizations to intensify website updates, embed live streams, and synchronize newsletters and social feeds to sustain fan engagement (Estanyol et al., 2023). Yet, while social media still delivers only rapid, fragmented snippets of information, an official website must serve as the central hub - housing complete, authoritative information and linking out to every other official digital channel. Guided by this premise, the present study evaluates how effectively

the official websites of major international sporting events fulfil that hub role, focusing on their informational, media-service, and multimedia content.

THEORETICAL FRAMEWORK

Media play a pivotal role in shaping public perceptions of sporting events, and the notion of mediatization concerns "the interrelations of media with other social and cultural domains and how they contribute to structural changes in a long-term perspective" (Frandsen, 2014, as cited in Wenner & Billings, 2017, p. 156). The media impacts sport event host region or country visibility and image, and it represents the mean trough which other stakeholders transmit their messages, while they can also be source of funding (e.g. broadcasting rights) for certain activities, and their potential involvement in legacy types include psychological, political, image, economic, informational and cultural influences (Parent & Chappelet, 2017, p. 54). Media outlets overwhelmingly privilege sports that are tightly codified, fiercely competitive, and overtly physical; while disciplines such as football, along with professional and semi-professional competitions and events from national championships to the Olympic Games and the FIFA World Cup, consistently dominate overall and especially televised coverage (Nicholson, 2007, p. 4). Consequently, event organizers are compelled to tailor their communication strategies toward securing the highest possible media visibility and public exposure. The Strategic Sport Communication Model (SSCM) offers a comprehensive lens for analysing the complexity of sport-communication processes by distinguishing three inter-related components: personal and organizational communication in sports, mediated communication in sports, and sport communication services and support – thereby spanning from internal communication to mass-media coverage (Pedersen et al., 2021, pp. 97-104). Event websites sit precisely where the mediated sphere intersects the services and support sphere, functioning both as controlled broadcast outlets and as resource hubs for fans, journalists, and sponsors—an arrangement that perfectly illustrates the model's logic. To better understand the effectiveness of online communication platforms, the Model for Online Sport Communication (MOSC) highlights seven interacting drivers of success: user involvement with the team or event, users' motivations, the depth and relevance of content, coherent design, technical performance, overall usability, and commercially oriented features. Originally framed around organizational websites, MOSC now extends to social networks, mobile apps, and streaming services, making it a versatile framework for today's multi-platform sport environment (Pedersen et al., 2021, pp. 222–223). Accordingly, MOSC reminds us that auditing an event's website demands more than a content checklist; design coherence, user experience, and commercial elements also matter. While this study concentrates on informational, media-

service, and multimedia content, it interprets findings considering the other MOSC factors: sparse interactivity, for example, may signal usability or performance gaps, whereas domain-naming choices can reveal branding priorities and commercial intent. An event's official website functions as the controlled communication channel - an owned medium of sports organization, within the SSCM framework - used to provide immediate communication with both internal and external publics and key stakeholders (Pedersen et al., 2021, pp. 218-221).

The importance of building and maintaining a high-functioning and interactive sports website cannot be overstated, and its development involves a range of considerations including the content which can quickly meet the minimum expectation of potential visitors (Stoldt et al., 2021, pp.77-79). As the study conducted by Filo, Funk and Hornby (2009) suggest, spectators expect sport event websites to deliver fifteen discrete information clusters - namely, clear ticket-purchase instructions, precise venue details, nearby shopping options, accommodation suggestions, a full event schedule, highlights of local attractions, entertainment opportunities, projected travel costs, public-transport connections, food and concession information, a succinct statement of the event's location, parking guidance, safety and security measures, up-to-date weather forecasts, and current traffic conditions (Filo et al., 2009). In their audit of sport clubs' websites, Elden, Yeygel and Bakir (2018) frame sport website persuasiveness around six content clusters, which include informativeness, usability, credibility, visual design, involvement and reciprocity, and are all operationalized through items ranging from general information, ticket and price details to search tools, "about-us" text, social-media links and newsletters. After meeting baseline information needs, sport organizations must enrich interactive and reputational features if their websites are to become truly persuasive communication platforms (Elden et al., 2018). Subsequent study concludes national sports organizations should adopt a far more strategic view of the Web - prioritizing upgraded design, smoother functionality and richer two-way communication, to strengthen ties with all stakeholder groups (Girginov et al., 2009). Alonso-Dos-Santos, Calabuig-Moreno and Montoro-Ríos (2016) extended the role of sports websites to the sponsorship domain, showing that an event website can act as the primary commercial showcase, especially for small and mid-scale events by transferring favourable event imagery to the sponsor and, in turn, shaping users' attitudes toward both entities (Alonso-Dos-Santos et al., 2016). Greater website interactivity, a strong match between sponsor and website, and high perceived credibility each improve users' evaluations of sponsor ad and influence consumer willingness to click a banner advertisement to search for more information (Kim et al., 2017). Yan's (2019) findings underscore that an event website should also convey the host destination's broader image - not merely event-specific connection with the host city or region - because

cultural, experiential, and landscape cues are essential for effective place marketing. Official websites can also help to accommodate the needs of the media, especially through provision of news and information in different forms, like photo and video content, statistical information, historical background, feature material, success of local athletes, links to other information sources; and in some cases, sports websites offer distinct sections accessible only to credentialed media (Stoldt et al., 2021, p. 83). Regarding the media, the key requirements that the organizers must address across sporting events for journalists following the event is securing issues of access, information and the quality of facilities, since they have pre- and post-event demands that require them to report and communicate their content to the imposed deadlines (Parent & Chappelet, 2017, p. 368).

