

Governance and integrity challenges in esports: A scoping review

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ABSTRACT

The rapid growth and commercial success of esports highlight the urgent need for clear regulations and governing bodies. To inform such processes, this scoping review maps existing knowledge on governance and integrity challenges in esports, distinguishing them from traditional sports governance frameworks. Existing literature is synthesized and organised to identify research gaps, to propose future research avenues and to thus provide guidance for policymaking and regulation. Specifically, it seeks to answer: What are the key governance and integrity challenges in esports, and how can policy and regulatory frameworks address them to ensure sustainable development?

The analysis revealed a constant increase of publications over the past decade, demonstrating the relevance of the topics. Based on both deductive and inductive coding, 19 dimensions of challenges were identified, including 8 related to governance and 11 to integrity. Key governance challenges include structures, regulations, democratic processes, legitimacy, and intellectual property. Prominent integrity challenges involve health issues, illegal sports betting, gender and sexuality, doping, and safeguarding.

The study reveals that traditional sports governance concepts are insufficient for addressing esports-specific issues, necessitating the development of dedicated frameworks. There is a need for future research to investigate player perspectives, assess the prevalence of challenges, and promote harmonized regulations. This review underscores the importance of a holistic perspective on governance and integrity to improve legitimacy and regulatory authority, ensuring the sustainable growth of the esports industry.

1. Introduction

While the videogame industry has existed for >50 years, the esports industry is a recent phenomenon. The 2000s marked a shift to the professionalisation of organised video gaming competitions named “esports” and the further development of high-speed internet boosted esports competitions and the consumption of esports-related content worldwide (Borowy & Jin, 2013; Scholz, 2011). Such growth was potentialized by the 2020 COVID-19 pandemic accelerating the digitalisation of cultural and sports activities (Bousquet & Ertz, 2021; Jin, 2020). So much so that, after making its first appearance as a

demonstration event at the 2018 Asian Games (Z. K. Goh, 2023), the International Olympic Committee (IOC) created its own “Esports Series”. The first edition of the “Olympic Esports Week” was promoted in 2023, and the inaugural Olympic Esports Games will happen in 2027 (IOC, 2023, 2025).

The rapid growth of esports does not come without its trade-offs. The professionalisation of athletes, public and commercial interest in tournaments and greater financial rewards generate a need for clear regulations and regulatory bodies responsible for overseeing and guiding the evolution of esports (Peng et al., 2020). The dynamics of such an expansion have captured the attention of academic discussion

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surrounding the industry. Among the topics of interest is exactly the fact that, with the growing commercial success of esports, the sports industry is becoming more interested in it (Abanazir, 2022; Aghey, 2020; Pack & Hedlund, 2020). While it is impossible to deny the commercial success of esports, as Deloitte projected that the videogaming and esports industry would generate more than \$150 billion in 2024 (Ludwig et al., 2022), there is a latent need to advance research on its structures and how it might evolve in the future with the interest from the sports industry, for example.

Some authors have provided reviews on esports that explore different areas: historical reviews both on esports in general and the Korean historiography (Bousquet & Ertz, 2021; Jin, 2020), strategic management (Flegler & Schmidt, 2022; Karhulahti, 2017; Kim et al., 2020), conceptualisation of what “esports” means in academic literature (De Zoeten & Könecke, 2024; Formosa et al., 2022; Reitman et al., 2020; Tang et al., 2023), health-related issues (Kelly & Leung, 2021; Ramella-Zampa et al., 2022; Riatti & Thiel, 2022, 2023), doping (Smith et al., 2020) and gambling and match-fixing related (Mangat et al., 2023; Mattinen et al., 2023; Zohn & Bleakley, 2023). It is worth noting a systematic literature review of esports integrity (Riedl & Verschuuren, 2025) that adopts a different concept for integrity as the one here operationalised which led to a slight different result compilation. Plus, these reviews offer analyses on various individual integrity and governance subjects, none of them address integrity and governance challenges faced by the esports system from a holistic perspective (Richardson et al., 2024). To contribute to filling this research gap, this scoping review has the following objectives:

- a) To map existing knowledge on governance and integrity challenges in esports,
- b) To inform a better understanding of governance and integrity challenges in esports, in distinction to sports-based notions,
- c) To identify gaps in literature and recommend opportunities for future research, and
- d) To guide policymaking and regulation.

2. Conceptual underpinnings: esports, governance, integrity, and challenges

This scoping review addresses challenges in esports governance and integrity. In the following, our understanding of these key concepts will be laid out to provide the conceptual basis for our research and ensure transparency.

Esports: The different ways that esports are defined throughout literature is the subject of a scoping review by Tang et al. (2023). This work reveals that the most-cited esports definition is given by Hamari and Sjöblom (2017): “A form of sports where the primary aspects of the sport are facilitated by electronic systems; the input of players and teams as well as the output of the esports system are mediated by human-computer interfaces” (Tang et al., 2023, p. 6). Alternatively, Wagner (2006) gives the second most-cited definition as follows: “Esports is an area of sport activities in which people develop and train mental or physical abilities in the use of information and communication technologies” (Tang et al., 2023, p. 6). These two definitions are mainly concerned with the medium – computer and technologies. Our interest, on the other hand, relates to the competitive aspect of esports, as a more generally regulated form that is most impacted by governance and integrity challenges. Therefore, for the interests of this work, we adopt a definition of “esports” that is closer to the one suggested by Jenny (2017): esports is understood as organised contests of virtual games, or, simply, videogaming competitions.

There is a challenge to operationalise the understanding of both “governance” and “integrity” in an esports context because of a notable gap in the literature. So, it is adopted general concepts and dimensions that are applied to sports governance and sports integrity. Justified by the sportification – as in the inclusion of elements of sports – of esports

(Heere, 2018), the growing interest of sports governing bodies in promoting esports initiatives, and the similarity of structures with sports (De Zoeten & Könecke, 2024).

Governance: In sports, International Federations (IFs) and the IOC are responsible for governing global sport. They establish and control “global rules, award championships to cities and countries, negotiate with sponsors and broadcasters and fight the excesses of sport” (Chappelet et al., 2019, p. 197). The role of “global governance institutions”, as put by Buchanan and Keohane (2008, p. 406), is to “issue rules and publicly attach significant consequences to compliance or failure to comply with them and claim the authority to do so”. Governance is also connected to power in sports and how sports organizations and systems are guided and controlled (Dowling et al., 2018). Based on notions presented here and by authors who produced reviews on governance in sports (Dowling et al., 2018; Parent & Hoye, 2018; Thompson et al., 2023), this scoping review adopts the concept of “governance” as: the system of organisations, rules and procedures that regulate (esports) organisational behaviours and set standards, structures, and clear processes.

However, sports have also shown how the system can fail. National and international sports governing bodies (SGBs) have been at the centre of corruption and governance failure in recent years (Geeraert, 2019). With that, SGBs within and beyond the Olympic Movement realised a need for principles and guidelines to guide “good governance”. Adopted by the IOC in 2009, the seven Principles of Good Governance establish that sports organisations must be clear about their role in society and are believed to be fundamental for preserving the autonomy of sports (Girginov 2019):

- (1) Mission, vision, and strategy;
- (2) Structures, regulations, and democratic processes;
- (3) Strict levels of competence, integrity, and ethical standards;
- (4) Accountability, transparency, and control;
- (5) Solidarity and development;
- (6) Athlete participation, involvement, and care;
- (7) Harmonious relations with governments. (p. 91)

For more clear and measurable governance standards for international sports federations, Geeraert (2015) proposed the Sports Governance Observer. Going beyond the seven principles proposed by the IOC, the benchmarking instrument is built on 57 principles of what constitutes good practices of governance. Those are summarised in four dimensions to measure governance practice based on their respective indicators. Because of its measurable potential, those core dimensions will guide the conceptual data extraction and, if needed, further mapping of additional governance aspects of this scoping review:

- (1) Transparency¹
- (2) Democratic process²
- (3) Internal accountability and control³
- (4) Societal responsibility⁴

¹ Regarding availability of general principles, internal regulations, rules of the game, strategic decisions, board constitution, and management decisions (Geeraert, 2015).

