ICSS
Safeguarding Sport

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Guide on the Use of Artificial Intelligence on Anti-Corruption in Sport

Opportunities, Risks and Emerging Practices

Developed by
the International Centre for Sport Security (ICSS)

with the support of
Qatar's Administrative Control and Transparency Authority (ACTA)



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Opportunities, Risks and Emerging Practices.

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FOREWORD

Corruption is an unfortunate but enduring reality that infiltrates every part of the social order. It undermines the rule of law, violates human rights, erodes public trust, and generates untold damage to the common good; it sacrifices the well-being of the many for the benefit of the few.

Even sport, the seemingly innocent celebration of athletic skill, performance, and competition, is not immune. In its purest form, sport is grounded in the values of integrity, fair play, and inclusion and is a universal bridge between individuals, communities, and nations irrespective of language, culture, or politics. But sport is also a strategic industry under constant and evolving threat from corruptive forces. Criminal activities such as match-fixing, money laundering, and fraud are pervasive at every level of the sector. These acts not only tarnish the credibility of sport but also generate widespread damage at both economic and societal levels.

But corruption in sport does not go unchecked. Driven by the conviction that anti-corruption is a collective responsibility requiring awareness and institutional practice on the ground, the State of Qatar continues to embrace innovative tools and strategies to combat these destructive influences.

With this vision in mind, I requested the International Centre for Sport Security (ICSS), given its expertise in sport integrity and pioneering capacity that for over a decade has contributed to the global agenda in this field, to lead the development of this Guide on the Use of Artificial Intelligence (AI) in Anti-Corruption in Sport: Opportunities, Risks and Emerging Practices.

Developed as a legacy of the 11th session of the Conference of the States Parties (COSP) to the United Nations Convention against Corruption, hosted by the State of Qatar in December 2025, the Administrative Control and Transparency Authority (ACTA) is honored to present this guide as part of our commitment to enhance integrity and transparency in all sectors.

At present, AI is a relatively new anti-corruption tool for sport. However, by drawing on knowledge from experienced sectors and visionary experts, this guide provides practical insight into integrating AI technologies. It embraces the opportunities AI presents while addressing ethical challenges: preventing discriminatory effects, protecting privacy, ensuring transparent processes, and establishing accountability mechanisms. It establishes that AI must be a decision-support tool, not a decision-maker, ensuring human oversight validates findings and that rigour leads to trust—the foundation of integrity.

On behalf of ACTA, I extend sincere thanks to everyone who contributed their expertise to this work. I am confident it marks the beginning of a new era in combating corruption in sport—transparent, accountable, and worthy of trust.



H.E. Hamad bin Nasser Al Misnad
President
Administrative Control and Transparency
Authority State of Qatar

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ACKNOWLEDGEMENTS

On behalf of the International Centre for Sport Security (ICSS), I want to thank everyone who dedicated their time, knowledge, and passion to making this Guide a reality. This work addresses complex questions about organizational culture, legal frameworks, ethics, and information security—but it's also a practical tool already helping people analyze large datasets, identify suspicious patterns, and take timely action.

I extend my sincere thanks to the Administrative Control and Transparency Authority (ACTA) of the State of Qatar and its President, His Excellency Hamad bin Nasser Al Misnad, who believed in this Guide from day one. ACTA entrusted the ICSS to develop it under their strategic leadership, and their commitment to transparency and accountability has been foundational. This partnership embodies a shared conviction: that technology, guided by ethical principles and informed human oversight, can be a powerful force for good. Let me acknowledge all the people who made this possible, working under our CEO Massimiliano Montanari's strategic direction. Dale Sheehan, ICSS Director for Sport Integrity, served as principal drafter—his technical expertise and commitment to quality are evident on every page. Carol Jiménez, ICSS Senior Manager, for ensuring diverse voices were heard and integrated.

Special thanks go to sport integrity expert Stefano Barone, who drafted and co-drafted key chapters, ensuring coherence across complex technical and policy domains; Dr. Christos Anagnostopoulos, UNESCO Chair on Governance and Social Responsibility in Sport at Hamad Bin Khalifa University, who provided a scientific review that brought rigor and clarity; Univ. Prof. Marko Begović and Dr. Roberto Di Pietro who offered valuable reviews, while Dr. Francisco Charrua, an ICSS fellow, provided research and analytical support throughout.

We learned most from practitioners confronting these issues daily. They were generous with their time and candid about opportunities and obstacles. We want to thank Ms. Graciela Garay of CONMEBOL; Dr Greg Kratzig from the Royal Canadian Mounted Police (RCMP), Mr. Emanuel Medeiros of the Sport Integrity Global Alliance (SIGA); Mr. Duccio Mazarese and Ms. Ottavia Galuzzi from the United Nations Interregional Crime and Justice Research Institute (UNICRI) Mr. Ian Smith of the Esports Integrity Commission (ESIC); Mr. Luca Esposito of United Lotteries for Integrity in Sports (ULIS); Ms. Marta Muñoz de Morales Romero and Mr. Andrés Montoro Montarroso of Universidad de Castilla-La Mancha; and Mr. Eddie Marshbaum of Quest. We are also grateful to eminent experts like Mr. Ennio Bovolenta; Mr. Jan Peter Dogge; Mr. Panagiotis Panoutsos Talkowski; Dr. Peter E. H. Smee; and Dr. Vassos Koutsioundas of the Cyprus Sport Organisation. A special thank goes to Mr. Ronan Lorcan O' Laoire, from the United Nations Office on Drugs and Crime (UNODC), for ensuring the integration of key corruption risks and global challenges affecting sport today.

Their insights kept us grounded and reminded us that we're not writing for the sake of writing—we're trying to help people solve real problems.

Our consultations strongly benefited from contributions provided by Mr. Corentin Segalen, Chair of the Group of Copenhagen; Mr. George Mavrotas, Secretary General of Sport, Hellenic Republic; Chair of the Follow Up Committee of the Macolin Convention, Council of Europe; Mr. Janis Ungurs, Director of Legal department, Lotteries and Gambling Supervisory Inspectorate of Latvia; Ms. Christina Tsiligkiri, President European Multisport Club Association (EMCA); and Mr. Menelaos Dimitriou, International Relations, Panionios GSS, and Advisory Board Chair EMCA; Mr. Yazid Zakaria, Legal Counsel at the Asian Football Confederation; Mr. Rui Botica Santos partner at Crawlaw and Dr. Jan Dauman co-founder of IBLF Global and SIGA supporter.

To everyone who shared case studies, good practices, and expertise—you helped us build a bridge between aspiration and action.

We are also grateful to INTERPOL for the opportunity to present this Guide to its Task Force against Match-Fixing and seek their valuable contributions, and to the United Nations Office on Drugs and Crime (UNODC) for the extraordinary opportunity to convene a dedicated moment at the Eleventh session of the Conference of the States Parties (CoSP11) to the United Nations Convention against Corruption in Doha.

Here's what I believe: this Guide is a beginning, not an end. Fighting corruption in sport requires constant vigilance, innovation, and partnership. Technology gives us new capabilities, but our values—fairness, transparency, and the dignity of sport—determine whether we succeed.

I'm confident this Guide will inform decisions, inspire action, and help keep sport what it should be: a source of joy, unity, and inspiration for everyone.

We have work to do. Let's get to it.



Mohammed Hanzab
Chairman
International Centre for Sport Security (ICSS)

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Safeguarding Sport



DISCLAIMER

The views and opinions expressed in this guide do not necessarily reflect the official positions or policies of ACTA, the ICSS, or their affiliated organizations. While every effort has been made to ensure the accuracy and relevance of the information, neither ACTA nor the ICSS accepts responsibility for any errors, omissions, or consequences resulting from its use.

Any approach, methodology, or proposed solution presented in this guide is intended for informational and reference purposes only. Before implementation, all recommendations must be carefully assessed and adapted in accordance with applicable international legal frameworks, regional conventions, and domestic laws. Given that legal, regulatory, and cultural contexts vary significantly across jurisdictions, stakeholders are advised to seek appropriate legal counsel to ensure compliance with their national requirements. Nothing in this guide should be construed as legal advice or as a ready-made solution suitable for direct adoption.

This guide addresses both serious crimes under international law affecting the sport environment and behaviors prohibited under Sharia law and Qatari legislation, including Article 276 of Law No. 11 of 2004 (the Penal Code), which penalizes anyone who operates or organizes gambling activities in public or designated places with imprisonment of up to one year and/or a fine of up to five thousand Qatari Riyals (QR 5,000).

ABBREVIATIONS AND ACRONYMS

ACFE	Associations of Certified Fraud Examiners
ACTA	Administrative Control and Transparency Authority
AI	Artificial intelligence
AML	Anti-money laundering
AR	Augmented reality
CAS	Court of Arbitration for Sport
CNN	Convolutional neural network
CSR	Corporate Social Responsibility
ESIC	Esports Integrity Commission
FATF	Financial Action Task Force
FIU	Financial integrity unit
FSL	Few-shot learning
GDPR	General Data Protection Regulation
HIL	Human-in-the-loop
IBIA	International Betting Integrity Association
IBIS	Integrity Betting Intelligence System
ICC	International Cricket Council
ICSS	International Centre for Sport Security
ILO	International Labour Organization
IOC	International Olympic Committee
IPACS	International Partnership Against Corruption in Sport
IWF	International Weightlifting Federation
NLP	Natural language processing
NSIS	National Sport Integrity System

OSINT	Open-source intelligence
PPP	Public-private partnership
SFO	Serious Fraud Office
SIGA	Sport Integrity Global Alliance
SOCMINT	Social media intelligence
UFDS	Universal Fraud Detection System
ULIS	United Lotteries for Integrity in Sports
UNCAC	United Nations Convention against Corruption
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICRI	United Nations Interregional Crime and Justice Research Institute
UNODC	United Nations Office on Drugs and Crime
UNTOCUN	Convention Against Transnational Organized Crime
WADA	World Anti-Doping Agency
WPBSA	World Professional Billiards and Snooker Association

EXECUTIVE SUMMARY

Corruption in sport is a global, multifaceted challenge that undermines integrity, fair play, and public trust. Criminal acts such as match-fixing, illegal betting, financial fraud, bribery, and money laundering continue to threaten the ***integrity*** of sport at all levels.

AI is emerging as a powerful tool in combating corruption and related serious offences in sport. It offers next-level opportunities for the prevention, detection, and investigation of corruption in sport, marking the beginning of a new era in sport integrity. However, along with its advantages, the use of AI raises critical legal, ethical, and technical challenges that must be carefully navigated to ensure the technology upholds the intrinsic values and principles of the contemporary sport landscape.

This guide, developed by the International Centre for Sport Security (ICSS) under the strategic leadership of Qatar's Administrative Control and Transparency Authority (ACTA), draws on current thinking and the experience of other sectors to provide a comprehensive framework for leveraging AI to combat corruption in sport. It addresses the opportunities, risks, and best practices for integrating AI into anti-corruption frameworks, with a focus on transparency, accountability, and ethical governance.

Key Findings

1. Corruption in sport is a complex, evolving problem exacerbated by globalization, technological change, and the expansion of sports betting. The forms of corruption threatening sport integrity are diverse, interconnected, and evolving and are facilitated by persistent issues such as poor governance, weak enforcement, lack of transparency, resistance to accountability, intelligence gaps on organize crime, and adaptable criminal networks.

2. AI provides powerful tools for detecting and preventing corruption, and there is a clear opportunity to adapt proven techniques from financial crime detection, law enforcement, and public governance to address the unique integrity challenges of sport. By drawing on the lessons learned from other sectors, sport can create a realistic roadmap to integrate AI into its integrity frameworks while bypassing many of the challenges experienced by other industries.

3. AI is transforming sport integrity by enabling faster, more accurate, and scalable detection and investigation of corruption, fraud, and manipulation. By combining advanced analytics with human oversight, robust governance, and continuous improvement, AI increases the speed, accuracy, and scalability of integrity operations, making it a transformative tool for safeguarding the credibility and fairness of sport.

4. AI is shifting sport integrity investigations from reactive casework to proactive, intelligence-led protection. The ability to process vast datasets and big data from a broad range of sources allows for early detection of suspicious patterns and prioritization of high-risk cases.

5. While AI offers powerful tools for anti-corruption in sport, it also introduces significant risks that must be carefully managed. Legal, ethical, and technical challenges associated with AI systems can undermine the trust and effectiveness of these tools as well as the privacy of individuals. AI must always be viewed to support, not replace, human judgment, and robust governance, ongoing oversight, and sector-specific standards are essential to ensure AI strengthens, rather than threatens, sport integrity.

6. The effective use of AI to combat corruption in sport requires coordinated cross-sector and cross-border collaboration among a wide range of stakeholders at local, national, and international levels. Sports organizations, law enforcement, financial integrity units (FIU), technology companies, and governmental bodies all play an important role in the creation of robust, collaborative governance frameworks. These collaborations not only enhance international cooperation, resource and intelligence sharing, and stakeholder engagement, but ensure AI systems are designed, developed, and implemented with greater transparency and accountability.

7. Building capacity, awareness, and resilience are fundamental components for the responsible and effective use of AI in anti-corruption efforts within sport. Developing organizational culture and stakeholder literacy and understanding around AI involves comprehensive training, clear codes of conduct, transparent communication, and practical strategies to overcome barriers.

8. The successful integration of AI into sport integrity models requires an adaptive, collaborative approach to the development of AI policies, legislation, and regulations. framework development. Grounded in accepted principles for the ethical use of AI, these frameworks should build on, or align to, established guidelines around sport integrity and anti-corruption at organizational, national, and international levels to enhance ongoing harmonization of standards and promote cross-border interoperability across the sector.

9. The responsible use of AI in sport integrity must be governed by clear, ethical, and inclusive principles that promote transparency, fairness, accountability, and human oversight. Good practices that focus on robust data management, stakeholder engagement, and alignment with international standards are also critical to ensure that AI strengthens, rather than undermines, the integrity of sport.

Strategic Recommendations

Based on lessons learned and best practices from other sectors, and on the expertise of sport integrity and AI specialists, the following recommendations are designed to support the successful design, development, and implementation of AI systems within the sport anti-corruption ecosystem.

1. Institutional and Regulatory Measures

- Develop AI Integrity Frameworks: Sports federations, national integrity platforms, law enforcement agencies and governments should collaboratively define legal and ethical standards for AI use in monitoring, investigation, and sanctioning. These frameworks should align with international instruments (e.g., UN Convention against Corruption, Macolin Convention, G20 Principles) and capture the unique features of corruption and other serious offences affecting sport.

- Mandate Transparency and Accountability: AI systems must include documentation (such as 'model cards') explaining data sources, assumptions, limitations, error margins, and performance metrics. Regular independent audits and human rights impact assessments should be standard practice.

- Ensure Lawful Data Access and Protection: Establish cross-sector protocols for data exchange between sport bodies, law enforcement, betting regulators, and financial intelligence units, with strict privacy safeguards and clear liability for AI errors.

- Promote Ethical Innovation: Encourage 'AI for Integrity Sandboxes' where new tools can be tested under ethical oversight before full deployment.

2. Operational and Capacity Building Actions

- Phased Implementation: Begin with small-scale pilot projects using readily available data to demonstrate value, build confidence, and refine methods before expanding to more complex applications. AI deployment should always align with organization policies and be driven by purpose.

- Human-AI Collaboration: Embed multidisciplinary teams (data scientists, investigators, legal experts, ethicists, sport experts) to interpret AI outputs and ensure defensible responses.

- Invest in Training and Digital Literacy: Integrity units, law enforcement and regulators must understand AI tools, their evidentiary limits, and how to explain results to disciplinary or judicial bodies. Certification programs for integrity officers and other users are recommended.

- AI-Supported Whistleblower Mechanisms: Secure, anonymized reporting channels enhanced by AI can detect retaliation risks and prioritize credible cases.

- Continuous Monitoring and Feedback: Track outcome metrics (accuracy, fairness, false positive rates, user trust, operational efficiency) and refine systems regularly and use adversarial and scenario testing to uncover bias or misuse.

- Stakeholder Engagement: Include athlete associations, coaches' unions, and supporter groups in AI governance committees to improve detection accuracy and acceptance.

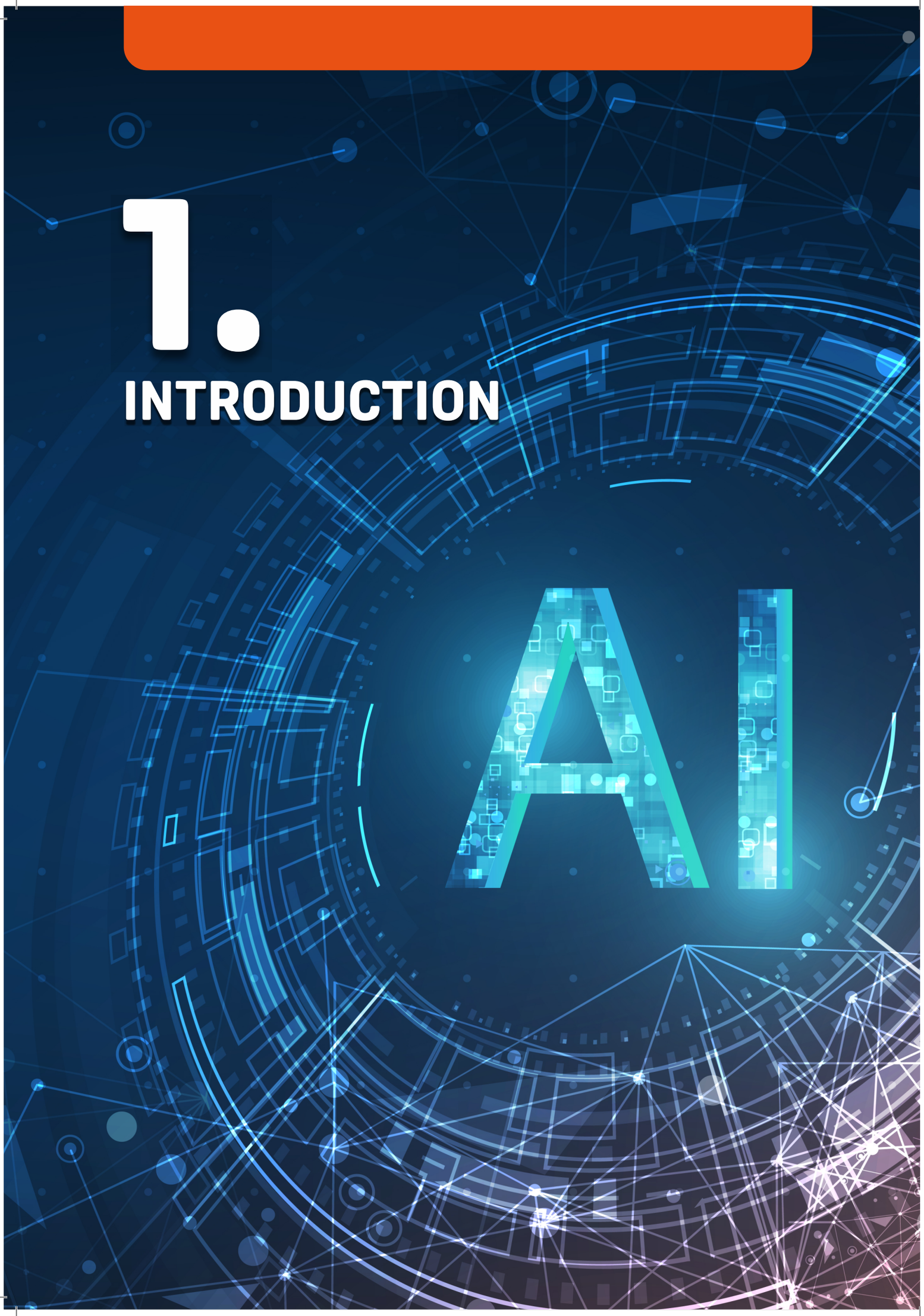
3. International Cooperation and Governance

- Global Sport Integrity Data and AI Network: Make use of existing sport integrity platforms such as the Group of Copenhagen and INTERPOL's Match-Fixing Task Force to share standards, anonymized case studies, and non-personalized integrity data. Address cross-border data sharing challenges and respect of data protection.

- Standardize Data and Taxonomy: Develop harmonized definitions and common data formats pertaining to the use of AI in anti-corruption efforts.

- Support Resource-Constrained Organizations: Promote the provision of open-source AI tools, shared infrastructure, and service centres for smaller federations, clubs and less resources law enforcement agencies.

1.
INTRODUCTION



1 INTRODUCTION

1.1. Background and Rationale

Sport has evolved into a complex global ecosystem where billions of dollars flow through competitions, broadcasting rights, sponsorship deals, and betting markets. Its tremendous economic significance, combined with its unique emotional and cultural impact, has created unprecedented opportunities for corruption that threaten the fundamental values of fair play and integrity upon which athletic competition depends.

To understand why corruption is so damaging, we must first clarify what integrity in sport stands for because it is the very set of principles and protections that corruption erodes. Historically, integrity has been associated mainly with the manipulation of competitions (such as match-fixing and betting-related corruption) and, to a lesser extent, doping. However, contemporary frameworks expand this understanding significantly. Research shows that weak governance, organizational mismanagement, and the absence of effective prevention policies increase the risk of manipulation and other corrupt practices.

Today, sport integrity is viewed through three interconnected pillars:

1. Integrity of people: Safeguarding athletes, officials, and all participants from violence, abuse, and discrimination.
2. Integrity of competitions: Ensuring that contests remain free from manipulation and doping.
3. Integrity of organizations: Embedding transparency, accountability, and good governance within sport bodies.

These elements culminate in the following holistic definition[1] of sport integrity, which now guides much of the international policy landscape:

The integrity of sport is a precondition to protect and maximize the contribution of sport to sustainable human and social development… sport integrity encompasses the components of personal, organizational and competition integrity, and thus shall reject competition manipulation, discrimination, cheating, violence, abuse, corruption and any other crime or fraud related to sport; promote transparency and accountability in the governance of sport; and foster respect for internationally recognized human rights.

Understanding integrity in this way makes clear why corruption is so damaging: it erodes trust, distorts competition, undermines governance, and weakens sport's ability to deliver positive social outcomes.

For example, from an economic perspective, the United Nations Office on Drugs and Crime's (UNODC) *Global Report on Corruption in Sport* (2021) notes that on an annual basis, it is estimated that up to $140 billion is laundered through sports betting and that the amount wagered on illegal betting markets is between $340 billion and $1.7 trillion.

1 As defined during the 10th session of the Conference of Parties (COP10) to the International Convention against Doping in Sport convened at UNESCO Headquarters, Paris (20-22 October, 2025).

Criminal activities strip sport of its integrity and positive, transformative power. They generate widespread economic and social costs that divert legitimate revenue streams, erode public trust, weaken norms of fair competition, and reinforce existing inequalities. Beyond the damage to credibility, corruption threatens the financial health of federations, clubs, and athletes (e.g., sponsors may withdraw their support in order to protect their brands) and young people may lose interest in participating in sports that are perceived as dishonest or unfair.

Despite these challenges, there is growing optimism around the role of artificial intelligence (AI) as an impartial tool in strengthening integrity systems by detecting and combating corruption. AI technologies are already playing a growing role in tackling crime in various sectors. AI is increasingly used across sectors to analyze financial patterns, detect money laundering, uncover criminal networks, and predict illicit activities. When combined with expert oversight and sound governance frameworks, AI offers a powerful capability to process vast datasets and generate early-warning indicators of corruption in sport.

1.2. The AI Opportunity

The digitization of modern sporting events generates massive volumes of data, including real-time performance metrics and betting patterns, financial transactions, social media interactions, and organizational communications. While this digital ecosystem is exploited by criminals to carry out illicit activities, it also provides unprecedented capabilities for analysis and detection of those criminal acts.

Preliminary research suggests AI has significant potential to detect and eventually reduce corruption in sport. For instance, in 2024 Sportradar, a company that monitors the integrity of sporting events on behalf of sports federations, issued a report on betting corruption and match-fixing that revealed a total of 1,329 suspicious matches across 11 sports in 105 countries. In this example, AI helped detect 74% of suspicious matches, representing a 123% increase over 2022—a clear indicator that the overall performance of AI is continuously improving (Sportradar Integrity Services, 2024).

Academic research has also demonstrated machine learning models achieve over 92% accuracy in distinguishing abnormal matches from normal matches, while systems now monitor over 850,000 matches annually across multiple sports (Anagnostopoulos et al., 2025). The European Union's law enforcement agency, Europol, has also emphasized the importance of AI in monitoring betting patterns to detect match-fixing. Other studies discuss the application of AI in analyzing communication networks to uncover collusion and corruption among sports officials (Europol, 2020).

In order to facilitate further understanding on this issue, ACTA requested the ICSS to develop this in-depth guide to explore how AI can be used to detect, prevent, and investigate corruption and related serious offences in sport.

1.3. Objectives of the Guide

This guide reflects multidisciplinary perspectives to shape effective and ethical approaches to protecting sport from corruption and other serious offences. It serves multiple critical objectives in supporting responsible and effective implementation of AI technologies across all dimensions of sports anti-corruption efforts, with particular focus on the priority areas identified through international partnerships and multisectoral collaboration. By doing so, it provides both policy and practical guidance to sport organizations, law enforcement, and other sport integrity stakeholders

on how to introduce AI as a part of their efforts to prevent, detect and investigate corruption and other serious offences affecting sport.

Based on leading research and the contributions of 'real-world' subject matter experts, this evidence-based guide provides valuable insights and practical approaches on how to introduce and make the best possible use of AI to protect the integrity of sport. Its primary objectives are to:

- Explore real-world examples of how AI is used in complex anti-corruption investigations across various sectors;
- Examine specific AI applications to prevent, detect, and investigate various forms of corruption and other serious offences in sport, including match-fixing, financial fraud, and collusion;
- Define the technical, legal, and ethical challenges associated with the use of AI;
- Explore ways to strengthen cooperation between law enforcement, criminal justice authorities, and sport organizations nationally and transnationally;
- Propose legislative and regulatory mechanisms to govern AI use in sport integrity efforts; and
- Identify the principles and emerging practices associated with the development and implementation of AI-supported frameworks for anti-corruption in sport.

Based on this information, this guide concludes with practical recommendations for the responsible integration of AI into the sport sector's anti-corruption efforts, with a strong focus on transparency and accountability.

