

The Use of Generative Artificial Intelligence in Propagating Digital Hate Speech within the Sports Domain

استخدام الذكاء الاصطناعي التوليدي في نشر خطاب الكراهية الرقمي الرياضي

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Abstract : This study examines the role of generative artificial intelligence (GAI) in reshaping the landscape of hate speech within the digital sports environment. In today's digital ecosystem, technologies such as deepfakes and automated text generation have emerged as powerful instruments for producing disinformation and racially charged content that targets athletes and supporters with disturbing realism and at minimal cost. The study aims to uncover how these technologies are exploited to inflame the digital sports space, to assess their psychological impact on players and the broader security climate in sporting venues, and to interrogate the concept of 'digital hate speech' while surveying the principal preventive legal frameworks at both national and international levels. The study concludes with a set of recommendations, most notably the urgent updating of international legal frameworks to criminalise algorithmically generated hatred, and the strengthening of cooperation between sports institutions and social media platforms to develop proactive monitoring systems grounded in advanced algorithms capable of combating toxic content.

Keywords: Generative Artificial Intelligence, Digital Hate Speech, Content Moderation, Law No. 20-05.

المخلص : تتناول الدراسة دور الذكاء الاصطناعي التوليدي في إعادة تشكيل مشهد خطاب الكراهية داخل الوسط الرياضي الرقمي. في البيئة الرقمية الراهنة، برزت تقنيات مثل "التزييف العميق" وتوليد النصوص الآلية بوصفها أدوات قوية لإنتاج محتوى تضليلي وعنصري يستهدف الرياضيين والجمهور بدقة واقعية عالية وتكلفة منخفضة. تهدف الدراسة إلى الكشف عن كيفية استغلال هذه التقنيات في تأجيج الفضاء الرقمي الرياضي، وتقييم أثرها على الاستقرار النفسي للاعبين والأمن العام في الملاعب. كما تبحث في مفهوم "خطاب الكراهية الرقمي" وتستعرض أهم الأطر القانونية الوقائية على المستوى الوطني والدولي. وتخلص الدراسة إلى جملة من التوصيات، أبرزها ضرورة تحديث الأطر القانونية الدولية لتجريم الكراهية المولدة آلياً، وتعزيز التعاون بين المؤسسات الرياضية ومنصات التواصل الاجتماعي لتطوير أنظمة رصد استباقية تعتمد على خوارزميات متقدمة لمكافحة المحتوى السام.

الكلمات المفتاحية: الذكاء الاصطناعي التوليدي، خطاب الكراهية الرقمي، القانون رقم 20-05.

1. Introduction and Problematic of the Study

The world has witnessed an extraordinary expansion in the capabilities of artificial intelligence over the past two decades, propelled by the proliferation of big data, the ubiquity of digital platforms, and the widespread availability of high-speed mobile networks. This transformation has yielded tangible advances in algorithms that enhance service delivery across numerous sectors, including sports, which has benefited from artificial intelligence applications in sports medicine, marketing, media, management, and coaching. Yet this accelerating development has simultaneously given rise to profoundly unethical applications, as extremist groups have weaponised generative artificial intelligence to transfer bigotry from the terraces into algorithms, manufacturing hate speech, discrimination, and incitement at scale.

In an era in which artificial intelligence is routinely promoted as a neutral and highly efficient tool, the deep-seated deficiencies embedded within these algorithms are being exposed with increasing frequency. Far from being impartial, such systems often reproduce and amplify discriminatory assumptions and stereotypes (Shanahan, 2015, p. 34). Researchers have established that the dissemination of digital hate speech generates profound psychological and social consequences: a discernible relationship has emerged between sporting audiences' adoption of virtual-extremist narratives and the digital environment saturated with algorithmically generated images, videos, and ethically compromised text.

The generation of hate speech through artificial intelligence is not merely a matter of 'bad words'; it constitutes a form of socio-technical engineering designed to manipulate sporting public opinion and intensify polarisation. Scholars have argued that confronting it demands 'counter-intelligence' capable

of apprehending context and intent, rather than merely flagging keywords (Al-Khalifa, 2023, p. 23).