² Regarding elections, process of electing office holders, decisions to allocate major events, term limits, meetings of the governing body, gender equity of officials, and athlete representation (Geeraert, 2015).

³ Regarding internal processes of checks and balances according to international standards, existence of control and risk management systems, Integrity Codes, and independent bodies to enforce rules (Geeraert, 2015).

⁴ Regarding the responsibility to further develop their activities, acknowledging that they are a public good, with legacy and environmental requirements, and anti-discrimination policies (Geeraert, 2015).

Integrity: Legitimacy crises in sports can expose integrity deficiencies within the sports system (Chappelet & Mrkonjic, 2019). With that comes the need to define what exactly is understood by “sports integrity”. In general, the term “integrity” is related to a concept of moral virtue, where coherence, commitment to one’s identity and having the best judgement despite social pressures are considered (Archer, 2016). It is acknowledged that the term demands a plurality in application, as it may present different meanings in different contexts (Abanazir, 2024; Cleret et al., 2015).

To achieve a conceptual clarity of integrity in sport, Gardiner et al. (2017) examine philosophical and psychological views of integrity. Those are then translated into four views of integrity: integrity of sport, personal integrity in sport, organisational integrity in sport, and procedural integrity in the sports event.

The first account is related to fostering and promoting virtues inherent to sports – such as justice, respect, excellence, and competition – and standards of excellence of sport in the context of competition. The second one safeguards the reputation of the person participating in sport by allowing them to represent their identity while achieving the goals of sport without deception. Organisational integrity can be understood as the collective promotion of personal integrity and, also, the sustainability of a sports organisation by promoting virtues inherent to sports while balancing the concern with goods external to sports, like money and power, that can corrupt their primary social function. Lastly, procedural integrity is a reference to the trustworthiness of sports contests. It entails the personal integrity of those involved in competition and their commitment to fulfilling the goal of the sport while respecting the integrity of their opponents.

Drawing from definitions of those four dimensions provided by Gardiner et al. (2017) and from the general concept of integrity aforementioned by Archer (2016), it is possible to reach a core concept of “sports integrity” that results in a notion of value-based moral integrity that makes a more effective connection to governance. The core concept is as follows and is the one adopted in this scoping review: fostering and promoting virtues inherent to sports (like justice, respect, excellence, and competition), safeguarding the persons participating in sports and maintaining the trustworthiness of organisations and competitions while balancing the potentially corrupting concern with goods external to sports (like money and power).

To better analyse challenges in integrity in sports, this scoping review will adopt the following 17 items mentioned by Cleret et al. (2015):

- (1) Discrimination
- (2) Illegal sports gambling, betting, and match-fixing
- (3) Abuse of children and young persons
- (4) Sexual harassment
- (5) Assault and violence
- (6) Coaching malpractices
- (7) Transfer abuses
- (8) Sport management malpractices
- (9) Procurement transparency and accountability issues
- (10) Inappropriate sponsorship and funding
- (11) Corruption
- (12) Doping and recreational drug use
- (13) Violence on and off competition
- (14) Racism
- (15) Vilification and heterosexism
- (16) Gender and sexuality
- (17) Institutional fraud

Challenges: The last term to operationalise is challenges. According to the Cambridge Dictionary, among other definitions, a challenge can be understood as “to question if something is true or legal” (Cambridge, n.d., Definition 8) and, also, “something that competes with you or is a threat” (Cambridge, n.d., Definition 14). Drawing from that, our understanding of challenges are matters that question, compete and/or are

a threat to the governance and integrity of esports.

These terms guided the entire research process of this scoping review. The next section is focused on giving more details about the method and how this scoping review was conducted.

3. Method

Scoping studies are recommended to map key concepts of an area that has not been thoroughly explored (Arksey & O’Malley, 2005). Incorporating different studies, this method summarises and synthesises evidence to inform practice and policies by informing the direction for further research (Colquhoun et al., 2014). As a type of systematic review, it is characterised by its methodological rigour that should allow its replicability. Responding to that, this present scoping review is guided by the five-stage methodological framework proposed by Arksey and O’Malley (2005, p. 22):

1. Identification of the research question
2. Identification of relevant studies
3. Study selection
4. Data charting
5. Collating, summarising and reporting the results

Additionally, the research has been conducted with support from the 2024 JBI Guidance for Scoping Reviews (Peters et al., 2024) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) guidelines (Tricco et al., 2018). As scoping reviews are more common for the health sciences field, the different sources were complementary to understand the method and adapt the protocol for the present perspective. The draft protocol was shared and revised by all authors. The final protocol is available upon request from the corresponding author.

3.1. Identification of the research question

Based on the objectives, the following research question guided this study: What are the challenges that esports face in governance and integrity?

This main question was then broken down into three sub-questions: (1) What is the extent of the identifiable challenges? (2) What are the similarities and differences among those challenges? (3) What are the research gaps in the governance and integrity research in esports?

3.2. Identification of relevant studies

The study began with a general database search for academic articles in the English language from 2000 until May of 2024 on ProQuest, EBSCOHost and Web of Science. Targeting titles, abstracts and keywords, this search was operationalised by: ((esports OR “e-Sport” OR “eSports” OR eSport) AND (governance OR integrity)).

The results of this preliminary search were compiled on the reference manager Zotero. Keywords were then extracted and copied to an Excel spreadsheet which allowed for further examination and selection of relevant terms related to esports, governance, and integrity for a more refined search query. The results were reviewed by all authors and following a consultation process, the following terms addressing esports-specific challenges were included: “digital doping”, “skins gambling”, “gamblification”, “stimulants”, “antidoping”, “anti-doping”, “anti-doping”, “e-doping”, “edoping”, “edoping” and “e doping”. The final search terms applied for this research were:

“e-sport” OR “e-Sports” OR eSport OR esports OR “e Sport” OR “e Sports” OR “eFootball” OR “eGames” OR “iRacing” OR “eBasketball” OR “eArchery” OR “eBaseball” OR “eCycling” OR “eChess” OR “eDance” OR “eSailing” OR “eTennis” OR “eTaekwondo” OR “electronic sport” OR “video game” OR videogames OR “computer games”

OR “competitive gaming”) AND ((governance OR accountability OR advocacy OR association OR business OR culture OR “governing bodies” OR federations OR “gaming industry” OR institutionalization OR institutionalisation OR legislation OR legitimacy OR legitimization OR legitimisation OR policy OR regulation OR stakeholder OR “good governance” OR management) OR (“integrity issues” OR “governance issues” OR integrity OR safeguarding OR addiction OR amphetamines OR cheating OR doping OR artificial intelligence OR “athlete welfare” OR “competitive advantage” OR corruption OR culture OR cyberbullying OR cybercrime OR cybersecurity OR “deep learning” OR “digital ethics” OR drug OR “energy drinks” OR gambling OR “loot box” OR “machine learning” OR manipulation OR “match fixing” OR “match-fixing” OR “matchfixing” OR harassment OR “social responsibility” OR sustainability OR “mechanical doping” OR abuse OR “anti-cheat software” OR “digital doping” OR “skins gambling” OR “gambification” OR “stimulants” OR “anti-doping” OR “anti-doping” OR “anti doping” OR “edoping” OR “e-doping” OR “e doping” OR “fraud” OR “gaming forensics” OR “forensic**”)) NOT (“electronic gaming” OR “electronic gaming machines” OR “gaming machines”)

3.2.1. Phase 1

The search was conducted according to the options for refinement offered by each database. On ProQuest, the search was refined to focus on full-text scholarly journals and reports that contained the search terms on either titles or abstracts with 593 records. On Web of Science, the search was refined for articles, with 2.597 records. The search on PubMed obtained 775 records by refining for full-text results with the terms on title, abstract or keywords. On Scopus, the search was conducted for articles that contained the search terms in the title or abstract, yielding 4.139 records. The search conducted on SportDiscus had 329 records, and, finally, EBSCOHost returned 3.643 records by refining for academic journals. This initial search was conducted on 22 May 2024 and yielded 12.076 records.