As prior studies and literature review show, official sporting event websites must shoulder multiple roles, including informational, promotional, sponsorship-driven, destination-branding and media-oriented, yet no longitudinal, cross-sport audit has determined how consistently do sport event organizers deliver these functions or how widely they deploy advanced features like specific media information, multimedia galleries, live-stream, etc., or what kind of strategic domain branding do different kind of sporting events employ. Guided by SSCM and MOSC, the present study therefore undertakes a decade-long content analysis of major international sporting event websites, formulating specific research questions and hypotheses to address their informational, interactive, media-service, sponsorship, and destination-image provisions.

METHODOLOGY

The purpose of this study was to quantitatively describe the communication practices on official websites of major international sporting events and to examine if significant differences exist in their communication practices based on event characteristics. Particular attention was paid to informational services aimed at the audience, media content for journalists, and multimedia tools designed for audience digital engagement. Based on the literature review and the theoretical frameworks of SSCM and MOSC, the following research questions (RQs) were defined:

RQ1: What informational, media-oriented, and multimedia features most commonly characterize official websites of major international sporting events?

RQ2: Do website feature patterns differ between single- and multi-sport events, and between global and continental competitions?

RQ3: What domain-hosting and URL-naming strategies most commonly characterize the official websites of major international sporting events?

RQ4: Did the adoption of advanced digital features on event websites increase after the COVID-19 pandemic?

Research sample

The sample included 140 official websites of major sporting events held between January 2016 and April 2025,

spanning the pre-, mid- and post-COVID-19 period and allowing trend detection across a full decade. The corpus of events embraces 34 sports spanning nine macro-categories: team-ball, racket, combat, motor, aquatic, athletics, winter, cycling and other sports. Specifically, the study covers alpine skiing, American football, athletics, badminton, baseball, basketball, beach-volleyball, boxing, cricket, cycling, equestrian, figure-skating, football, Formula 1, futsal, golf, gymnastics, handball, ice-hockey, judo, karate, MotoGP, Nordic skiing, rally, rowing, rugby, sailing, shooting, sports-car/endurance racing, swimming, table-tennis, tennis, volleyball and water-polo. The event selection considered the heterogeneity and representativeness of the sample and only major international events of global or continental level were included, implying significant media attention and participation of national teams or athletes from multiple countries. The sample captures every marquee quadrennial multisport festival during the study window, including a wide spectrum of global and continental tournaments held in different cycles.

To illustrate the breadth and calibre of the corpus, events are grouped into four blocks, with edition-years from the 140 analysed websites.

Quadrennial multisport festivals – Summer Olympic Games (Rio 2016, Tokyo 2020, Paris 2024) and Winter Olympic Games (PyeongChang 2018, Beijing 2022); Universiades — Winter (Almaty 2017, Krasnoyarsk 2019, Lake Placid 2023) and Summer (Napoli 2019); Commonwealth Games 2018 and 2022; Pan-American Games 2019 and 2023; Asian Games 2018; African Games 2019 and 2023; South Asian Games 2019; Mediterranean Games 2018 and 2022; Pacific Games 2023; The World Games 2022; Asian Winter Games 2017 and 2025; Winter Youth Olympics 2020.

Flagship single-sport world championships – FIFA World Cups 2018 and 2022; FIBA Basketball World Cup 2019 (5-on-5) plus FIBA 3×3 World Cups 2019 and 2022; IHF Men's Handball Worlds 2019, 2021, 2023; World Athletics — stadium 2019 and indoor 2018; Continental Cup (IAAF) 2018; FINA Aquatics Worlds 2017, 2019, 2022; IIHF Ice-Hockey Worlds 2019 and 2021; FIVB Volleyball World Championship 2018; Rugby World Cup 2019; ICC Cricket World Cup 2022; ISU Figure-Skating Worlds 2022; FIS Alpine Ski Worlds 2017, 2019, 2021, 2023 and Nordic Ski Worlds 2023; AIBA Boxing Worlds 2019; ITTF Table-Tennis Worlds 2021; WKF Karate Worlds 2021; IJF Judo Worlds 2021; FIA WRC Rally Croatia 2021; UCI Road Cycling Worlds 2021; FISA Rowing Worlds 2018 & 2019.

Grand-slam, major tour and iconic annuals – Wimbledon 2021, Roland-Garros 2022, Australian Open 2022, US Open 2021; Tour de France 2021 and CRO Race 2021; Boston Marathon 2022; Masters Tournament 2021 and Presidents Cup 2019 (golf); Formula 1 Monaco Grand Prix 2022; MotoGP Dutch TT 2022; European Le Mans Series 2018; Snow Queen Trophy 2022; NFL Super Bowls LV (2021) and LVI (2022); NBA Finals 2021 & 2022; UEFA Champions League Final 2022.