1-1. Review of Previous Studies

A substantial body of literature has engaged with the phenomenon of digital hate speech across diverse contexts. On the theoretical plane, Suler (2004) contributed his seminal theory of the 'Online Disinhibition Effect', revealing how individuals shed normative social constraints in digital environments owing to anonymity and the absence of face-to-face interaction, thereby engaging in conduct they would not contemplate in direct confrontation. This framework is reinforced by the theory of algorithmic amplification, which empirical studies have demonstrated operates in ways that privilege emotionally provocative content irrespective of its nature, rendering hateful material more visible and more widely circulated (Abu-Zarees et al., 2021, p. 494).

Within the specific domain of sport, studies at the intersection of generative artificial intelligence and digital sporting hate speech remain comparatively nascent, as is explicitly acknowledged by both Dr. Karim Al-Majri (2025) and Hind Al-Khalifa (2023), who underscore the pressing need to develop specialised analytical frameworks capable of accommodating the fundamental interplay between technology, sport, and law. At the international level, the legal and social risks of deepfake technology to freedom of expression and human dignity have been extensively documented by Citron and Chesney (2019, p. 1753), while Yin et al. (2019, p. 3914) have examined automated mechanisms for detecting hate speech through deep learning models.

A critical survey of the literature reveals a conspicuous research lacuna: the near-absence of specialised studies that integrate digital sporting discourse analysis with generative artificial intelligence data and a preventive legal dimension

within the Arab and, more specifically, Algerian contexts. It is precisely this gap that the present study endeavours to address.

1-2. Problem Statement and Research Questions

The mounting exploitation of generative artificial intelligence for the production and dissemination of hate speech within the digital sports arena constitutes a multifaceted challenge. It inflicts psychological harm upon players and supporters alike, threatens the foundational values of tolerance and fairness that sport is meant to embody, and exposes the inadequacy of existing protective frameworks. The core problematic accordingly resides in the absence of a comprehensive preventive system that coherently integrates technical monitoring, legal regulation, and societal awareness within a rapidly evolving digital sports context. This central concern may be crystallised in the following overarching research question:

How is generative artificial intelligence deployed in propagating digital sporting hate speech, and what preventive instruments are adequate to curbing such deployment?

This principal question gives rise to the following subsidiary enquiries:

- What are the foundational concepts of generative artificial intelligence and its operational mechanisms within the digital sports environment?
- How are deepfake technologies and automated bots employed in producing hate speech targeting athletes and supporters?
- What are the psychological and social consequences of algorithmically generated hate speech for the sporting ecosystem?
- What national and international legal frameworks are available to combat this phenomenon?
- How can defensive artificial intelligence be deployed to safeguard the digital sporting environment?

1-3. Study Hypotheses

- Generative artificial intelligence contributes to broadening the scope of digital sporting hate speech and diversifying its forms in ways that exceed the detection capacities of conventional monitoring systems.
- The elevated rates of virtual fanaticism within the digital sports space are closely associated with the use of automated content-generation technologies.
- Existing legal frameworks afford only partial protection against artificially generated hate speech, owing to their failure to keep pace with the rate of technological development.
- The integration of defensive artificial intelligence with preventive legislation and societal awareness can produce a measurable reduction in the spread of such speech.

1-4. Objectives of the Study

The study pursues the following objectives:

- To analyse the concept of generative artificial intelligence and its principal technologies within the digital sports context.
- To map the mechanisms through which digital sporting hate speech is generated and disseminated via contemporary technological instruments.
- To assess the psychological and social repercussions of algorithmically generated hate speech for both players and supporters.
- To survey the national (Algerian) and international legislative frameworks for combating digital hate speech.
- To formulate practical recommendations for policymakers, sports institutions, and digital platforms.
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1-5. Significance of the Study

The significance of this study derives from three principal axes. First, its scholarly importance lies in bridging a research lacuna at the intersection of generative artificial intelligence and digital sports studies within the Arab-language context. Second, its societal importance resides in furnishing precise data to assist sports and legal policymakers in constructing effective, proportionate responses to the scale of the phenomenon. Third, its applied importance manifests in proposing actionable mechanisms implementable by sports institutions, social media platforms, and legislative bodies to safeguard the digital sporting environment.