3.2.2. Phase 2

The second phase consisted of searching for remaining articles in the Taylor & Francis directory, which amounted to 51 records, and for the 306 first records provided by Google Scholar.

3.2.3. Phase 3

The third phase was dedicated to retrieving grey literature. Considering that the study is concerned with integrity and governance challenges, the pertinent documents retrieved were industry reports and rules and codes of conduct. In total, this phase resulted in 11 items added.

All three search phases resulted in 12.444 identified records. The records were inserted in the bibliographic manager software Zotero (Version 6.0.36) for the detection of duplicates, resulting in the exclusion of a total of 6.192 duplicates. The remaining 6.236 records were deemed appropriate for screening.

3.3. Inclusion and exclusion criteria

As detailed in Section 2, this scoping review started by anchoring relevant concepts of “esports”, “governance”, “integrity”, and “challenges”. As part of our objectives for this scoping review, it is assumed that there may be instances where esports-specific challenges will be detected. Accordingly, this scoping review adopts a hybrid approach to coding as a blend of both deductive (theory-driven) and inductive (data-driven) category formation. As the underlying conceptualisations of “governance” and “integrity” are non-exhaustive references, an inductive orientation to the data ensures to remain open to new dimensions emerging from data tailored specifically to esports.

With those items guiding the identification of different types of

governance and integrity challenges, the team decided the search would span from the year 2000. After the first recorded use in 1999 (Sjöblom et al., 2020), the term “esports” became more established in South Korea in 2000 (Bousquet & Ertz, 2021; Jin, 2020). As one of the research questions aims to look for research gaps, the search was also refined to primary sources, official reports, statements or documents. The final inclusion and exclusion criteria applied are summarised in Table 1.

3.4. Selection of studies

The final number of records ($n = 6.236$) were imported into the software Rayyan. As suggested by Mak and Thomas (2022), Rayyan is a well-suited tool for an efficient screening and selection process. The software allows blinding the results of the reviews of each screener/reviewer (Mak & Thomas, 2022).

3.4.1. Title and abstract review

On Rayyan, the inclusion and exclusion criteria were pilot-tested on the first 100 records for title and abstract blind screening. For efficiency, two authors (ALSC and SJR) were responsible for independent screening while two other authors (MS and NH) supervised the process. After the first round of screening, based on the initial conflicts (a total of 20), the four authors involved met and clarified the concepts. The second round of pilot testing with another 100 abstracts generated only 4 conflicts. This led the team to carry on the independent screening until 20 % of abstracts were screened ($n = 1.250$). The data led to a Cohen’s Kappa of almost perfect agreement ($\kappa = 0.8724$) (Landis & Koch, 1977) which greenlit the finalisation the blind screening for titles and abstracts. After this process, 5.738 records were considered irrelevant.

After this step, 498 records were indicated for retrieval, and it was not possible to retrieve 7 of them. The not retrieved articles were sought from university libraries, databases, repositories, and by contacting the authors directly by email, where we did not get an answer.

3.4.2. Full-text review

The full texts of 491 records were screened by two of the authors (ALSC and SJR). This stage culminated in 302 records excluded for the following reasons:

- (1) No discernible challenge ($n = 111$)
- (2) Publication type ($n = 102$)
- (3) Not an esports challenge ($n = 41$)
- (4) Concept of esports ($n = 37$)
- (5) Not in English ($n = 7$)
- (6) Duplicates ($n = 4$)

In the end, 189 studies and 11 items from grey literature (including codes and a report) were included in the final review, for a total of 200 records. Fig. 1 illustrates the study selection process based on the PRISMA flow diagram (Page et al., 2021).

Table 1
Inclusion and Exclusion Criteria.

Inclusion	Exclusion
Materials with a type of identifiable governance and/or integrity challenge.	The keywords in the search strategy appear on the title and/or abstract but there is no type of identifiable challenge in the full text.
Published primary peer-reviewed sources or official reports, statements, or documents.	Not available in full text.
Publications in English.	Not dealing with esports (competitive gaming)
From the year 2000 onwards.	Secondary sources (news, literature reviews, systematic reviews or scoping reviews...)

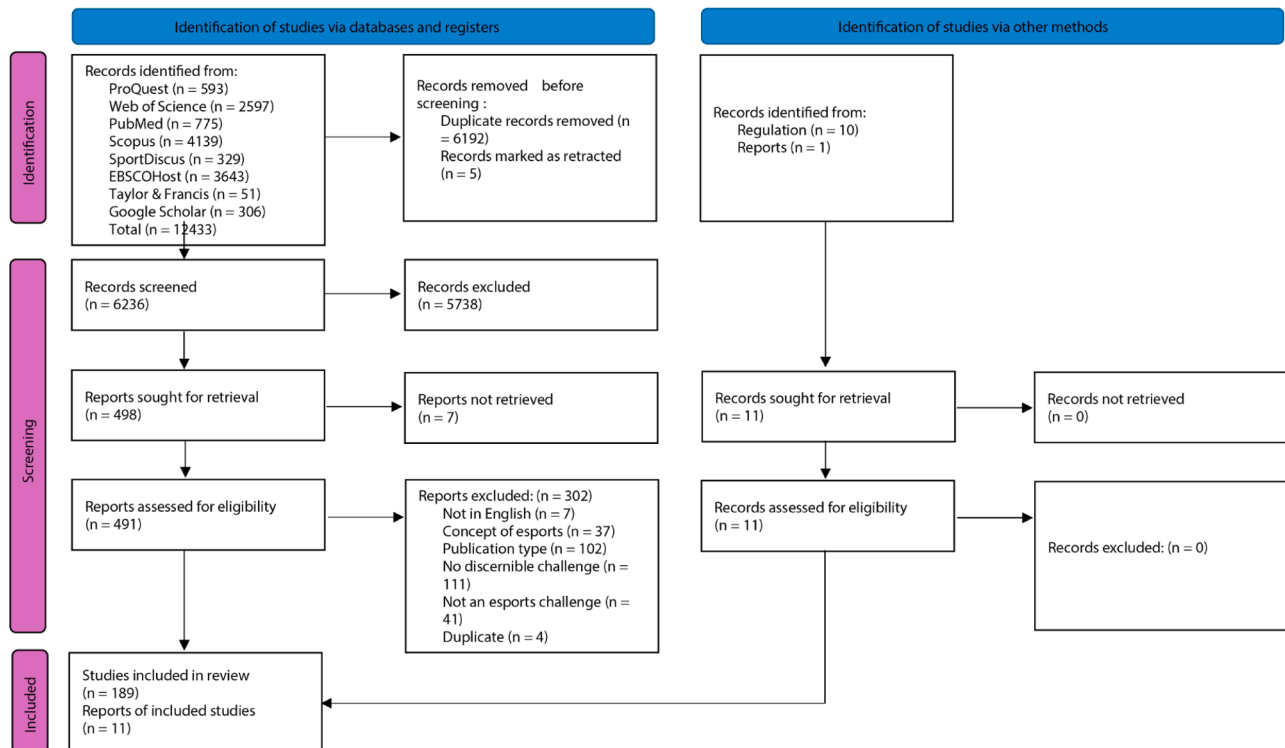


Fig. 1. PRISMA 2020 flow diagram.

3.5. Data extraction

This stage was dedicated to “sifting, charting and sorting material according to key issues and themes” (Arksey & O’Malley, 2005, p. 26). The data extraction process, as pointed out by Levac et al. (2010), is iterative and allows for continuous updates depending on the research questions. With the support of Rayyan, as it allows for interactive commenting and tagging of texts uploaded into the tool, both authors (ALSC and SJR) responsible for screening the records tagged all the included texts with the corresponding area of interest (governance or integrity) and the challenges raised.

