Divergences in the use of generative AI among sports journalists in Spain

Divergencias en el uso de la IA generativa entre los periodistas deportivos en España

Divergências no uso de IA generativa entre jornalistas esportivos na Espanha

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This paper analyzes the penetration of generative artificial intelligence in sports news. Through surveys to 20 editors and heads of the sports section of 16 Spanish media, we study how professionals make sense of this technology and the dynamics that these changes introduce in the newsrooms. The results reflect an unequal implementation. Among the advantages, sports journalists highlight the speed of their work; among the risks, the lack of contact with sources and possible inaccuracies. The lack of knowledge about the potential of AI to achieve greater efficiency and generate value-added content is evident.

KEYWORDS: Artificial intelligence, sports journalism, digital tools, productive routines, innovation.

Este trabajo analiza la penetración de la inteligencia artificial generativa en la información deportiva. Mediante encuestas a 20 editores y responsables de la sección de deportes de 16 medios españoles, se estudia cómo los profesionales dan sentido a esta tecnología y las dinámicas que estos cambios introducen en las redacciones. Los resultados reflejan una implantación desigual. Entre las ventajas, los periodistas deportivos destacan la rapidez en el desempeño de su trabajo; entre los riesgos, la falta de contacto con las fuentes y las posibles incorrecciones. Se evidencia el desconocimiento sobre el potencial de la IA para lograr una mayor eficiencia y generar contenidos con valor añadido.

PALABRAS CLAVE: Inteligencia artificial, periodismo deportivo, herramientas digitales, rutinas productivas, innovación.

Este artigo analisa a penetração da Inteligência Artificial generativa nas reportagens esportivas. Por meio de questionários a 20 editores e chefes da seção de esportes de 16 meios de comunicação espanhóis, estudamos como os profissionais entendem essa tecnologia e a dinâmica que essas mudanças introduzem nas redações. Os resultados refletem uma implementação desigual. Entre as vantagens, os jornalistas esportivos destacam a velocidade de seu trabalho; entre os riscos, a falta de contato com as fontes e as possíveis imprecisões. Há uma falta de conhecimento sobre o potencial da IA para alcançar maior eficiência e gerar conteúdo com valor agregado.

PALAVRAS-CHAVE: Inteligência artificial, jornalismo esportivo, ferramentas digitais, rotinas produtivas, inovação.

INTRODUCTION

The application of artificial intelligence (AI) in journalism is no longer a novelty. A decade after the first experiments with natural language generation algorithms in U.S. media, this technology has reached a more mature stage. The most extreme reactions, whether enthusiastic or dismissive, have largely subsided. Instead, the notion that AI will drive a profound transformation in the media seems to be increasingly accepted (Zheng et al., 2018, p. 273).

This development has also extended to academic research. Early studies primarily focused on the application of AI to the automated production of content or the theoretical aspects of this phenomenon. However, there has been a shift toward more specific and in-depth analyses of the growing influence of algorithms on the production and distribution of news (Thurman et al., 2019, p. 989). The impact of AI on the media has become a research topic generating significant interest due to its industrial and social implications (Túñez et al., 2018). A substantial portion of academic contributions based on real fieldwork in the sector can be categorized into two groups: a) studies examining the effects of AI on newsrooms, with notable variations in the magnitude of these observed changes, and b) studies documenting the reactions of professionals and users to these innovations. The latter, particularly those focused on consumers, remain less common.

Some authors have emphasized the methodological approaches of these investigations. Christin (2017, p. 1) advocated for ethnographic research on the practical application of algorithms in newsrooms. A study led by Thurman (2019, pp. 981-982) highlighted the importance of addressing aspects such as ethics, the organizational principles of algorithmic information, and the symbolic value of machine-driven journalistic work. Similarly, Guzman and Lewis (2020, p. 1) proposed three areas of focus: 1) studying how individuals make sense of these applications; 2) analyzing the dynamics these changes introduce in newsrooms, and 3) reflecting on their metaphysical implications.