2. Conceptual Framework

2-1. Artificial Intelligence

Artificial intelligence is defined as that branch of computer science concerned with developing systems that operate with an efficiency rivalling that of a human expert, or, alternatively, as the capacity of a machine to simulate and replicate the motor and cognitive processes of the human mind — its reasoning, inference, and ability to draw on accumulated experience (Qatami, 2018, pp. 13–15). It has also been defined as 'the creation and design of computer programmes that simulate human intelligence, enabling the performance of tasks requiring thought, perception, speech, and purposeful movement in a logical and systematic manner that contributes to decision-making and the resolution of complex problems' (Boumakhila, 2023, p. 34).

2-2. Generative Artificial Intelligence

Generative artificial intelligence designates a branch of artificial intelligence whose purpose is to create novel and innovative content autonomously, rather than merely analysing or retrieving existing data. Such content spans text, images, audio, and video, rendered with a verisimilitude that renders it ostensibly human in origin. According to the World Economic Forum, generative

artificial intelligence refers to a class of algorithms that produce new outputs on the basis of training data, drawing on machine learning techniques and neural networks (Al-Khalifa, 2023, p. 34).

2-3. Applications of Generative AI in Sports

The applications of generative artificial intelligence in the sports domain are wide-ranging and include the following principal uses:

- Analytical cognition support: Generative models assist in brainstorming applications, predictive analytics, content summarisation, and the construction of knowledge bases that facilitate analytical operations and the formulation of research questions.
- Administrative burden reduction: Assistance in drafting correspondence and reports, accessing findings, reviewing content, and performing routine daily tasks.
- Sports content production: Creating presentations and training materials, and producing analytical video content.
- Institutional development: Formulating strategic plans for the management of sports organisations at the marketing and administrative levels, and constructing forward-looking vision frameworks.

2-4. Digital Hate Speech

Hate speech has evolved into a sociological phenomenon that threatens human social systems and the sporting ecosystem, taking shape through the engineering of adversarial algorithms targeting players, officials, clubs, referees, journalists, and media institutions. Digital space is exploited as an arena for conflict and disinformation, producing narratives that embed verbal violence, racist commentary, and incitement grounded in religion and ethnicity (Abu-Zarees et al., 2021, p. 498).

Digital hate speech constitutes one of the most complex challenges of the contemporary age, given the persistent difficulty in distinguishing between freedom of expression, incitement, and discrimination. All Algerian and international institutions and organisations are in agreement that moral attacks — taking the form of publications, symbols, audio-visual material, satirical imagery, demeaning language, or assaults predicated upon ethnicity — that violate human dignity present a formidable challenge for legislators and digital platforms alike.

3. Generative Artificial Intelligence in the Context of Sports Hate Speech Propagation

3-1. Methodological Approach

The present study adopts a descriptive-analytical methodology, drawing on a systematic review of the existing theoretical and empirical literature in the fields of artificial intelligence, digital communication, and sports law. The analytical corpus encompasses academic journal articles, legal texts, institutional reports from international sports and human rights organisations, and documented case studies from 2019 to 2025. Content analysis was applied to identify recurring patterns in the deployment of generative AI tools for hate speech production in sporting contexts, while comparative legal analysis was employed to evaluate the adequacy of existing national and international frameworks.

3-2. Mechanisms for Generating and Disseminating Hate Speech

Generative artificial intelligence represents a qualitative shift in how hate speech is produced and circulated within the sports domain: the progression has been from random, haphazard messaging to 'engineered' content that is intrinsically difficult to detect. This is most evident in the following applications:

- Generation of fabricated preliminary reports and summaries falsely attributing statements to officials, players, or referees.

- Generation of fictitious supporter interventions attacking rival teams or individual players.
- Production of doctored videos and fabricated leaks presenting racist statements or content predicated upon religion and ethnicity.
- Compilation of player profiles grounded in fraudulent databases.
- Production of incendiary infographics, posters, and short video clips.
- Generation of large volumes of comments on official pages for the purpose of disseminating incitement and hatred.