Subsequently, the lead author (ALSC) exported the data to an Excel spreadsheet that included: the title of the record, year, source/journal, challenge category (governance or integrity), type of challenge, associated type of challenge category (which did not apply for all), key findings, location authors, and keywords. The Excel file was then shared with the author (SJR) who also conducted the screenings for validation.

3.6. Collating, summarising, and reporting results

This phase of the research entails providing a “basic numerical analysis of the extent, nature and distribution of the studies included in the review” (Arksey & O’Malley, 2005, p. 27). For such, a frequency analysis helps in describing how challenges in governance and integrity in esports have been studied so far.

This data is presented in a descriptive numerical summary followed by a qualitative content analysis of the identified challenges. The qualitative content analysis was made through a hybrid iterative open-coding process. Those methods are suggested by Arksey and O’Malley (2005) and Levac et al. (2010) as best practices for mapping the gaps in the literature.

4. Results

4.1. Frequency analysis

Out of 200 records, most studies were published from 2020 until May 2024, with a total of 158 records (79 %) coming from this almost 4-year period (Fig. 2). It evidences novelty and growing interest from academia in esports and the urgency of the discussion about integrity and governance topics with a constant increase of publications since 2015. 2023 saw the peak of publications with 22,5 % ($n = 45$) of included records. Yet, it is fair to say that the count for articles from 2024 is partial and only reflects records obtained until May. In terms of geography, results are diverse. They amount to a total of 32 different countries reflecting the institutional affiliation of the main authors (Fig. 3). The most notable ones are the United States ($n = 66$), the UK ($n = 26$), Australia ($n = 17$) and Germany ($n = 11$).

Regarding the methodology employed (Fig. 4), a great majority (50 %) of them were desk-research ($n = 100$). Quantitative methods correspond to 24 % ($n = 49$), followed by qualitative methods with a 14 % ($n = 29$) representation, and a smaller portion of 6 % were of mixed methods ($n = 11$). Grey literature includes codes ($n = 10$) and one report.

4.2. Content analysis

4.2.1. Governance

In total, in 77 records (38,5 %) the content was mainly dedicated to governance challenges. Based on our hybrid approach, 8 dimensions were extracted (Fig. 5). 6 dimensions were confirmed from the available literature on benchmarking governance in sports:

- 1) Structures, regulations, and democratic processes
- 2) Internal accountability and control
- 3) Relations with governments
- 4) Athlete participation, involvement, and care
- 5) Strict levels of competence, integrity, and ethical standards

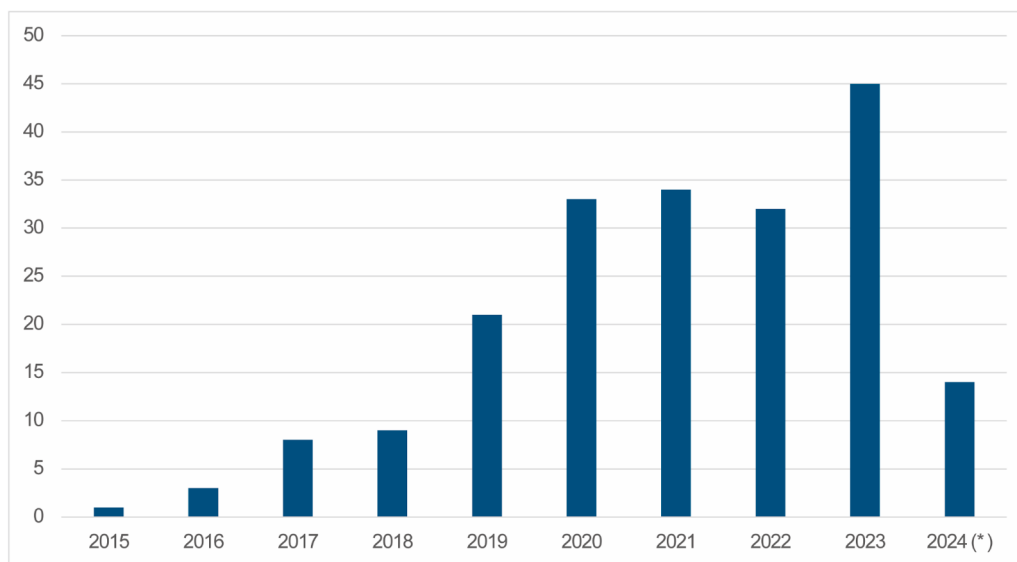


Fig. 2. Frequency analysis of the year of publication (* = Records until May/2024).

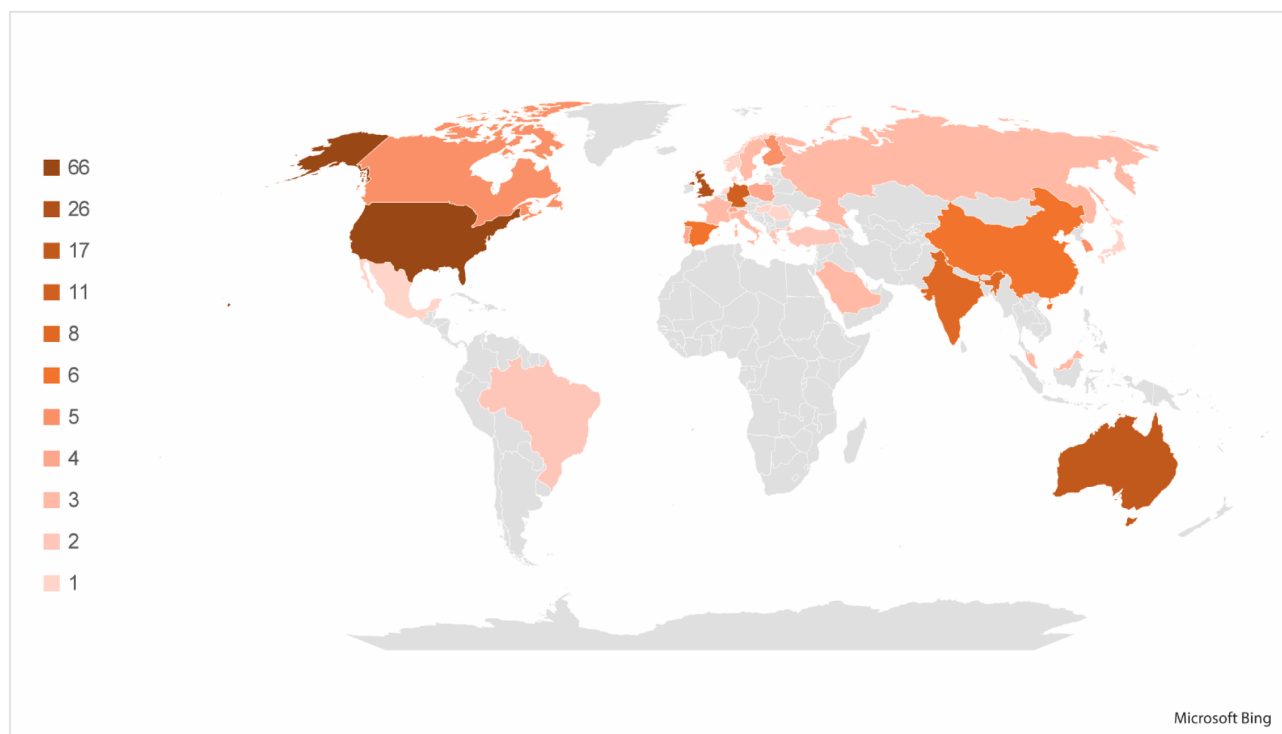


Fig. 3. Distribution of records per country of first author's university.