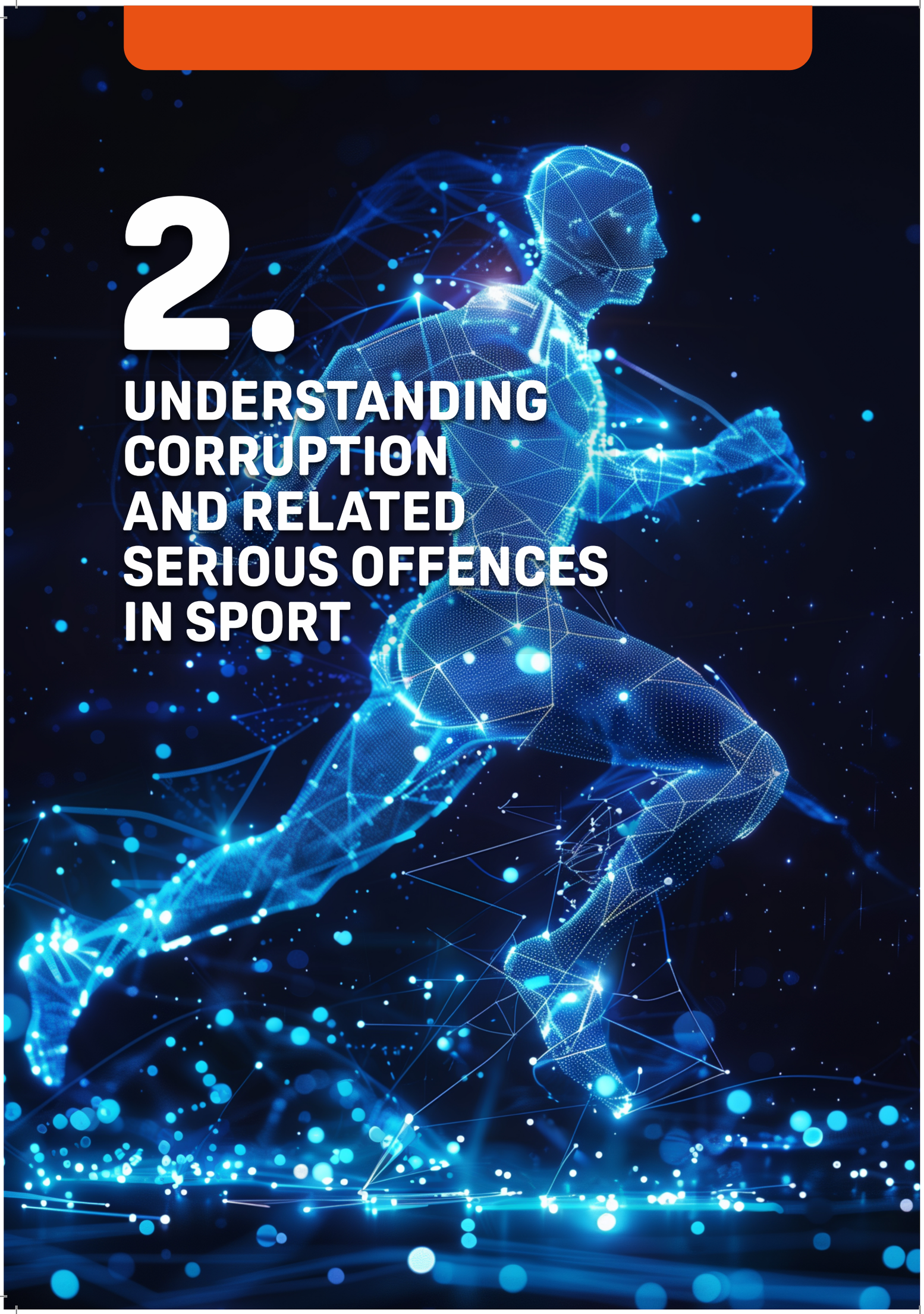
1.4. Methodology and Analytical Framework

In the development of this guide a comprehensive research methodology was applied to ensure both theoretical rigor and practical applicability across diverse sporting contexts and organizational structures. This methodology included:

1. **Desk Research, Literature Review & Data Collection**
   A thorough review of 249 existing literature, including grey literature, on the use of AI in the prevention, detection, and investigation of financial crimes, serious crimes, and corruption in sports and other industries (see the Bibliography).

2. **Primary Data Collection & Guide Development**
   Multi-stakeholder consultation involved 20 structured interviews or focus groups with sports organizations, international organizations, law enforcement agencies, technology providers, and academic experts. These consultations were supplemented by 15 digital consultations submitted by the global stakeholder community working in the field, such as law enforcement agencies and the National Platform against the manipulation of sports competitions.

   In-depth structured interviews featured open-ended questions designed to capture nuanced insights. Participant feedback was analyzed using content analysis to classify underlying themes, which were then used to design an open-ended questionnaire. An initial draft of the guide, which synthesized insights and findings, was then developed and shared with subject matter experts for validation.



2.
UNDERSTANDING CORRUPTION AND RELATED SERIOUS OFFENCES IN SPORT

2 UNDERSTANDING CORRUPTION AND RELATED SERIOUS OFFENCES IN SPORT

Corruption in sport is a complex problem. Globalization, rapid technological change, and the growth of sports betting have expanded both the opportunities and incentives for wrongdoing, increasing risk across today's sporting landscape.

In line with the findings of the *UNODC Global Report on Corruption in Sport* and other sources like the International Partnership Against Corruption in Sport (IPACS) and ICSS research, corruption and other serious offences—or neighboring crimes—in sport typically follows three primary and often interconnected avenues, namely:

1. Corruption in sports-focused contexts;
2. Corruption in sports-related contexts; and
3. Vulnerabilities targeted by organized crime.

This categorization of corruption in sport aligns closely with the three pillars of sport integrity recognized in international standards and guidelines (see section 1.1). ***Sports-focused*** corruption primarily affects competition integrity; ***sports-related*** corruption undermines organizational integrity in governance and commercial operations; and ***vulnerabilities targeted by organized crime*** threaten both the integrity of people and the legitimacy of competitions. Viewing corruption through this integrity framework provides a coherent basis for assessing systemic risks and structuring appropriate policy responses. Within this framework, AI offers an emerging capability to enhance monitoring, risk analysis, and early detection, thereby strengthening integrity systems across all three domains.

This chapter provides a brief overview of each of these areas, describing how crimes are committed, their impact on the sport, and current approaches to addressing these crimes.

2.1 Corruption in Sports-focused Contexts

Corruption in sports-focused contexts relates directly to the field of play. This includes conduct that can alter how a match unfolds or is decided, including manipulation of events or results; the misuse of inside information; undue influence on athletes or officials; and illegal or improper betting by insiders.

2.1.1 *Manipulation of Actions During and/or Overall Result of a Sport Competition*

At the international level, the most widely used definition of match-fixing was developed by the Council of Europe in its Convention on the Manipulation of Sports Competitions (also known as the Macolin Convention):

> *an intentional arrangement, act or omission aimed at an improper alteration of the result or the course of a sports competition in order to remove all or part of the unpredictable nature of the sports competition with a view to obtaining an undue benefit for oneself or for others.*

Largely driven by personal financial greed, the desire to gain a sporting advantage, or by organized

criminal groups seeking to advance their own interests, match-fixing is further fueled by factors such as weak governance structures, easily accessible and exploitable global betting markets, and low prioritization as a threat by law enforcement agencies (UNODC & ICSS, 2016). It can involve a variety of actors—including players, referees, coaches, agents, support staff, club executives, team managers, officials, and even match delegates and venue staff—and can take many forms, including:

- Removing or greatly reducing chance from the outcome of a match, a play within a match, the point spread/handicap, or other material aspects;
- Deliberate underperformance by athletes;
- Forfeiting a match on fabricated grounds;
- Influencing officials to alter decisions or the result;
- Abusive or malicious rule application by an official;
- Interfering with the game, equipment, surface, or environment;
- Betting or wagering using inside information obtained unlawfully or through deceit; or
- Deliberately failing to report a match manipulation incident (ACGCS, n.d.).

The manipulation of competition in these ways generates significant negative outcomes for the overall sport industry. Beyond damage to the fundamental integrity of sport, it can also affect participant safety, erode fan trust and support, and harm the financial security of sport organizations when illegal gambling reduces the benefits of regulated betting markets (Canadian Centre for Ethics in Sport, n.d.).

Managing the threat of match-fixing requires coordinated action, proportionate regulation and enforcement, targeted technological measures, and sustained education for stakeholders to protect sporting integrity (Immunize Nevada, 2025). At present, the Macolin Convention is the only international legal instrument available to prevent, detect, and sanction manipulation of sports competitions.

2.1.2 Illegal Betting on Sports

Advances in technology and the spread of online sports betting have expanded opportunities for illegal betting on sports. Platforms reach audiences even where gambling is illegal, and some operators exploit legal or political gaps to evade scrutiny. At the same time, the globalization of sport—in combination with the transnational nature of the gambling industry and the different laws and regulation enforcement in different jurisdictions—makes cross-border operations easier for criminal syndicates (World Lottery Association, n.d.). Illegal betting is not only a major driver of corruption in sport, but also a major channel for money laundering (UNODC, 2021b).

The impact of illegal betting on sports is growing. In 2024, the global sports betting market was valued at $102.4 billion USD and was projected to reach $265.5 billion USD by the end of 2034 (FACT. MR, n.d.). In its 2021 report, UNODC reported that illegal betting added up to an estimated $1.7 trillion

USD each year and Europol has reported that global annual criminal proceeds from betting-related match-fixing are estimated at $138 million USD (Europol, 2021).

Efforts to combat illegal betting activities involve a multifaceted approach that includes advanced technology, including AI, for monitoring; strong collaboration with law enforcement and legal betting operators; comprehensive education programs; anonymous whistleblowing channels; and ongoing work to establish a robust, regulated legal betting markets.

2.2. Corruption in Sports-related Contexts

Corruption in sports-related contexts refers to off-the-field abuses in the governance and commercial side of sport, such as bribery, fraud, embezzlement, collusion, and undisclosed conflicts of interest. It commonly appears in host city and venue procurement, sponsorship and media-rights deals, elections and appointments, player transfers and agency work, ticketing/hospitality, and third-party contracting.

2.2.1 Corrupted Practices in the Context of Sporting Events

Frauds and corruption in the selection of major sporting events' hosts

Hosting major sporting events can offer tremendous opportunities to countries and cities. These events not only serve as catalysts for new infrastructure development projects and vehicles to promote a country or city on the global stage as a place to visit and invest but can also enhance social cohesion by engaging and empowering local populations through a shared experience (UNODC, 2021b).

Given the potential benefits and prestige for successful host countries, it's not surprising that the bidding and selection processes for hosting major sporting events might be targeted by corruptive forces. These may be manifested in a variety of ways, including:

- Inequal bidding processes that favor a particular bidder in an unreasonable way;
- Opportunities to enhance transparency in evaluation and decision-making processes;
- Conflicted officials involved in the voting; or
- Applying improper influence, including bribery and vote buying, on voters to alter the outcome of key decisions (UNODC, 2021b)

The failure to mitigate corruption in host selection for a major sports event may result in awarding hosting rights to countries lacking necessary capacity, substantial financial losses to other bidders, economic damage, political tensions and/or instability, and an erosion of trust in the process, organizing entities, and associated stakeholders (Transparency International, 2017; UNODC, 2024).

To combat fraud and corruption related to the selection of hosting rights, bid and host selection processes are being made more open and transparent, with clearer criteria and public disclosure. Policies now tighten controls on conflicts of interest, anti-bribery compliance, and risk management. Accountability is strengthened through joint oversight by governments, sport organizations, and law enforcement authorities.

Corruption and conflict of interest in the procurement of major sporting events and sport infrastructure

Corruption associated with procurement processes for major sporting events involves a variety of unethical and criminal practices. These include bid-rigging to eliminate competition, bribing officials, inflating bids to provide kickbacks, generating complex contracts that obscure beneficiaries, and changing orders that substantially increase delivery costs. It can also involve conflict of interest where an individual(s) involved in the procurement process has a personal interest (e.g., financial or professional) that influences their decisions, actions, or results in preferential treatment (Government of Canada, 2025).

These types of activities contribute to massive cost overruns, the misuse of public funds, constraint of fair competition, damage to the reputation of sport organizations and event hosts, and poor quality of event-related infrastructure and services that can create safety risks for athletes, workers, and the public.

To minimize opportunities for corruption, organizations are encouraged to adopt strategies that involve developing robust risk management systems, conducting thorough due diligence on partners, establishing clear ethical guidelines, enforcing anti-bribery laws, and using independent monitoring of procurement and bidding processes to ensure integrity and accountability (G20, 2021). Practical controls include:

- Transparent, open-contracting tenders;
- Public disclosure of evaluation criteria and scores;
- Beneficial ownership checks;
- Conflict of interest registers with recusals;
- Cooling-off periods for officials;
- Integrity pacts;
- Milestone-based payments tied to independent verification;
- Price benchmarking;
- Exclusion lists;
- Continuous audit (including data analytics on bids, invoices, and variations); and
- Protected whistleblowing channels.

2.2.2 Corruption Within the Administration of Sports Organizations

Fraud and vote buying in sport federation elections

Electoral processes within sport federations have been the subject of corruptive and undemocratic practices, including fraud, bribery, intimidation, and vote buying. These types of activities allow

individuals to exert influence over organizational decision making in operational, political, and social spheres, which ultimately undermine organizational governance, transparency, and public image. While safeguards such as secret ballots, independent monitoring, clear eligibility, and transparent campaign finance practices can reduce the opportunity for corruption, the European Commission (2017) found that many organizations lack these basic precautions in their electoral processes.

Illicit enrichment of sports officials

Illicit enrichment is the accumulation of assets disproportionate to lawful income, typically when an individual exploits their position for private gain (e.g., bribery, embezzlement, abuse of office)—for example, a match official bribed by a betting syndicate to influence the outcome of a match, offered kickbacks for influencing player selections, or receiving payments for favorable league decisions.

Combating this form of corruption requires organizations to:

- Adopt and enforce anti-bribery rules and conflicts of interest registers;
- Conduct periodic asset and interest declarations for high-risk roles (with lifestyle audits where justified);
- Strengthen financial oversight (segregation of duties, procurement transparency, beneficial ownership checks);
- Create independent integrity bodies with investigative powers;
- Run targeted education programs; and
- Provide confidential, protected whistleblowing channels with clear follow-up.

Trading in influence by sports officials

In general terms, trading in influence is a corrupt practice whereby, in exchange for advantages, officials leverage their positions to influence decisions for third-party benefit. It may involve corrupting processes even when the beneficiary isn't the ultimate decision-maker.

2.2.3 Transfer of Athletes

The transfer of professional athletes is commonly considered a means of enhancing team competitiveness and revenue streams by entities involved in athletes' training and development (UNODC, 2022). These transactions include millions of dollars; for example, in the 2022-23 football season FIFA reported that the 10,000 mid-season transfers generated agent fees of US$696 million (UNODC, 2024a).

The transfer of athletes is also a channel for corruption that involves organized crime, trafficking in persons, illicit financial flows, migration and labor-related issues. Transfers are linked to undisclosed intermediary payments or money laundering schemes where fees are inflated to disguise illicit money and where criminal organizations create complex structures with shell companies in multiple countries to obscure the origin of the funds. In other cases, unlicensed agents target and exploit vulnerable young players, particularly from developing regions, by offering exploitative contracts

and taking a large percentage of their salaries. Athlete transfers are also used in human trafficking operations.

2.3. Vulnerabilities Targeted by Serious and Organized Crime

Serious and organized crime typically infiltrates situations where money, access, and weak controls intersect. Criminal groups exploit underpaid or indebted insiders, opaque governance, cash-heavy or cross-border transactions, gaps in data security, and poorly protected supply chains and events. Typical entry points include betting markets, player transfers and agency work, procurement of venues and mega-events, sponsorship and media-rights deals, which give these criminals the necessary leverage to corrupt decisions, launder funds, or fix competitions.

2.3.1 Use of Sport by Organized Crime in Sports-focused and Sports-related Contexts

While organized crime has had a long association with sport, the transformation of sport in recent decades has enabled a significant increase in the size and scale of these corruptive influences. The acute commercialization of sport, its global nature, and the value of the sector as a whole make it a highly attractive target for organized criminal groups, providing them with opportunities to generate large profits using cross-border operations at a relatively low risk (UNODC, 2024). Criminal groups target sport because it offers:

- Massive betting economy (incl. illegal markets): fixing a result or micro-event can be monetized instantly at scale, and unregulated books provide laundering rails and anonymity.
- Cash-heavy, event-driven revenues: ticketing, hospitality, merchandising, and match-day cash flows create frequent opportunities to place, skim, and cycle illicit funds.
- Opaque structures and intermediaries: complex club ownership, shell sponsors, agents, and third-party service firms' obscure control and enable covert influence or related-party deals.
- High discretion decisions with weak controls (especially at lower tiers): procurement for venues/events and player transfers involve subjective valuations, fertile ground for bribery, kickbacks, and bid-rigging.
- Social legitimacy and local influence: clubs carry prestige and community cover; ties to fan groups/ultras can be leveraged for intimidation, protection rackets, recruitment, and political access.

The infiltration of organized crime into sport occurs through diverse mechanisms, including the awarding of contracts for catering, stewarding, or ticketing to favored vendors; the use of influential intermediaries to facilitate introductions; and the clustering of hospitality or consulting deals preceding key decisions such as licensing, elections, or tenders. Criminal groups may also employ threats, coercion, and reputational pressure to extract money or influence outcomes involving clubs, players, or referees. Illicit proceeds are often laundered through ostensibly legitimate financial channels, including club acquisitions, player transfers, betting operations, image rights, and sponsorship or marketing agreements (FATF, 2009).

Contemporary corruption schemes increasingly exploit sports clubs as transient financial vehicles or "boxes", wherein criminal actors acquire clubs, channel illicit funds through them, and subsequently dissolve these entities. Effective investigation of such schemes necessitates reconstructing

ownership and management histories and uncovering connections with other companies. AI can substantially aid this process by swiftly mapping concealed relationships within extensive datasets and revealing linked actors.

Football is a main target for criminal groups and international organizations have long warned that organized crime exploits the sport for money laundering, bribery, and match manipulation, often starting in lower leagues or less regulated areas. Of course, football is not the only sport under threat from criminal infiltration; other professional sports such as tennis, basketball, handball, beach volleyball and ice hockey are also affected (Europol, 2021).

Working at local, national, and international levels, these criminal groups are strategic in their operations, deliberately exploiting governance weaknesses in both sports-focused (i.e., competition integrity) and sports-related (i.e., governance, host selection, procurement) contexts. They have systematically infiltrated the sector through match-fixing, illegal betting, money laundering, the manipulation of public procurement processes, infrastructure construction, human trafficking, and introducing corruption into amateur and professional sport organizations (Gayakwad et al., 2023). They typically operate through sophisticated, transnational networks that involve athletes, referees, sport officials and sport agents at all levels and financers, facilitators, and bettors (UNODC, 2024).

Money laundering through clubs' ownership, athletes transfer and sponsorships

Sport is a frequent target for organized crime seeking to "clean" illicit proceeds. Money laundering is the process of moving criminal funds (e.g., from drug trafficking or terrorism) through legitimate channels so they appear lawful (Chen, 2025). Sport is attractive because of large cash flows (from ticketing, sponsorship, broadcasting, transfers), global operations with frequent cross-border payments, and complex ownership structures involving layers of investors, shell companies, trusts, and offshore accounts, which create openings to move and disguise money (Basheer, 2025).

Criminal networks use sport to conduct money laundering operations in many ways, including:

- The manipulation player transfers (using illicit funds to pay for a player transfer at an inflated price);
- Sponsorship agreements (establishing fake companies or intermediaries to stream money into the legitimate system);
- Investing illegal cash into financially struggling clubs;
- Selling event tickets at inflated prices or in huge quantities; or
- Paying too much for the rights to broadcast a specific sport or sporting event, thus transferring illegal funds into the legal economy (Abrahamyan, 2023).

While it occurs in all types of sports at all levels, football is a particular catchall for illegal money transactions, with the UNODC estimating that the sport facilitates the laundering of roughly $140 billion USD annually (Abrahamyan, 2023). Like other forms of corruption, money laundering has significant detrimental impacts on the industry and associated communities.

Combating money laundering through sport organizations requires a comprehensive strategy. Anti-money laundering (AML) and counter-terrorism funding legislation and regulations, due diligence,

transparency, sanctions, whistleblower protection, international collaboration, training and education, and the use of cutting-edge technology, including AI-powered technologies, are part of any effective approach. These preventive measures require constant attention and innovation to be successful (Abrahamyan, 2023).

2.3.2 Trafficking in Persons in Sport Contexts

Sport has also served as a conduit for human trafficking, where young athletes, often from disadvantaged regions, are deceived into exploitation and other forms of modern slavery.

To distinguish it from other forms of trafficking, sport trafficking is generally recognized as the act of recruiting, transporting, transferring, harboring, or receiving an individual, typically an athlete or aspiring athlete, within or across borders, through coercive, deceptive, or other abusive means for the purpose of exploitation in, through, or around sports. Perpetrators may include criminal networks, the families of athletes and aspiring athletes, intermediaries and agents, and sports organizations. Lured in with false promises of career opportunities, fictitious contracts, threats, or other coercive mechanisms, victims experience forced labor, sexual exploitation, slavery, servitude within sport-related activities or events.

Though research is growing, sport-related trafficking is poorly understood with uncertainty around its nature, scale, and the effectiveness of current anti-slavery and anti-trafficking approaches (University of Nottingham Rights Lab, 2021).

2.4. Overview of International Legal, Policy, Governance Frameworks, and Enforcement Mechanisms

As outlined in the following table, there are a variety of other legal, policy, and governance frameworks, as well as enforcement mechanisms, available at the international level to curb corruption in sport and related serious offences.

Legal and Policy Frameworks

Convention on the Manipulation of Sports Competitions (Macolin Convention) Adopted in 2014 and entered into force in 2019.	**Council of Europe**	The only rule of international law on the manipulation of sports competitions. It requests public authorities to cooperate with sports organizations, betting operators and competition organizers to prevent, detect, and sanction the manipulation of sports competitions. It proposes a common legal framework for an efficient international cooperation to respond to this global threat (Council of Europe, n.d.).
UN Convention Against Transnational Organized Crime (UNTOC or Palermo Convention) Adopted in 2000 and entered into force in 2003.	**United Nations**	UNTOC defines transnational organized crime and sets out obligations for states, including criminalizing specific offences, facilitating extradition and mutual legal assistance, and building capacity to combat organized crime. While it does not specifically address sport, its provisions can be used to tackle organized crime within the sporting world.

UN Convention Against Corruption (UNCAC or Merida Convention) Adopted in 2000 and entered into force in 2005. **Resolution 7/8** - Corruption in sport, 2017 **Resolution 8/4** - Safeguarding sport from corruption, 2019	**United Nations / Conference of the States Parties (policy-making body)**	The Convention is the only legally binding universal anti-corruption instrument. **Resolution 7/8** represents a significant milestone and covers a wide range of issues including illegal betting, whistleblowing, good governance, and competition manipulation. **Resolution 8/4** encourages international cooperation and the development of legal and institutional frameworks to combat corruption and crime in sport. It also urges States to promote ethical practices and transparency within sports organizations.
Code on the Prevention of the Manipulation of Competitions, 2015	**International Olympic Committee (IOC)**	Provides sports organizations with harmonized regulations to protect all competitions from the risk of manipulation. All National Olympic Committees, international federations and their members at the regional and national levels, as well as IOC-recognized organizations, are called upon to take all appropriate measures within their power to implement the Code by reference, or to implement similar or more stringent regulations than the Code.
FIFA Compliance Programme and Integrity Handbook (2024)	**FIFA**	The Compliance Programme includes guidelines tailored to FIFA's business on specific compliance topics: anti-bribery and corruption, conflicts of interest, gifts and hospitality, international trade controls, and reputational risk. The Integrity Handbook serves as a guide and a tool to assist FIFA member associations and the confederations with the standard steps and present best practices to implement successful and sustainable initiatives, as well as a reference tool to promote integrity and to protect football competitions from match manipulation worldwide.
FIFA Ethics Code, 2023 and FIFA Disciplinary Code (2023)		Regulations aimed to define offences and sanctions related to match manipulation, bribery/corruption, and related integrity breaches.
Financial Fair Play Regulations	**UEFA**	Regulations to promote financial stability in European football by preventing clubs from spending beyond their means.
Directive (EU) 2024/1640	**European Parliament**	Includes European high-level football clubs, agents and associations into comprehensive AML scope by 2029, requiring risk assessments, Customer Due Diligence, and suspicious transaction reporting.
International Charter of Physical Education, Physical Activity and Sport, revised 2015	**UNESCO**	Article 10 of the Charter names corruption, along with violence, doping, political exploitation and manipulation in sport, among abuses that "endanger the credibility and integrity of physical education, physical activity and sport and undermine their educational, developmental, and health promoting functions."

Governance

International Partnership Against Corruption in Sport (IPACS)	**Launched at the IOC's International Forum for Sports Integrity**	A multi-stakeholder platform with the mission "to bring together international sports organizations, governments, intergovernmental organizations, and other relevant stakeholders to strengthen and support efforts to eliminate corruption and promote a culture of good governance in and around sport."
The Group of Copenhagen/ Network of National Platforms	**Advisory group of the Macolin Convention's Follow-up Committee**	Primary tasks include the formulation and development of proposals to strengthen the governance and operational capacity of National Platforms as well as the broader Macolin community.
Guidelines on Sport Integrity	**Council of Europe**	Developed within the framework of the Kazan Action Plan, the Guidelines address: • The integrity of people, including safeguards from violence and abuse and the safety and security of people. • The integrity of competitions, which refers to the manipulation of competition and to the fight against doping. • The integrity of organizations, which includes good governance.
G20 High-Level Principles on Tackling Corruption in Sport	**G20**	Aims to combat corruption in the sporting world by promoting integrity, transparency, and accountability, and by enhancing international cooperation and coordination. These principles guide G20 countries in their efforts to prevent, detect, investigate, and prosecute corruption in sport.
UN Global Compact Anti-Corruption Working Group	**UN Global Compact**	With respect to the 10th Principle against Corruption (2004), this global multi-stakeholder group facilitates cooperation and aligns efforts between global actors and initiatives to increase impact while avoiding duplication.
Sport Integrity Global Alliance (SIGA)	**Coalition of sports bodies, governments, anti-corruption NGOs, intergovernmental organizations, and commercial partners.**	With respect to the 10th Principle against Corruption (2004), this global multi-stakeholder group facilitates cooperation and aligns efforts between global actors and initiatives to increase impact while avoiding duplication.

Enforcement

INTERPOL Match-Fixing Task Force (IMFTF)	**INTERPOL**	Brings together law enforcement agencies around the world to tackle match-fixing and corruption in sport. It supports member countries in criminal investigations and joint operations in all sports and maintains a global network of investigators that share information, intelligence and best practices.