This study aims to provide an overview of the practical application of AI in sports journalism and its impact on the productive routines of this specialty in Spain across various media formats. The research

focuses on examining how professionals make sense of this technology and analyzes the dynamics resulting from these changes in these specialized newsrooms.

In this regard, to understand the effects of AI on sports journalism, the research has the following objectives: a) to explore the use of AI tools by sports journalists in their productive contexts; b) to determine the behavior of journalists and media outlets regarding these productive contexts, and c) to gather these professionals' perceptions of the use of AI in newsrooms. Based on these objectives, the following research questions are proposed:

RQ1: How does AI impact the organization of work, content production, content distribution, and commercialization in sports newsrooms?

RQ2: What are the problems, risks, advantages, and disadvantages of using this technology, according to journalists?

THE IMPACT OF AI ON JOURNALISM

AI is poised to shape the future development of media transformation (Zheng et al., 2018). Although journalism has relied on AI resources for nearly two decades in areas such as news production, data journalism, big data, social media applications, and fact-checking (Calvo-Rubio & Ufarte-Ruiz, 2020), it is now that its application in sports journalism has garnered increased attention (Canavilhas & Giacomelli, 2023).

AI facilitates the journalists' work, enabling them to better focus on the core aspect of their profession: storytelling and creating more in-depth content (Hochberg, 2010). This reality leads to a dual perception: on the one hand, AI is seen as a threat to jobs due to the diminishing role of journalists as intermediaries; on the other, it is viewed as an aid in their productive routines (Peña-Fernández et al., 2023).

The excessive optimism of some initial research and parts of the industry highlighted the gap between the supposed effects and objectives of AI in journalism and its actual implementation (Christin, 2017, p. 1). Stray (2019, p. 1) focused on the limited application of AI in investigative journalism, despite early hopes of using it to uncover hidden patterns in large datasets and thereby reduce costs. Three

reasons explained this limited development: the unique nature of each investigative project, the scarcity of publicly accessible data, and the risk of errors due to automation in editorial processes. The second reason appears to be one of the most evident, not only in investigative journalism. AI requires robust datasets, which entails a growing demand for professionals capable of properly managing and supervising this information (Galily, 2018, p. 5).

The greatest resistance to the implementation of AI in newsrooms comes from the workers themselves, who perceive it as a threat rather than a complement (Mondría Terol, 2023, p. 56). While most research suggests that these fears are unfounded, some studies reveal attitudes among media executives that favor adopting automation as a strategy to reduce costs and improve productivity, which could lead to a decrease in the number of human employees (Kim & Kim, 2017, p. 187).

In this vein, Guimarães et al. (2020, p. 72) analyzed how the use of certain algorithms outperformed human work in assessing the social relevance of content, provided adequate data were available (robust, reliable, and abundant). Partly for this reason, a promising horizon emerges for the use of AI in combating disinformation, albeit with collaboration from academia, businesses, politicians, and civil society (De Oliveira et al., 2021, p. 29). Similarly, the use of AI to detect social issues was studied using data from Facebook (Bhowmik et al., 2020, p. 394).

Other studies have focused on examining the aspects in which AI provides benefits (as well as risks or threats) to journalism. Diakopoulos and Koliska (2017, p. 1) analyzed the use of algorithms to promote internal transparency in media organizations. Caswell and Dörr (2018, p. 17) focused on the economic aspects of the industry, highlighting the advantages of automating production to meet sector demands and optimize business models. However, they emphasized the need to first define specific models for AI implementation, foster newsroom workflows, and introduce editorial skills among professionals to support these processes.

Although less numerous, it is worth highlighting studies that have explored the perspectives of professionals and users regarding the advancement of AI in journalism. Christin (2017, p. 1) documented the

strategies employed by professionals to minimize the impact of algorithms on their daily work, while Kim and Kim (2018, p. 354) examined journalists' reluctance toward AI, citing potential harm to the profession (content quality) and the loss of status. Some journalists believe they "hold the reins" at all stages of the production process, particularly in selection and editing, and seek to protect their roles as "final arbiters" (Wu et al., 2018, p. 2).