6) Societal responsibility

At the same time, it became evident that those dimensions would not suffice for esports-specific challenges. For those, it was necessary to go beyond the deductive strategy and develop unique dimensions. Based on common themes found in the literature, this scoping review provides two new dimensions for a perspective on esports governance:

- 1) “intellectual property” – which answers to a commercial aspect of the esports industry where it also deals with audiovisual products protected by copyright laws; and
- 2) “legitimacy”, defined through the idea of legitimacy for global governing institutions by [Buchanan and Keohane \(2008\)](#).

Structures, regulations and democratic processes: The most prevalent challenge in governance with $n = 31$ records are those related to structures, regulations and democratic processes. This includes organisational structures, with clear regulations for their members who facilitate good governance practices and the existence of governing bodies responsible for overseeing such practices where members and representatives are aware of responsibilities and democratic processes ([IOC, 2008](#)). On esports, some authors explore the dynamics of stakeholders and the structural organisation ([De Moor et al., 2023](#); [Freitas, 2023](#); [Gdonteli, 2020](#); [Ibrahim & Lewis, 2020](#); [Johri, 2020](#); [Kamaruddin et al., 2023](#); [Kennedy, 2019](#); [Kneller et al., 2024](#); [Kovács & Szabó, 2022](#); [Martinelli, 2018](#); [Peng et al., 2020](#); ; [Pizzo et al., 2022b](#); [Shinohara, 2023a](#); [Werder, 2022](#); [Vera et al., 2019](#); [Windholz, 2020](#); [Witkowski,](#)

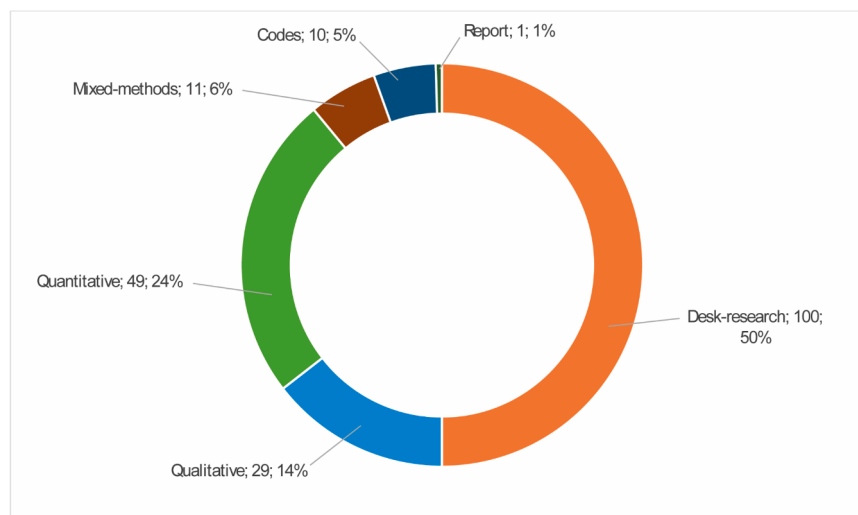


Fig. 4. Methods applied in records.

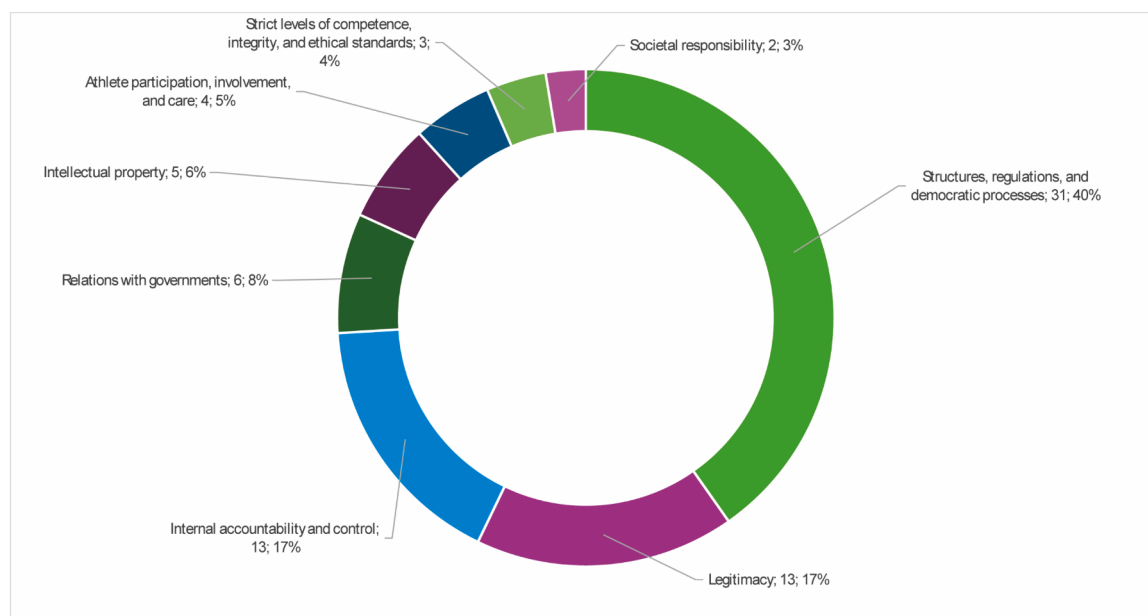


Fig. 5. Identified dimensions of governance challenges with the number of records and corresponding percentage.

2023); others focus on regulation and how to implement industry-wide rules (Camilleri & Huk, 2023; Ghoshal, 2019; Hollist, 2015; Lazcano & Avedillo, 2021; Ma et al., 2022; Martinelli, 2018; Toomey, 2019; Tseng, 2019; Windholz, 2020). According to Thomas (2020), Arin (2020) and Kennedy (2019), adopting wide governance practices is a challenge for esports due to the commercial interests of different stakeholders. This dimension includes current existent codes of conduct for esports (ESIC, 2024; Esports Competition Group, 2018; International Esports Federation Statutes, 2023; USEF Code of Conduct 2023).

Legitimacy: This dimension corresponds to the governance category given the pertinence of discussions in literature with $n = 13$ records. The notion of “legitimacy” is linked to the perception that an institution has the right to rule and whether rules and actions to secure compliance are widely followed by those who should be governed by such institutions (Buchanan & Keohane, 2008). The records here are focused on similar debates. The most common challenge identified was the legitimacy of the concept of esports. Authors debate if esports could ever be considered a sport with contributions by Parry (2019), Parry and Giesbrecht (2023), Jenny et al. (2017), Tjønndal (2021), de Zoeten and Könecke

(2024) and Pack and Hedlund (2020). Another side of the debate concerns the esports stakeholders’ perception of the legitimacy of existing governing institutions (Cestino et al., 2023; Cumming et al., 2022; Heidenreich et al., 2022, 2024; Lopez et al., 2021; Pizzo et al., 2022) and legislators.

Internal accountability and control: It includes internal standards and processes for accountability, communication, control systems, education and clear procedures and standards regarding financial matters (IOC, 2008). Among the $n = 13$ records identified in this category, stands out those that address how esports should build such frameworks (Abanazir, 2022; Chao, 2017; Chee & Karhulahti, 2020; Holden et al., 2017; Kelly et al., 2022; Kunz et al., 2022; Lefebvre et al., 2023) and how they would impact other areas, including athlete care (Funk et al., 2018; Ingram, 2019; Rosell Llorens, 2017) and relations with governments (Abanazir, 2019; Holden et al., 2020). Additionally, the importance of good communication to establish frameworks and procedures internally and externally (S. Kim & Manoli, 2022).

Relations with governments: This dimension with $n = 6$ records is defined by the cooperation, coordination, and consultation with

governments to develop activities. In sports, governments are a fundamental piece to achieving the goals of sports organisations (IOC, 2008). For example, China, one of esports' main markets, has dedicated legislation to esports (Li et al., 2024; Szablewicz, 2016; Wong & Meng-Lewis, 2023; Zhao et al., 2023). The importance of regulation on the sustainability of esports is also highlighted (Murray et al., 2022; Ridenhour, 2020).