Court of Arbitration for Sport (CAS	**Founded by IOC**	An independent institution that facilitates the settlement of sports-related disputes through arbitration or mediation by means of procedural rules adapted to the specific needs of the sports world.
SIGA Universal Standards on Sport Integrity	**Coalition of sports bodies, governments, anti-corruption NGOs, intergovernmental organizations, and commercial partners**	The SIGA of Universal Standards on Sport Integrity. They cover four key areas: Good Governance in Sport, Financial Integrity and Transparency, Sport Betting Integrity and Youth Development and Protection.

Additional information is offered in other resources, including:

- UNODC's Safeguarding Sport – Legal and Policy Frameworks
- UNODC's Global Report on Corruption in Sport Overview of Institutional Initiatives to Tackle Corruption in Sport – Section 3 (2021)
- Legal Approaches to Tackling the Manipulation of Sports Competitions: A Resource Guide (2021)
- Resource Guide on Good Practices in the Investigation of Match-Fixing (2016)
- Fighting Corruption in Sport Sponsorship and Sport Related Hospitality: A Practical Guide for Companies

2.5 Summary

The forms of corruption and related serious offences threatening sport integrity are diverse, interconnected, and evolving and are facilitated by persistent issues such as poor governance, weak enforcement, lack of transparency, resistance to accountability, intelligence gaps on organized crime, and adaptable criminal networks.

Combating corruption in sport requires coordinated, cross-sectoral responses and the integration of advanced tools, such as AI, to detect, prevent, and respond to evolving threats. Transparent governance, strong regulations, international cooperation, whistleblower protection, sufficient enforcement, and integrity-focused institutions are essential for effective protection.

The existing international legal framework—including the Council of Europe Convention on the Manipulation of Sports Competitions (Macolin Convention), the United Nations Convention against Corruption (UNCAC) with Resolutions 7/8 and 8/4, the United Nations Convention against Transnational Organized Crime (UNTOC) and its Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, as well as instruments from the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the Group of Twenty (G20)—are operationalized through mechanisms like the Group of Copenhagen, INTERPOL's Match-Fixing Task Force (IMFTF), the International Partnership Against Corruption in Sport (IPACS), the Sport Integrity Global Alliance (SIGA), and the Court of Arbitration for Sport (CAS).



3.

ARTIFICIAL INTELLIGENCE AND ANTI-CORRUPTION: A CROSS-SECTOR PERSPECTIVE

3 ARTIFICIAL INTELLIGENCE AND ANTI-CORRUPTION: A CROSS-SECTOR PERSPECTIVE

The field of AI has been steadily progressing since the 1950s, but recent years have seen exponential advances in the development and integration of these systems into many sectors—including healthcare, manufacturing, law, finance, retail, real estate, accountancy, digital marketing, and crime prevention. AI technologies have become critical for automating repetitive tasks, increasing efficiencies, reducing costs, improving accuracy, and analyzing information to support decision-making processes (Ajayat, 2024).

This chapter examines the use of AI to fight corruption in the areas of finance, law enforcement, and public governance, as well as how it is used to enhance whistleblowing platforms. Lessons and key considerations are drawn from the cross-sectoral experience to inform the integration of AI for anti-corruption in sport.

3.1. Defining AI: Capabilities, Disciplines, and Terminology

For the purposes of this guide, AI broadly refers to technology applications that perform tasks that resemble human cognitive function. Using data, algorithms, and human feedback, AI is able to transform fragmented data into cohesive insights through a broad spectrum of different technologies and applications, such as:

- **Machine learning** uses algorithms to help AI process data, learn patterns, and make predictions (Stoyanova, 2024). These models can identify trends without explicit programming and are applied in areas like social media, fraud detection, autonomous vehicles, and healthcare.

  Machine learning consists of supervised learning (classification with labelled data), unsupervised learning (finding patterns without labels), semi-supervised learning (using both labelled and unlabeled data), and reinforcement learning (optimizing decisions through interaction). Supervised methods use known cases for training, while unsupervised methods detect anomalies without pre-labelled examples.

- **Natural language processing** (NLP) allows machines to understand and convert text or speech into useful formats. This can be used to analyze documents using named entity recognition, sentiment analysis, topic modelling, relationship extraction, event identification, and semantic analysis. Its multilingual tools also support language detection, translation, and cultural analysis for global investigations.

- **Computer vision** enables systems to interpret visual information and generate actionable outputs. It can support identity verification through facial recognition, document capture, and video analysis; detect unusual patterns (e.g., suspicious actions or performance during a competition); provide security through object tracking, scene understanding, and deepfake detection; and assist investigations by extracting and analyzing information from financial documents, contracts, and communications.

- **Convolutional neural network** (CNN) is a deep neural network mainly used for image classification, face recognition, and image analysis and can be used to detect anomalies. For example, it can convert the odds data of a sports match into a graph image to identify suspicious activity (Kim et al., 2023).

- **Robotics process automation** uses preprogrammed software tools that interact with other applications to automate labor-intensive tasks to increase accuracy, speed, and cost savings. It is generally used for high-volume, repetitive processes involving structured data, such as account reconciliation, accounts payable processing, and depositing of checks (FINRA, n.d.).

Machine learning, NLP, computer vision, and network analysis are often combined to create effective monitoring and detection systems. AI uses network analysis and graph analytics—such as community detection, centrality analysis, and temporal network evolution—to map relationships among individuals, organizations, and financial flows, revealing hidden structures of corruption and organized crime. A key example of a hybrid human-AI approach is in combating online abuse against athletes: AI flags potentially discriminatory or threatening messages in real time, handling large data volumes, while human analysts perform triage to assess context and nuance. This model balances AI's scalability with human judgment for accuracy and fairness.

Despite these benefits, AI also poses risks. Adaptive AI-driven malware complicates detection, and deepfakes facilitate identity theft, fraud, and misinformation (Saquella, 2024). Society must carefully balance AI's potential with its dangers.

Nonetheless, AI promises to reshape anti-corruption efforts by addressing key weaknesses in traditional methods. It enhances transparency and accountability, making it a vital tool against current and emerging corruption threats and strengthening integrity strategies (Smekhov, 2025).



3.2. I in Financial Crime and Money Laundering Detection

The application of AI in finance, or Fintech, has introduced tools like automated customer service, credit scoring (Arner et al., 2016), biometric authentication, and wearable payments. It is also essential for detecting and preventing financial crimes such as fraud, bribery, identity theft, terrorism financing, cybercrime, and money laundering. Technologies like AI, blockchain, and data analytics have transformed how fraudulent activities are identified and stopped (Canadian Financial Crime Academy, n.d.).

The ability of AI-powered systems to process vast amounts of data is essential to gathering financial intelligence and recognizing changing patterns and evolving trends. For example, AI-powered AML tools can detect activities such as layering, where funds are moved across multiple accounts to obscure their origin (Ajayat, 2024). Advanced transaction monitoring such as multi-hop analysis, velocity checks, structuring detection, and cross-border flow review identifies suspicious activity. They can sift through vast data sets pulled from various sources, such as Know Your Customer (KYC) profiles, to spot trends, and modify algorithms and policies in real time in response to new trends as they emerge. By establishing baselines for typical behavior, institutions can apply sophisticated algorithms to spot anomalies and detect complex laundering patterns.

These tools execute tasks—including risk scenarios and impacts, detection of hidden patterns in transactions and relationships among people and companies, regulation interpretation, real-time compliance analysis, and advanced reporting—with a speed and accuracy that humans cannot duplicate. The result produces fewer false positive alerts (thereby reducing time spent investigating false leads), greater protection from illegal actors and regulatory fines, and lower compliance costs (Twomey, 2024; Ricadela, 2024). However, while AI increases customer satisfaction, reduces operating expenses, and enhances decision making, it also generates a variety of hazards, including algorithmic biases, concerns about data privacy, and the possibility of job displacement (Roy et al., 2025).

Application in a Sport Context

In sport, applying AI to identify possible corrupted practices in the transfer of a player or club is essential. AI can benchmark fees, assess player value, analyze payment structures, and map third-party links to spot corruption risks. Techniques adapted from AML include checking for overpricing versus market value, payment setups that resemble laundering, and hidden ownership through intermediaries. The same methods used in finance to trace rapid fund movements and shell company activity can flag abnormal transfer fees, unusual side payments, or opaque ownership chains in both player transfers and club acquisitions.

3.3 AI for Crime Forecasting and Criminal Network Analysis

By integrating big data with AI's capacity to detect patterns, automate decisions, and forecast trends, decision making becomes faster and more reliable. Big data fuels AI's learning processes, thereby enhancing overall performance and accuracy.

AI's ability to identify patterns and connections across extensive datasets—including arrest records, police reports, 911 calls, criminal complaints, and surveillance footage—is pivotal for crime forecasting. These tools can predict the timing and location of criminal activity (Amos, 2024), enabling

law enforcement agencies to allocate resources more effectively and strategically (Saquella, 2024).

For instance, crime hotspot prediction uses geographic clustering to identify high-risk areas; temporal pattern analysis uncovers cyclical corruption; event correlation links different corruption types; and environmental factor analysis assesses conditions conducive to corrupt activities. AI also supports combating organized crime by mapping social networks to forecast activities and delineate influence structures within groups (Kearns, 2024). Although AI shows promise in addressing transnational crime, challenges persist regarding ethical considerations, recruitment, standardization, and the establishment of unified platforms and data protocols (Saquella, 2024).

Moreover, AI excels in uncovering nested trends, connecting crimes to specific perpetrators. It is particularly effective in addressing complex issues like financial crimes, including money laundering, and organized crime networks. By analyzing behavioral patterns, AI identifies high-risk individuals or groups and generates real-time alerts to facilitate preventive interventions. Predictive algorithms have been successfully deployed in the UK to reduce burglary rates and in Los Angeles to decrease crime by 20% in targeted areas.

Additionally, AI is revolutionizing criminal investigations by streamlining evidence collection, analysis, and interpretation, thereby improving investigative efficiency and outcomes.

Tools like facial recognition, NLP, and data mining help identify suspects and solve complex cases more efficiently. AI-powered surveillance can detect suspicious behavior in real time, easing the workload on human operators and improving monitoring accuracy (Saquella, 2024).

Application in a Sport Context

Applying AI pattern recognition could be particularly effective in detecting match-fixing by analyzing betting patterns, communication metadata, and performance anomalies across sporting events. Such systems can identify unusual betting spikes, unexpected changes in player performance, or shifts in communication around competitions.



3.4. AI and Open Data in Public Governance

Countries around the globe are demonstrating the potential value of AI to improve public governance. It is increasingly acknowledged that the responsible use of AI can improve the functioning of government administrations in several ways, including:

- Increasing productivity through more efficient internal operations and more effective public policies;
- Making the design and delivery of public policies and services more inclusive and responsive to the evolving needs of citizens and specific communities; and
- Strengthening the accountability of governments by enhancing their capacity for oversight and supporting independent oversight institutions (OECD, 2024).

Using AI-powered tools to analyze large amounts of data, including open data (i.e., the information collected, produced, or paid for by the public sector and made freely available for re-use for any purpose), helps decision makers gain more granular insight into user needs and identify patterns.

While there is a plethora of applications for AI in public governance, there are also many critical areas of concern to be addressed, including upholding human and civil rights, protecting personal privacy, securing algorithmic transparency, ensuring accountability, promoting 'explainability', and avoiding potential unfair and biased policy outcomes (OECD, 2024).

Application in a Sport Context

AI plus open data can tighten sport governance by flagging risks in procurement (e.g., single bids, repeated winners, price outliers) and conflicts of interest (e.g., cross-matching officials' disclosures with vendor/ownership registries). It can spot anomalies in transfers/agent fees, sponsorship/media-rights values, and expenses/grants (e.g., duplicates, split payments), and highlight unusual ticketing or official assignments for human review.

3.5. AI-Supported Whistleblower Systems

As outlined below, AI technologies offer significant potential to enhance whistleblower protection systems through secure, anonymous reporting platforms and sophisticated pattern recognition capabilities for analyzing disclosures.

- Secure and anonymous reporting platforms protects whistleblowers through the use of encryption, secure channels, and metadata removal. Natural language processing helps strip identifying data and linguistic cues from reports.
- Pattern recognition in whistleblower disclosures can analyze whistleblower reports to detect patterns of corruption or misconduct that might go unnoticed in individual cases, enabling investigators to prioritize cases based on severity, credibility, and impact.
- Risk assessment and protection systems evaluate whistleblower risks by monitoring threats, detecting retaliation patterns, and issuing early warnings. They can also track the effectiveness of protection measures and recommend protocol improvements.

- Verification and credibility analysis, using NLP and data verification tools, evaluate whistleblower reports by checking claims against existing sources, spotting inconsistencies, and flagging possible fabrications, all while protecting anonymity.

Application in a Sport Context

AI-supported whistleblower systems can greatly enhance integrity and transparency in sport governance. Through encrypted and anonymized platforms, individuals can safely report misconduct such as corruption, match-fixing, or harassment without fear of retaliation. AI tools analyze these reports to detect recurring patterns, cross-check data from transfers and financial records, and identify hidden networks of collusion or conflicts of interest. Machine learning helps prioritize credible cases and detect early warning signs, such as spikes in complaints within certain organizations. Integrated with the work of relevant bodies, these systems can strengthen oversight, accountability, and trust across the sporting ecosystem.



3.6 Transferable Principles and Implementation Frameworks from Non-Sport Sectors

The widespread use of AI across industries and sectors has produced important insights into these technologies. Generally, it is acknowledged that:

- AI should augment, not replace, human abilities. While AI delivers scale and consistency, humans provide context, ethics, and judgement. Human-AI collaboration is essential for effective and ethical use, especially in addressing challenges like sustainable resource management (Singh, 2024).

- Effective AI deployment requires thorough industry-wide data integration and real-time processing. Combining human judgment with AI's pattern recognition improves decision-making, while strong governance ensures compliance, ethics, and stakeholder involvement.

- Strong governance frameworks are needed to ensure legal compliance, ethical oversight, stakeholder engagement, and continuous performance monitoring.

- Organizations across sectors face common challenges including ensuring data quality, integrating systems, maintaining the right balance between automation and human oversight, managing privacy concerns, and ensuring interoperability.

3.6.1. *Design and Application*

Ensuring that AI technologies are working for us, rather than leading us, requires careful consideration in the design and application of AI systems. There have been a variety of lessons learned that can support future decision making in both the design and implementation of AI tools, including:

- **Inclusive system design:** AI systems can reflect the developers' values and biases, which may not represent broader society. Effective system design requires understanding stakeholder needs and ensuring teams are diverse in demographics and expertise. Alongside technical experts, involving professionals from legal, policy, civil liberties, education, and directly affected communities helps improve AI adoption and outcomes (Mitre Partnership Network, 2025).

- **Impact and accountability:** Although AI systems are built with certain goals, their real-world interactions can lead to unexpected results. Ongoing monitoring is necessary to assess and address these impacts and ensure responsible performance (Mitre Partnership Network, 2025).

- **Sector-specific standards and third-party verification:** developing global AI governance is improbable due to the significant differences between sectors like healthcare, finance, and sport. However, allowing a sector to establish AI standards in accordance with accepted practices, expectations, and authorities with its own domain can improve AI-supported outcomes.

  At the same time, objective, third-party verification and validation (O3VV) allows independent parties to scrutinize an algorithm's outcomes. Because algorithms make decisions that affect the livelihoods, finances, health, and the civil liberties of entire communities, O3VVs—which might take the form of a government auditing program, a certified private company, or consensually developed "seal" program—can take on consumer protection roles, emphasizing how the decisions affect real people's lives (Mitre Partnership Network, 2025). For Humanity, a non-profit promoting human rights as AI expands, conducts independent audits of AI systems to verify compliance with laws, regulations, and ethical standards, including transparency, disclosure, independence, risk management, and oversight (For Humanity, 2024).

- Cross-sector experience highlights that **real-time data integration** across financial, criminal, and sector-specific sources is vital for effective results. Reliable AI relies on robust master data management, quality assurance, and strong governance through legal compliance, ethical oversight, stakeholder involvement, and ongoing performance monitoring.



3.6.2. Implementation Framework and Steps

Based on cross-sector experience, organizations implementing AI for anti-corruption purposes should consider the following framework:

Phase 1: Assessment and Planning

- Policy Identification: Identify the policies that should be implemented or preserved with the support of AI.
- Data Audit: Evaluate existing data sources, quality, and integration capabilities.
- Stakeholder Mapping: Identify key stakeholders, their needs, and potential resistance points.
- Risk Assessment: Analyze legal, ethical, privacy, and operational risks.
- Resource Planning: Assess technical capabilities, budget requirements, and timelines.

Phase 2: Pilot Implementation

- Limited Scope Deployment: Begin with well-defined use cases and clear success metrics.
- Human-AI Collaboration Models: Establish protocols for human oversight and decision making.
- Feedback Mechanisms: Create systems for continuous learning and improvement.
- Performance Monitoring: Implement robust evaluation and validation processes.

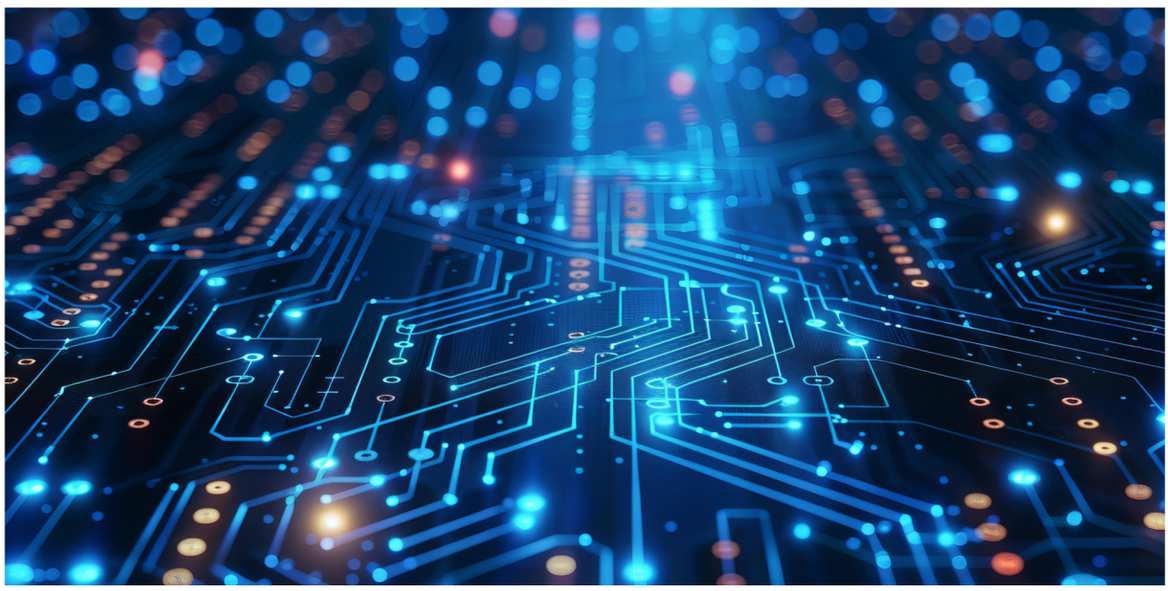
Phase 3: Scale and Integration

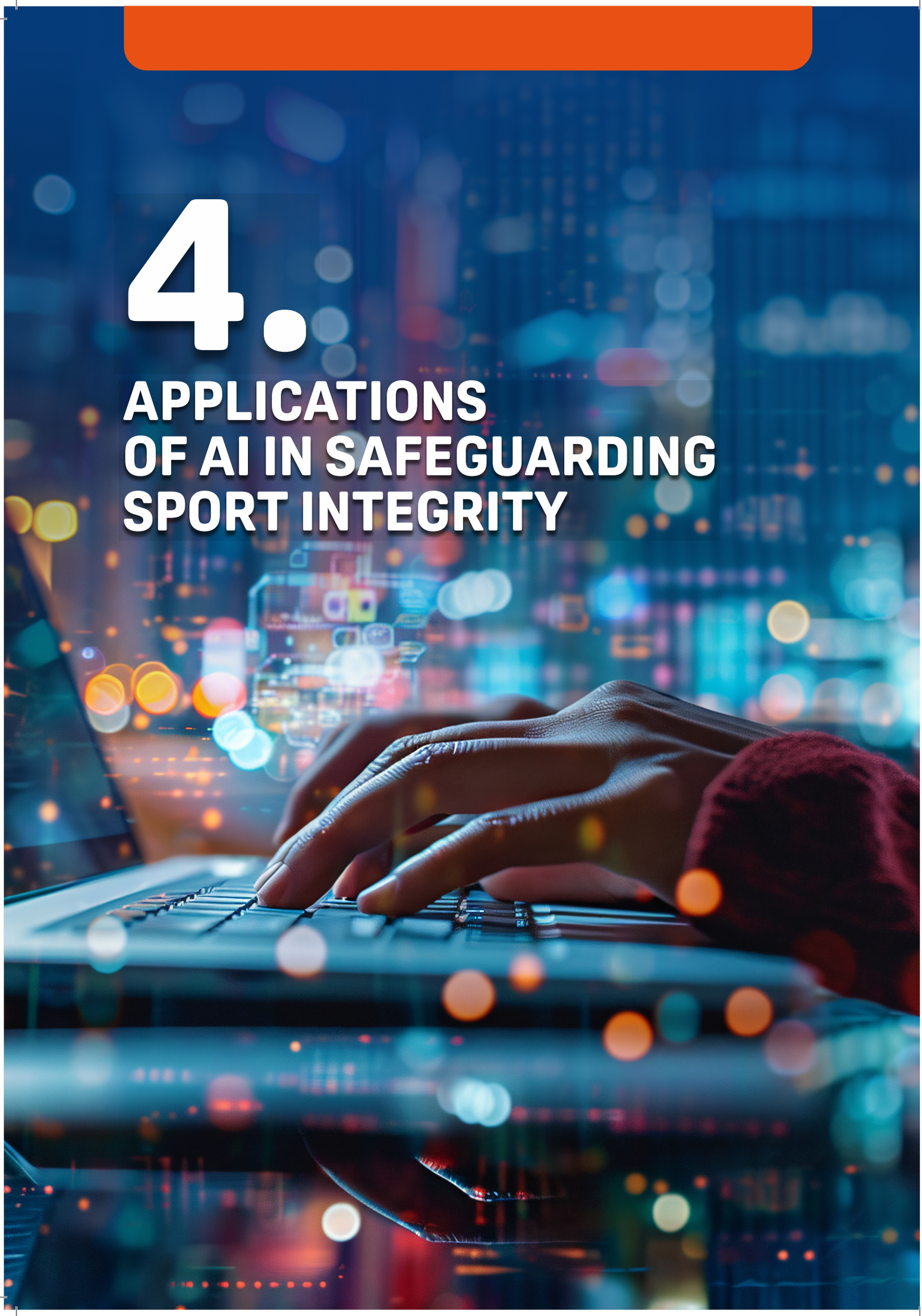
- System Integration: Connect AI tools with existing workflows and databases.
- Training and Adoption: Develop comprehensive training programs for end users.
- Governance Structures: Establish oversight committees and ethical review processes.
- Continuous Improvement: Conduct regular system updates based on performance data and user feedback.

3.7 Summary

AI provides powerful tools for detecting and preventing corruption and there is clear opportunity to adapt proven techniques from financial crime detection, law enforcement, and public governance to address the unique integrity challenges of sport.

However, the effectiveness of AI depends on responsible design, human oversight, sector-specific standards, and robust data governance. By drawing on the lessons learned from other sectors, sport can create a realistic roadmap for integrating AI into its integrity frameworks while bypassing many of the challenges experienced by other industries





4.
APPLICATIONS OF AI IN SAFEGUARDING SPORT INTEGRITY

4 APPLICATIONS OF AI IN SAFEGUARDING SPORT INTEGRITY

The application of AI in sport is not a new concept. These technologies have found their way into many aspects of the sector, including analyzing athlete/team performance, officiating matches, and engaging fans. For example, AI-powered systems are used to track and analyze athletes' physiological, movement, and other performance metrics to optimize training programs, develop match strategies, prevent injuries, and predict future performance (Datacamp, 2024). Tools like semi-automated offside technology, which was introduced to football's Premier League for the 2024-25 season, track players' body movements to determine offside calls and is expected to reduce the time needed to review potential infractions by an average of 31 seconds (Middling & Hu, 2024)

As demonstrated, AI can also strengthen how sport organizations prevent, detect, and investigate corruption. Research into law enforcement AI applications has identified three primary technology domains with direct applications to sports integrity monitoring and corruption detection:

1. **Audio processing applications** enable AI-powered voice profiling and communication analysis essential for sports integrity investigations. These capabilities support investigators in processing intercepted communications, analyzing environmental audio, and identifying coordination patterns in criminal networks exploiting sport.

2. **Visual processing applications** offer advanced computer vision capabilities for sports integrity monitoring, including crowd and venue analysis for security monitoring and identifying banned individuals at sporting events.

3. **Resource optimization applications** enhance the efficiency and effectiveness of sports integrity operations through intelligent allocation of investigation resources, strategic monitoring system deployment, alert prioritization based on severity and resource availability and optimized multi-agency response coordination.

In practice, AI tools applied to risk-based monitoring of betting markets and match activities detect subtle patterns within large datasets, enabling officials to identify suspicious behavior and gather evidence that meets legal standards of proof. By automating complex data analysis and minimizing manual errors, AI enhances the efficiency, consistency, and fairness of governance processes.

AI's primary contribution to anti-corruption efforts lies in predictive models that analyze relevant data to detect anomalous patterns. These systems function as advanced alert mechanisms rather than tools for proving wrongdoing, flagging events or behaviors that require further investigation by competent human authorities.

E-sports, for example, has recently attracted considerable scholarly attention regarding its broader social and digital responsibility—most notably in relation to safeguarding integrity across rapidly evolving competitive ecosystems (see Kolyperas et al., 2025). This growing academic focus reflects a wider recognition that e-sports provides a unique environment where integrity challenges, governance gaps, and technological innovations intersect at speed. In fact, e-sports currently functions as a live testing ground for AI applications in sport integrity: because every action in competition is digital and traceable, AI systems can detect cheating in real time, flag suspicious betting activities, and rapidly map connections among players, bettors, and intermediaries. Integrity

teams are also increasingly using AI to generate due-diligence profiles and identify manipulation risks even before events begin.