However, all these studies have been somewhat surpassed by the rise of generative AI. Although this variant had been in development for years –media outlets such as *The Guardian* used GPT-3 as early as 2020 to draft an experimental article (Pavlik, 2023, p. 85)– the launch of ChatGPT at the end of 2022 marked a turning point in the development of this technology.

The term *generative AI* is used to describe a subset of AI models capable of generating new information by identifying relevant trends and patterns in previously collected data. These models can produce outputs in a wide range of formats, including written text, visuals, and audio (Gill & Kaur, 2023, p. 262).

The popularization of this AI application occurred when some of these services were offered in a chatbot format. This format began to be widely used on various websites, often as a customer service resource, and in journalism it spearheaded projects such as Politibot and Quartz (Ufarte & Manfredi, 2019). However, the arrival of ChatGPT by OpenAI has transformed the debate. Its speed and capabilities are described as "impressive and terrifying at the same time" (Newman, 2023, p. 35). While the underlying models have existed for some time, ChatGPT has turned them into an accessible prototype that provides a tangible glimpse of the future direction of AI.

Language models like GPT use large text datasets combined with neural networks to process text. The acronym stands for "Generative Pre-trained Transformer", reflecting the two training phases that power the model. The first phase is "unsupervised", during which the model is trained on an extremely large dataset, allowing the neural network to create a reference model. Then, using smaller datasets, the model is "fine-tuned" through a "supervised" process that relies on annotated language data, which is labor-intensive. In the case of GPT, fine-tuning

incorporates reinforcement learning with human feedback as a reward system. This approach enables significant performance gains while allowing the model to perform well across a range of diverse tasks (Zimmerman, 2023, p. 3170). ChatGPT is built on a specific application of the broader Deep Learning (DL) paradigm, particularly its use in language generation or Natural Language Processing (NLP) (Javaid et al., 2023, p. 1).

Generative AI presents significant opportunities for journalism, but also poses substantial risks to the sector and society as a whole. This underscores the need to regulate its use. As with any powerful new technology, it is crucial to carefully assess its potential effects and take precautions to ensure it is used ethically and responsibly. While ChatGPT has been praised for its ability to enhance productivity, many experts have expressed concerns about the uncontrolled use of this technology (Haleem et al., 2022, p. 6).

The automated generation of sports information

One of the journalistic fields where AI has developed most extensively is sports journalism. This is largely due to the suitability of sports for data-driven and automated work: competitions generate substantial amounts of quantifiable information, and they also occur within programmable routines and follow a cyclical nature (Canavilhas & Giacomelli, 2023, p. 64). These advances in the field serve as yet another example of how sports have leveraged technology to further accelerate processes and enhance efficiency, while still embracing the creative and experimental spirit that has positioned them at the forefront of innovation in journalism (Rojas-Torrijos, 2014; Rojas-Torrijos & De Santis, 2024).

One of the most widespread implementations in recent years is the so-called automated journalism. Various studies reveal the types of coverage currently utilizing this technology and aim to determine how its development impacts journalists' work (Rojas-Torrijos, 2021). The algorithm enables the automation of various stages of the journalistic process, from data collection, filtering, and analysis to the production, publication, and archiving of content (Broussard, 2015).

However, the development of AI in sports journalism has a long history. In 2010, the U.S. network The Big Ten Network began the automated production of baseball news (Latar, 2018). In 2016, *The*

Washington Post developed a bot to produce short news pieces about the Rio Olympics for blogs, social media, and Alexa (Lassi, 2022; Rojas-Torrijos, 2019). That same year, the Associated Press (AP) also began covering minor league baseball in the United States to increase its visibility, and it hired a new type of newsroom professional: the automation editor (Oremus, 2014; Rojas-Torrijos & De Santis, 2024). Another agency, Reuters, had already been using algorithms to produce text summaries of sports news, but in 2020 it launched a service where video summaries are automatically edited and narrated by a virtual presenter (Chandler, 2020).