Continental and regional championships – UEFA EURO 2016,

2020, 2024; Copa América 2016 (Centenario) and 2021; Africa Cup of Nations 2023; EuroBasket 2017 and EuroBasket Women 2021; EHF EURO Handball 2016, 2018, 2020, 2024; LEN (Ligue Européenne de Natation) European Aquatics — 25 m 2017 and 2019 plus long-course/open-water editions 2016–2022; European Athletics — outdoor 2022, indoor 2017 and 2023; CEV EuroVolley 2021 & 2023 (indoor) plus EuroBeachVolley 2021; CONMEBOL Copa América Futsal 2018; FISA (World Rowing) European Rowing 2019, 2021, 2024; LEN European Water-polo 2016, 2018, 2020, 2024; BE (Badminton Europe) Championships 2016 and 2022; EKF (European Karate Federation) Championships 2021 and 2024; EJU (European Judo Union) Championships 2017 and 2022; ETTU (European Table Tennis Union) Championships 2021; ESC (European Shooting Confederation) Championships 2019 (outdoor) and 2022 (10 m).

Where an event retains a permanent URL across editions (e.g., wimbledon.com, tourdefrance.fr), only one representative edition was coded to avoid duplicating identical domain structures.

Composition of the dataset in geographical sense included 52 % of global-level events (n = 73) and 28 % of continental events (n = 67). Regarding event type, 79 % (n = 111) of analysed websites were single-sport events, while 21 % (n = 29) were multi-sport events. The overall dataset (N=140) covered every season starting from year 2016 (n = 8), continuing to 2017 (n = 10), 2018 (n = 15), 2019 (n = 23), pandemic-hit 2020 (n = 7), then recovering to 2021 (n = 28), which is the highest yearly total, continuing with 2022 (n = 24), 2023 (n = 11), 2024 (n = 9) and early 2025 (n = 5).

Instrument and variables

Data collection was performed via quantitative content analysis of official event websites using a custom-developed coding matrix comprising 23 binary (dichotomous) variables. Each variable recorded the presence ("yes" = 1) or absence ("no" = 0) of specific website content features. An additional value ("2") indicated situations where presence could not be determined due to access restrictions or missing content.

The variables were grouped into five thematic categories reflecting key areas of digital sport-event communication. First category assessed branding via URL strategy and domain choice, which included domain structure and type (independent vs. sub-domain), domain extension, and URL naming patterns (e.g., city-year combinations vs. recurring event-specific domains). Second category addressed core event descriptors that served descriptive and grouping purposes and those contextual identification variables included event year, competition level (global or continental), event type (single- vs. multi-sport), sport category and specific sport. Third category covered general audience-related information, assessing official websites basic informational functions, which included availability of news sections, general event information, competition schedules, results (live or post-event), and host-city promotional content. Fourth category focused on journalist-specific communications and media services on official websites, spanning from

existence of dedicated media sections and login requirements for journalists, to media contact details, availability of press releases, and downloadable press kits. The final, fifth category, assessed multimedia and interactivity aspect, therefore enabling testing of multimedia trends, like presence of photo and video galleries, live-streaming capabilities and promotion or integration of official smartphone application.

The coding instrument integrated previous research approaches (e.g., Kim et al., 2017; Wallace et al., 2011; Yan, 2019) with new indicators pertinent to event branding and destination promotion. A pilot test conducted on thirty event websites refined definitions and coding instructions, ensuring clarity and reliability.

Data collection and coding procedure

Web content for analysis was retrieved through the Internet Archive's Wayback Machine, for capturing website snapshots closest to the event's opening ceremony or first competition date to reflect accurate event-time content that was displayed. Official event websites (correct and official URL's at the time event was held) were identified in three steps: (1) global and continental federation calendars were consulted to compile the annual list of major events; (2) multiple open-web sources—federation sites, press releases, archived brochures, news reports and social-media announcements—were triangulated to confirm the exact event URL; (3) once a unique domain (or federation sub-page) was verified, the corresponding Wayback snapshot nearest to day one of competition was extracted for analysis. The author was the sole coder. Prior to full coding, a pilot test on 30 randomly chosen major sporting event websites was conducted to refine and clarify the codebook, and recoding of those sites confirmed high intra-coder consistency, confirming coding stability. During full coding, features that required credentialed access (e.g. password-protected media areas) were marked as "undeterminable", while any element that could not be directly observed (e.g. live-stream links that no longer loaded) was conservatively coded as absent.

Statistical analysis

Data analysis combined descriptive statistics and inferential testing. Frequencies and percentages were calculated for each variable across all 140 cases to address RQ1. Chi-square tests of independence, supplemented by phi (ϕ) or Cramer's V for effect-size estimation, assessed differences according to event type (single vs. multi-sport), geographic scale (global vs. continental), and sport category (team-ball vs. other) to address RQ2, RQ3. For temporal comparisons pre- and post-2020 (RQ4), a two-proportion Z-test assessed differences between events held in 2016–2019 (n=56) and those from 2020–2025 (n=84). Effect size (difference in proportions) was also calculated and reported. Statistical significance was set at $\alpha = 0.05$ (two-tailed). Data were analysed using SPSS version 26.0. Results, including statistical details, are presented clearly within text and tables (Tables 1–6) in the following section.

RESULTS

Domain and URL-naming strategies

The analysis reveals that organizers of most major sporting events opted for independent web domains specifically created for their event, underscoring organisers' growing attention to digital branding. Of the 140 websites audited, 105 (75.0 %) used an independent address (e.g., eventname.com), whereas 35 (25.0 %) were embedded in a parent federation site as a sub-domain or sub-directory.