Emerging Practice Example: AI-Driven Integrity and Due Diligence System in E-Sports

During interviews, the Esports Integrity Commission (ESIC) described how their organization developed an AI-powered investigation and monitoring platform that transformed the way they detect and analyze corruption, match-fixing, and player misconduct

The system uses AI bots to scan open-source intelligence (OSINT) across the internet to identify links between players, bettors, and other entities involved in suspicious activity. It automatically filters and summarizes massive volumes of data (20,000 - 200,000 online hits per player) into concise, actionable intelligence, reducing what used to take several days of manual research to just 15 minutes. This tool helps investigators link aliases and multiple player identities, detect conflicts of interest, and uncover potential collusion between competitors and bettors

The platform also cross-checks biographical details, usernames, and social-media connections to expose hidden relationships—for instance, finding that a bettor and a player attended the same school or shared online groups. This automated matching process has improved the success rate of identifying relevant links by roughly 80 percent, enabling faster and more accurate investigations into integrity violations.

In addition, the organization plans to make the system available as a due diligence tool for wider sport governance use, allowing federations, clubs, and sponsors to vet potential partners, players, and investors. By drastically cutting the cost and time of background checks, the model shows how AI can democratize integrity verification and make anti-corruption controls more accessible across both e-sports and traditional sports

As outlined in Chapter 2, corruption in sport manifests in several interrelated forms, including corruption in sports-focused contexts (match-fixing and illegal betting), corruption in sports-related contexts (fraud and conflicts of interest in bidding and procurement), and vulnerabilities targeted by serious and organized crime (money laundering through club ownership, transfers and sponsorships, and the trafficking and exploitation of athletes).

Building on this typology, the applications of AI in this chapter are organized around the common vulnerabilities where AI can provide concrete support, such as competition manipulation and betting integrity, financial and procurement oversight, governance and conflicts of interest, and the infiltration of sport by organized crime.

Particular emphasis is placed on match-fixing and illegal betting, given their cross-cutting nature, the volume of available data, and the fact that they have been among the first areas where AI-driven tools have been deployed in practice. Other risks are examined in a more holistic and less

granular way, reflecting both the shared methodologies that apply across them and the current state of experience and data access in those domains. This approach maintains a clear common thread with Chapter 2 and is intended to provide a structured, practice-oriented overview of how AI can reinforce integrity efforts across these overlapping risk areas.

4.1. Match-Fixing Detection and Betting Market Analysis

Match-fixing detection aims to identify and prevent activities that undermine the fairness and integrity of sports competitions. Anomalies—such as unusual betting patterns, unexpected performance fluctuations, or suspicious player behaviors—serve as red flags for potential incidents of match-fixing (Kim et al., 2024).

Law enforcement agencies see the potential of AI to support the detection of competition manipulation through performance analytics. For example, by modelling expected performance profiles for athletes (e.g., in multi-stage races), AI can flag outlier speeds or outputs that may indicate illicit assistance, such as prohibited substances. When verified with independent evidence and used alongside biological, mechanical, and event monitoring, these signals can complement traditional controls. Betting market surveillance is also advancing, and authorities are already using algorithms to automatically detect suspicious bets.

With respect to match-fixing, betting frauds, or illegal betting, AI systems can detect suspicious activity in a variety of ways, including:

- Performance pattern anomaly checks compare players'/teams' match behaviors to learned baselines and historic stats (e.g., illogical defending before goals) and cross-check those moments against betting moves (Wezom, 2024).
- Data-led expectations vs outcomes (events modelling) use predictive models (e.g., expected shots on target, cards, pass counts) and escalate when live stats materially diverge, especially when aligned with market anomalies (Clue, 2022).
- Deep learning on odds time-series analysis (early warning) model pre-match and in-play price/volume against historical patterns to flag anomalies indicative of manipulation (Kim et al., 2024).
- Market-wide anomaly scanning identifies suspicious price/volume patterns across operators and exchanges, including coordinated micro-bets and last minute moves typical of fix-driven wagering.
- Multi-source signals combine betting data, match events, performance metrics, and public-signal context (e.g., news/social) to strengthen or down-rank alerts (Verma, 2025).
- Behavioral/transactional profiling of bettors assess 'normal' account behavior at scale and mark deviations, stake spikes, atypical price selections, coordinated micro-bets, or odd device/payment fingerprints, as suspicious, and route for review (Davitaia, 2025).
- Network and entity resolution analytics link betting accounts, devices, payment rails, and known intermediaries across borders, helping to map syndicates and connect cases that would otherwise look isolated.

- Real-time countermeasures in live betting monitoring instantly flag large/pattern-breaking wagers, trigger step-up checks (temporary holds/extra authority), or fast manual review to prevent ongoing fraud. Unlike traditional systems that might only flag an anomaly after the fact (or miss it altogether), advanced AI systems can automatically suspend a bettor's account, request additional authentication, or flag it for manual review, thereby preventing further fraudulent behavior (Ajayat, 2024).

- Financial crime analytics (combining payment trails, beneficial ownership, and adverse media data) surface offshore routing and straw owner structures, strengthening referrals to regulators, financial intelligence units, and police. When combined with fast-track triage of whistleblower tips, especially urgent safeguarding complaints, AI ensures that time-critical leads rise to the top so victims can be protected and competitions secured.

In these ways, AI can make a significant impact in the prevention, detection, and investigation of corruption. Sports organizations note that AI is especially effective in real-time monitoring, particularly in high-risk leagues, officials, or clubs. It can scrutinize performance data and betting patterns during competition to spot anomalies using pattern recognition to detect subtle signs of manipulation that traditional monitoring might miss. By combining betting data with context (line-ups, weather, etc.), they reduce false positives and generate alerts that can be checked against evidence, helping investigators prioritize serious cases and act quickly.

Beyond betting analysis, AI is increasingly being explored to assess on-field performance as a potential means to detect match-fixing. Although this approach remains experimental and presents both technical and ethical challenges, experts suggest that evaluating whether athletes are performing at full effort could become a valuable tool for future integrity monitoring.

AI may also play a crucial role in preventing delays in investigations, which often lead to lost evidence, increased risks to upcoming competitions, reputational harm, evasion of sanctions by offenders, and a greater likelihood of witness hesitation, intimidation, collusion, or evidence contamination. By accelerating data analysis and flagging suspicious activity promptly, AI helps mitigate these risks by:

- Real-time triage pushes urgent alerts (e.g., live betting spikes, sexual exploitation and abuse reports) to decision makers fast;
- Early preservation of logs, odds feeds, and comms with chain of custody;
- De-duplication and link analysis to merge related tips and avoid bottlenecks;
- Proactive risk scoring to deploy oversight before the next fixture;
- Safeguarding cues (e.g., retaliation signals on social media) to trigger protection for witnesses and victims;
- Instant multilingual translation so cross-border teams act in parallel; and
- Clear, explainable alerts with action playbooks, shortening the path from signal to lawful action.

Keeping match-fixing and illegal betting squarely inside the anti-corruption frame clarifies purpose: AI is not about automating sport analytics but rather shortening the path from hidden collusion to targeted action with built-in explainability, legality, and human oversight.

4.2. Financial Oversight: Auditing and Risk Identification

AI is also transforming financial oversight in sport. By leveraging real-time predictive analytics, the integration of AI-driven sports management frameworks enhances a sport organization's decision-making processes, performance analytics, resource allocation, strategic planning, and operational efficiency, all of which support the financial sustainability of sport organizations (Akhmatov et al., 2025).

Money fuels most corruption in sport—from internal risks like fraud, bribery, and misuse of funds to external threats such as money laundering and organized crime. AI can enhance the financial integrity of sport organizations and events by analyzing records, transactions, and communications to detect anomalies, connect suspicious parties, and generate clear risk scores for investigators. It transforms fragmented ledgers, contracts, and ownership data into real-time, risk-aware intelligence. Machine learning rapidly processes large datasets to flag irregularities and facilitate near real-time fraud and compliance checks, enabling earlier interventions and more reliable reporting (MindBridge, 2024). Predictive analytics and anomaly detection identify irregular transfers, hidden conflicts of interest, and suspicious payment patterns early, shifting audits from retrospective reviews to continuous monitoring. This accelerates investigations, reduces human error, and improves risk assessment. While AI provides data insights, human expertise remains essential to interpret connections. AI calculates the likelihood of certain events, aiding in the identification of criminal patterns that are often undetectable by conventional means.

AI delivers significant practical gains for investigations and oversight across four key corruption domains:

1. Fraud and corruption in the selection of major event hosts

AI can integrate data from bid-phase communications, meeting logs, travel records, hospitality expenses, and media sources to identify undisclosed contacts, unusual activity spikes before key votes, and benefit flows to decision makers. Document analysis detects side letters or vague consulting agreements, while network analysis exposes intermediaries brokering access to voters. Cross-referencing with media and ownership databases surfaces conflicts of interest, creating an auditable trail that makes suspicious interactions visible at earlier stages.

2. Corruption and conflicts of interest in procurement for events and infrastructure

For venues, transport infrastructure, overlays, and services, AI has the capacity to compare bids, pricing patterns, and contract amendments to identify bid rotation, duplicative narratives, statistically anomalous price spreads, and repetitive vendor wins. Linking procurement data to beneficial ownership registries and payment records reveals related-party chains and offshore routing. Such signatures have been documented in past investigations that uncovered bribery and cartel behavior among contractors associated with mega-events (Chade, 2017). Unlike ad hoc audits, AI supports continuous pre-award screening and post-award monitoring.

3. Fraud and vote buying in sport federation elections

Integrity units can map communication patterns, timing, and milestones by analyzing lawful communications metadata alongside travel, hospitality records, and expense filings. Natural language processing identifies coded quid-pro-quo language in messages and documents, while graph analytics highlight intermediaries linking candidates to voting blocs. Financial screening identifies unusual per diems, gifts, or third-party sponsorships. These capabilities generate targeted leads for interviews and disciplinary action, supporting referrals when criminal thresholds are met.

4. Transfers of athletes and related financial crime risks

Transfer markets present significant vulnerabilities: inflated fees, hidden commissions, image rights arbitrage, third-party influence, and round-tripping. By comparing transfer agreements, agent mandates, and payment schedules against market benchmarks and peer transactions, AI identifies outliers and conflicts. It links parties through ownership structures or adverse media data and maps financial flows through banks or payment service providers (where lawfully accessible). This capability allows federations and law enforcement to assess potential risks at scale and in real time, strengthening due diligence and enforcement.

To conclude, financial transparency is the backbone of anti-corruption in sport. AI does not replace investigators or auditors but amplifies their abilities by cutting review time, revealing hidden links, and generating explainable risk profiles that withstand disciplinary and judicial scrutiny. Used with proper governance, AI turns scattered financial traces into timely, actionable intelligence that protects events, institutions, and athletes.

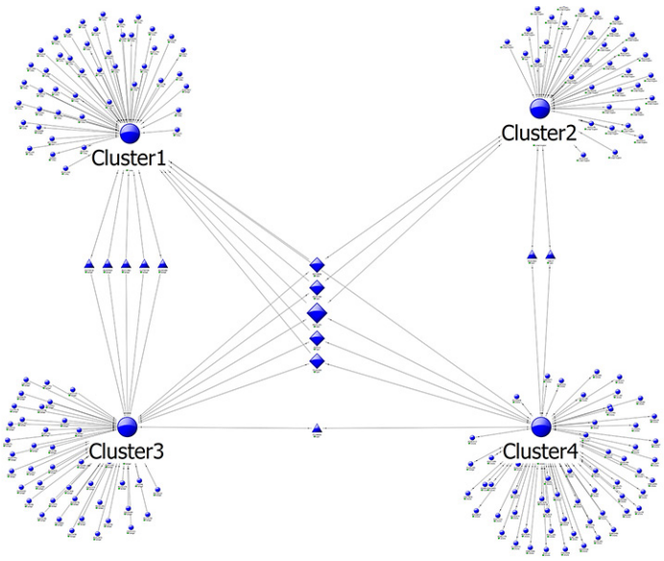
4.3. Network and Communication Pattern Analysis for Fraud Detection

Perpetrators of corruption and fraud in sport usually operate through networks rather than as isolated actors. They often involve intermediaries with access to decision-makers, rotating vendor wins, shell companies, consultancy contracts linked to votes, and money flows timed around tenders.



Instead of hunting only for a single ‘smoking gun’, AI looks for patterns typical of bribery, bid-rigging, conflicts of interest, kickbacks, embezzlement, and vote buying. Graph analytics uncover hubs and bridges, such as brokers who repeatedly connect bidders or sponsors to insiders. Network and communication analysis can collate procurement data, payments, ownership records, and communications metadata to expose these links and trace related decisions or transfers, providing investigators clear, defensible leads that can withstand disciplinary and legal examination.

Figure 1. A link analysis graph showing dusters of entities (12 Group. n.d.)



For example:

- Community detection reveals hidden clusters of 'competing' vendors that share owners, advisors, addresses, bank rails, or IP/device fingerprints.
- Temporal analysis aligns contact spikes, meetings, travel, and payments with decision milestones (e.g., host selection, tender awards, federation elections).
- Document intelligence compares bid narratives and contracts to flag copy-paste language, side letters, and last-minute scope or price changes.
- Payment analytics surfaces round-number or split invoices, duplicate billing, and offshore routing.

When indicators align, they may signal a variety of sport-related frauds in areas such as:

- **Host selection** where vote buying is detected by bursts of contact and hospitality with bid milestones, links between 'consultants' and intermediaries to voters, and subsequent benefits (e.g., sponsorships, rights, contracts).
- **Event and infrastructure procurement** where related frauds are indicated by cartel behavior (e.g., bid rotation, synchronized submissions, improbable price spreads), hidden related parties behind 'competitors', and kickback loops embedded in change orders.
- **Federation elections** where fraudulent activity is tracked through the flow of favors and money through intermediaries; per diems, 'support packages', or third-party sponsorships to voting blocs; or the appearance of staff or advisors appearing on both sides of deals.
- **Transfers where third-party influence may be traced through** connections between agents, clubs, feeder academies, and service companies or the presence of dual representation, hidden commissions, circular financing, and image rights arbitrage.

- **Organization or event operations** where fraud related to expenses, grants, or legacy funds are exposed by the detection of ghost vendors, duplicate or sub-threshold split invoices, and the diversion of development grants through affiliated entities.

AI helps to expose corruption networks early, clearly, and at scale so integrity teams and law enforcement can focus on the right people and decisions at the right moment, protecting competitions, money, and public trust. Because these analytics can directly impact people and decisions, clear governance policies must be embedded to address:

- Lawful bases and proportionality;
- Role-based access and model cards describing data, features, thresholds, and limits;
- Periodic red-teaming[2] to catch spurious correlations or bias; and
- A documented right to be heard/appeal in disciplinary contexts.

For example, to ensure data is kept purposeful and lawful, pattern analysis for fraud detection works best with purpose-limited, role-based use of:

- Procurement and finance data (bid histories, evaluation sheets, contracts, amendments, invoices, payments);
- Governance and identity (beneficial ownership, sanctions/PEP lists, prior integrity findings);
- Calendars, access logs, visitor registers, travel/hospitality and gifts/benefits records; and
- Communications metadata (emails, calls, messaging logs).

Privacy by design (e.g., minimization, data protection impact assessments (DPIA)), encryption, and auditable access are non-negotiable; humans must remain in the loop for every consequential decision.

When suspicious connections are flagged, investigators must follow up AI-driven insights with a series of actions which may include:

- Initiating a targeted legal hold
- Conducting interviews with relevant people
- Requesting clarifications from vendors
- Pulling contracts and payment proofs
- Notifying authorities (competition authority, financial integrity units (FIUs)[3], law enforcement) if thresholds are met.

2 Red-teaming is a process where an authorized group of people, or a "red team," simulates an adversary to test an organization's security by performing a simulated, often non-destructive, attack.

3 Financial integrity units (FIUs), work to safeguard the integrity of the financial system from money laundering, terrorist financing, and other financial crimes by collecting, analyzing, and disseminating financial information.

How AI Adds Value Without Becoming a Black Box

A black box refers to the inability to understand how certain AI systems, particularly those using complex models like deep learning, arrive at their decisions. This lack of transparency makes it difficult to trust, fix, or ensure the fairness of these systems, and can mask biases, vulnerabilities, and errors in their reasoning.

- Graph analytics reveal brokers, clusters, and cross-deal linkages that manual reviews miss.
- Temporal alignment shows choreography (contacts → decision → benefits), the signature of quid-pro-quo transactions.
- Entity resolution reconciles aliases, transliterations, and shells so one actor isn't miscounted as many.
- Document intelligence (via natural language processing) extracts terms/amounts/dates, flags side letters and suspicious amendments, and measures text similarity across 'competing' bids.
- Explainability by design: every alert carries which links, dates, and documents triggered it, so investigators can test and refute quickly.



4.4. Identifying Criminal Infiltration and Collusion

Sport increasingly serves as a conduit for criminal and organized crime activities, due to its attractiveness for generating substantial profits with relatively low risk of detection and sanction, partly because of inconsistent or absent global regulations (UNODC, 2023). Lower-tier events are especially vulnerable due to weaker oversight and lower pay, making integrity breaches harder to detect. Beyond external criminal syndicates, internal collusion—secret or illegal cooperation between teams to limit competition and gain unfair advantages—poses a significant threat to sports integrity, affecting player transfers, salaries, and other areas against fair play principles.

AI's ability to quickly analyze vast, complex datasets offers major opportunities to strengthen integrity frameworks. A key application is in anti-doping, where AI processes extensive longitudinal data, such as athlete biological passports and blood profiles, to detect anomalies and flag potential violations for review, supporting cleaner competition with data-driven scrutiny.

AI is increasingly vital for law enforcement and sports organizations to prevent, detect, and investigate corruption and criminal infiltration in sport, proving especially effective in key areas such as:

- **Hidden ownership/control:** entity resolution and graph analytics link beneficial owners, nominees, relatives, and repeat directors across registries to prevent licensing/fit-and-proper failures; continuous monitoring highlights sudden control shifts for early action; explainable network maps underpin interviews and referrals.
- **Stadium-perimeter vendor capture (catering, stewarding, ticketing):** procurement analytics compare bids and amendments to detect bid rotation, copy-paste narratives, unusual price spreads; anomaly scoring on invoices spots split billing and round-numbers; investigators use vendor–director graphs and payment trails to evidence collusion.
- **Ultra influence/intimidation:** social media intelligence (SOCMINT) and ticketing data reveal bulk allocation patterns, resale rings, and coordinated threats; temporal spikes around fixtures trigger safeguarding and targeted liaison with public order units; case timelines align online cues with incidents and payments.
- **Transfers/agents/academies:** valuation models benchmark fees and wages to flag inflation; NLP finds hidden commissions and side letters; money flow analysis surfaces circular financing and offshore routing; investigators correlate flagged deals with agent/academy networks to target dual representation and self-dealing.
- **Sponsorships/consultancies as laundering or influence:** similarities in contract text links 'independent' sponsors; adverse media/ownership checks expose related parties; payment clustering after key votes suggests quid-pro-quo; investigators assemble evidence packs (documents, timelines, graphs) with clear rationales.
- **Event and infrastructure procurement:** pre-award screens pause risky tenders; post-award monitoring catches late scope/price changes; graph motifs tie contractors to insiders; investigators use playbooks (legal holds, interviews, retenders, FIU/law enforcement referrals).

AI adds value by making hidden structures visible. It can identify who actually controls a club or counterparty by linking beneficial owners, relatives, nominees, and corporate chains across jurisdictions. AI models can detect classic sanctions-evasion behavior, rapid changes of directors or shareholders, jurisdiction 'hops', phoenix companies, and sudden rerouting of payments after new restrictions. It can extract key terms and fees from sponsorship, consulting, and image rights contracts, while payment analytics flag circular flows, split or round-number invoices, offshore routing, and other signs of layering. Even reputational laundering leaves traces that can be detected by AI by assessing open-source, social media, and commercial data to link philanthropic or cultural partnerships to underlying business deals, revealing prestige-washing around events and academies.

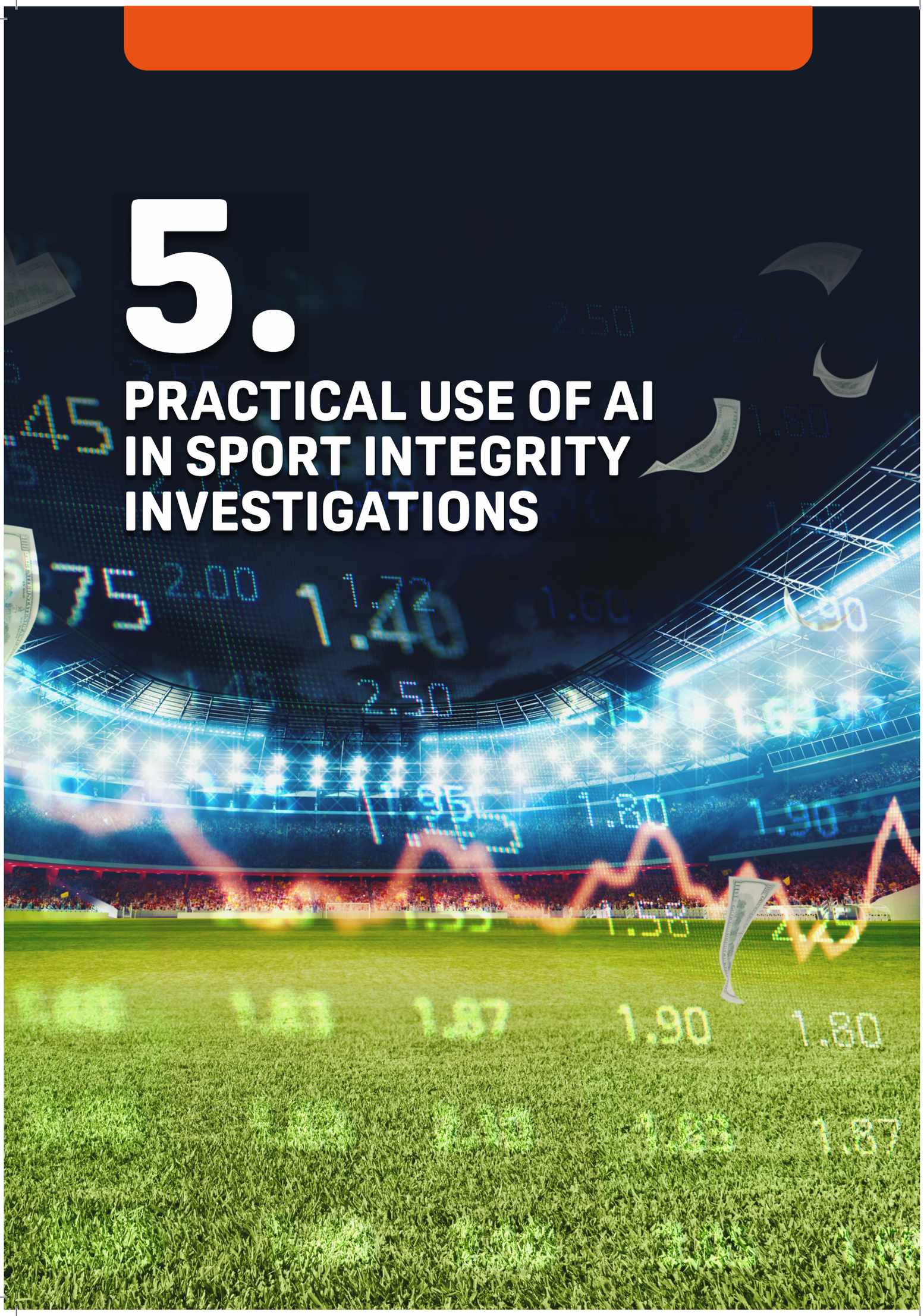
AI is especially valuable for minor and lower-tier leagues, where oversight, media scrutiny, and resources are limited but vulnerability is high. Lightweight anomaly detection on bids, invoices, transfers and betting signals, plus graph-based screening of owners, vendors, agents, and academies, gives integrity teams cost-effective early warning and targeted triage. By merging local OSINT/SOCMINT with core records and auto-translation, AI helps reveal credible risks in small competitions and youth pathways before they escalate, ensuring scarce investigative capacity is focused where it matters most.

Critically, these capabilities produce risk-ranked, explainable alerts. This allows sports bodies to block or condition risky sponsors, transfers, or ownership changes, apply enhanced due diligence before releasing funds, and assemble evidence packs (with timelines, network maps, contract excerpts) for disciplinary or legal action. For law enforcement and FIUs, the same tools generate earlier network-level leads that connect people, companies, contracts, and money, accelerating sanctions-evasion cases and asset recovery.

4.5. Summary

AI is transforming sport integrity by enabling faster, more accurate, and scalable detection and investigation of corruption, fraud, and manipulation. By combining advanced analytics with human oversight, robust governance, and continuous improvement, AI increases the speed, accuracy, and scalability of integrity operations, making it a transformative tool for safeguarding the credibility and fairness of sport.





5.

PRACTICAL USE OF AI IN SPORT INTEGRITY INVESTIGATIONS

5 PRACTICAL USE OF AI IN SPORT INTEGRITY INVESTIGATIONS

AI is shifting sport integrity work from reactive casework to proactive, intelligence-led protection. By fusing signals from betting markets, performance data, finances, communications, and open sources, investigators can spot hidden patterns, prioritize real risks, and move faster on urgent matters, such as triaging whistleblower reports in abuse cases. AI streamlines evidence handling and reporting; supports fair, well-prepared interviews; and enables risk-based oversight across borders and languages.

The following outlines key practical uses of AI in sport integrity investigations.

5.1. Pattern Recognition and Anomaly Detection

AI can deliver immediate value to sport integrity through pattern recognition and anomaly detection. By processing very large datasets, AI can flag deviations from expected behavior that may indicate manipulation, fraud, or corruption, especially in betting markets, financial flows, and performance data. For example,

- In betting-related manipulation, match-fixing often leaves statistical traces such as sudden odds movements or unusual betting volumes that do not match normal competition patterns. AI can monitor betting markets in real time across thousands of events and jurisdictions, flagging irregular activity that may warrant law enforcement attention, including in cases linked to cross-border organized crime (UNODC, 2021). Unlike manual monitoring, which is resource-intensive, AI provides continuous global coverage and can be directed toward high-risk leagues, teams, or jurisdictions with a history of manipulation, weak regulation, or recurring suspicious activity. This targeting helps direct resources where they are most needed, enables earlier intervention, and is particularly valuable in lower leagues, where oversight is weaker, salaries are lower, and the incentives to manipulate matches are higher.

- In financial oversight, AI can detect anomalies such as inflated invoices, unexplained cash spikes, or payments routed through high-risk jurisdictions—potential indicators of bribery, illicit enrichment, or money laundering, mirroring systems already used in the financial sector.

- In performance and competition data, AI can analyze referee decisions, player behavior, and team performance to identify statistical anomalies. While these anomalies are not proof of manipulation, they generate leads that, combined with other indicators, can guide targeted investigation.