Intellectual property: With $n = 5$ records, intellectual property is a challenge particular to esports. Games are owned by private companies responsible for idealising and developing them. Those companies become important stakeholders in the governance structure, as the industry depends on them. This creates different types of challenges for esports. First, the tension between intellectual property and national and international legislation (Noor & Abd Aziz, 2020; Shinohara, 2023b; Sztobryn, 2021). Second, commercial issues are connected to antitrust practices (Miroff, 2018). This commercial aspect of esports is posed as a possible barrier for the IOC to meaningfully engage with the gaming industry (Lu, 2022).

Athlete participation, involvement, and care: In esports, there are struggles about the labour status of professional athletes ($n = 4$). The IOC (2008) defines this dimension as the instruments in place to guarantee athletes' health, well-being and fair environment to thrive, including perspectives after retirement. In esports, the imbalance of power between players and those hiring them raises the debate on the necessity of player associations to fight for and guarantee their rights (Cripe, 2020; Kasper, 2023; Witkowski & Manning, 2019) and ideal conditions for performance (Keçeci & Çelik, 2024).

Strict levels of competence, integrity, and ethical standards: The good governance of organisations is dependent on internal management of sensitive ethical matters, codes and principles adopted and the competence of the executive boards (IOC, 2008). The $n = 3$ records identified are related to frameworks in place to avoid and deal with ethical misconduct (Lefebvre et al., 2024; Postma et al., 2022) and how it may affect different stakeholders including sponsors (Freitas et al., 2021).

Societal responsibility: Challenges of this dimension were identified in $n = 2$ records and relate to acknowledging that the practices are a public good with requirements of building a legacy, observing environmental responsibility, and promoting diversity. (Geeraert, 2015). Industry stakeholders are more concerned with financial sustainability than with the social and environmental impact of their activities (Nyström et al.,

2022). Aghey (2020) signals that the current interest of IFs might be an opportunity for applying strategies to increase diversity, for example, or recognise their role in promoting positive values for the wider society.

4.2.2. Integrity

In total, 123 records (61,5 %) were related to integrity. The charting process identified 11 different dimensions (Fig. 6). Of these, 6 correspond to those deducted from the sports literature described in Section 2 of this paper. These are:

- 1) Illegal sports betting, gambling, and match-fixing
- 2) Gender and sexuality
- 3) Doping and recreational drug use
- 4) Abuse and harassment (adapted from “sexual harassment”)
- 5) Inappropriate sponsorship and funding
- 6) Sport management malpractices

Like the governance dimensions, sports literature proved insufficient for answering esports-specific challenges. It was necessary to include 5 new dimensions to best fit the challenges detected. The new dimensions were defined by common themes found in their respective references:

- 1) Health issues: a need for a specific for the impacts of gaming on the overall health of players.
- 2) Safeguarding: updated from the existent “abuse of children and young persons” and is also concerned with adults.
- 3) Codes and practices: codes and practices are fundamental to underscore integrity in esports.
- 4) Cheating: forms of deception to gain personal advantages appeared as a concern, especially with the increment in prize money.
- 5) E-doping: a specific term in esports for exploiting technology for personal advantage.

Health issues: With $n = 28$ records, is the most common dimension related to integrity. Related to personal integrity – one of the dimensions of sports integrity according to Gardiner et al. (2017) – of those involved in esports, especially players. Many studies investigate the variety of health issues that could affect professional esports players (Delello et al., 2023; DiFrancisco-Donoghue et al., 2019; Ekefjård et al., 2024; Emara et al., 2020; Fiore et al., 2020; Franks et al., 2022; Singh et al., 2022;

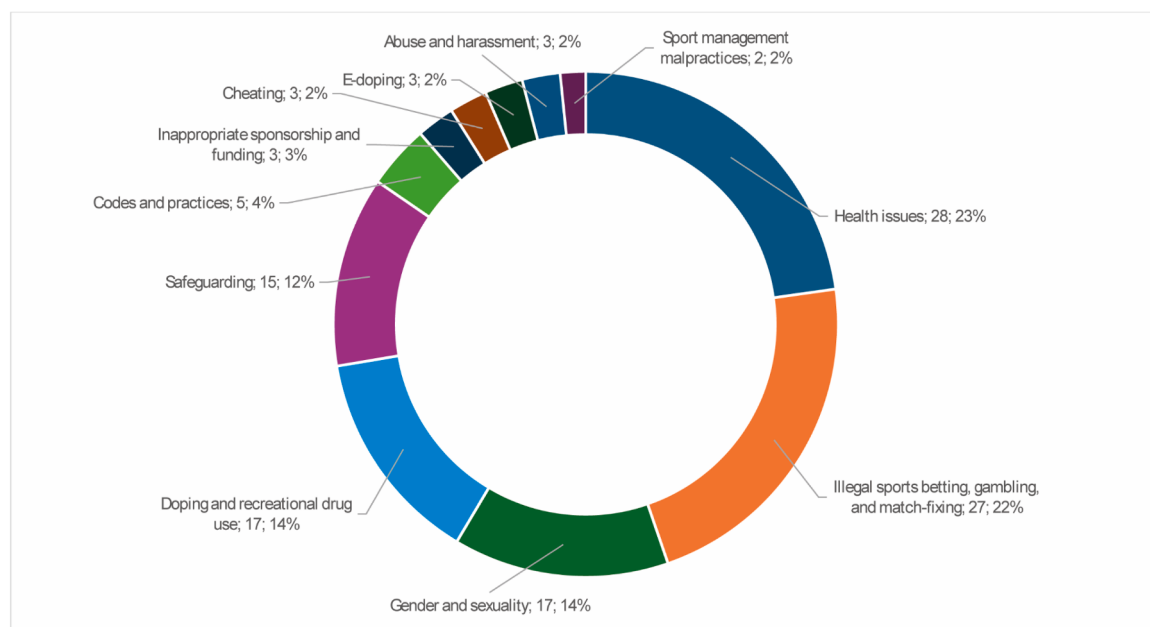


Fig. 6. Identified dimensions of integrity challenges with the number of records and corresponding percentage.

Tang, Kim-wai et al., 2023). Examples are musculoskeletal injuries (Basuodan et al., 2023; Lam et al., 2022; Lindberg et al., 2020; Rossoni et al., 2023), mental health (Caputo et al., 2023; Pereira et al., 2021; Sousa et al., 2020), and problematic gaming and gaming disorders (Goh, 2021; Lee & Tam, 2024; Tham & Kelling, 2023). Also present are topics of physical activities and sedentarism (Miah, 2020; Nicholson et al., 2024; Parshakov et al., 2022; Trotter et al., 2020; Zimmer et al., 2022) and players' sleep regimen and how it may have long term effects on their health (AlMarzooqi et al., 2022; Gomes et al., 2021; Lee et al., 2020, 2021).

Illegal sports betting, gambling and match-fixing: A close second with a total of $n = 27$ records. Of special interest to esports are loot boxes and skins betting, both linked to in-game purchases of items considered akin to betting and gambling (Macey & Hamari, 2019). Those are pay-to-win items, that influence the performance of a player, or special items that can only promote cosmetic changes (Liu, 2019). Scholars have analysed the problematics of esports and gambling due to the young age of esports' target audience (Biggar et al., 2023; Greer et al., 2021; Hing et al., 2022; Richard et al., 2023). Because it may lead to addiction and problem gambling (Abarbanel & Johnson, 2019; Greer et al., 2023, 2023; Lelonek-Kuleta & Bartczuk, 2021; Macey & Hamari, 2019; Marchica et al., 2021; Richard et al., 2021; Zendle, 2019), it is a motivator for regulating those practices (Dietrich & Raj, 2023; Hamilton, 2020; Holden et al., 2016; Richard et al., 2021; Schwarz, 2019; Sweeney et al., 2021; Zhang, 2023) and sponsorship, funding and advertising of betting companies in esports (Biggar et al., 2023; Nairn & Rossi, 2021; Rossi et al., 2021).