3-3. Offensive AI: Instruments of Dissemination

The principal offensive instruments operate through sophisticated mechanisms, the most significant of which are as follows:

- Automated bots (AI Bots): These are deployed to disseminate vast quantities of hate messages automatically and instantaneously, creating a false impression of general consensus against a particular player or team.
- Deepfakes: Realistic video clips or audio recordings are fabricated in which athletes appear to deliver fictitious offensive statements, thereby provoking audience outrage and inciting hatred against them.
- Automated Toxicity Generation: Thousands of unique comments and posts are generated in diverse dialects and languages, thereby frustrating conventional monitoring systems in their identification efforts.
- Advanced Identity Impersonation: Language models are used to replicate the writing style of prominent athletes for the purpose of disseminating false news or insults directed at competitors from fabricated accounts.

- Trend Manipulation (Algorithmic Targeting): Content is specifically engineered to be privileged by the algorithms of social media platforms, thereby ensuring that hate speech reaches the widest possible audience.

3-4. Most Targeted Groups

Contemporary statistical studies (2024–2025) reveal a clear distribution of victims of sporting hate speech:

- Athletes: They constitute the greatest proportion of attacks, accounting for up to 74% of hate speech across social media platforms, with racist and discriminatory attacks predominating.
- Referees: Approximately 14% of this speech targets referees in their capacity as symbols of justice in sporting competitions.
- Teams and coaching staff: These are targeted at rates ranging between 4% and 7%, sometimes involving personal threats.

3-5. Nature of Hate Content

The forms of digital sporting hate speech are diverse, the most prominent being:

- Racism: Manifested in verbal insults, racist chanting, and discrimination against players on the basis of race or nationality — a persistent phenomenon that casts a shadow over athletic performance and psychological stability.
- Gender-based discrimination: Targeting female athletes with sexual insults or the denigration of their capabilities, conduct internationally prohibited under human rights conventions.
- Incitement to violence: Linking sporting failure to personal threats that occasionally transcend the digital world to constitute genuine threats to physical safety.

3-6. Results and Impact Analysis (2024–2025)

Field data extracted from statistical studies and international reports published between 2024 and 2025 disclose a number of findings of significant scholarly weight:

- The volume of deepfake content circulating online has surged to approximately eight million clips in 2025, a substantial portion of which targets public figures and athletes — a development that reveals a qualitative shift in production instruments that existing legal frameworks were not designed to anticipate.
- There has been a marked escalation in the exploitation of artificial intelligence to generate demeaning images and clips targeting specific groups, particularly in major women's competitions, suggesting a deliberate and strategic deployment of technology in a systematic discriminatory campaign.
- These orchestrated campaigns have been shown to translate into concrete threats to the safety of players and their families, with measurable direct consequences for athletic performance and professional career trajectories.

These findings converge with what scholars have characterised as a 'hate machine cycle' now gripping the digital sports environment: incendiary material is produced at extraordinary speed and negligible cost, while detection and remediation mechanisms remain temporally delayed and technically limited. This dynamic corroborates Suler's (2004, p. 321) observation that digital environments 'lower social barriers' to aggressive behaviour, while the dimension of generative artificial intelligence adds a further stratum of capacity for the mass production of such behaviour.

4. Legal and Preventive Frameworks

4-1. The United Nations Strategy on Hate Speech

In 2019, the United Nations launched an action strategy to strengthen the response to hate speech, aiming to promote social cohesion and tolerance by addressing the root causes of hatred. The strategy is grounded in respect for human rights and the imperative of balancing freedom of opinion with the need to combat incitement to violence. It encompasses principles of early warning, the protection of affected communities, and cooperation with technology companies.

The United Nations Human Rights Council monitors hate speech in periodic sessions and recommends the enactment of clear legislation consonant with international human rights law. Working in parallel with digital platforms and non-governmental organisations, it establishes partnerships designed to ensure the monitoring of harmful speech and the provision of alternative content that reinforces values of tolerance.

4-2. Hate Speech under Algerian Law

Law No. 20-05, dated 28 April 2020, on the Prevention of and Combating Discrimination and Hate Speech (Official Gazette of the Algerian Republic, Issue 25, April 2020) establishes a comprehensive legislative framework. Through this law, the State has articulated a strategy for preventing discrimination and hate speech grounded in the moralisation of public life and the promotion of a culture of tolerance, dialogue, and the rejection of violence, in accordance with the provisions of Article 5 of the law (Qasimi, 2021, p. 169).

The principal preventive measures adopted by the State, public administrations, and institutions include:

- The development of educational and training programmes for sensitisation and awareness of the risks of discrimination.