From a law enforcement perspective, AI is a data management tool that supports investigations by sifting through all available data, visualizing findings, and computing data. This capability to organize and present complex information exposes patterns that would be impossible to detect through manual review of large datasets.

Key Benefits

Specific Benefits

For Law Enforcement

- Detection of financial irregularities (e.g., round-number transactions, offshore flows)
- Ability to target high-risk jurisdictions and competitions, focusing on areas most prone to criminal infiltration
- Strengthened prosecutorial evidence by correlating anomalies with financial and communication data

For Sports Organizations

- Continuous competition oversight, including referee and athletes performance monitoring
- Protection of vulnerable minor leagues, where oversight is weaker and manipulation more common
- Support for integrity risk assessments, identifying individuals, clubs, or competitions at higher risk of manipulation

Shared Benefits

- Early warning systems that flag suspicious betting activity, financial flows, or competition outcomes in real time
- Efficient resource allocation by prioritizing high-risk cases and reducing manual workload
- Enhanced cross-border cooperation through standardized anomaly detection signals
- Increased credibility and trust by showing proactive monitoring to athletes, fans, and sponsors

Investigative Value

AI-driven anomaly detection is not a replacement for human investigators; it is a force multiplier. It enables integrity officers, regulators, and law enforcement to monitor large and complex data sources, focus on high-risk cases, and react quickly when irregularities appear. When combined with targeted monitoring of known high-risk areas, AI becomes a practical tool to protect the integrity of sport and help restore trust in fair competition.

5.2. Digital Forensics and Open-Source Intelligence

In today's digital landscape, much evidence sits outside traditional channels. AI enhances digital forensics and OSINT by processing large volumes of unstructured data, uncovering hidden signals, and revealing patterns. OSINT draws on websites, open databases, news, forums, and social platforms. Used together, these sources generate leads on match manipulation, financial misconduct, and wider corruption in sport.

Key areas of application include:

- Document and text mining: Corruption cases generate huge volumes of documentation including contracts, invoices, emails, and other communications. NLP can scan thousands of pages to extract entities (names, places, dates), red flag terms, and cluster related files, drastically reducing manual effort and directing analysts to high-value evidence.
- Open-source scanning: AI-enhanced OSINT tools can continuously monitor online forums, blogs, and news sites for discussions related to suspicious matches, illegal betting platforms, or individuals connected to previous corruption cases. By filtering out the 'noise' and prioritizing relevant content, AI ensures investigators are not overwhelmed by the sheer volume of open-source data.
- SOCMINT: Social platforms are key spaces where manipulation is hinted at or coordinated. AI tools can scan multi-platform posts to spot abnormal buzz around matches, coordinated campaigns, suspect account networks, tipster rings, or coded language, which is often visible in lower leagues with minimal oversight.
- Multilingual monitoring: Because corruption is often transnational, NLP can process multiple languages, dialects, slang, and euphemisms to capture indicators that would otherwise be missed in investigations that cross jurisdictions.
- Linking OSINT with investigative data: AI connects open-source leads to internal datasets, betting alerts, match statistics, and financials to build a fuller picture. A tip about a referee, for example, can be cross-checked against social chatter, performance data, and known associates.
- Digital forensics integration: Beyond open sources, AI accelerates review of seized devices and email—by clustering communications, identifying recurring terms, and flagging abnormal file-sharing—to reveal hidden coordination.

Key Benefits

Specific Benefits

For Law Enforcement

- Analysis of seized devices and files, extracting metadata, communication chains, and hidden links while preserving chain of custody
- Monitoring illicit online markets (e.g., unregulated betting, dark web forums) to detect manipulation schemes and criminal coordination
- Multilingual and coded language analysis to capture transnational corruption discussions
- Strengthening evidence for prosecution by linking digital traces with betting and financial irregularities

For Sports Organizations

- Whistleblower case enrichment, linking reports to OSINT and SOCMINT findings for credibility checks
- Real-time monitoring of social media to detect manipulation narratives, tipster activity, or athlete intimidation
- Reputation management, identifying emerging corruption allegations in media and online discussions
- Monitoring vulnerable competitions, particularly minor leagues where manipulation is often openly discussed online

Shared Benefits

- Enhanced intelligence gathering by processing vast amounts of digital, open-source, and social media data
- Increased efficiency in reviewing documents, communications, or online activity through AI-powered text mining and clustering
- Improved accuracy by reducing human error and uncovering hidden connections across unstructured data
- Early detection of threats through proactive monitoring of online platforms, forums, and social media discussions

Investigative Value

The strength of AI-enhanced OSINT and SOCMINT lies in early detection and contextual enrichment. Leads that emerge online, whether a suspicious discussion in a betting forum, a sudden increase in social media chatter, or a questionable document leak, may not be conclusive evidence, but they provide starting points for deeper investigation. When validated and combined with forensic evidence, they significantly increase the speed and precision of corruption inquiries.



By integrating OSINT, SOCMINT, and digital forensics into sport integrity strategies, AI empowers investigators to move from reactive responses to proactive monitoring. This allows sport organizations and law enforcement agencies to stay ahead of emerging threats, particularly in vulnerable contexts such as online betting, minor leagues, and regions with limited regulatory oversight.

Emerging Practice Example: AI and NLP in Enhancing Sports Integrity

A collaboration between a software engineering company and a sport betting company was formed to develop a platform to help sports club integration managers assess the loyalty of athletes and coaches, thereby preventing potential risks for the club.

A cloud-based SaaS (Software as a Service) solution that combines the power of AI and a centralized dashboard was created. The platform uses an AI chatbot based on Llama 3.2, which communicates with players via Telegram, Instagram, and LinkedIn. The bot's goal is to analyze athletes' responses and identify potential risks such as unethical behavior, declining loyalty, or conflicts of interest. Key features of the system include:

- Integration with social media: The platform supports automatic communication with popular messaging apps, providing an easy and convenient channel for interaction between the club and athletes.
- AI chatbot: Customizable scenarios allow integration managers to set the tone of conversations, analyze emotions, and adapt dialogues in real-time. For younger players, the bot uses informal language, while for experienced professionals, a more formal tone is applied.
- Emotion and behavior analysis: AI detects changes in the athlete's mood, such as a shift from trust to caution, and suggests actions for the manager to take.
- Report generation: After each conversation, the platform automatically generates a detailed report outlining key conversation points, risk assessments, and recommendations.

Result

The solution created a tool to help sports clubs manage trust, loyalty, and security risks. The application, which is being used by several sports clubs, assists managers to:

- Identify potential conflicts before they arise.
- Save time on athlete assessments.
- Make the communication process transparent and standardized (Wezom, 2024).

5.3. Communication and Network Analysis

Corruption in sport, especially match-fixing and illegal betting, rarely happens in isolation. It typically involves networks of athletes, referees, club officials, intermediaries, and organized criminal groups. Mapping these networks is central to any serious investigation. AI, particularly graph analysis and network analytics, can detect hidden relationships, identify key actors, and visualize patterns of communication or financial flows that would be extremely difficult to map manually. By combining structured and unstructured data, AI helps show how individuals and entities are linked, supporting both detection and evidence building.

In practice, AI acts as an accelerator for pattern identification. Law enforcement officials note that tools can "quickly find account numbers and phone numbers to establish connections," allowing investigators to see links rapidly, while still requiring humans to interpret and assess those links.

Key areas of application include:

- Communication mapping: AI can analyze digital communication records (e.g., emails, messaging apps, call logs) to identify clusters of frequent interaction, unusual communication spikes before specific matches, or contacts between known high-risk individuals. These analyses can help detect collusion, such as referees or athletes being in contact with suspicious agents.
- Social network analysis: Graph algorithms allow investigators to build maps of how actors are connected, showing direct and indirect links. In corruption cases, intermediaries often act as brokers between criminal groups and sport insiders. AI can highlight these bridging nodes and identify central figures who may otherwise appear marginal.
- Entity resolution: In many cases, the same individual may appear under different names, aliases, or identities. AI models can match records across datasets, even when identifiers are inconsistent, helping link seemingly separate cases. This is particularly relevant in cross-border investigations, where names may be transliterated differently or documents intentionally falsified.
- Cross-domain correlation: Communication patterns can be combined with financial data, betting alerts, and performance statistics to form a holistic picture. For instance, unusual calls between a referee and a club official can be cross-referenced with suspicious betting activity and an irregular match outcome.
- Detection of organized crime infiltration: AI can help trace how criminal organizations penetrate sport by linking communication records with other domains such as company ownership registries, travel data, or financial flows. This provides evidence of infiltration strategies, such as establishing front companies or using relatives as intermediaries.
- Temporal analysis: Beyond static links, AI can analyze the timing of communications and interactions. Sudden increases in contact ahead of a match, followed by a drop afterward, may suggest coordination related to manipulation.

Key Benefits

Specific Benefits

For Law Enforcement

- Communication mapping of call records, emails, and chats to detect collusion patterns
- Entity resolution across borders, linking aliases and false identities to unify investigations
- Temporal analysis of interactions, showing spikes in communication tied to suspicious events

- Evidence building that strengthens prosecutions by linking networks to betting and financial anomalies

For Sports Organizations

- Integrity oversight by flagging unusual interactions among referees, officials, or athletes
- Early warning alerts when sport stakeholders are in contact with previously flagged high-risk actors
- Detection of infiltration attempts, where external criminal groups build ties with clubs, academies, or agents
- Integration with integrity monitoring, linking communication anomalies to betting alerts or irregular match outcomes

Shared Benefits

- Holistic visibility of corruption networks through graph-based mapping of actors, relationships, and interactions
- Identification of high-risk nodes and intermediaries who connect sport insiders with criminal groups
- Cross-domain analysis, combining communication, betting, and financial data to build a complete corruption picture
- Support for preventive action, allowing earlier intervention before manipulation escalates

Investigative Value

Communication and network analysis provide investigators with a visual and data-driven understanding of corruption schemes. Instead of isolated evidence points, AI reveals the underlying structure of collusion and identifies the most influential actors. This helps prioritize investigative resources, supports the dismantling of networks, and provides stronger evidence in legal proceedings. By combining graph-based AI with human expertise, law enforcement and sport integrity units are able to see the bigger picture of corruption, connect cases across borders, and identify where to intervene most effectively.

5.4. Document Analysis and Case Management

Investigations into corruption in sport generate huge volumes of documentation, including, contracts, invoices, bank records, emails, sponsorship agreements, disciplinary files, and sometimes leaked data. Reviewing this is one of the most resource-intensive parts of an integrity case. However, as outlined below, AI can accelerate the process of reducing manual error, generating meaningful leads, and exposing complex schemes more quickly. AI-enabled case management platforms can then centralize evidence, build timelines, link actors, and maintain an auditable trail.

Key areas of application include:

- E-discovery and text mining: AI-powered e-discovery tools can automatically sort, classify, and prioritize relevant materials. AI can extract key entities (names, organizations, dates) and detect suspicious language patterns. For example, terms such as 'arrangement', 'gift', or 'special agreement' appearing in player transfer files may indicate side payments or hidden benefits.
- Cross-case comparison: law enforcement often handles multiple cases with overlapping actors. AI can compare datasets across investigations, detecting repeated names, phone numbers, or addresses. This prevents duplication of effort and highlights patterns of organized manipulation spanning different jurisdictions.
- Forensic analysis of leaks and seizures: when digital material (e.g., emails, encrypted chats, or hard drives) is seized, AI supports forensic teams by clustering related files, detecting communication chains, and identifying metadata such as altered timestamps. These capabilities ensure investigators do not overlook hidden evidence while also preserving chain of custody for legal proceedings.
- Integration with financial intelligence: documents relating to sponsorship deals, transfer agreements, or event procurement can be cross-referenced with financial transaction monitoring. AI can highlight inconsistencies, such as a small local supplier repeatedly winning inflated contracts around major sporting events. This supports both corruption and money laundering investigations.
- Case management efficiency: law enforcement cases often extend over years, involving multiple jurisdictions and evidence types. AI-based case management platforms can maintain structured archives, timelines, and links between actors. This enhances collaboration among investigators, prosecutors, and analysts while ensuring accountability in evidence handling.

As a practical example, the UK Serious Fraud Office (SFO), which investigates serious fraud, bribery, and corruption, has increasingly adopted AI-assisted document review tools (commonly known as Technology Assisted Review or TAR) to manage its large and complex caseloads. In one recent trial, AI-supported review helped the SFO process disclosure obligations 39% faster than traditional methods, according to officials speaking in 2024 (Devaya, 2024).



Key Benefits

Specific Benefits

For Law Enforcement

- E-discovery and forensic review: rapid analysis of seized digital material, clustering related files, and extracting metadata to uncover hidden communication chains
- Cross-case comparison: AI can match individuals, addresses, or entities across multiple cases, revealing links between seemingly unrelated investigations
- Integration with financial intelligence: linking documentary evidence with suspicious transaction reports strengthens money laundering and corruption inquiries
- Evidence presentation in court: AI-generated case timelines and visualizations help prosecutors demonstrate complex corruption schemes in a clear and credible way

For Sports Organizations

- Procurement and contract oversight: AI can review procurement processes and sponsorship agreements to red flag suspicious items (e.g., repeated vendors, vague deliverables, inflated prices)
- Disciplinary case management: integrity units can use AI to categorize misconduct reports, identify similarities with past cases, and prioritize investigations
- Whistleblower report enrichment: AI links anonymous reports with internal data, enhancing credibility assessments and supporting triage
- Policy learning from past cases: analyzing previous disciplinary or corruption cases helps organizations identify systemic weaknesses and design stronger safeguards

Shared Benefits

- Efficiency and speed: AI processes large document sets quickly, reducing manual review workloads
- Improved accuracy: algorithms reduce human error by systematically scanning documents for predefined red flags
- Holistic case view: centralized AI platforms link contracts, communications, and financial records into a single case structure
- Auditability and transparency: automated logs of evidence handling strengthen the chain of custody, critical for both internal discipline and judicial proceedings
- Early detection: irregularities in documents (e.g., inflated invoices, suspicious amendments) can be flagged before they escalate into larger scandals

Investigative Value

For law enforcement, the application of AI in document analysis and case management generates faster, stronger, and more scalable investigations, particularly in transnational corruption cases where evidence is scattered across multiple jurisdictions. For sports organizations, it strengthens internal integrity systems, ensuring that procurement, sponsorships, transfers, and disciplinary procedures are transparent, and evidence driven. Both groups benefit from the shared gains in efficiency, accuracy, and credibility. Together, they create an environment where corruption is harder to conceal and easier to prosecute or sanction.

5.5. AI-Assisted Interview Preparation

Interviewing is a cornerstone of corruption investigations in sport. Whether the subject is a referee, athlete, coach, administrator, whistleblower, victim, witness, or suspect, investigators must obtain accurate testimony in a way that is fair and ethical while protecting the person's rights and well-being.

Preparing for such interviews is resource-intensive: investigators must analyze large case files, identify inconsistencies, and tailor questions to each individual. AI can streamline this process. by summarizing documents and communications, identifying contradictions, and generating focused interview briefs with suggested lines of questioning. More advanced techniques, such as sentiment or behavioral analysis of recorded testimony, may also be applied to produce supporting evidence. Specifically:

- Victims (e.g., abuse, harassment, or exploitation cases): AI can scan prior reports, disciplinary files, and communications to highlight sensitive issues that should be addressed carefully. NLP can detect emotionally charged language in previous testimonies, helping interviewers prepare trauma-informed questions. This aligns with PEACE4 principles of building rapport and ensuring interviews are victim centered.

- Witnesses (e.g., referees, staff, players): AI can summarize large volumes of documents and identify overlaps or contradictions with other testimonies. For example, if a witness claims not to have been in contact with a certain official, AI can flag emails or chats showing otherwise. This allows interviewers to prepare specific, evidence-based questions without overwhelming the witness with irrelevant detail.

- Suspects (e.g., officials or athletes accused of manipulation or fraud): AI can correlate financial records, betting anomalies, and communication logs to identify key contradictions in the suspect's narrative. Structured interview guides generated from AI analysis can help investigators follow a logical progression, ensuring all key points are covered while maintaining fairness and objectivity, consistent with PEACE and ACFE5 best practices.

- Whistleblowers (anonymous or confidential sources): AI can cluster similar reports, detect repeated patterns, and assess credibility against other case data. This helps interviewers decide what questions to ask to clarify the scope and seriousness of the allegations, without exposing the whistleblower unnecessarily.

4 The PEACE model of investigative interviewing (Preparation and Planning, Engage and Explain, Account, Closure, Evaluation), used widely by law enforcement in the UK and adopted internationally, emphasizes non-coercive, information-gathering techniques (Forensic Interview Solutions, n.d.).
5 ACFE (Associations of Certified Fraud Examiners) highlights the importance of structured preparation, active listening, and avoiding leading questions in fraud and corruption interviews (Turner, 2012).

Key Benefits

Specific Benefits

For Law Enforcement

- Cross-case analysis: Links testimonies across different cases, showing patterns of collusion or deception
- Behavioral analytics: Some agencies experiment with AI to detect stress or deception cues in recorded interviews (used only as supplementary, not determinative, evidence)
- Prosecution-ready outputs: Structured interview briefs strengthen credibility assessments in court

For Sports Organizations

- Whistleblower handling: AI helps integrity officers prepare follow-up interviews with precision, while protecting confidentiality
- Safeguarding: In abuse cases, AI highlights sensitive areas, supporting a trauma-informed interview approach
- Internal inquiries: AI can connect disciplinary records, match data, and communications, equipping interviewers with fact-based questions
- Capacity building: AI-generated mock interviews or simulations can be used to train integrity staff in ethical interviewing methods

Shared Benefits

- Efficiency: Automates review of case material, saving investigators valuable preparation time
- Accuracy: Identifies contradictions and ensures interviews are evidence-based
- Consistency: Standardizes preparation, reducing variation in quality across investigators
- Fairness: Helps interviewers adopt information-gathering and trauma-informed approaches, reinforcing rights and due process

Investigative Value

For both law enforcement and sports organizations, interviews are often the turning point in corruption investigations. AI strengthens preparation by ensuring interviews are efficient, evidence-based, and respectful of rights. By embedding internationally recognized information-gathering, trauma-informed, and due process standards, AI becomes a tool to enhance human judgement and efficiency in integrity investigations.

5.6. Integration with Whistleblower Systems

Whistleblowers are often the first line of defense against corruption in sport. Many major integrity cases, from match manipulation to procurement fraud, have come to light as the result of a concerned insider's information.

However, whistleblower systems face challenges: high volumes of low-quality reports, duplications, malicious complaints, and difficulties in protecting confidentiality. This can overwhelm integrity units and law enforcement, delaying the response to serious allegations.

However, time is sometimes a critical factor. In cases involving sexual exploitation and abuse, reports must be prioritized so that victims can be secured and protected without delay. AI can play a vital role by triaging, analyzing, and prioritizing incoming reports and automatically identifying urgent complaints and enabling rapid response and/or protective action.

Key Benefits

Specific Benefits

For Law Enforcement

- Early leads: AI-prioritized reports give investigators early intelligence on corruption schemes
- Integration with criminal databases: Links whistleblower tips with known criminal actors or past cases
- Resource optimization: Prevents wasting time on irrelevant or malicious submissions
- Evidence strengthening: Multiple independent tips can be clustered to build corroboration

For Sports Organizations

- Improved case management: Integrity units can focus on the most urgent allegations
- Reputation protection: Rapid response to credible allegations helps protect organizational credibility
- Safeguarding: In abuse or harassment cases, AI can flag sensitive language requiring immediate intervention
- Encouraging trust: Demonstrating responsiveness to whistleblower inputs builds confidence among athletes and staff

Shared Benefits

- Efficiency: Automates triage, reducing delays in processing high volumes of reports
- Credibility assessment: Filters out duplicates or low-quality complaints, ensuring serious allegations are prioritized

- Cross-checking: Connects whistleblower inputs with existing evidence (e.g., betting or financial data)
- Confidentiality protection: Analyzes content without exposing personal identifiers unnecessarily
- Transparency and accountability: Maintains auditable logs of how reports are handled, reinforcing trust in the system

Investigative Value

Whistleblower systems are only as strong as their ability to process and act on reports quickly. AI ensures that credible tips rise to the top, irrelevant or malicious complaints are filtered out, and investigators have actionable intelligence to work with. For law enforcement, this means better-quality leads while for sports organizations, it means faster and more effective responses to integrity threats. Together, AI-enhanced whistleblower systems strengthen the culture of accountability in sport.

5.7. Predictive Risk Scoring

Prevention means anticipating risk, not only reacting to it. Predictive risk scoring uses AI and machine learning to analyze large datasets, detect patterns, and assign risk levels to competitions, clubs, teams, or individuals. By combining factors such as financial health, betting activity, governance standards, disciplinary history, and past manipulation, it helps target oversight and resources.

Predictive scoring is already widely used in fields like banking (credit scoring, AML monitoring) and customs (risk-based inspections) (European Banking Authority, 2024) and the UK government is developing AI-enabled, interactive crime-mapping to predict hotspots by combining police, local-authority, and social services data (e.g., past incidents, records, behavioral patterns) (Department for Science, Innovation and Technology, 2025). A similar approach could be useful in a sport integrity context to produces a risk "heatmap" that highlights where manipulation or corruption is most likely to occur.

Key Benefits

Specific Benefits

For Law Enforcement

- Targeted surveillance: Helps prioritize investigations of clubs, officials, or networks with elevated risk scores
- Integration with financial intelligence: Links risk scoring in sport with suspicious activity reports (SARs) from banks.
- Cross-border cooperation: Standardized risk scoring allows comparison of threats across jurisdictions

- Preventive disruption: Enables early intervention before criminal networks infiltrate vulnerable competitions

For Sports Organizations

- Integrity risk mapping: Assists federations in identifying vulnerable competitions, referees, or teams
- Monitoring financial health: Detects clubs under financial strain, which may make them more vulnerable to corruption
- Governance benchmarking: Scores organizations based on compliance with integrity standards
- Education and prevention: Uses risk scores to guide where awareness campaigns or safeguarding programs should be deployed

Shared Benefits

- Proactive prevention: Identifies high-risk competitions or actors before manipulation occurs
- Efficient resource allocation: Directs oversight and investigative resources to the highest-risk areas
- Data-driven governance: Provides evidence-based insights for decision making
- Cross-sector transferability: Leverages models already validated in finance, trade, and law enforcement

Investigative Value

By combining diverse datasets, such as incident history, behavioral indicators, financial irregularities, and betting patterns, AI systems can highlight high-risk athletes, officials, or competitions. These early warnings enable integrity units and law enforcement to prioritize resources, assign oversight where it is most needed, and act proactively to reduce harm.

5.8. Draft Reporting and Evidence Management

High-quality reporting is one of the most critical (and time-consuming) stages of an investigation. Reports must be clear, evidence-based, and usable by disciplinary bodies, boards, or courts. Investigators often struggle to synthesize large volumes of material, keep consistency across cases, and close narrative gaps.

A-powered NLP tools can act as a drafting assistant, turning case files into structured summaries, organizing evidence, suggesting report structures, flagging unsupported claims, and generating clean first drafts that investigators can then refine. Similar tools are already used in corporate compliance sectors to generate draft audit reports and in financial institutions to prepare SARs, which are then finalized by compliance officers. Human oversight remains essential for accuracy, tone, and confidentiality.

AI technologies can also provide rapid translation so cross-border teams work from a common text without waiting for human translators. For example, an integrity officer could create a report in Spanish and instantly have it translated into English and French for presentation to a transnational ethics committee or external authority. This is especially useful in international sport, where federations, regulators, and law enforcement operate in different languages.



Key Benefits

Specific Benefits

For Law Enforcement

- Drafts case files and evidentiary briefs for prosecutors
- Ensures consistency across multi-jurisdictional reports
- Links evidence to relevant legal provisions automatically
- Translates reports to support international cooperation

For Sports Organizations

- Produces disciplinary reports for ethics or integrity committees
- Supports compliance with governance and reporting standards
- Provides draft recommendations to guide preventive policies
- Bridges internal writing skill gaps, ensuring high-quality reporting even in resource-constrained integrity units

Shared Benefits

- Efficiency: Reduces time spent drafting lengthy reports
- Consistency: Ensures reports follow standardized formats
- Completeness: Identifies gaps in evidence or analysis
- Clarity: Produces structured, readable outputs
- Accessibility: Overcomes writing skill gaps, ensuring reports are professional and persuasive
- Cross-border collaboration: Enables real-time multilingual reporting, saving translation costs and delays

Investigative Value

AI offers significant investigative value in draft reporting and evidence management by dramatically increasing efficiency, speed, and accuracy, allowing human investigators to focus on critical thinking and complex tasks. However, this value is realized with the critical caveat that human oversight and verification are essential to mitigate risks like bias and inaccuracies.

5.9. Training and Education

Preventing corruption and manipulation in sport requires more than enforcement; awareness, culture change, and capacity building are also essential components of anti-corruption strategies. Players, referees, staff, and administrators benefit from ongoing training on risks, responsibilities, and reporting channels while investigators and integrity officers gain enhanced knowledge from specialized training in interviewing, digital forensics, and risk detection.

AI can strengthen organizational training ecosystems. Machine learning can identify knowledge gaps, adapt content to different audiences, and generate scenario-based exercises. AI-enabled augmented reality (AR) and virtual reality (VR) can simulate real-world integrity dilemmas, making training more realistic and engaging. AI can also reduce costs by automating tasks such as scheduling, grading, and record management, and by delivering scalable, multilingual training modules to large groups with minimal additional resources. This scalability helps reduce the overall cost of education and ensures that more students can benefit from quality learning experiences (University Canada West, 2025).

Key Benefits

Specific Benefits

For Law Enforcement

- Specialized training in digital forensics, OSINT, and AI tools
- Scenario-based simulations for handling sport-related corruption
- Cross-agency training modules to strengthen cooperation

For Sports Organizations

- Tailored athlete and referee training on integrity risks
- Safeguarding modules on sexual exploitation and abuse
- Internal capacity building for integrity units and compliance staff
- Demonstrates proactive governance to regulators, sponsors, and fans

Shared Benefits

- Personalization: Adapts training to audience-specific roles and knowledge levels
- Scalability: Delivers education across large, international organizations
- Engagement: Uses interactive simulations to reinforce learning
- Measurement: Tracks progress and highlights where further support is needed

Investigative Value

Employing AI for training and development provides data-driven insights into learning processes, measures effectiveness, and ensures training initiatives are aligned with priority issues and organizational goals. In an anti-corruption context, by enhancing the efficiency of training development and ensuring content is aligned to the specific needs of a particular audience, AI strengthens the overall timeliness and impact of training programs, which may reduce incidence of corruptive activities within a sports organization.