Gender and sexuality: With $n = 17$ records, the gender divide in esports can be characterised by the case of Geguri, a female South Korean professional player accused of cheating because she was considered too skilled for a female player (Choi et al., 2020; Cullen, 2018). In a mostly masculine environment, esports struggle with the inclusion of female figures (Darvin et al., 2021; Kordyaka et al., 2023; NS, 2019; Pizzo et al., 2023). A single study highlights homophobia as a current and real challenge to esports (Close, 2023).

Doping and recreational drug use: The use of substances for performance enhancement is a concern in esports according to $n = 17$ records. There is documented evidence of this, including instances of players disclosing their knowledge of the use of substances from the World Anti-Doping Agency's (WADA) prohibited list during competitions (Slyk et al., 2023) and concerns of the esports community around the topic (Friehe et al., 2022). Even though organisations like the Esports Integrity Commission and the International Esports Federation have developed anti-doping codes, they are not widely applied throughout the industry (Gupta et al., 2022). The lack of harmonisation of codes, and the flawed straight application of the WADA code in esports calls for a more robust action from an authoritative body (Rana & Parsai, 2023). Lack of transparency may result in incentives for players to consume performance-enhancing substances (Schubert et al., 2024). Plus, there is a relevant discussion about the effects of energy drinks on performance (Evans et al., 2023; Frias, 2022; Thomas et al., 2019).

Safeguarding: There is an inherent similarity between studies tagged as "athlete participation, involvement, and care" and ones marked as "safeguarding". Different from studies that were grouped on the governance domain, the ones marked here as safeguarding go beyond labour agreements, with $n = 15$ records in total. Here the concern is with mechanisms to protect adults and children from harm and abuse (Cisneros, 2021; Dominteanu et al., 2023; Hong, 2023; Ramstad, 2020; Shinohara, 2024) and promotion of well-being in the form of a safer environment and spaces for players and spectators (Czako et al., 2023; Monteiro Pereira et al., 2023; Rudolf et al., 2020; Salo, 2017; Trotter et al., 2020; Zhao & Zhu, 2021). As it stands, the lack of access to good resources for players to thrive – with support for a good physical and mental condition – puts young players in a vulnerable position for exploitation (Dominteanu et al., 2023).

Codes and practices: This dimension with $n = 5$ records includes the

existent codes of ethics (ESIC, 2024b), conduct (ESIC, 2024a; Riot Games, 2023) and discipline (Saudi Esports, 2023). In an overview of those codes and others from esports, Czegledy (2021) notes the wide variety of documents with different focuses and lack of integrated preventive measures as a challenge for the industry in implementing and enforcing codes and practices.

Inappropriate sponsorship and funding: This dimension ($n = 3$ records) is related to sponsors and their duties towards what they promote and how they do so (Abreu Freitas et al., 2020). Concerns regarding alcohol sponsorship in esports are valid, particularly regarding its potential impact on particularly dedicated gamers (Kelly & Van der Leij, 2021). Similarly, Lopez Frias (2021) proposes that the marketing of energy drinks in video games should be regulated because of its contents and potential effects, especially for minors.

Cheating: With great prize money at stake, some players may seek ways to cheat their way to a victory or throwing a match (Johnson & Abarbanel, 2022). The dimension for cheating with $n = 3$ records is related to "unsportsmanlike behaviour" by violating explicit and implicit rules of competitive gaming (Johnson & Abarbanel, 2022). One of the practices that fall in this category is boosting. According to Conroy et al. (2021), it consists of a higher-ranking player taking over the account of a lower-ranked player to increase their qualification in a game. The author explains that this guarantees invitations to competitions, access to in-game rewards, and the possibility of joining teams.

E-doping: Similar to cheating and doping, a player who engages in e-doping also seeks to obtain an unfair advantage in the game (Chanda & Star, 2021). E-doping, as Hwang (2022) describes, is "the act of using software hacks or cheats during e-sports games" (p.1296). With a total of $n = 3$ records. Such challenges are acknowledged by organising bodies and tournament organisers who try to improve the available mechanisms to prevent e-doping (Hwang, 2022). With no homogeneous regulation on e-doping, it remains a grey area of regulation that could be heightened by the use of artificial intelligence in esports (Attard & Zhornokui, 2023).

Abuse and harassment: In total, $n = 3$ records were identified including sexual harassment at workplaces and competitive events, as Khundrakpam and Sarmah (2023) expose from DOTA2. Other types of abusive behaviour are tribalism and toxicity (Adinolf & Turkay, 2018; Hayday & Collison, 2020). Accountability is another element of this challenge as authors (Hayday & Collison, 2020; Khundrakpam & Sarmah, 2023) point to a lack of moderation and concrete measures to prevent and address episodes of abuse and harassment.

Sport management malpractices: This dimension with $n = 2$ records corresponds to when challenges are not addressed and managed properly, they become an issue of the whole esports community (Brickell, 2017). It is noted the necessity of an autonomous regulatory entity tasked with the prevention, mitigation, and management of the various challenges that could taint esports (Brickell, 2017; Freitas et al., 2021).

5. Discussion and future research

Research about challenges in esports governance and integrity is rather recent. Yet, there is a visible and growing interest in literature to explore the different existent challenges in governance and integrity. In total, 19 different dimensions of challenges were mapped through this scoping review. Challenges that have a governance nature may have ties to integrity challenges and vice versa. A pinnacle example of such is the lack of harmonisation in rules, protocols, and procedures that ultimately lead to an unorganised structure for mitigating and sanctioning integrity abuses like doping and match-fixing (Brickell, 2017; Czegledy, 2021).

Concerning objectives a) and b) of this scoping review, the mapping of dimensions for challenges for governance and integrity in esports also revealed that simply translating the same concepts applied to sports is not sufficient. It was necessary to develop codes dedicated to esports-specific issues. Consequently, it was possible to have a more nuanced overview of challenges (e.g. "health issues") that had a significant

presence in esports literature. Fig. 7 illustrates the findings from this scoping review. From the number of records obtained, it demonstrates the challenges identified on governance and integrity, exemplifies some unmapped challenges and indicates future holistic research.

Results indicate that a diversity of health issues linked to esports are studied. This could be justified, to some extent, by a belief that connects participation in digital gaming to poor health outcomes (Tang et al., 2023). Coupling those studies to a better understanding of “athlete participation, involvement and care” can improve conditions of play and how elite performance in esports might be connected to the promotion of wellness. In sports, SGBs recently have shown a greater concern with athletes’ long-term health. For example, FIFA’s growing concern with concussions led to a change in the rules, allowing permanent concussion substitution in 2024 (IFAB, 2024). Based on health-related challenges encountered, it is fair to consider if the governing bodies of esports should have similar precautions for esports players’ health.

Further, about objective c), it is important to note the necessity of further integrative studies. So far, most of the studies are focused on a single dimension of the esports industry. As Brock (2023) and Pizzo et al. (2022c) argue, there is an inherent interdisciplinarity of sub-disciplines in esports that should be better explored in literature. This scoping review is yet another evidence of that. One of the most significant challenges identified in the governance dimension pertains to the conceptualisation of esports and the establishment of their organisational framework (e.g. Jenny et al., 2017; Tjønnedal, 2021). Without a consensus, the competitive aspect of the industry struggles for legitimacy, which was one of the most relevant challenges found in governance – and as was the case for “health issues”, “legitimacy” was also a dimension added by the inductive work of this scoping review.

This scoping review brings 7 new dimensions of challenges in the governance and integrity of esports that are different from the ones existing in sports literature. As a result, it can be affirmed that, while the benchmarking dimensions for sports are a starting point, they are not sufficient. On the other hand, the 12 confirmed dimensions demonstrate that with the sportification of esports, it is possible to expect similar challenges to those faced in sports. Regarding objective d), this is useful for future collaborations between policymakers from sports and esports as both advance their initiatives for good governance and integrity of their games.