A year later, the Dutch local media group NDC, in collaboration with the Swedish company United Robots, began using a bot to produce news on amateur football. The goal was to expand their coverage and attract new readers who could potentially become subscribers over time (Canavilhas & Giacomelli, 2023, p. 57).

In a recent study led by Verdú et al. (2022), the effectiveness of AI in data collection was confirmed, but not its ability to produce high-quality sports reporting. The texts generated by this technology effectively organized the information and were useful for conveying game actions. However, they lacked many of the defining qualities of sports reporting found in journalist-authored articles. The study concluded that sports chronicles produced by AI "do not contribute to the quality of the journalistic genre, as they lack analytical or interpretive elements – qualities traditionally present in sports journalism" (p. 92).

Finally, a study by Canavilhas and Giacomelli (2023, p. 64), which serves as a foundation for this research, explored the use of AI in sports media in Portugal and Brazil. They found a relative penetration of this technology, more advanced in the South American country than in the European one, with its use primarily focused on simple tasks such as information retrieval.

Methodology

To explore the impact of AI on sports journalism –both in terms of professionals' use of AI tools and their perception of this technology– this study is based on a series of questionnaires administered to sports section managers from generalist and national online media, as well as

editors-in-chief and deputy editors of specialized sports media in Spain, including native digital sports outlets. This quantitative method was chosen as it aligns well with the objectives of a primarily exploratory investigation.

First, a convenience sample was selected, targeting editors and managers of sports sections, as they "understand the contribution that AI can offer to their newsrooms" (Canavilhas & Giacomelli, 2023). The questionnaires were sent via e-mail to the journalists after an initial phone call to inform them about the research objectives, during June 2023. The questionnaires were distributed to 40 professionals, of whom 20 completed the survey, resulting in a response rate of 50%.

TABLE 1

ANONYMIZED SAMPLE OF RESPONDENTS

E	Position	Media outlet	Gender	Age
E1	Editor-in-chief	*Europa Press*	Male	46-50
E2	Executive	*BeSoccer*	Male	35-40
E3	President	*ElDesmarque*	Male	41-45
E4	Editor-in-chief	*ABC*	Male	56-60
E5	Journalist	*El Imparcial*	Male	35-40
E6	Editor-in-chief	*Marca*	Male	56-60
E7	Editor-in-chief	*El Mundo*	Male	56-60
E8	Editor-in-chief	*Radio Marca*	Male	51-55
E9	Editor-in-chief	*Marca*	Male	56-60
E10	Journalist	*Onda Cero*	Male	51-55
E11	Editor-in-chief	*Cope*	Male	61-65
E12	VP Content Engagement	*DAZN*	Male	41-45
E13	Editor-in-chief	*Relevo*	Male	41-45
E14	Section chief	*Mundo Deportivo*	Male	56-60
E15	Deputy director	*As*	Male	51-55
E16	Columnist	*El Confidencial*	Male	56-60
E17	Editor-in-chief	*Radio Marca*	Male	46-50
E18	Editor-in-chief	*El País*	Female	41-45
E19	Executive	*Mundo Deportivo*	Male	36-40
E20	Editor-in-chief	*Marca*	Male	56-60

Source: The authors.

The final sample includes 20 professionals from 16 media outlets. All but one are men, reflecting the composition of a sector still undergoing transformation. The average age of the respondents is 50, with more than half (11, or 55%) being between 50 and 60 years old. This is understandable given that the sample primarily consists of individuals in senior and mid-level positions.

The selection of the media outlets in the sample was guided by the principle of informational plurality in Spain. For this reason, both generalist media outlets (*El Imparcial*, *El Confidencial*, COPE, Europa Press, *El Mundo*, *El País*, and Onda Cero, which responded to the questionnaire) and specialized media across all platforms (Marca, DAZN, *El Mundo Deportivo*, *Relevo*, *El Desmarque*, Radio MARCA, Mundo Deportivo, and BeSoccer) were included.