Table 1. URL characteristics (own domain vs. federation Subpage) by event level (N=140)

Event level	Federation subdomain		Own domain		Total	
	n	%	n	%	n	%
Continental	21	31.3	46	68.7	67	47.9
Global	14	19.2	59	80.8	73	52.1
Total	35	25	105	75	140	100

Table 1 presents a comparison of independent domain usage versus federation subpages by the event's geographic scale (continental vs. global). Results indicate that global events adopt independent domains somewhat more often—59 of 73 cases (80.8%)—than do continental events (46 of 67; 68.7%). Conversely, 31.3% of continental and only 19.2% of global competitions rely on federation pages. While the pattern suggests that global organizers are likelier to invest in a dedicated web identity, the association remains statistically non-significant ($\chi^2 = 2.15$, df = 1, $p = 0.14$, $\phi \approx 0.12$).

Table 2. Domain extension and URL naming patterns of major sporting events (N=140)

Domain extension	n	%
.com	87	62
national domain	26	19
.org	14	10
Other	13	9
Total	140	100

As illustrated in Table 2, besides the domain type, patterns of domain naming and extensions were also examined. Domain extensions exhibited an anticipated distribution: the majority of events (87 cases, 62%) utilized the commercial extension (.com), followed by 26 events (19%) using the national domain of the host country (e.g., .hr, .de), 14 events (10%) using an organizational domain (.org), and 13 events (9%) employing other extensions (such as .net or newer specialized domains). These findings suggest that the .com domain remains the preferred choice due to its global recognition, while some organizers emphasize local identity through national domain extensions.

Table 3. URL naming strategies used for major sporting event websites (N=140)

URL Naming Strategy	n	%
Host city + event year	45	32.1
Within federation website	35	25
Recurring domain	23	16.4
Event name acronym + year	17	12.1
Sport + country/city	12	8.6
Sport + year	5	3.6
Other	3	2.1
Total	140	100

Regarding URL-naming structure (Table 3), the dominant pattern (32 % of cases) is to embed the host-city name plus event year in a stand-alone domain (e.g. rio2016.com, baku2017.com, glasgow2018.com). Roughly one-sixth of organizers (16 %) retain a recurring domain that remains constant across editions (e.g. rolandgarros.com, daviscup.com, wimbledon.com). A further 12 % register an event-acronym-and-year combination (e.g. wrch2018.com, eug2016.com), while 9 % choose a sport/federation name paired with the host country or city (e.g. judohungary.hu, wkfdubai2021.com). The simple sport-name + year formula appears in only 4 % of cases (e.g. handball19.com, boxing2019.com). Notably, about a quarter of events (25 %) forego an independent domain altogether, housing the site within the federation's official web hierarchy (e.g. uefa.com/euro2024, eurovolley.cev.eu/en/2023/men/). Just 2 % employ truly idiosyncratic constructions grouped as "other" (e.g. tampabaylv.com, lasuperbowlhc.com).

Collectively, these figures confirm that no single convention prevails organizers balance brand continuity with edition-specific identity, and global versus continental events still show broadly similar preferences, with global championships leaning slightly toward the city-year format.

Basic informational features

All analysed events largely fulfilled the basic informational functions of their websites. Nearly all provided key information essential to participants and audiences, confirming the expectation that at least basic informational content is standardized across events. Specifically, 88% of the websites included a news or updates section (usually on the homepage or under a dedicated News category). Competition schedules were published on 91% of websites, and results—either live or final standings—appeared on 88% of sites. These high proportions (≥88%) indicate that event organizers prioritize providing visitors with essential information about what is happening, where, when, and final outcomes, all of which are critical to both media coverage and audience engagement.

Such widespread coverage of basic information revealed no significant differences by type or level of event. Practically all multisport events had

news sections, schedules, and results (100% in our sample), while only a minority of single-sport events omitted one of these elements. For example, 14% of single-sport events lacked a news section, commonly observed in smaller championships relying on external media coverage. Statistically, differences such as multisport events more frequently having news sections (100% vs. approximately 86% among single-sport events) approached significance (χ^2 test, $p \approx 0.06$) due to the small number of events without news sections. Similarly, nearly all world and continental events provided schedules and results without significant differences ($p > 0.5$). These findings imply that providing basic information does not substantially depend on event characteristics but is rather a universally adopted standard.

Among basic informational content, promotional subpages about the host city or country were somewhat less common but still present in over half of the cases. In total, 80 events (57%) had dedicated sections for promoting the host destination (often titled "Host City" or "About [city name]"). This demonstrates how organizers integrate tourism promotion and the broader context of the event. Notably, there was a significant difference according to event type: multisport events were significantly more likely to include such content (79%) compared to single-sport events (51%)—$\chi^2 = 6.24$; $df = 1$; $p = 0.012$; $\phi = 0.21$. Clearly, events like continental or Olympic Games traditionally highlight the host city as part of the event's identity, whereas single-sport event websites generally maintain a narrower focus on the competition itself. Practically, organizers of major international multi-sport events often collaborate with local tourism boards and leverage global attention for destination promotion, reflecting this strategy online. Conversely, no significant differences were found between world and continental events regarding host-city subpage presence (world 60%, continental 54%, $p > 0.1$).