5.10. Summary

AI is transforming the way sport integrity investigations are conducted by shifting from reactive casework to proactive, intelligence-led protection. With the ability to process vast datasets from a broad range of sources, it allows for early detection of suspicious patterns and prioritization of high-risk cases. Ultimately, AI acts as a force multiplier, enhancing the speed, accuracy, and scalability of investigations, but always requires human judgement for final decisions.





6.
STAKEHOLDER ROLES AND COLLABORATIVE GOVERNANCE

6 STAKEHOLDER ROLES AND COLLABORATIVE GOVERNANCE

Given the transnational nature of corruption in sport, governing AI responsibly requires cross-sector and cross-border collaboration. Corrupt practices often involve complex networks that span multiple jurisdictions, making it essential for all stakeholders, including sports organizations, law enforcement agencies, regulatory bodies, and civil society, to work together to preserve the integrity of sport. Strong governance structures, such as independent boards, oversight committees, and financial transparency policies, not only promote a culture of integrity but also help reduce corruption (Owolabi, 2025).

Beyond governance, both law enforcement and sport organizations should actively collaborate with technology companies, academic institutions, and data experts to co-develop robust, standardized protocols for the ethical use of AI in anti-corruption efforts. For instance, multi-stakeholder cooperation is essential to develop shared frameworks for algorithm auditing, AI ethics, and open data standards.

Without such safeguards, AI risks creating new imbalances, especially when used without oversight or through unaccountable third parties (Financial Crime Academy, 2025; Johnson, 2025). Furthermore, these collaborations can facilitate the exchange of best practices, promote transparency, and ensure AI tools remain effective, context-sensitive, and compliant with diverse legal and ethical standards (Yadav, 2025). Through multi-stakeholder AI collaborations, the sport ecosystem can better detect, prevent, and respond to corruption at both national and international levels.

6.1. Role of International and National Sport Organizations

In the age of AI, sport organizations play a crucial role in strengthening anti-corruption efforts, primarily by establishing good practices around the use of AI-powered monitoring tools that enhance transparency and foster collaboration with law enforcement and other stakeholders.

For example, FIFA's Integrity Task Force, in cooperation with INTERPOL, played a key role in safeguarding the integrity of the 2022 FIFA World Cup in Qatar (Inside FIFA, 2022). The task force, which included representatives from law enforcement, betting integrity services, and other key stakeholders, coordinated global efforts to monitor betting markets, share real-time information, and address any suspicious activity that could threaten the fairness of the tournament. This model of close collaboration between a sports governing body and law enforcement has since inspired similar initiatives, such as the task force established to protect the integrity of the 2026 AFC Women's Asian Cup (Reuters, 2025) and illustrates how AI-enabled monitoring can be most effective when embedded in coordinated, multi-stakeholder frameworks.

As part of their governance structure, sport organizations should also work to ensure a balance between technology and ethics (Kim et al., 2025) and establish clear guidelines for data collection and handling, algorithm development, and system deployment, with particular attention to data privacy and algorithmic bias. They should also employ mechanisms that address monitoring, evaluation, and independent oversight of AI systems. For example, an organization might:

- Mandate regular audits of AI systems to ensure compliance with their ethical standards;
- Foster transparency by implementing regular reporting, conducting annual bias audits, and providing understandable explanations of how AI systems work and what data they use (e.g., creating workflows that showcase where data is gathered from and what steps it goes through before a decision is made);
- Integrate mechanisms to provide human oversight, particularly around decisions that will have significant consequences, such as disciplinary actions or policy changes, to ensure AI-powered outcomes are subject to human empathy, nuance, and contextual understanding; and
- Establish a committee of stakeholders (e.g., ethicists, legal experts, and athletes, etc.) to oversee AI system operations through a lens of diverse perspectives and expertise (Mohammed, 2025).

6.2. Cooperation with Law Enforcement and Financial Intelligence Units

Law enforcement and financial intelligence agencies, such as Financial Intelligence Units (FIUs), play a critical role in investigating and prosecuting corruption, often with powers and resources that exceed those of sports organizations (UNODC, 2021). Accordingly, cooperation among and between these bodies represents a major step forward in tackling corruption, money laundering, and illegal betting in sport.

Through such partnerships, sport organizations can leverage advanced AI technologies, including AML tools that detect suspicious financial activity linked to sport-related corruption. For instance, law enforcement agencies are increasingly applying AI-driven predictive models to identify crime patterns and anticipate risks around major sporting events (Europol, 2023).

Moreover, FIUs' access to cross-border financial data and transaction-monitoring tools enables the early detection of illicit flows potentially connected to match-fixing or corrupt sponsorship arrangements.

To optimize collaboration among these agencies, efficient and effective intelligence-sharing systems are essential for storing and disseminating information related to acts of corruption, doping violations, the physical, sexual, or psychological abuse of athletes, and suspicious betting on sporting events (UNODC, 2021).

6.3 Public-Private Partnerships and Technology Providers

Given the complex and transnational nature of crime in sport, the industry increasingly relies on public-private partnerships (PPPs) and AI-driven tools to strengthen integrity frameworks. PPPs bring together governments, sports bodies, tech providers, and financial intelligence units to create a platform for sharing expertise, pooling resources, and developing regulatory guidelines. These partnerships not only enhance coordination but also promote transparency and public trust.

Technology companies also play an essential role in helping detect and address potential criminal activity. Examples of these types of collaborations include:

- The International Cricket Council (ICC) Anti-Corruption Unit have adopted CLUE, an investigation software that manages intelligence, analyzes events, and links cases to support disciplinary and legal action in global cricket (CLUE, n.d.).
- A 2024 collaboration between McLaren Global Sport Solutions (a firm focused on sport integrity and sport governance challenges), Harod Associates (a global investigation and intelligence company), and Clearspeed (a tech company specializing in assessing risk in speech) launched Protect Sport, voice analytics platform that supports anti-doping by identifying vocal risk indicators and helping integrity teams better target resources (Terrelonge, 2024).
- Betting monitoring platforms such as the United Lotteries for Integrity in Sports (ULIS) and International Betting Integrity Association (IBIA) share integrity reports, and support cross-border data sharing to identify suspicious betting patterns (CLUE, 2022).

These types of partnerships and collaborations not only enhance access to sophisticated AI technologies and a broader scope of application, but they can also provide critical strategic and legal input into discussions around AI-related strategies and policies (CLUE, 2022).

6.4. Intergovernmental and Multilateral Cooperation Mechanisms

To be effective, AI-supported anti-corruption efforts must go beyond national boundaries to operate within a framework of global cooperation and knowledge exchange. Transnational issues such as cross-border money flows, procurement fraud, and global shell networks necessitate that AI solutions align with international norms, support cross-jurisdictional interoperability, and reflect global best practices (Johnson, 2025).

The establishment of an international framework applicable to all States is crucial for ensuring equitable regulation and the responsible use of AI. In the absence of such a framework, disparities in regulatory standards and legal gaps are likely to be exploited by corrupt actors, thereby compromising global efforts to promote integrity.

International cooperation plays a critical role in facilitating the exchange of intelligence and the development of standardized norms, which serve to enhance governance and anti-corruption policies within the global sporting community (Lee, 2025). There is a growing emphasis on coordinated, multilateral initiatives aimed at addressing corruption and which have included the ethical deployment of AI technologies as part of their agenda. For instance:

- **IPACS** (International Partnership against Corruption in Sport), which unites governments, sports bodies, and intergovernmental organizations, has launched a working group to examine both the risks and opportunities of AI in sport integrity. This includes developing legal and ethical frameworks to guide its use (IPACS, n.d.).

- **The Group of Copenhagen**, an international platform bringing together national platforms and sports betting regulators, facilitates cooperation to combat match-fixing and sports manipulation. The group promotes information sharing, best practices, and coordinated responses to integrity threats, providing a model for how AI-enhanced detection systems and intelligence can be shared across jurisdictions to strengthen collective defenses against corruption.

- **The World Customs Organization's A-CIP Programme** provides an illustrative example from a different but highly relevant context of AI-supported multilateral cooperation. The program assists over 20 countries in using AI-driven risk management systems to detect corruption and irregularities in customs processes (World Customs Organization, n.d.). These tools apply machine learning to identify suspicious patterns in trade data, enabling real-time risk scoring and targeting. In collaboration with agencies like INTERPOL, UNODC, and FIUs, the World Customs Organization supports cross-border enforcement efforts aimed at addressing crimes such as money laundering and the trafficking of counterfeit goods. The replication or expansion of this approach to corruption and related serious offences in sport should be considered.

Despite the challenges of cross-border cooperation, including the complexity of coordinating diverse legal systems, cultural contexts, and technical capabilities, the need for a common international AI framework with universally applicable rules is well recognized. Achieving this will require sustained diplomatic and technical engagement through existing multilateral institutions such as INTERPOL, UNODC, the Group of Copenhagen, and international and regional sport confederations.

6.5. Institutional Integrity and Trust Building

Repeated scandals involving bribery, fraud, manipulated competitions, and the growing infiltration of organized crime have placed a heavy toll on the global sport industry. Corruption and criminal influence do not only violate sport's core values of fair play, respect, honesty, they also damage public confidence and trust. When fans lose trust in athletes, results, and governing bodies, the credibility and social value of sport itself is put at risk.

To combat corruption and build trust, the sport sector relies on a range of measures. Global bodies like the IOC, the World Anti-Doping Agency (WADA), and UNODC set international benchmarks and frameworks to align corruption control efforts across organizations (Owolabi, 2025). Sports bodies also promote ethics through training, codes of conduct, and governance policies covering conflicts of interest, whistleblowing, and transparency. Independent oversight groups like Transparency International, SIGA, and IPACS play a key role in monitoring integrity risks, while technology is increasingly used to enhance fairness, detect anomalies, and prevent misconduct (Owolabi, 2025).

The effective use of integrity tools is not culturally neutral. In regions with diverse compliance traditions, a broader cultural shift is often necessary before such tools can be fully effective. Trust in mechanisms like whistleblower hotlines depends on showing that there is no retaliation and that reports lead to visible follow-up. Without this foundation and a genuine culture of compliance, technology alone will not deliver the desired results.

Equally important is building trust in the technologies used in anti-corruption efforts. Transparency and accountability must be integral to AI system design, ensuring outcomes are explainable and auditable. These systems should be seen as tools that enhance the accuracy and efficiency of human decision making, not replace it. For example, during Major League Baseball's 2025 spring training, the Hawk-Eye system—a high-speed camera and computer vision tool—was tested to support umpire decisions. When players challenged calls, Hawk-Eye visuals were reviewed by officials and shared with fans, enhancing fairness and transparency for all (Castrovince, 2025).

As the sports sector integrates AI technologies, it must embed clear checks and balances in operational and governance policies. These should include mechanisms ensuring AI-assisted decisions are clear and understandable to all stakeholders, provide access for independent oversight, maintain audit trails and logged access, require justifications for use, and implement transparency reporting. Such measures enable internal quality control and allow systems to withstand external scrutiny. Embedding these safeguards fosters trust and supports responsible AI governance.

When managed effectively, AI will play a key role in promoting fair play, risk management, compliance, and robust governance across all levels of sport (Business at OECD, n.d.).

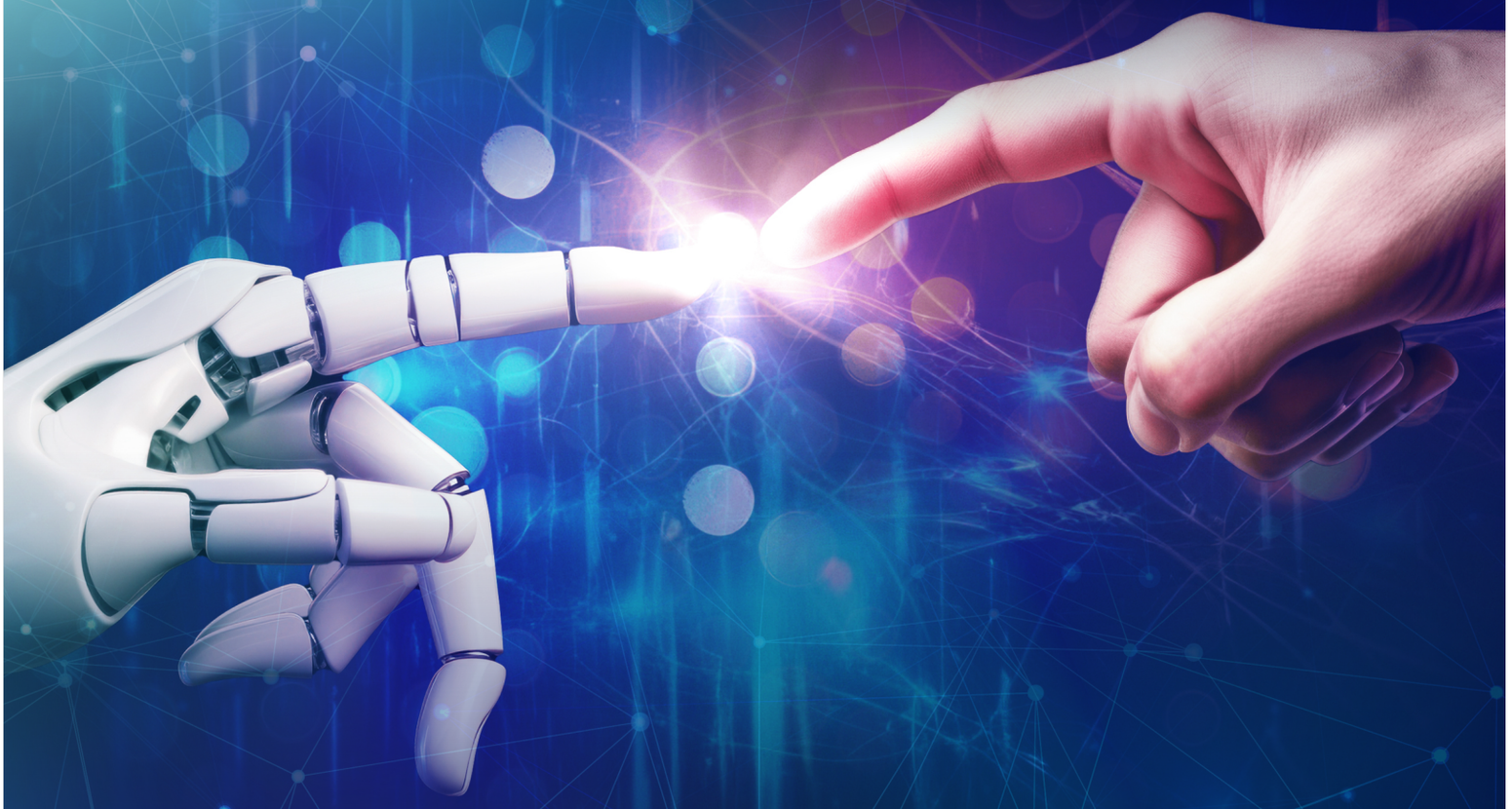
6.6. Summary

The effective use of AI to combat corruption in sport requires coordinated cross-sector and cross-border collaboration among a wide range of stakeholders at local, national, and international levels. Sports organizations, law enforcement, financial intelligence units, technology companies, and governmental bodies all play an important role in the creation of robust, collaborative governance frameworks. These collaborations not only enhance international cooperation, resource and intelligence sharing, and stakeholder engagement, but ensure AI systems are designed, developed, and implemented with greater transparency and accountability.



7.

LEGAL, ETHICAL, AND TECHNICAL CHALLENGES



7 LEGAL, ETHICAL, AND TECHNICAL CHALLENGES

Though there is no doubt that AI-powered technologies can significantly contribute to safeguarding sport from corruption and criminal influences, they also come with their fair share of challenges. Apart from concerns about 'dehumanizing' sport, where AI systems dictate athletes' training and game strategies or unemployment due to the diminishing role of coaches, referees, and managers (Wezom, 2024), there are a variety of legal, ethical, and technical challenges that must be addressed in order to optimize AI in the sport ecosystem. To harness AI effectively, these issues must be carefully managed to ensure it strengthens, rather than undermines, the integrity of sport.

7.1. Ethical Use of AI: Bias, Fairness, Accountability and Human Rights Considerations

With the introduction of AI into anti-corruption systems, bias is a critical challenge. AI systems may inherit or amplify skewed patterns in data due to flawed collection, design, or labelling, resulting in discriminatory or inaccurate outcomes (Hanna et al., 2025; MindBridge, 2024). For example, a match-fixing detection model trained on partial data could wrongly flag innocent athletes.

To mitigate systemic and geopolitical bias, best practices include using diverse datasets, conducting subgroup performance checks, maintaining human oversight, and implementing clear right-to-reply mechanisms. In international settings, datasets must be balanced to represent multiple regional perspectives.

Humans are not machines and should not be treated as such; AI tools must clearly distinguish between deliberate malicious actions and accidental errors to prevent unjust outcomes.

Fairness also concerns access and equity. Wealthier organizations may leverage AI for competitive advantage, while others are disadvantaged. In betting, advanced algorithms can unfairly favor bookmakers or select players (Kuutniemi, 2025), raising ethical and regulatory issues.

Transparency and accountability remain critical challenges. Many AI systems function as 'black boxes' with opaque decision-making processes (Awati & Yasar, 2024; Patel, 2024; Wren, 2024; Wezom, 2024), undermining trust and risking reputational damage, especially when outcomes impact athletes' careers or disciplinary actions.

AI also does not shift accountability; governing bodies remain responsible for decisions and for any errors linked to AI. Even if vendors support the process, the sport organization must ensure due process, transparency, and the right to appeal.

Yet, transparency often clashes with privacy. Algorithms rely on sensitive data—such as biometric or financial records—which, without strong safeguards, can be exploited or misused (Kim et al., 2025; Johnson, 2025; Ripla, 2025; IBM, 2024). The tension between explainability, legal compliance, and data protection underscores the need for secure AI governance frameworks.

From a legal perspective, AI insights must be clearly positioned within sport's disciplinary framework and meet high standards of evidence. When adopting AI technologies experts have emphasized the need to build on existing standards—General Data Protection Regulation (GDPR), due diligence, etc.— rather than creating new ones. Aligning AI deployment with established frameworks supports both compliance and public trust.

7.2. Risks of AI Hallucination, False Positives, and Data Integrity

AI systems are powerful tools for detecting risk, but they are not infallible. They can generate inaccurate outputs ("hallucinations"), incorrectly flag legitimate behavior as suspicious (false positives), or make decisions based on incomplete, biased, or manipulated data. Each of these failures can have real consequences, from reputational harm to operational disruption and flawed investigations. As such, human oversight and data governance remain essential safeguards.

7.2.1. *AI Hallucination*

AI hallucination refers to cases where AI models generate inaccurate or entirely false content. This can result from biased or incomplete training data, flawed assumptions, or missing context, especially in large language models (LLMs), which generate text, answer questions, and translate with human-like fluency.

For example, in anti-corruption work, LLMs have been used to generate AML insights from sources such as social media, customer records, transaction histories, and sanctions lists (Antoniou, 2024). In this setting, hallucinations can misdirect investigations, produce poor decisions, and spread misinformation, which ultimately compromises the integrity of the process. The production of convincing but false information is one of the most urgent threats to investigative integrity and demands strict validation at every stage.

Hallucinated output is dangerous because it often looks authoritative and well-structured, making it difficult for non-technical users to recognize as fabricated. A further concern is perception. There is a growing tendency to view AI-generated alerts as objective and inherently correct, creating a presumption of guilt around any person flagged by the system and eroding basic due process protections. For this reason, every AI output, summary, analysis, data point, must be independently verified against primary sources before being used in any investigative, disciplinary, or legal context. AI should be treated as a tool to generate leads, not facts.



7.2.2. *False Positives*

AI systems can generate false positives, flagging harmless activity as suspicious, due to inaccurate data, limited context, overly sensitive rules, or the way humans configure the model (Comply Advantage, n.d.). For example, injury-risk models analyze historical injuries, performance data, training load, and physiological indicators such as sleep to decide when an athlete should rest; if they ignore factors like mental health, tactics, or environment, they may sideline players unnecessarily, potentially affecting match and season outcomes (Devlin, 2023). In the financial sector, AI tools designed to detect criminal activity can similarly flag legitimate transactions as suspicious, creating false alerts for money laundering or terrorism financing. Even though these models are more efficient than traditional systems, some of which generate false positive rates approaching 90%, they still generate costly workloads for compliance teams (Comply Advantage, n.d.; Lucinity, 2024).

7.2.3. *Data Integrity*

This issue is less technical and more organizational, stemming from fragmented data ownership across ministries and institutions, coupled with reluctance to share information. In practice, the main barriers to AI implementation are often political, legal, and related to data quality. Cleaning and standardizing data is an essential yet frequently underestimated prerequisite for meaningful AI use.

Data integrity is crucial for effective AI. Without high-quality data, AI risks reinforcing biases, misinterpreting trends, and making flawed predictions, undermining AI's value, eroding trust, and causing significant financial losses (Benavides, 2025). Biases in data—due to underrepresentation, skewed historical records, or poor hygiene—can unfairly flag individuals or reinforce discrimination in anti-corruption efforts (Johnson, 2025).

For example, sports betting operators rely on accurate, transparent data to inform markets, making a secure data supply chain critical. However, this chain is vulnerable to criminal interference; organized crime groups have infiltrated data networks or used signal jammers to disrupt transmissions, facilitating match-fixing and compromising data integrity (Omoigui, 2022).

Beyond criminal manipulation, challenges arise from the volume of data and difficulties validating it before use. Each data transfer through multiple systems increases risks of corruption, loss, or misinterpretation (Benavides, 2025). Many organizations only recognize their data's limitations—such as inconsistency or incompleteness—after deploying AI tools.

Another recurring challenge in developing anti-corruption models is the limited amount of verified historical data on illicit activity. However, this does not make AI unusable; advanced techniques can reduce the impact of data scarcity. For example, AI models using few-shot learning[6] can learn to identify wrongdoing from only a small number of confirmed cases, and synthetic data generation can programmatically create realistic training samples at scale, strengthening the model's ability to detect misconduct.

6 Few-shot learning (FSL) a machine learning technique in which a model is trained to recognise new classes of objects or data from only a small number of examples.

Compromised data leads to a 'garbage in, garbage out' scenario for AI systems while high-quality, regularly updated, and inclusive datasets improve the reliability of AI models and strengthen stakeholder trust. As such, organizations must adopt mitigative measures, such as:

- Robust data governance policies and procedures to ensure data is accurate, consistent, and used appropriately throughout its lifecycle;
- Implementing tools and methodologies to identify and correct biases; and
- Regularly assessing model outputs and retraining models with updated data to prevent the degradation of system performance over time (Lukose, 2025).



7.3. Cross-Border Legal and Jurisdictional Complexities

Using AI to combat corruption in sport presents significant challenges in cross-border or transnational contexts, primarily due to the lack of harmonized regulatory approaches, particularly in areas like data protection and privacy (Ripla, 2025), the absence of unified investigative standards, and the diversity of legal systems across jurisdictions (Asiabar et al., 2025).

The absence of harmonized standards across jurisdictions creates a variety of practical obstacles including:

- Incompatible data formats and protocols
- Legal barriers to sharing sensitive information
- Different privacy and data protection requirements
- Private ownership of tools limiting interoperability
- Divergent evidentiary standards for AI-generated insights

A key issue in cross-border investigations is the collection and exchange of electronic information required to power AI models. Differing legal, ethical, and procedural frameworks across jurisdictions can hinder collaboration and cause delays (Casino et al., 2022). Data sharing between governments, law enforcement, and civil organizations also raises concerns about security and privacy. Historically, sport organizations have always been cautious with data; even in routine governance processes such as club licensing or even decision-making during board meetings, federations must negotiate strict agreements on how basic financial information can be used. This ingrained reluctance to share data, even between clubs and their own associations, is a core obstacle for cross-border investigations.

Moreover, the lack of formal accountability frameworks can reduce the effectiveness of AI systems and expose organizations to liability. Key questions, such as who audits the algorithms, who is responsible for AI-driven harm, and how fairness is ensured, are particularly pressing in transnational collaborations. Without clear governance and recourse mechanisms, AI systems risk being undermined, politicized, or even criminalized (Johnson, 2025).

Without harmonized legal and regulatory structures, organizations using AI may be vulnerable to legal risks or diplomatic tensions.

7.4. Data Protection, Sovereignty, and Consent

Another major challenge is that criminal organizations disregard privacy and ethical constraints that law enforcement must follow to make arrests. Any data accessible to law enforcement is often also accessible to criminals, who exploit it to cover their tracks.

Data protection and data sovereignty are related but distinct concepts in AI governance. Data protection safeguards information from unauthorized access, ensuring confidentiality, integrity, and availability. Data sovereignty means data is governed by the laws of the country where it is created, collected, or stored (Flinders & Smalley, 2024). Additionally, securing user consent and ensuring individuals understand how their data is used add complexity (SecureRedact, n.d.). These are vital components of legal, privacy, security, and governance frameworks, forming a cornerstone of ethical AI development (Flinders & Smalley, 2024; SecureRedact, n.d.).

While these concepts bring benefits—such as enhanced security, greater data control via independent data centres and cloud infrastructure within jurisdictional borders, reduced risks of breaches, misuse, and litigation, and increased public trust (Johnson, 2025; SecureRedact, n.d.; Sustainability Directory, 2025)—they also create challenges for AI development and deployment, especially regarding data sovereignty:

- AI developers must navigate fragmented regulatory environments; the EU's GDPR, which sets a high global standard for data protection, influences data sovereignty discussions globally;
- Sovereignty rules can create data silos, limiting access to diverse datasets essential for building accurate AI models; and
- Compliance burdens and legal fragmentation can slow innovation, raise costs, and hinder international collaboration, especially in areas like anti-corruption in sport (Sustainability Directory, 2025).

Despite these challenges, effective data governance is critical for ensuring transparency and legal compliance. Experts recommend an international framework that:

- Fosters multilateral cooperation and standards-setting;
- Implements transparency and accountability measures;
- Establishes ethical guidelines and human rights protections;
- Develops mechanisms for technology transfer and capacity building; and
- Instituting robust dispute resolution and enforcement protocols (Chen, n.d.).

A balanced, collaborative approach, anchored in universal ethics and adapted to local contexts, will be vital to the future of AI and data management in sport and beyond (Alibašić, 2025).



7.5. Human Oversight and the "Human-in-the-Loop" Principle

While AI systems offer speed, scale, and analytical power, they must function strictly as advisory tools—alerts should prompt further inquiry, not serve as proof of wrongdoing. Despite AI's growing role, key integrity functions remain inherently human. Tasks like interviewing witnesses, assessing credibility, and interpreting subtle behaviors are complex and currently beyond AI's capabilities, making seasoned investigators indispensable in uncovering the truth.