- The promotion of a human rights culture and the entrenchment of values of tolerance, dialogue, and acceptance of the other.
- The adoption of early warning mechanisms and procedures for identifying the causes of discrimination and hate speech.
- Information campaigns and public awareness initiatives regarding the risks of using information and communication technologies to propagate hatred.

4-3. The National Observatory for the Prevention of Discrimination and Hate Speech

The Algerian legislature established a National Observatory for the Prevention of Discrimination and Hate Speech — a national body endowed with legal personality and financial and administrative independence, as provided for in Article 10 of Law No. 20-05. The Observatory discharges pivotal functions within the preventive framework, the most notable of which are:

- Proposing elements of the national strategy for the prevention of discrimination and hate speech and contributing to its implementation.
- Early monitoring of acts of discrimination and hate speech and notifying the relevant authorities.
- Reporting to the competent judicial authorities acts that may constitute an offence.
- Periodically evaluating the legal instruments and administrative procedures in the field of prevention and their degree of effectiveness.
- Conducting studies and research, and developing cooperation with national and foreign institutions in this field.

4-4. Criminal Penalties

Penalties vary according to the nature of the speech and the instrument employed, with particular aggravation where digital technology is used:

- General hate speech: Imprisonment from two to five years, and a financial penalty of between 200,000 and 500,000 Algerian dinars.
- Incitement to violence: Where the speech contains an explicit call to violence, the penalty is raised to imprisonment from three to seven years and a fine of up to 700,000 Algerian dinars.
- Creation and administration of websites: Imprisonment of up to ten years for any person who creates or administers a website or electronic account for the purpose of stirring discrimination and hatred.
- Exploitation of digital instruments: Aggravated penalty where the offence is committed using information and communication technologies or through the abuse of a professional position.
- Protection of digital privacy (2024 amendment): Penalties of imprisonment from one to five years for the publication of private information or images without the consent of their owner, rising to seven years where images are manipulated with intent to cause harm.

5. Ethical Principles and Defensive Artificial Intelligence

5-1. Ethical Principles for Guiding AI Development

Engagement with generative artificial intelligence necessitates adherence to a set of ethical principles that ensure the governance of the digital environment and the repudiation of hate speech. These principles must emanate from institutional actors — digital platforms, civil society, and international law — and the most prominent are as follows:

- Transparency: The manner in which information and data are collected and used must be made explicit in order to guarantee accountability.
- Fairness: Racial, gender-based, religious, cultural, and social biases must be avoided in the development of generative artificial intelligence.

- Privacy: The privacy of users and their personal data must be protected from hacking and unlawful exploitation.

5-2. Contemporary Defensive Initiatives

Sports and international organisations have begun adopting counter-instruments to combat digital hate speech, the most notable of which are:

- Ajax Football Club (Netherlands, 2025): The first club to deploy advanced tools for the automatic filtering of hate speech from its platforms in order to protect its players.
- Paris 2024 Olympics: The International Olympic Committee deployed artificial intelligence systems to scan millions of posts and neutralise abusive content directed at 15,000 athletes and officials in real time.
- FIFA and the International Olympic Committee: Both have begun employing counter-AI instruments, such as the Social Media Protection Service (SMPS), to detect and block offensive comments before they reach players.

6. Findings and Conclusions

The struggle against hate speech in the digital age is not a struggle against technology per se, but a struggle to preserve the human values upon which sport is founded. Generative artificial intelligence, notwithstanding its hazards, furnishes unprecedented instruments for constructing a more inclusive and secure sporting environment — provided that legislation consistently anticipates innovation and that ethics remains the primary driving force of technological development.

This study has demonstrated that the exploitation of generative artificial intelligence for the propagation of digital sporting hate speech is no longer a marginal phenomenon but has transformed into a structural challenge demanding a comprehensive systemic response. The distinctive characteristics of

the sporting world — the intensity of audience sentiment, the charged collective identities at stake, and athletes' extensive online presence — make it one of the most acutely vulnerable domains to the risks posed by generative artificial intelligence. Confronting this phenomenon requires breaking the vicious cycle that links the ease of producing hateful content with the sluggishness of detection and removal mechanisms and the absence of genuine accountability. Digital literacy ultimately remains the most potent instrument: verifying sources and resisting the impulse to be swept along by controversial clips without prior scrutiny is an obligation incumbent upon every sports supporter in the digital age.