Media services on official websites

Results in the media services category indicate significant variations in how events prioritize media content on their official websites. Generally, most sites recognize journalists' needs by providing at least some form of media section, though this practice is neither universal nor consistent.

A dedicated media section (e.g., a "Media" or "Press" link in the main menu or website footer) was found on 100 websites (71%), meaning about 29% lacked this specific media-oriented area, as presented in Table 4. Although the presence of media sections on most event websites points to an overall standardization, almost one-third still lacks this feature, potentially complicating journalists' work and suggesting limitations in resources or media relations expertise.

Contrary to initial expectations, data showed no significant differences related to event type or geographic scope regarding global or continental level of major international sporting events. In the sample, multisport events featured a media section on 72.4% of

sites compared to 71.2% for single-sport events, while global events had a slightly higher proportion (78%) compared to continental ones (63%). Despite this apparent trend, statistical testing revealed no significant differences ($p = 1.00$ for multisport vs. single sport; $\chi^2 \approx 0$, and $p = 0.81$ for global vs. continental; $\chi^2 = 0.058$, $df = 1$). This indicates that the existence of a media section depends more on individual organizers' decisions rather than the nature or scale of the event. It appears that including a press area is becoming common practice even among organizers of smaller, single-sport championships, while certain larger continental events occasionally omit this feature.

Table 4. Presence of a dedicated media section on official websites by event type (N=140)

Event level	Media section present		Media section absent	
	n	%	n	%
Continental	79	71.2	32	28.8
Global	21	72.4	8	27.6
Total	100	71.4	40	28.6

Note: $p = 1.00$ for the difference between single-sport and multisport events ($\chi^2 = 0.00$, $df = 1$).

Further analysis of media sections reveals that these were predominantly open to the public. In the majority of cases (85% of events), no login or password was required to access basic information if a media section existed (e.g. UEFA events). Only 21 events (15%) required journalists to log in for access to content, primarily press materials. These restricted-access cases were more common among certain sports or federations known for stricter media policies (for instance, some international federations require journalist registration for media information access). Nevertheless, the overall trend towards transparency is positive, with most media-related content openly accessible online without barriers.

However, the picture is less optimistic regarding specific media content. Although 71% of websites included a press section, the quality and quantity of materials within these sections varied. Explicit contact information for media inquiries (such as the email or telephone number of the press office) was provided on only 68 websites (48.6%). In other words, half of the events (51%) did not clearly display journalist contact details on their websites. This is concerning, as the absence of such contacts complicates journalists' efforts to obtain additional information or interviews. It is possible that contact information existed elsewhere but was not readily visible; however, for the purposes of our analysis, only clearly presented, publicly accessible press contacts were considered. This distribution (49% vs. 51%) showed no significant differences regarding event types—it appears this oversight is equally common across various sports and event levels (χ^2 tests for event type and level: $p > 0.2$).

Table 5. Presence of media releases (press releases) by type of sport event (N=140)

Type of sport	Displays press releases		Does not display press releases		Cannot be determined*	
	n	%	n	%	n	%
Team ball sports	13	34	18	47	7	18
Other sports	30	29	67	66	5	5
Total	43	31	85	61	12	8

Note. * "Cannot be determined" refers to cases where the press section exists but is restricted (login required), so the presence of press releases was not visible.

Press releases were relatively uncommon on event websites, with only 43 events (31%) publishing them, as presented in Table 5. Most major international sporting events (61%) did not share press releases online, while for about 8–9% this was unclear due to restricted access. Similarly, media kits—usually .pdf documents containing basic event information and materials for media coverage—appeared on only 22% of the websites, indicating limited standardization and online availability.

An interesting pattern emerged regarding sports categories: team ball sports (e.g., football, basketball, handball, volleyball) were expected to feature richer media content, such as press releases, compared to individual sports. This assumption was supported by data (Table 5). Specifically, 34% of team sport events published press releases, compared to 29% of other sports. A chi-square test confirmed a statistically significant difference of moderate effect (χ^2 = 7.64; df = 2; p = 0.022; Cramer's V = 0.234). This result suggests that events in commercially stronger and media-attractive sports, especially team sports, invest more effort in formal media communication. Conversely, smaller individual-sport events likely rely less on formal press releases, expecting media to independently source competition results and information.

Apart from press releases, other aspects of media services did not show significant differences based on the type of sport or event. For example, the availability of press kits was generally low across all groups, with no notable distinction between team and individual sports (approximately 20–25% in both categories). This represents a widespread shortcoming, indicating room for improvement. Providing a comprehensive media kit is considered standard practice for major events, such as the Olympic Games, and smaller events could follow this example to enhance their level of professionalism.

Multimedia integration

Digital communication of major international sporting events increasingly relies on visual and interactive content; however, results indicate only a moderate integration of these elements on official websites. Although certain improvements were observed over the analysed decade, particularly after 2020, the overall picture reveals that multimedia potential has not been fully utilized across all events.

Photo and video galleries, the basic forms of multimedia, were present on approximately half of the analysed websites. Specifically, 74 events (53%) featured photo galleries (image albums,

official photos) on their official websites, while 79 events (56%) provided integrated video galleries or video sections. Although more than half of the events utilized images and videos, a significant proportion (44–47%) lacked such content. Some events possibly published multimedia exclusively through social media or partner channels instead of their official websites, representing a missed opportunity to enrich user experience directly.