Human oversight is essential for ethical AI use in sport integrity. The "human-in-the-loop" (HIL) approach embeds human judgement throughout AI's lifecycle—development, training, and deployment—delivering critical benefits:

- Improving accuracy by fine-tuning AI responses to varied cases, enhancing consistency;
- Enhancing data collection by supplementing insufficient datasets, supporting transparency and explainability;
- Reducing bias through human detection and correction of algorithmic errors that might perpetuate inaccuracies; and
- Increasing efficiency by allowing AI to flag issues while humans make final decisions, such as confirming fraud (Telus, n.d.; Vyas, 2024).

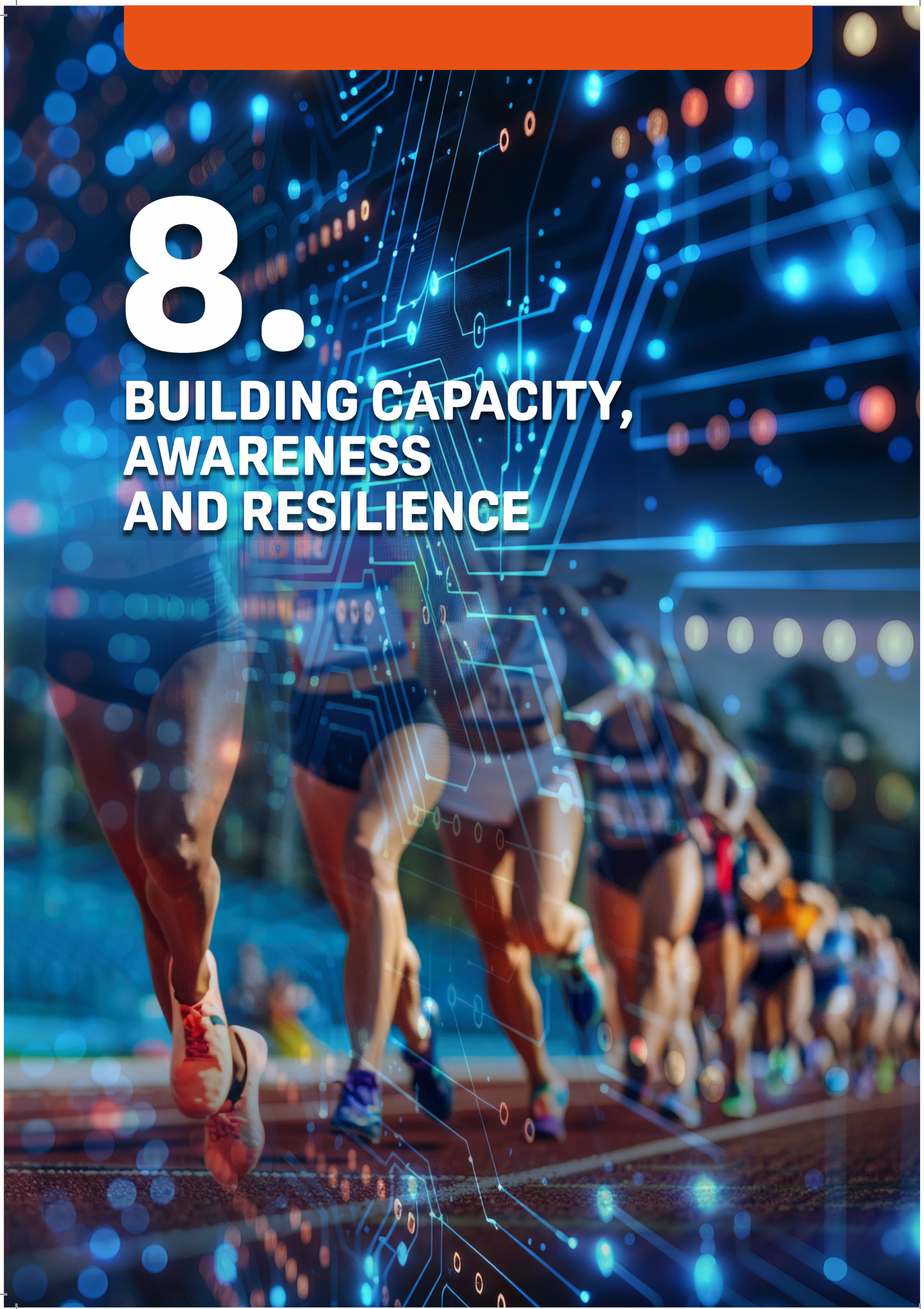
However, HIL introduces challenges including higher costs, slower processes, and potential human errors if reviewers lack training or ethical awareness (Holistic AI, 2024; Lukose, 2025). Mitigation requires teams combining technical skills and ethical expertise within clear procedural safeguards, especially when AI tools risk false positives or misinterpret context (Vyas, 2024; Telus, n.d.; Natarajan et al., 2025). Ultimately, AI should augment—not replace—human decision making in protecting and safeguarding sport's integrity.

To ethically manage risks like false positives, AI must be a decision-support tool, not an automated judge. AI-generated alerts should serve as procedural prompts (e.g., requesting additional evidence) rather than definitive proof of misconduct, ensuring human judgement remains the final and authoritative layer in investigations.

7.6. Summary

While AI offers powerful tools for anti-corruption in sport, it also introduces significant risks that must be carefully managed. Legal, ethical, and technical challenges associated with AI systems can undermine trust and effectiveness of these tools as well as the privacy of individuals. AI must always be viewed to support, not replace, human judgement, and robust governance, ongoing oversight, and sector-specific standards are essential to ensure AI strengthens, rather than threatens, sport integrity.





8.

BUILDING CAPACITY, AWARENESS AND RESILIENCE

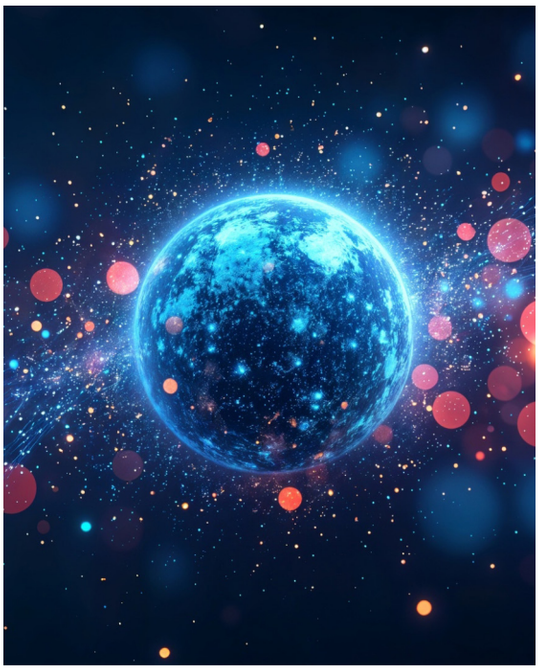
8 BUILDING CAPACITY, AWARENESS AND RESILIENCE

AI literacy—the ability to understand, use, and critically assess AI and its impact on society, ethics, and daily work—is essential for any organization adopting these tools. A human-centered approach should emphasize critical thinking, creativity, and emotional intelligence so that AI is applied responsibly and ethically. In sport, AI literacy helps athletes, staff, officials, and organizations understand what AI can and cannot do, empowering them to make informed decisions while remaining aware of its limitations and ethical implications.

Education and training across an organization are central to transparency and accountability in operations and decision making (Mohammed, 2025). Initiatives that address anti-corruption reduce tolerance for misconduct, foster a culture of integrity, and strengthen organizational resilience. As AI becomes increasingly embedded in anti-corruption structures, education is critical to ensure its responsible and effective use. For example, the Italian National School of Administration includes various programs on AI in its anti-corruption curriculum; these resources, which explore the use of AI in administration and decision making as well as the role of data in AI-powered systems, provide learners with general AI literacy and how AI tools can be used explicitly for corruption prevention (Smekhov, 2025).

Apart from being the subject of training and education initiatives, AI is proving a promising tool for building training capacity and resources. Generative tools can simulate realistic scenarios (e.g., match manipulation approaches, conflicts of interest, sponsorship risks) to enhance awareness about corruption risks and ethical decision making (Smekhov, 2025). AI can be used to customize training content according to learner roles and experience or serve as an on-demand 'tutor' that walks integrity officers through playbooks and decision trees, helping them set practical goals, and suggest cost-effective learning paths. Interactions can be logged to identify skill gaps, refresh policies, and improve future exercises provided usage is governed, privacy is protected, and outputs are validated by subject matter experts.

Large corporations, non-governmental agencies, and universities already use AI-powered adaptive learning platforms, which personalize training modules to each participant's pace, role, and performance. For instance, The Basel Institute on Governance, which works to promote good governance and countering corruption, is a key partner in the EU-funded FALCON project. This project uses technology and AI, incorporating interactive modules, real-case scenarios, and adaptivity, in its e-learning platform to support law enforcement practitioners and help trainees engage with realistic tasks rather than passive reading (Basel Institute on Governance, 2025).



8.1. AI Literacy and Capacity Building for Integrity Officials

Integrity officials uphold fair play, honesty, and ethical conduct in sport. Whether part of a sport organization or an international oversight body, they enforce rules and address breaches such as doping, match-fixing, and misconduct.

As the role of AI in sport continues to evolve, training is crucial for helping integrity officials understand and adapt to new technologies and ensure they are effectively leveraged. As part of a broader anti-corruption curriculum, which might be delivered through conferences, workshops, seminars, or online courses, integrity officials should be well versed in the role of AI in anti-corruption efforts. Training content on AI systems might include:

- Fundamentals of AI (e.g., machine learning, NLP, deep learning, etc.)
- Applications for AI in sport and anti-corruption
- Ethical issues (e.g., privacy, bias, misuse, transparency)
- Responsible data handling and protection
- Identifying and mitigating bias in AI systems
- Combining human expertise with AI insights
- Applying critical thinking to AI-generated outputs

The effective use of AI to combat corruption in sport requires strong contextual understanding aligned with legal, ethical, and procedural oversight. Users must grasp where the data originates and the circumstances behind key actions to properly interpret outputs and avoid misjudgments. Without these foundations, there is a risk that poorly informed implementation could lead to misuse or overreliance on flawed outputs.

To support this, organizations should consider certification and credentialing programs that promote continuous learning in AI and anti-corruption standards. With appropriate safeguards and governance in place, capacity building efforts, including train-the-trainer models, can be valuable.



8.2. AI Literacy and Capacity Building for Law Enforcement Agencies

As part of anti-corruption efforts within the sport industry, members of law enforcement agencies also require continuous learning about the evolving roles, risks, and opportunities associated with AI systems. Like integrity officers, law enforcement personnel must, at minimum, have basic understanding of AI systems and their applications, related ethical issues, and their responsible use.

AI literacy and capacity building for law enforcement and national sport integrity platforms would further benefit from specialized, role-based training. For example:

- Investigators and analysts: digital evidence handling (e.g., collection, hashing, chain of custody), link and network analysis, anomaly and pattern detection, and risk-based prioritization for alerts and case backlogs; emphasis on verifying AI-assisted findings with independent evidence and documenting analyst reasoning
- Prosecutors/case leads: evidentiary standards for AI-assisted analysis, disclosure obligations, explainability requirements, and how to brief non-technical decision makers
- Supervisors/administrators: governance, policy compliance, data protection, vendor oversight, and performance/bias monitoring

Training programs should also include scenario-based exercise to reinforce classroom learning and apply realistic pressure through AI-simulated environments. This might include:

- Tabletop incident responses with AI-supported triage, timed decisions, and post-exercise reviews;
- Hands-on review labs using AI search/summarization on mixed chat and document corpora and validated against ground truth;
- Briefing workshops to interpret AI outputs, explain limitations, and deliver defensible updates; and
- Adversarial drills (red/blue team) on prompt injection, data poisoning, and deepfakes, concluding with contain/assess/notify/remediate playbooks (Cimphony, n.d.).

8.3. Strengthening Multisectoral Collaboration in the Context of National Integrity Platforms

Under the Macolin Convention, National Platforms are designated coordination mechanisms at national level, bringing together public authorities, sports organizations, betting operators, and other relevant actors to prevent, detect, and address the manipulation of sports competitions. At the international level, their representatives are pooled within the Group of Copenhagen, which functions as a global network of operational experts supporting one another in this work.

In an AI-enabled integrity ecosystem, National Platforms are well placed to organize and strengthen collective knowledge across institutions. Capacity building should therefore focus not only on individual skills, but on how these platforms can use AI to transform fragmented information into shared, actionable insight.

First, all participating institutions need a common baseline of AI literacy: a shared understanding of how risk scoring, anomaly detection, and automated alerting work; what AI can and cannot do; and why human oversight remains essential. This shared vocabulary helps build trust in AI-generated outputs and reduces both overreliance and blanket skepticism.

Second, National Platforms could gradually develop joint analytical capabilities by, for example:

- Agreeing on common data standards and exchange protocols so that information from sports bodies, betting operators, FIUs, regulators, and law enforcement can be combined in a legally compliant and technically interoperable way.
- Exploring shared AI tools or services (e.g., national dashboards or alert systems) that collate match, betting, and related integrity signals and route them to the appropriate authority, with role-based access and clear safeguards. For example, AI-driven risk dashboards can aggregate match data, betting patterns, and prior integrity reports to highlight the highest-risk events and actors for joint attention.
- Establishing coordinated workflows and playbooks for AI-generated alerts, clarifying who triages, who investigates, who is informed, and how feedback loops to the Platform and the Group of Copenhagen are maintained.

Finally, National Platforms can act as **learning communities**. Joint training, case reviews, and debriefings on AI-triggered alerts help refine models, reduce false positives, and capture lessons from both successful and unsuccessful interventions. Over time, this allows AI to become a shared, cross-institutional capability, rather than a series of isolated tools, strengthening both national coordination and the contribution of National Platforms to the wider Group of Copenhagen network.



8.4. Development of Codes of Conduct and Guidelines

In the development, implementation, and management of AI systems, organizations and users must subscribe to an appropriate code of conduct to ensure responsible use of these tools.

A code of conduct sets standards of acceptable behavior for members of an organization or profession. It guides day-to-day actions and decisions, helping people to act ethically, responsibly, and in line with the organization's values and objectives (von Moltke, n.d.).

Developing an effective code of conduct for AI and anti-corruption systems requires an organization to reflect on its values, priorities, and expectations. In general, organizations might consider taking the following steps:

1. Assess organizational values and culture

a. Identify the core values and principles that define organizational culture and ethos.

b. Gather input from various stakeholders, including athletes, coaches, managers, law enforcement, fans, and sponsors, to understand their perspectives.

2. Define the scope and applicability:

a. Clearly outline the scope of the code of conduct, specifying the context and individuals to which it applies.

3. Establish clear guidelines and expectations:

a. Define the ethical and professional behavior expected from relevant users, including qualities like integrity, honesty, and respect. Specific examples can illustrate acceptable and unacceptable behavior.

4. Address key areas:

a. Provide guidelines on essential areas such as professionalism, inclusivity, ethics, security, and conflict resolution as it relates to AI anti-corruption systems.

5. Develop reporting mechanisms:

a. Establish reporting mechanisms regarding violations of the code of conduct that protect individuals from potential retaliation.

6. Include legal and regulatory compliance:

a. Ensure that the code of conduct complies with all applicable laws and regulations as well as any specific legal and ethical standards that apply to the organization.

A code of conduct should be written in clear, concise, accessible language. Once approved, it should be shared with all relevant stakeholders to support compliance and provide training, so everyone understands the rules and how they apply in day-to-day work (von Moltke, n.d.).

A well-developed AI code of conduct should include commitments to specific concepts. For example, the National Academy of Medicine (2025) has developed an AI code of conduct, which is framed around the following commitments:

Advance Humanity

- Develop standards and other governance structures to align the development and use of AI with societal and cultural goals;
- Create incentives and structures for independent evaluation and certification to the Code as well as public, transparent reporting on certification status

Ensure Equity

- Apply standardized metrics to assess and report bias in data, AI output, and AI use, in the interest of equitable distribution of benefit and risk;
- Provide support to low-resourced organizations and communities to ensure equitable access to the benefits of AI

Engage Impacted Individuals

- Invite participation from all key stakeholders across the AI lifecycle;
- Form local governance bodies which include all stakeholders in the AI lifecycle cross-purposes;
- Promote common understanding and education of all affected parties

Improve Workforce Well-Being

- Foster positive work and learning environments and culture;
- Promote measurement, assessment, strategies, and research;
- Introduce reskilling and training programs for workforce AI competency;
- Develop change management strategies that promote worker well-being

Monitor Performance

- Apply standardized quality and safety metrics to be used to assess the impact of the use of AI on anticipated outcomes;
- Align frameworks for safety, equity, and quality in AI performance

Innovate and Learn

- Establish and support an organizational/national AI research agenda;
- Participate in shared learning across all stakeholders;
- Consider innovation as a core investment



8.5. Raising Public Awareness and Stakeholder Cooperation

As AI becomes increasingly ingrained in anti-corruption work, stakeholders and the public need a clear view of how and why these tools are being used. Open, proactive communication is essential to build trust, enable cooperation, and reduce speculation.

Various strategies can be used to raise awareness, including:

- Developing educational campaigns (via websites, social media, or other public channels) and facilitating open dialogues with stakeholders (forums, workshops, and webinars);
- Leveraging media and social media influencers to report and/or promote awareness about AI in sports; and
- Working with grassroots movements, such as fan organizations, to promote education and awareness and encourage input into the process of development and implementation of AI systems.

Awareness initiatives should impart the benefits of AI-powered approaches for anti-corruption as well as how ethical concerns are being addressed. When designing awareness campaigns, organizations should consider the following factors:

Promote transparency

- Encourage openness about how AI systems are developed and used in sport.
- Clearly explain how data are collected, analyzed, protected, and accessed.
- Address concerns about privacy, bias, and fairness with concrete safeguards.
- Provide simple ways for people to give feedback or raise concerns (Q&A sessions, online forms, contact points).

Highlight ethical considerations

- Acknowledge the ethical challenges (privacy, bias, fairness) and how they are being managed.
- Use plain language to share the guidelines and best practices being followed.
- Ensure AI is used in ways that respect the rights and well-being of individuals and stakeholder groups.
- Emphasize a commitment to responsible, human-centered innovation and continual improvement.

Showcase Positive Impacts

- Share validated examples of how AI has improved the integrity of sport (e.g., faster triage, better detection, clearer documentation).
- Explain how these gains support wider anti-corruption goals—without sensationalism and with privacy preserved.

By incorporating these elements, awareness campaigns can help build trust and a better understanding of AI's potential in safeguarding sport from criminal influences (Thomas, 2024).



8.6. Barriers to Adoption

AI offers clear benefits for protecting the integrity of sport, but there are obstacles that routinely slow or stall adoption of these technologies. Most notably these include:

- Regulatory maturity and reliability: Laws and guidance are fragmented or still emerging and confidence in system reliability is mixed. Many agencies hesitate to invest where admissibility, oversight, and error rates are not yet stable, especially under budget pressure.
- Resource disparities and data sharing: Costs are high and capacity varies widely across countries and organizations. Effective AI also depends on common rules and reciprocal data sharing, which can be difficult to coordinate across borders and leagues.

While these obstacles are not insignificant, they are not sufficient to abandon the adoption of AI. In terms of implementation, practical responses to these challenges include:

- Phased rollout: start with tightly scoped pilots, clear success/kill criteria, and published validation;
- Pool resources: develop shared tooling, regional hubs, and technical assistance programs to support lower-capacity organizations;
- Set realistic timelines: align deployment with regulatory development and internal governance build-out;
- Allow staggered adoption: accept that not all jurisdictions can move at once; define minimal viable participation for early adopters;
- Prioritize interoperability: common data schemas, APIs, and legal gateways to enable gradual, low-friction integration

International cooperation, as discussed in Chapter 7, is essential to address both resource gaps and regulatory fragmentation and to ensure the adoption of AI systems for anti-corruption in sport is safer, fairer, and more sustainable.

8.7. Summary

Building capacity, awareness, and resilience are fundamental components for the responsible and effective use of AI in anti-corruption efforts within sport. Developing organizational culture and stakeholder literacy and understanding around AI involves comprehensive training, clear codes of conduct, transparent communication, and practical strategies to overcome barriers.





9. POLICY, LEGISLATIVE AND REGULATORY RECOMMENDATIONS

9 POLICY, LEGISLATIVE AND REGULATORY RECOMMENDATIONS

Evolving criminality in sport brings continually new challenges for lawmakers, regulators, sport integrity bodies and participants alike (UNODC, 2021a). Given the link between corruption in sport with corruption in other spheres, including the public service and the business sector, effective anti-corruption frameworks, supported by innovative tools, must be developed at both the international and domestic levels (Ivanov, 2024).

The rapid evolution of AI poses also major challenges for regulators, who must act quickly to keep frameworks relevant. While international bodies like the UN, Council of Europe, and OECD have developed have established their own AI frameworks, it is not unreasonable that agencies across all levels of governance will struggle to keep regulatory pace with technological developments (White & Case, n.d.).

It is understood that the use of AI for anti-corruption purposes is best served through a collaborative transnational network of partners, including sport organizations, law enforcement, governments, and other agencies. However, effective regulation and enforcement of AI across jurisdictions and platforms presents a variety of challenges, such as:

- There is no shared and comprehensive definition of what AI is; organizations and governments around the world define AI in different ways. In cases where businesses and organizations must comply with different regulatory bodies, they may have to resort to a 'highest common denominator' approach to meeting requirements.
- There is no consistent legal form or conceptual approach to emerging AI regulations. Agencies have opted to expand on existing frameworks, enact statutes, issue executive orders, or simply refer organizations to non-binding principles and guidelines in their use of AI. Some are specific to sectors, while others are generalized. As such, compliance obligations are likely to be substantially different from one jurisdiction to another.
- The need to create flexible regulations that can adapt to rapid technological advances somewhat extends the lifespan of regulations but creates uncertainty around legal interpretations of longer-term implementation of AI systems.
- The overlap between AI regulation and other areas of law, such as IP (e.g., IP infringement issues with respect to AI model training data); data protection; financial regulation; litigation; or digital infrastructure—can generate complex compliance issues and legal challenges even where there is not (yet) any enforceable AI-specific law (White & Case, n.d.).

Despite challenges, building a strong AI governance framework for anti-corruption is essential to ensure legal clarity, enforceability, and the ethical use of technology, prioritizing safety, fairness, and human rights (Annouz, 2024; Mucci & Stryker, 2024).

Beyond compliance, AI governance must sustain ethical standards over time and guard against model 'drift' that could compromise output reliability. Emerging trends focus on AI's social responsibility to prevent financial, legal, and reputational risks while encouraging responsible innovation (Mucci & Stryker, 2024).

A dual approach to governance, combining top-down legal frameworks and oversight with bottom-up grassroots engagement, is increasingly seen as effective in tackling corruption. While institutional authority and legislation establish deterrence and control, community-driven efforts ensure that policies reflect local realities and promote inclusive, values-based governance. This hybrid model offers a foundation for collaborative AI stewardship aligned with collective ethics and societal norms (Johnson, 2025).



9.1. Legal and Policy Frameworks on AI for Sport Integrity

To ensure responsible governance, AI must be formally defined within the legal and regulatory framework of sports organizations. As technology evolves, federations and leagues should update their statutes and disciplinary regulations to clarify how AI may be used in integrity matters. This gives AI a clear legal basis, makes its use consistent and predictable, and aligns it with institutional rules.

Organizations today face a fragmented AI regulatory landscape, with varying rules on deployment, data privacy, and compliance across jurisdictions. This lack of coherence forces even highly regulated sectors like finance, healthcare, and law enforcement to balance innovation with legal and reputational risk (Business at OECD, n.d.).

In the sport sector, legal frameworks for AI remain in flux. The EU's AI Act—the world's first comprehensive regulatory framework for AI (adopted in 2024)—establishes risk-based rules for AI development and deployment, including provisions for transparency, safety, accountability, and human oversight. The Council of Europe's Framework Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law (2024) is the first international treaty on AI and ensures that AI systems comply with human rights standards and democratic principles, while the GDPR provides foundational data protection standards.

However, legal thinking on AI in sport is still emerging, with issues around data accuracy, bias, consent, data minimization, and limits on automated decision making requiring ongoing attention. Sport-specific challenges such as IP rights, liability gaps, and ethical grey areas persist, and whether current frameworks are sufficient for the growing range of AI uses in sport is a question that institutions, companies, athletes, and other stakeholders now need to address (Orlando, 2022; Roumeliotis et al., 2025).

A solid regulatory foundation is essential for responsible AI use in sport. Clear legal frameworks must be supported by oversight, accountability, and safeguards to prevent misuse and ensure redress when errors occur. These structures are key to building trust and protecting integrity as AI tools are deployed in sensitive environments.

In the absence of established regulatory AI frameworks for anti-corruption, stakeholders committed to defending sport from corruption and related serious offenses must largely develop their own guidelines for responsible use.

As these frameworks evolve, policymakers should align them with existing national and international laws—including human rights, whistleblower protections, and data privacy—as well as key instruments like the UN Convention against Corruption, the only legally binding universal anti-corruption instrument.

As further detailed in Chapter 10, there is broad agreement that AI anti-corruption frameworks should be grounded in core principles addressing transparency, fairness, accountability, and privacy. These frameworks must be clearly scoped to prevent mission creep and protect personal privacy. The application of AI within sport should be limited to defined areas, ensuring data used is directly relevant to the sport context and does not overstep the line between the personal and the professional. Purpose limitation is essential to avoid surveillance overreach and maintain trust.



9.2. Integration of AI into National Sport Integrity Systems

A National Sport Integrity System (NSIS) is a coordinated framework that brings together institutions, policies, practices, and individuals to protect the integrity of sport within a country. It involves actors such as government bodies and sport organizations and tools like codes of conduct, anti-doping rules, education, and investigations. The goal is to prevent corruption, doping, match-fixing, and other integrity issues while promoting a fair, ethical sporting environment that maintains public trust.

As AI tools become more embedded in day-to-day operations across the sport sector—from athlete performance analysis to fraud detection—organizations face increasing pressure to adopt formal AI governance policies as part of a NSIS structure. Without clear protocols in place, clubs and federations risk legal, financial, and reputational consequences, including potential liabilities stemming from privacy breaches, biased decision making, or flawed automated outcomes that affect athletes or other stakeholders.

Experts emphasize that proactive governance, anchored in clear accountability, transparency, and data protection measures, is now essential for responsible AI adoption in sport (JohnWallStreet, 2024). These policies should be tailored to the unique needs and risks of the sector while aligning with broader legal and ethical standards.