One example of this collaboration could be on match-fixing and gambling. As pointed out by Macey and Hamari (2024) the increased monetisation opportunities through gambling represent a widespread threat for esports and sports. Although it is one of the categories in integrity with most studies exploring the diverse ways that gambling and betting are present on esports, there is no prevalence data available. The same applies to e-doping. Chanda and Star (2021) provide a comprehensive description of the challenge, but it is not known how prevalent it is. It is necessary to better understand how this challenge affects esports at a competitive level to inform policymaking.

The lack of harmonisation in rules and sanctions is another evidence of the necessity for studies that inform policymaking in esports. This was detected as an underlying challenge in studies on both governance and integrity challenges. As mentioned before, this is not an isolated factor. It is a byproduct of the intellectual property that publishers have over games/titles and their competitions. In many cases, this results in an unchallenged authority that arbitrarily applies rules (Ma et al., 2022). Currently, no detected studies investigate player sentiment over governance practices and how effective the existent integrity practices are. Little is known about the players themselves in terms of demographics, current conditions of play and what they expect from their industry.

The professionalisation and continued growth of esports depend on advancing measures that improve both governance and integrity. Future research should address the legitimisation of esports institutions and evolve mechanisms to mitigate mapped challenges. This review offers valuable insights for esports stakeholders, including governing bodies like the Esports Integrity Commission (ESIC) and the International Esports Federation, publishers like Riot Games or competition providers such the Electronic Sports League (ESL). These organizations currently address some of the challenges discussed herein. The findings of this review could inform the evolution of their existing regulations and potentially stimulate discussions leading to the establishment of independent oversight bodies, analogous to WADA or the Court of Arbitration for Sport. Such entities could provide comprehensive and harmonized regulation and sanctioning across the competitive esports landscape.

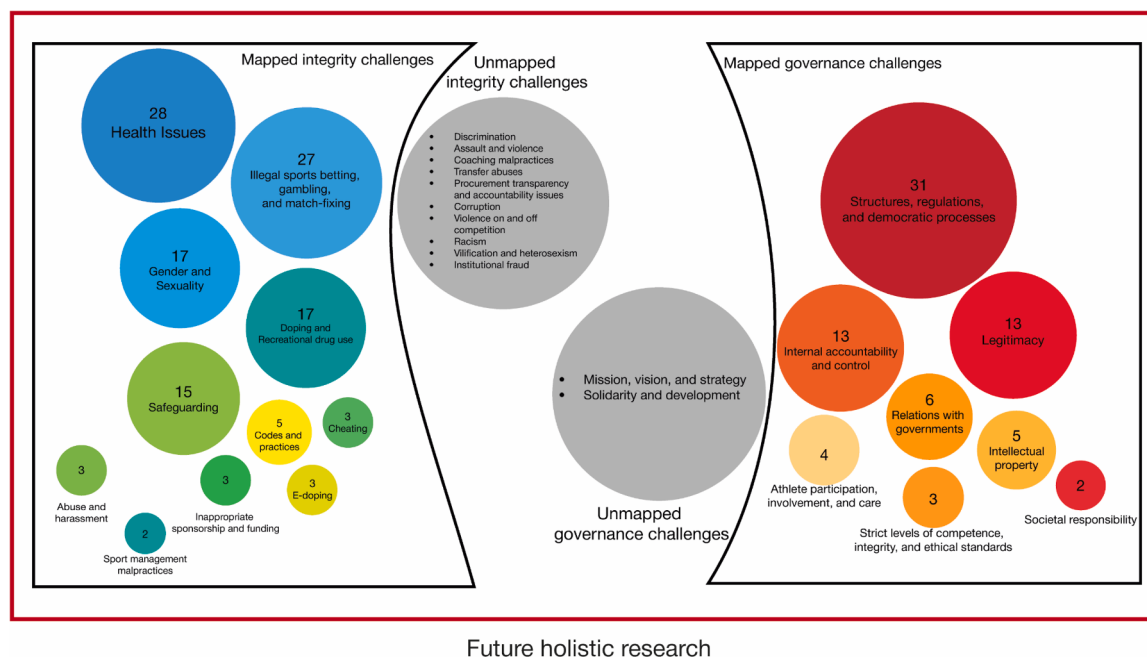


Fig. 7. Summary of findings based on number of records mapped for integrity and governance, unmapped dimensions, and avenues for future research.

6. Limitations

Scoping reviews have an inherent limitation of reporting on the extent of research, but not evaluating the quality of it (Tricco et al., 2016). Our scoping review has other limitations that must be mentioned. First, our conceptualisation of the anchoring terms. The approach towards the competitive level of esports has excluded references that had in their population amateur or casual players. This also means that the research did not include virtual sports, which has a growing literature on integrity, cheating, and doping topics (Dyer & Taylor, 2023; Richardson et al., 2022, 2023). The definitions of governance and integrity from sports conditioned our choice of keywords for the search. This method was appropriate given that one of the main motivations for this scoping review is the growing interest of SGBs in esports initiatives.

This scoping review is also limited to studies in the English language for feasibility, generalising the discussion to the English scholarly discourse. It must be noted that esports has considerable popularity in non-English speaking countries like South Korea, China, Germany, Brazil, and France (Statista, 2023). Therefore, it would be beneficial to have studies focused on different regions to measure if the state of esports governance and integrity is equal throughout.

As our database search was done during the first half of 2024, the authors acknowledge that new contributions on governance and integrity-related topics in esports have been published since. This reinforces the crescent interest and need for a holistic approach to esports governance and integrity. As the first attempt to structure and organise governance and integrity literature on esports, we do not claim that it is fully exhaustive. Rather, it seeks to illustrate the existent governance and integrity literature in esports and offer guidance for future research based on the similarities and differences among the identified challenges.

7. Conclusion

This study has mapped 19 dimensions of governance and integrity challenges in esports. 12 of those dimensions are aligned with governance and integrity challenges encountered in sports. Yet, it was necessary to propose 7 new dimensions to address esports-specific challenges. In governance, the new proposed dimensions were legitimacy and intellectual property. Meanwhile, in integrity, the same applies to health issues, cheating, e-doping, safeguarding, and codes and practices.

It is possible to affirm that the perspectives of governance and integrity from sports are not sufficient to respond to esports-specific challenges. This underscores the need to develop such understandings from an esports perspective. It is advisable for future research to consider player perspectives and assess the prevalence of the challenges mapped here. This will allow for further advancing relevant topics such as health issues and safeguarding. The lack of harmonised regulations and structure is a notable challenge that should also be explored by scholars and policymakers. A holistic perspective of how governance and integrity challenges are closely related is fundamental to improving the legitimacy and regulatory authority that may ensure the sustainable growth of the esports industry.

CRedit authorship contribution statement

Aline Lopes da Silva Candeo: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Salvador Jr Reyes:** Validation, Methodology, Investigation, Formal analysis, Data curation. **Nils Haller:** Writing – review & editing, Validation, Methodology, Conceptualization. **Andrew Richardson:** Writing – review & editing, Validation. **Holger Preuss:** Writing – review & editing, Project administration, Funding acquisition. **Thomas Souvignet:** Writing – review & editing, Supervision,

Conceptualization. **Thomas Könecke:** Writing – review & editing, Supervision, Funding acquisition. **Mathias Schubert:** Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Project administration, Methodology, Funding acquisition, Conceptualization.

Declaration of competing interest

The author is an Editorial Board Member/Editor-in-Chief/Associate Editor/Guest Editor for this journal and was not involved in the editorial review or the decision to publish this article.

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Two of the co-authors (Dr. Mathias Schubert and Dr. Andrew Richardson) are guest editors of this special issue;

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If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.peh.2025.100352.

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