Interestingly, no substantial differences emerged regarding the presence of photo/video galleries among different types of events. Both major and minor events were similarly inclined or disinclined to integrate galleries. For instance, while Olympic and Paralympic events consistently provided extensive galleries, some continental cups or smaller championships lacked even basic multimedia content. Statistically, differences by sport categories were insignificant ($p > 0.1$), indicating that the primary determining factor was the organizers' focus on marketing and audience engagement rather than event scale or type.

Table 6. Availability of live streaming on official websites by event period (N=140)

Period	Live steam available		Live stream not available	
	n	%	n	%
2016-2019	7	12.5	49	87.5
2020-2025	27	32.1	57	67.9
Total	34	24.3	106	75.7

Note: $Z = -2.66$; $p = 0.008$ for the difference in the share of events with live streaming between 2016–2019 and 2020–2025.

The most notable finding in this category pertains to live streaming, particularly in the context of the COVID-19 pandemic, as displayed in Table 6. Overall, 34 events (24%) offered some form of integrated live streaming on their websites, utilizing embedded YouTube or Facebook players or proprietary platforms. A significant increase occurred post-2020, driven by pandemic restrictions. Specifically, from 2016 to 2019, only 7 out of 56 events (12.5%) provided live streams, compared to 27 out of 84 events (32.1%) between 2020 and 2025. This difference of approximately 19.6 percentage points is statistically significant ($Z = -2.66$; $p = 0.008$; $\phi = 0.22$), highlighting the pandemic's role as a catalyst for embracing streaming solutions.

Mobile applications were less common. Only 40 events (29%) promoted or provided links for downloading an official mobile application, while a majority (71%) did not visibly offer such apps. This suggests that specialized mobile applications remain exceptional, mainly reserved for large-scale events with substantial resources (Olympics, FIFA and UEFA competitions, and certain world championships). Possible explanations include the adequacy of responsive website designs for mobile users, avoiding investment in costly, short-term applications. Mobile apps typically make sense if they offer enhanced functionalities (e.g., personalized schedules, push notifications, interactive maps), which many events fail to implement.

DISCUSSION

Addressing the four research questions. RQ1 (What informational, media-oriented, and multimedia features most commonly characterize official websites of major international sporting events?) confirmed that almost all event websites deliver the informational basics—news, schedules and results—yet barely one-third extend to press releases, press kits or rich multimedia, signalling an uneven service layer. RQ2 (Do website feature patterns differ between single- and multi-sport events, and between global and continental competitions?) showed that these feature patterns are remarkably stable across event scale: single-sport vs. multi-sport and global vs. continental sites differed only marginally (e.g., multisport pages more often highlight the host city, and team-ball sports post more press releases). RQ3 (What domain-hosting and URL-naming strategies most commonly characterize the official websites of major international sporting events?) revealed a clear branding play: 75% of organisers register an independent domain—usually a ".com" address combining host-city + year—while one quarter remain on federation sub-pages. Finally, RQ4 (Did the adoption of advanced digital features on event websites increase after the COVID-19 pandemic?) evidenced a pandemic jolt: live-stream availability jumped sharply post-2020, whereas other advanced features (mobile apps, interactive add-ons) remain patchy. Together, these findings map a landscape where basic reliability is high, but strategic depth still lags.

Anchored in the Strategic Sport Communication Model (SSCM) and the Model for Online Sport Communication (MOSC), the present audit reveals a dichotomy in the digital practices of major international sporting events organizers. At the baseline, official websites function reliably as "owned media" (SSCM component 2): more than 88% publish schedules, results and news, confirming their role as the primary, authoritative source for core information. A solid majority (71%) also provides a dedicated media page, signalling recognition of SSCM's service dimension.

Yet the MOSC perspective exposes clear weaknesses. Interactive elements, multimedia depth and media-support materials remain patchy. Barely one-third of events post press releases, one-fifth supply press kits and only half host photo/video galleries. This suggests that many organisers open a media channel but fail to populate it with the content, usability and performance features that MOSC treats as critical for engagement. Structural issues—limited staffing, conservative press routines or vague digital strategies—likely explain why media pages still serve as bulletin boards rather than two-way newsrooms (cf. Winand et al., 2019).

The pandemic-accelerated pivot to live streaming illustrates how external shocks can close some of these gaps. Live streams, once rare, now appear on one in three websites (up from 12% pre-2020). The shift advances MOSC's "performance" dimension, turning event sites into direct broadcasters that complement or bypass traditional TV. By

contrast, mobile apps remain uncommon (≈ 30%), indicating that many organisers prefer responsive web design over costly, short-lived apps unless an app adds clear on-site value.

Branding choices align with MOSC's commercial pillar. Seven in ten organisers register a stand-alone .com domain, projecting autonomy and global ambition, while a still-sizable minority rely on federation sub-pages—an arrangement that may limit event visibility but reduce cost. Destination-promotion pages (57% overall, 79% in multisport events) highlight an opportunity: weaving tourism messages into the event narrative can broaden stakeholder value, yet single-sport organisers often neglect this potential.