7. Recommendations

On the basis of the findings yielded by this study, and in light of the analysis of the current landscape of generative artificial intelligence deployment in the propagation of digital sporting hate speech, the following recommendations are advanced in order of practical priority:

- National and international legal frameworks should be updated urgently to criminalise algorithmically generated hate speech, close the legislative lacunae pertaining to deepfake content, and explicitly stipulate criminal liability for distribution platforms and developers of generative tools.
- Institutional cooperation between international and national sports federations and social media platforms should be strengthened, with a view to developing proactive monitoring systems grounded in advanced algorithms for the early detection and removal of toxic content before it is amplified.
- Major digital platforms should be legally obligated to delete any reported hate content within a maximum of twenty-four hours, subject

to stringent financial penalties proportionate to the size of the platform and the severity of the content.

- Digital awareness programmes should be developed and targeted at sporting audiences, reinforcing a culture of source verification and opposition to virtual fanaticism, in coordination with schools, clubs, and media institutions.
- Intensive longitudinal empirical research should be promoted in the specialised field of the intersection of generative artificial intelligence, sports studies, and digital law — particularly in the Arab and Algerian contexts, which lack a sufficient database in this area.
- Clubs and sports federations should be encouraged to adopt defensive artificial intelligence systems and to incorporate them as an integral component of their operational infrastructure, in order to protect their players, officials, and supporters from systematic digital attacks.
- Efforts should be concerted among government, media, civil society, and academic institutions in a systemic response to this speech, as no single entity can independently arrest a phenomenon of this magnitude and complexity.

List of References

- Abu-Zarees, M. R. A., & Al-Mawajdeh, M. A. (2021). Forms of hate speech on social media platforms in Jordanian society from the perspective of employees in the Cybercrime Combating Unit. *Al-Azhar Journal of Educational, Psychological and Social Research*, 40(189), 442–490. <https://doi.org/10.21608/jsrep.2021.178857>
- Al-Khalifa, H. (2023). *An introduction to generative artificial intelligence* (1st ed.). Iwan Research Group. <https://www.researchgate.net/publication/371790205>

- Al-Majri, K. (2025, July 20). Research and articles on digital hate speech and public freedoms. Al Jazeera Centre for Public Liberties and Human Rights. <https://liberties.aljazeera.com/>
- Boumakhila, K. (2023). Adapting the media industry to artificial intelligence technology in the media: Potentials and horizons of use. *Raqmana Journal of Media and Communication Studies*, 3(2), 30–49. <https://asjp.cerist.dz/en/article/227751>
- Citron, D. K., & Chesney, R. (2019). Deep fakes: A looming challenge for privacy, democracy, and national security. *California Law Review*, 107(6), 1753–1820. <https://doi.org/10.15779/Z38RV0D15J>
- Official Gazette of the Algerian Republic. (2020, April). Law No. 20-05 of 28 April 2020 on the prevention of and combating discrimination and hate speech (Issue 25). <https://www.joradp.dz/FTP/jo-arabe/2020/A2020025.pdf>
- Qasimi, S. (2021). Discrimination and hate speech between Law 05/20 and international conventions. *Journal of Human and Social Sciences*, 2(1), 147–174. <https://asjp.cerist.dz/en/article/148084>
- Qatami, S. (2018). Artificial intelligence and its impact on humanity. *Al-Afkar Magazine*, Ministry of Culture, Hashemite Kingdom of Jordan (pp. 10–20). <https://archive.alsharekh.org/Articles/279/20502/466608>
- Shanahan, M. (2015). *The technological singularity*. MIT Press. <https://mitpress.mit.edu/9780262527804/the-technological-singularity/>
- Suler, J. (2004). The online disinhibition effect. *CyberPsychology & Behavior*, 7(3), 321–326. <https://doi.org/10.1089/1094931041291295>

- Yin, W., Hay, J., & Roth, D. (2019). Benchmarking zero-shot text classification: Datasets, evaluation and entailment approach. In Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP-IJCNLP) (pp. 3914–3923). Association for Computational Linguistics. <https://doi.org/10.18653/v1/D19-1404>