Fortunately, within the realm of AI and integrity, there is a growing inventory of resources that the sport industry can look to as it develops its own governance frameworks. For example, Johnson (2025) has put forward the following policy recommendations for fostering an integrity-driven ecosystem:

1. Adhere to International Frameworks

To effectively harness AI in the fight against corruption, policymakers should prioritize alignment with established international frameworks—such as the OECD AI Principles, Guidelines for Multinational Enterprises, and Guidance on AI for Responsible Business Conduct—and foster international coordination. The EU, the Council of Europe, the UN, and other jurisdictions use the OECD's definition of an AI system and lifecycle in their legislative and regulatory frameworks and guidance (OECD, 2024). Aligning national policies to these frameworks will ensure that the deployment of AI tools is ethical and transparent while promoting accountability and consistency across jurisdictions.

2. Foster Innovation while Ensuring Accountability

Policymakers must balance innovation with the protection of ethical and legal standards. Regulatory sandboxes—controlled environments for testing AI in real-world conditions—allow stakeholders to develop anti-corruption tools while ensuring compliance. These frameworks foster innovation, lower barriers for smaller firms, and promote cross-sector collaboration. By supporting such initiatives and embedding strong ethical guidelines, policymakers can help mitigate risks like misuse, bias, and lack of accountability.

3. Build Capacity and Raise Awareness

Maximizing the impact of AI in anti-corruption efforts requires robust capacity-building initiatives and widespread awareness of the technology's potential in the public and private sectors. Policymakers need to invest in targeted training programs to ensure that all stakeholders are equipped with the knowledge and tools to leverage AI effectively while understanding its limitations. Further, initiatives to expand digital infrastructure and improve access to affordable AI tools will ensure that organizations of all sizes can participate in the fight against corruption, thereby maximizing societal and economic benefits.

4. Strengthen Public-Private Collaboration

Strengthening platforms for dialogue and fostering joint initiatives across governments, businesses, and other stakeholders, supports the development of innovative AI-driven solutions that detect, prevent, and address corruption. Fostering trusted dialogue among stakeholders helps to identify common challenges and create solutions on ethical AI deployment, data sharing, and strategies to address cross-border corruption cases. Enhanced collaboration between public and private actors can amplify anti-corruption efforts and contribute to a more transparent and accountable global landscape.

5. Enhance Communication and Awareness Campaigns

Promoting AI's role in combating corruption requires strategic communication and knowledge-sharing efforts. Policymakers and organizations should lead targeted campaigns that build trust, engage stakeholders, and highlight the responsible use of AI in integrity initiatives. These efforts should showcase the technology's potential, offer practical guidance, and inspire action across sectors. Platforms like the OECD.AI Observatory offer a centralized repository of communication resources to serve as a global hub for information on AI's role in anti-corruption efforts.

The successful integration of AI into sport-integrity frameworks requires not only technical and governance solutions but also cultural adoption. Literacy on the responsible use of AI must begin at the grassroots level and within early youth development so that athletes and team officials grow up familiar with these systems. Starting early builds understanding and trust, ensuring that AI-supported integrity mechanisms are accepted over time.

Equally important is consistent access to infrastructure. Federations with limited resources require national-level support. Planning should therefore account for initial investment, ongoing maintenance, and cross-border cooperation to ensure the sustainable and inclusive adoption of AI tools in sport. Once the necessary equipment is in place, it primarily requires regular updates and continuous support to remain effective.



9.3. Institutional Oversight Mechanisms

The integrity of an AI tool is deeply tied to the integrity of the institutional process in which it operates. To evaluate whether AI can be used ethically and reliably, one must first examine the governance structures of the organization deploying it. For example, a national association with independent prosecutors and fact-finding committees offers different safeguards compared to a centralized model. These institutional choices directly influence the trustworthiness and accountability of AI applications, mitigating risks like bias, privacy breaches, and misuse while ensuring alignment with human rights, ethical standards, and legal requirements.

A variety of mechanisms can be employed to provide oversight and guidance in the use of AI in anti-corruption systems:

- Within organizations, cross-functional AI ethics boards or committees can objectively review how AI systems and policies are designed, developed, and implemented to ensure they align with organizational ethics and values. Regular audits by external agencies monitor compliance and performance.

- At the national level, governments and national sport governing bodies (e.g., see Kihl, 2023) can develop legislative, regulatory, and policy frameworks to help organizations effectively manage their AI capabilities. For example, the Australian Sports Commission has partnered with Australia's national science agency, CSIRO, to develop an AI roadmap and guidelines for the ethical and responsible use of AI in Australian sport (Australian Sport Commission, 2024). Audit offices, ombudspersons, and data protection agencies are also increasingly involved in overseeing AI use to ensure greater transparency and accountability.

- Internationally, bodies like the OECD and UNESCO are developing recommendations and ethical guidelines for AI development and use, while specialized agencies provide frameworks that can inform sector-specific AI oversight. These agencies play an important role in coordinating the harmonization of AI protocols across different national or industry groups, helping to standardize testing, certification, and definitions of concepts like 'meaningful human control'.

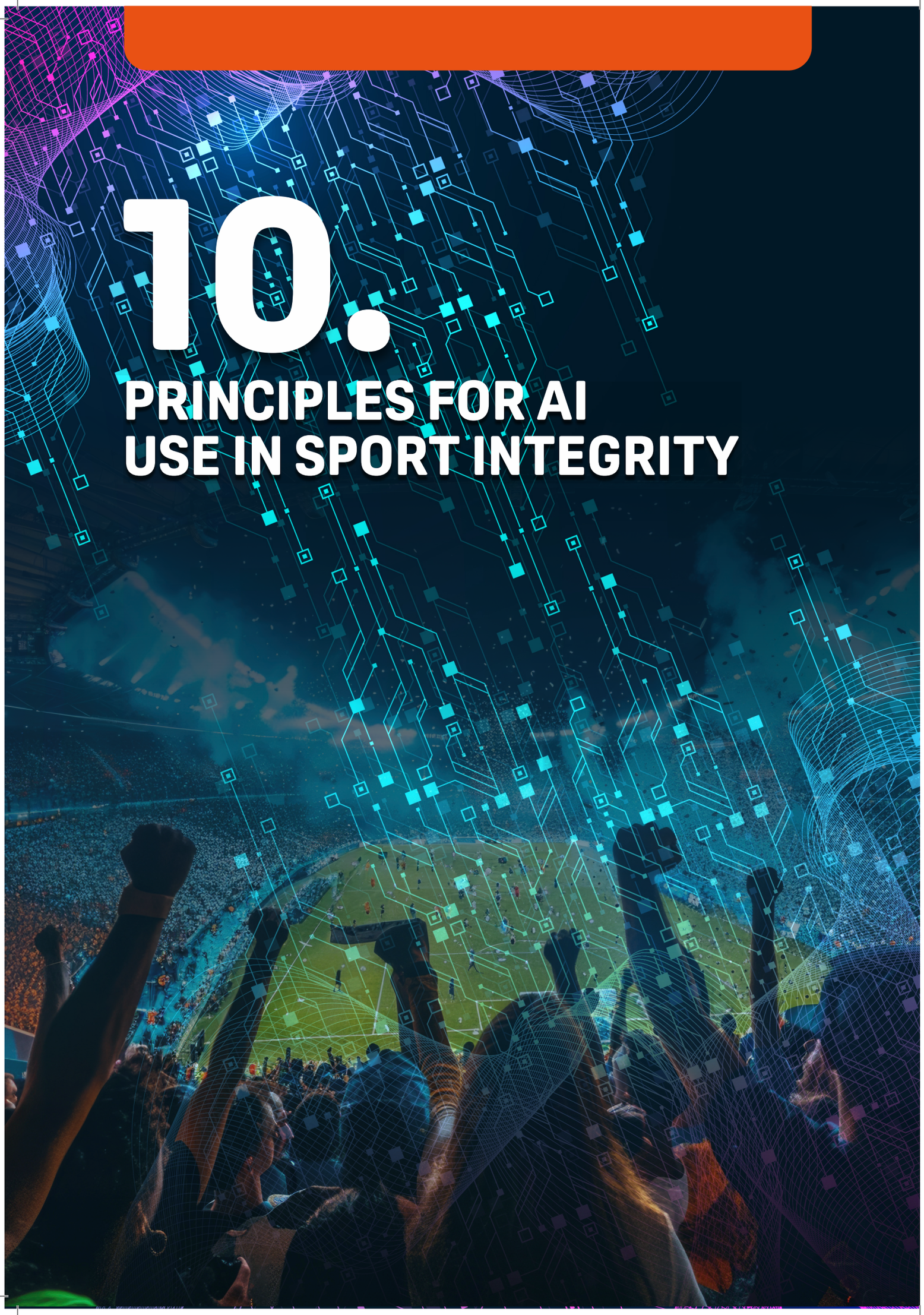
Establishing AI oversight specifically focused on corruption in sport is critical for proactive auditing, cross-sector knowledge-sharing, and fair dispute resolution when system failures or bias occur. While comparative research into governance models, such as centralized versus decentralized approaches, can help identify best practices for accountability (Roumeliotis et al., 2025), trends are shifting from basic compliance to broader social responsibility, which helps mitigate legal, financial, and reputational risks while supporting ethical AI innovation (Mucci & Stryker, 2024).

9.4. Summary

The successful integration of AI into sport integrity models requires an adaptive, collaborative approach to the development of AI policies, legislation, and regulations. framework development. Grounded in accepted principles for the ethical use of AI, these frameworks should build on, or align to, established guidelines around sport integrity and anti-corruption at organizational, national, and international levels to enhance ongoing harmonization of standards and promote cross-border interoperability across the sector.

10.

PRINCIPLES FOR AI USE IN SPORT INTEGRITY



10 PRINCIPLES FOR AI USE IN SPORT INTEGRITY

10.1 Principles for Responsible, Effective, and Inclusive AI Use

As AI can increasingly be embedded in sport integrity systems, its development and deployment must be guided by clear, responsible, and inclusive principles.

These principles should align not only with existing governance norms in sport but also with broader standards from sectors such as law enforcement and global digital policy, ensuring that innovation upholds—rather than undermines—integrity. Drawing on diverse sources within and beyond the sport domain, the following eight principles form the foundation for the responsible, effective, and inclusive use of AI:

1. **Transparency:** AI systems must provide open, accessible, and understandable information on their components, performance, and outcomes. They should be explainable and auditable, enabling all stakeholders—from athletes to administrators—to comprehend how outputs are generated.

2. **Accountability:** AI outputs must never be acted upon without human review and authorization. Clearly defined roles and measurable actions are essential to manage risks and address adverse events. Human oversight is critical throughout the deployment of AI. Risk-calibrated application is key: minimal human input may suffice for low-stakes decisions (e.g., vetting club eligibility), whereas decisions affecting careers or disciplinary actions require rigorous human review and corroborating evidence.

3. **Proportionality:** AI tools must be appropriate to the severity and context of the issue, avoiding overly intrusive or expansive use.

4. **Privacy Protection and Information Security:** Strong safeguards are necessary to protect personal and sensitive data, including biometric and whistleblower information. Validated procedures must ensure privacy and security against cyber threats and performance failures.

5. **Engagement:** Understanding and prioritizing stakeholders' needs, preferences, and goals throughout the AI lifecycle is essential. Interdisciplinary collaboration among technical developers, legal experts, and ethicists at every stage fosters legitimacy and alignment with social and legal norms (OECD, 2024).

6. **Fairness and Equity:** Use high-quality, representative data and implement measures to ensure fairness and unbiased AI development, equitable access to benefits, and risk mitigation. Social impacts should be assessed continuously through design, development, and implementation.

7. **Safety:** Conduct risk assessments before deployment and maintain ongoing vigilance and controls to mitigate potential harms arising from AI applications.

8. **Effectiveness and Adaptability:** AI systems must demonstrably achieve their intended objectives within established ethical frameworks. Continuous monitoring and updating are necessary to maintain functionality, enable learning, and ensure continued effectiveness in combating corruption (ISED Canada, 2023; National Academy of Medicine, 2025; OECD, 2024).

10.2. Transparency, Explainability, and Stakeholder Accountability

As discussed throughout this guide, transparency, explainability, and stakeholder accountability are central to responsible AI governance in sport integrity systems.

As AI becomes increasingly involved in decision making, such as flagging irregularities, identifying misconduct, or informing disciplinary actions, it is vital that stakeholders can clearly understand and evaluate how these decisions are made (OECD, 2024). Transparency also involves disclosing how AI tools are developed, what data is used, and what limitations exist, especially important when these systems influence decisions with career, reputation, or legal consequences (ISED Canada, 2023).

Transparency is a key element of explainability—or the ability of an AI system to provide humans with clear reasoning for its outcomes that is interpretable, traceable, and auditable—enabling users and affected parties to challenge or verify outcomes when needed (European Commission, 2019). Explainable AI (XAI) is crucial for building trust, identifying and correcting biases, and ensuring ethical and legal compliance.

However, transparency and explainability are not sufficient. Robust accountability structures, including human oversight, ethical review processes, and mechanisms for redress in cases of error or harm, must ensure that those deploying AI tools take full responsibility for their outputs (Smekhov, 2025).

Together, these elements prevent the abdication of ethical responsibility to opaque automated systems (European Commission, 2021).



10.3. Templates and Toolkit References

While AI is used in a variety of ways in the contemporary sport environment, its application in anti-corruption is still a relatively new area of exploration. Based on how AI technologies are being applied in other sectors, it is understood that in the coming years AI will also be an essential tool in preventing, detecting, and investigating corruption and criminal activities in sport.

At present, stakeholders responsible for or otherwise involved in the protection of sport from corruption and other serious offences—at local, national, and international levels—are in a unique position. By drawing on the experience, insights, and work of other sectors, they are positioned to lay the groundwork for an informed, leading-edge AI strategy and implementation plan.

While AI technologies themselves will continue to evolve, the lessons learned in other sectors—in ethical, governance, and operational matters—will enable them to develop an adaptable, scalable framework that incorporates the best available information and practices. Without formal architecture, the risk of inconsistent or ad hoc decision-making increases, particularly in high-stakes environments where the reputational and legal consequences of AI misuse can be severe.

Further to the principles discussed in this chapter, which primarily address the ethical considerations for adopting AI, and the policy and regulatory recommendations outlined in Chapter 9, it is important to highlight the need to develop or make available tools that focus on:

- Integrating AI into existing frameworks in a way that supports and reinforces anti-corruption measures such as policies around codes of conduct, codes of good governance, whistleblowing, transparency and accountability, and fostering international cooperation.
- Applying accurate, complete, high-quality data that is diverse and representative and is inputted in a consistent and structured format is crucial for ensuring AI technologies are able to make better predictions and yield more reliable outcomes (Ataman, 2025). AI systems are only as good as the data they analyze and even the most advanced AI algorithms can yield flawed results if the underlying data is of low quality.
- Addressing risks and biases. AI systems inevitably carry some degree of bias that can compromise outcomes. Such bias may stem from algorithm design or the data used for training (SAP, 2024), and can reinforce existing inequities related to socioeconomic status, race, ethnicity, religion, gender, or disability (Carr, 2023). These risks can be mitigated through proper checks and balances and sufficient resources for continuous monitoring of AI systems. This might involve, for instance, partnering with external agencies to check algorithms and ensure accountability and transparency in the use of the technology (U4, 2025).
- Incorporating diverse perspectives in AI design and implementation. While open data sharing practices provides AI developers with access to enormous public data sets to train and develop their algorithms, AI systems 'don't know what they don't know' (Carr, 2023). It is imperative that AI design and development teams include individuals with different views, perspectives, expertise (e.g., sociologists, economists), and experiences to reduce the introduction of biases and to broaden the algorithmic scope (U4, 2025).

- Supporting AI applications with a sustainable business plan that addresses evolving technologies, data quality and bias monitoring, changes in leadership and coordination, and stakeholder engagement (U4, 2025).

There are a variety of resources and frameworks developed by international organizations that can also guide anti-corruption and integrity efforts in the context of sport, such as:

- The Toolkit for Responsible AI Innovation in Law Enforcement: Developed jointly by INTERPOL and UNICRI, this tailor-made set of resources supports law enforcement agencies in navigating the complex task of institutionalizing responsible AI innovation and integrating AI systems into their work while upholding human rights, accountability, and transparency.
- The OECD AI Principles: As the first intergovernmental standard on AI (adopted in 2019), these principles serve as a guide for shaping policies and creating AI risk frameworks that build a foundation for global interoperability between jurisdictions and promote trustworthy, human-centered AI.
- Harnessing AI for Integrity: Opportunities, Challenges, and the Business Case Against Corruption: Also developed by the OECD, this publication focuses on the practical uses of AI by companies in their efforts to combat corruption, outlining the necessary conditions to fully leverage its potential. It also provides concrete recommendations to maximize the utility of AI as a tool in the fight against corruption.
- UNESCO Recommendation on the Ethics of Artificial Intelligence (2021): This is the first global normative instrument on AI ethics and was adopted by all 193 Member States of UNESCO. It provides comprehensive guidance on ensuring that AI development and use respect human rights, environmental sustainability, and inclusiveness.

Other examples are tools developed at the national level such as the **Implementation Guide for Managers of Artificial Intelligence Systems**, issued by Innovation, Science and Economic Development Canada (ISED). This guide outlines key principles and best practices for responsible AI governance, including safety; accountability; transparency; fairness and equity; human oversight and monitoring; and validity and robustness.



10.4. Ensuring Scalability and Sustainability of AI Tools

For AI tools to deliver long-term value in safeguarding sport integrity, they must be designed with both scalability and sustainability in mind. Scalability refers to the ability of AI systems to operate effectively across different sport contexts, regulatory environments, and levels of institutional maturity, whether at local, national, or international levels. Sustainability focuses on the long-term viability of these tools, ensuring they remain functional, ethical, and relevant amid evolving risks, technologies, and governance standards.

Achieving this requires a future-proofed, holistic approach that aligns with institutional mandates, legal frameworks, and stakeholder expectations. Several key components underpin this:

- Modular and interoperable design: Scalable AI systems should be adaptable to varying data structures, formats, and legal jurisdictions. A modular architecture enables customization without overhauling the core model, supporting easier integration into different sporting bodies or national systems (Kihl, 2023; Johnson, 2025).
- Integration into institutional frameworks: To ensure long-term sustainability, AI tools must be embedded within formal governance structures, not merely outsourced or used as one-off solutions. This includes defining clear ownership, oversight, and lines of accountability (Wahl, 2024).
- Ongoing training and capacity building: Human oversight remains critical. Sustainable AI requires ongoing investment in training investigators, integrity officers, and IT staff to manage, interpret, and refine AI systems. This includes both technical skills and ethical literacy (UNESCO, 2022).
- Regular auditing and system updates: To mitigate algorithmic drift and evolving corruption threats, AI systems should undergo regular performance reviews, bias testing, and recalibration. This protects both integrity and legal validity (Smekhov, 2025).
- Environmental and cost efficiency: As the carbon footprint of AI becomes a global concern, sustainable AI must also minimize energy consumption and infrastructure costs. Lightweight, cloud-optimized, or hybrid models may offer scalable alternatives for low-resource contexts (European Commission, 2022).
- Multilateral cooperation and standards alignment: Bodies like IPACS, UNESCO, the OECD, and the Council of Europe play a vital role in promoting interoperability, international safeguards, and policy coherence. Shared frameworks, such as the OECD AI Principles, help streamline transnational implementation and minimize fragmentation (OECD, 2024).

In short, scalable and sustainable AI systems are not just about technical innovation, but also institutional readiness, ethical foresight, and collaborative governance. Without a strategic, long-term approach, AI tools risk becoming siloed, underutilized, or even counterproductive in the fight against corruption in sport.

10.5. Summary

The responsible use of AI in sport integrity must be governed by clear, ethical, and inclusive principles that promote transparency, fairness, accountability, and human oversight. Good practices that focus on robust data management, stakeholder engagement, and alignment with international standards are also critical to ensure that AI strengthens, rather than undermines, the integrity of sport.

11.

THE WAY FORWARD



11 THE WAY FORWARD

As organizations integrate increasingly sophisticated technologies into their governance frameworks, it is essential that technological advancements ultimately protect and promote the positive, human-centric values of sport.

11.1. A Changing Landscape for Sport Integrity

Corruption in sport has evolved into an adaptive, transnational, and technologically enabled phenomenon. Criminal networks exploit weak governance, opaque finances, and rapid innovation—from betting platforms to digital assets—to generate illicit profit. At the same time, sport organizations face growing pressure from fans, governments, and sponsors to uphold integrity and transparency.

AI enters this landscape as both an opportunity and a risk. When properly designed, governed, and supervised, AI can transform prevention, detection, and investigation capacities. However, if poorly governed, it has the potential to undermine privacy, due process, security information and fairness. The way forward requires not only AI technologies but also robust institutional, ethical, and human-driven oversight.

11.2. Summary of Key Findings

- AI has demonstrated real-world impact across financial fraud detection, anti-money laundering, and law enforcement, reducing false positives by up to 70% and revealing hidden links between actors and transactions
- Data governance remains the foundation of trustworthy AI; fragmented or poor-quality data undermines reliability and public confidence
- Resource-efficient, well-designed systems enable wider adoption beyond elite levels
- Stakeholder engagement amplifies effectiveness and operational legitimacy

11.3. Policy and Practical Recommendations

11.3.1. Institutional and Regulatory Measures

- Develop AI integrity frameworks within sport governance. International federations, national platforms, and governments should jointly define legal and ethical parameters for AI use in monitoring, investigation, and sanctioning, establishing these frameworks.
- Mandate transparency and accountability. AI-based integrity systems should include documentation ('model cards') explaining data sources, assumptions, limitations, and performance metrics. Independent audits and human rights impact assessments should be conducted annually and whenever systems are substantially modified.
- Ensure lawful data access and protection. Establish cross-sector protocols between sport bodies, law enforcement, betting regulators, and financial intelligence units for data exchange under strict privacy safeguards. These protocols must address liability when AI systems generate false positives or fail to detect genuine threats.

- Promote ethical innovation through 'AI for Integrity Sandboxes' where public authorities, researchers, and sport organizations can test new tools under ethical oversight before deployment.

11.3.2. Operational and Capacity Building Actions

- Adopt a phased approach to AI integration. For organizations introducing AI into integrity frameworks, start with small-scale pilot projects where necessary data is readily available and success can be quickly established.
    - Phase 1 (0-18 months): Deploy low-risk applications—anomaly detection in betting markets, procurement monitoring, and network mapping.
    - Phase 2 (18-36 months): Expand to predictive risk assessment systems, integrating multiple data sources.
    - Phase 3 (3-5 years): Implement advanced analytics including natural language processing and real-time multi-sport monitoring.

Operational Priorities:

- Establish human-AI collaboration models. Embed multidisciplinary teams of data scientists, investigators, lawyers, ethicists, and sport experts to interpret AI outputs and ensure proportional responses. Develop certification programs for integrity officers working with AI systems.
- Create AI-supported whistleblower mechanisms that can detect retaliation risks, cross-reference disclosures, and prioritize credible cases while safeguarding identity.
- Embed continuous monitoring and feedback loops. Track outcome metrics—accuracy, fairness, false positive rates, user trust, and operational efficiency—to refine systems quarterly and uncover unintended bias through adversarial testing.
- Engage stakeholders in system design. Include representatives from athlete associations, coaches' unions, and supporter groups in AI governance committees.

11.3.3. International Cooperation and Governance

- Build a Global Sport Integrity Data and AI Network. Making use of existing international initiatives, identifying ways to link national platforms, academic partners, and technology providers to share standards and anonymized case studies while addressing cross-border data sharing challenges
- Standardize data and taxonomy. Harmonized definitions enable interoperable analytics and comparable risk assessments, with priority given to developing common data formats.
- Support resource-constrained organizations. Provide open-source AI tools, shared technical infrastructure offering technical assistance, training, and computing resources.
- Develop an international resource to promote the responsible use of AI in the sport integrity context. Establish a global facility to provide AI literacy to stakeholders committed to tackling corruption and other serious offenses in sport, and to assist in the development of relevant policies, procedures, and capacities.



11.4. Measuring Success and Impact

AI integrity systems must be evaluated against clear performance indicators spanning detection effectiveness (cases identified, alert accuracy), operational efficiency (investigation time and cost reduction), quality (false positive/negative rates, consistency across contexts), trust (stakeholder confidence, transparency compliance), and impact (deterrent effect, market behavior changes, public perception improvements).

11.5. Guiding Principles for Ethical AI in Sport Integrity

As detailed in Chapter 10, sport stakeholders should anchor AI deployment in five core principles:

1. Legality and Proportionality;
2. Accountability and Explainability;
3. Fairness and Non-Discrimination;
4. Transparency and Oversight; and
5. Human Primacy.

These principles should be operationalized through continuous improvement mechanisms.

11.6. Looking Ahead

The convergence of AI and anti-corruption is about expanding human reach, not replacing human judgement. The next decade should focus on three interconnected priorities:

1. **From detection to prevention**: Using predictive analytics to strengthen early warning systems, risk-based audits, and education programs that deter corruption before it occurs.
2. **From fragmentation to collaboration**: Connecting sport integrity bodies, regulators, and research institutions through interoperable data and joint training, establishing secure data-sharing protocols and regional hubs for cross-border investigations.
3. **From innovation to ethics**: Establishing an international 'Sport AI Ethics Charter' to define shared standards for responsible AI use, setting minimum safeguards for rights protection, defining certification criteria, and ensuring innovation benefits all stakeholders.

Sustainability is critical to ensure that AI systems remain adequately funded, technically maintained, and ethically governed over the long term.

11.7. Conclusion and Call to Action

AI offers the tools to illuminate the opaque spaces where corruption thrives—and will succeed when deployed transparently, inclusively, and responsibly. The challenge is not to adopt every new algorithm but to build trust: trust that technology enhances justice, that oversight ensures fairness, and that integrity remains the ultimate goal.

Stakeholders across the sport ecosystem—federations, governments, investigators, athletes, and technology providers—must now take concrete action:

- Commit to the guiding principles outlined in this guide.
- Invest in the institutional frameworks and human capacity that make ethical AI possible.
- Share knowledge, data, and resources across borders and competition levels.
- Hold one another accountable to the highest standards of transparency and rights protection.

Corruption in sport will continue to evolve. AI systems must therefore be designed not as static solutions but as adaptive tools that learn, improve, and respond to emerging threats through ongoing investment, regular evaluation, and willingness to learn from both successes and failures.

If those committed to defending the integrity of sport can harness AI ethically and effectively, it can become a global model for how innovation and integrity reinforce one another and restore confidence that competition can serve the public good.

The tools exist. The roadmap is clear. What remains is collective will and sustained commitment to ensure that the future of sport integrity is built on both technological capability and unwavering ethical foundation.

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