In sum, mega-event websites fulfil their informational mandate but under-exploit interactive, multimedia and media-relations tools. Enhancing those layers would better align practice with both SSCM's service component and MOSC's design-usability-commercial triad.

This study is limited to 140 world- and continental-level events and codes only the presence—not the quality—of website elements; findings therefore cannot be generalised to smaller competitions, nor do they capture user experience. Rapid innovations such as VR, chat-bots or AI-driven personalisation fell outside the observation window. Future work could widen the sample to national and local events, merge content audits with usability testing and analytics to link features to audience reach and media uptake, explore cross-platform integration between websites and social media, and conduct qualitative analyses of narrative and cultural framing. Such efforts would shift research from counting digital features toward evaluating their actual communicative impact.

CONCLUSION

This study mapped the digital communication landscape of major international sporting events over a decade (2016–2025), identifying clear patterns in website strategies, content provision and multimedia innovation. Websites consistently served core audience and media needs for news, schedules, and results, but frequently overlooked deeper media services and interactive multimedia opportunities. Differences in website offerings between event types proved subtle: multisport competitions showed greater destination promotion, while team-ball sports stood out in proactive media communication. Organisers predominantly favoured independent ".com" domains, typically embedding host-city names and event years, demonstrating digital branding awareness, though a significant minority still relied on federation-based subpages. Notably, the COVID-19 pandemic prompted a clear but selective digital shift, notably in the increased use of integrated live-streaming, while other advanced digital features such as dedicated mobile apps and interactive tools remained sporadic. These findings suggest that most organisers fulfil SSCM's foundational mediated-communication roles yet fall short of fully addressing its interactive service

potential. Similarly, organisers emphasise MOSC's content dimension, leaving usability, engagement, and commercial functionalities less developed. For enhanced reach and sustainable digital legacies, organisers should reposition event websites as comprehensive hubs integrating robust multimedia offerings, regularly updated media resources, and enriched destination narratives, all optimised for mobile users and cross-platform consistency.

REFERENCES

- Abeza, G., O'Reilly, N., & Seguin, B. (2017). Social media in relationship marketing: The perspective of professional sport managers in the MLB, NBA, NFL, and NHL. Communication & Sport, 5(5), 544–564. https://doi.org/10.1177/2167479515627537
- Achen, R. M., Kaczorowski, J., Horsmann, T., & Ketzler, A. (2018). Exploring off-season content and interaction on Facebook: A comparison of U.S. professional sport leagues. International Journal of Sport Communication, 11(3), 389–413. https://doi.org/10.1123/ijsc.2018-0013
- Alonso-Dos-Santos, M., Calabuig-Moreno, F., & Montoro-Ríos, F. J. (2016). Effectiveness of the sponsors and sporting events website. International Journal of Sport Management, Recreation & Tourism, 25, 22–44. https://doi.org/10.5199/ijsmart-1791-874X-25c
- Billings, A. C., & Hardin, M. (Eds.). (2014). Routledge handbook of sport and new media. Routledge.
- Elden, M., Yeygel, S., & Bakir, U. (2018). Website persuasiveness in sports marketing: A content analysis of websites of Turkish sports clubs. In Proceedings of the 2018 International Conference on Computers in Management and Business (ICCMB '18) (pp. 92–96). Association for Computing Machinery. https://doi.org/10.1145/3232174.3232186
- Estanyol, E., Fernández-Souto, A. B., & Vazquez-Gestal, M. (2023). Transformation and communication in sports events in the context of COVID-19. Managing Sport and Leisure, 30(3), 506–525. https://doi.org/10.1080/23750472.2023.2200417
- Fan, M., Billings, A., Zhu, X., & Yu, P. (2020). Twitter-based BIRGing: Big data analysis of English national team fans during the 2018 FIFA World Cup. Communication & Sport, 8(3), 317–345. https://doi.org/10.1177/2167479519834348
- Filo, K., Funk, D. C., & Hornby, G. (2009). The role of website content on motive and attitude change for sport events. Journal of Sport Management, 23(1), 21–40. https://doi.org/10.1123/jsm.23.1.21
- Filo, K., Lock, D., & Karg, A. (2015). Sport and social media research: A review. Sport Management Review, 18(2), 166–181. https://doi.org/10.1016/j.smr.2014.11.001

- Girginov, V., Taks, M., Boucher, B., Martin, S., Holman, M., & Dixon, J. (2009). Canadian national sport organizations' use of the web for relationship marketing in promoting sport participation. International Journal of Sport Communication, 2(2), 164–184. https://doi.org/10.1123/ijsc.2.2.164
- Hambrick, M. E. (2012). Six degrees of information: Using social network analysis to explore the spread of information within sport social networks. International Journal of Sport Communication, 5(1), 16–34. https://doi.org/10.1123/ijsc.5.1.16
- Hutchins, B., Rowe, D., & Ruddock, A. (2009). "It's fantasy football made real": Networked media sport, the internet, and the hybrid reality of MyFootballClub. Sociology of Sport Journal, 26(1), 89–106. https://doi.org/10.1123/ssj.26.1.89
- Kim, D., Walker, M., Heo, J., & Koo, G. (2017). Sport league website: An effective marketing communication tool for corporate sponsors. International Journal of Sports Marketing and Sponsorship, 18(3), 314–327. https://doi.org/10.1108/IJSMS-08-2017-097
- Maderer, D., Parganas, P., & Anagnostopoulos, C. (2018). Brand-image communication through social media: The case of European professional football clubs. International Journal of Sport Communication, 11(3), 319–338. https://doi.org/10.1123/ijsc.2018-0086
- Nicholson, M. (2007). Sport and the media: Managing the nexus. Elsevier.
- Parent, M., & Chappelet, J. (Eds.). (2017). Routledge handbook of sports event management. Routledge.
- Park, J., & Dittmore, S. W. (2014). Motivation for following college sports teams' social media accounts. Journal of the Korea Academia-Industrial Cooperation Society, 15(11), 6547–6555. https://doi.org/10.5762/KAIS.2014.15.11.6547
- Pedersen, P. M., Laucella, P. C., Kian, E. M., & Geurin, A. N. (2021). Strategic sport communication (3rd ed.). Human Kinetics.
- Siguencia, L. O., Herman, D., Marzano, G., & Rodak, P. (2017). The role of social media in sports communication management: An analysis of Polish top league teams' strategy. Procedia Computer Science, 104, 73–80. https://doi.org/10.1016/j.procs.2017.01.074
- Stoldt, G. C., Dittmore, S. W., Ross, M., & Branvold, S. E. (2021). Sport public relations (3rd ed.). Human Kinetics.
- Su, Y., Baker, B. J., Doyle, J. P., & Kunkel, T. (2020). The rise of an athlete brand: Factors influencing the social media following of athletes. Sport Marketing Quarterly, 29(1), 33–36. https://doi.org/10.32731/SMQ.291.3020.03
- Wallace, L., Wilson, J., & Miloch, K. (2011). Sporting Facebook: A content analysis of NCAA organizational sport pages and Big 12 Conference athletic department pages. International Journal of Sport Communication, 4(4), 422–444. https://doi.org/10.1123/ijsc.4.4.422

- Wang, Y. (2021). Building relationships with fans: How sports organizations used Twitter as a communication tool. Sport in Society, 24(7), 1055–1069. https://doi.org/10.1080/17430437.2020.1725475
- Wenner, L. A., & Billings, A. C. (Eds.). (2017). Sport, media and mega-events. Routledge.
- Winand, M., Belot, M., Merten, S., & Kolyperas, D. (2019). International sport federations' social media communication: A content analysis of FIFA's Twitter account. International Journal of Sport Communication, 12(2), 209–233. https://doi.org/10.1123/ijsc.2018-0173
- Yan, L. (2019). Destination images projected in the sport event website: A case of Ironman 70.3 Qujing. Journal of Convention & Event Tourism, 20(3), 183–201. https://doi.org/10.1080/15470148.2019.1604280

OPTIMIZACIJA DIGITALNE PRISUTNOSTI: ANALIZA SADRŽAJA SLUŽBENIH MREŽNIH STRANICA VELIKIH SPORTSKIH DOGAĐAJA TIJEKOM DESETOGODIŠNJEG RAZDOBLJA

U središtu zanimanja ovoga istraživanja nalaze se informacijske, medijski usmjerene i multimedijske značajke te prakse koje najčešće obilježavaju sadržajni aspekt službenih web-stranica velikih međunarodnih sportskih događaja. U istraživanju je provedena kvantitativna analiza sadržaja 140 službenih web-stranica, koja je omogućila detekciju trendova tijekom desetogodišnjeg razdoblja. Uzorak događaja obuhvaća 34 sporta raspoređena u devet makrokategorija. Prikupljanje podataka provedeno je kvantitativnom analizom sadržaja uz uporabu posebno strukturirane matrice koja je obuhvatila 23 binarne varijable grupirane u pet tematskih kategorija. Rezultati upućuju na to da službene web-stranice pouzdano ispunjavaju osnovne informacijske funkcije – poput vijesti o događaju, rasporeda i rezultata – no često izostaju naprednije komunikacijske usluge usmjerene na unaprjeđenje medijskog pokrivanja i angažmana publike. Otprilike trećina objavljuje priopćenja za medije, nešto više od polovice uključuje promotivne sadržaje o destinaciji domaćinu, petina nudi medijske pakete (press kitove), a oko četvrtine omogućuje prijenos uživo, uz zamjetno povećanje nakon pandemije COVID-19. Događaji u ekipnim sportovima pokazali su statistički značajno veće stope objave priopćenja za medije u odnosu na individualne sportove, no razlike u prisutnosti zasebnih medijskih sekcija s obzirom na tip događaja ili geografsku razinu nisu bile statistički značajne. Većina web-stranica događaja koristi samostalne „.com“ domene, dok je otprilike četvrtina smještena unutar web-arhitekture krovnog sportskog saveza. Najčešća struktura imenovanja URL-a kombinirala je grad domaćin i godinu održavanja u samostalnoj domeni. Organizatori velikih sportskih događaja mogu iskoristiti ove uvide za repozicioniranje svojih web-stranica kao sveobuhvatnih središta koja integriraju multimediju, obogaćene narative i redovito ažurirane medijske resurse, uz optimizaciju za mobilne korisnike i dosljednost na više platformi.

Ključne riječi: digitalna komunikacija; veliki sportski događaji; web-stranice; odnosi s medijima; analiza sadržaja.