The questionnaire was structured into four sections. The first section, focusing on sociodemographic variables, aimed to gather personal and professional information about the participants. The second, divided into four parts, required journalists to specify their use of external digital tools based on artificial intelligence in the following productive contexts: work organization, content production, content distribution, and the use of AI as a marketing or commercialization tool. The third section inquired about the use of AI-based resources developed by their own media outlets in areas such as work organization, content production, content distribution, and as a tool for marketing or commercialization. Finally, in the fourth section, participants were asked to evaluate the use of AI in sports journalism in relation to the following topics: issues such as the low quality of texts or images, the complexity of implementation, and costs, among others; risks associated with the use of AI in productive routines, such as lack of contact with sources, data inaccuracies, or the reproduction of biases in content, among others; and the advantages and opportunities that AI offers to sports journalists.

All questions, except for those in the first section, focused on the personal data of the respondents, were closed-ended. The questions in the next two sections could only be answered with "yes" or "no". The questions in the final section, focused on perception, were designed using a Likert scale with five options ranging from "Strongly agree" to "Strongly disagree".

RESULTS

The responses to the survey reflect an uneven and still emerging implementation of AI among sports journalism professionals in Spain. Only after the explosion of generative AI have some professionals experimented with this technology. Its uses rarely extend beyond topic ideation, data retrieval, transcription, translation, and automated extraction. Tasks related to organization, distribution, and commercialization are, as a general rule, still minimally connected to the use of these tools.

TABLE 2

YEAR OF FIRST USE OF AI

First use IA	N	%
Never	6	30
2016	1	5
2019	3	15
2020	3	15
2021	1	5
2022	1	5
2023	5	25

Source: The authors.

Nearly one-third (30 %) of the respondents have never used AI before. When adding those who experimented with this technology in 2023 (25 %), it becomes evident that more than half of the professionals who participated in this research did not pay attention to AI until the launch of ChatGPT in November 2022. Only one of the 20 respondents began using these tools before 2019, specifically in 2016.

In tasks related to work organization, the most widespread use of AI focuses on ideation (40 %). These figures drop significantly when it comes to supporting workflow management (10 %) and teamwork (20 %).

Information retrieval is one of the aspects of the journalistic process most impacted by AI. More than half of the respondents (55 %) have

used this technology to locate data. This figure drops considerably when measuring the use of these tools for searching for sources (25 %) or documents (35 %).

TABLE 3

USE OF AI FOR JOURNALISTIC ORGANIZATION WITH EXTERNAL TOOLS

	Trends		Ideation		Management		Teamwork	
Yes	7	35 %	8	40 %	2	10 %	4	20 %
No	12	60 %	10	50 %	14	80 %	12	70 %
ND	1	5 %	2	10 %	2	10 %	2	10 %

Source: The authors.

TABLE 4

USE OF AI FOR SEARCH WITH EXTERNAL TOOLS

	Data		Sources		Documents	
Yes	11	55 %	5	25 %	7	35 %
No	8	40 %	11	55 %	12	60 %
ND	1	5 %	4	20 %	1	5 %

Source: The authors.

TABLE 5

USE OF AI FOR INFORMATION PROCESSING WITH EXTERNAL TOOLS

	Transcription		Translation		Polishing		Summarization		Categorization		Extraction	
Yes	9	45 %	11	55 %	2	10 %	4	20 %	2	10 %	8	40 %
No	8	40 %	8	40 %	15	75 %	13	65 %	14	70 %	10	50 %
ND	3	15 %	1	5 %	3	15 %	3	15 %	4	20 %	2	10 %

Source: The authors.

The other major application of AI is, at least for now, in information processing. More than half of the respondents have used translation tools, and 45% have employed them to convert audio and video into text.

TABLE 6

USE OF AI FOR CONTENT GENERATION WITH EXTERNAL TOOLS

	Text		Image		Graphics		Audio		Video	
Yes	8	40%	6	30%	5	25%	2	10%	1	5%
No	10	50%	12	60%	13	65%	14	70%	14	70%
ND	2	10%	2	10%	2	10%	4	20%	5	25%

Source: The authors.

What stands out is the generally limited use of AI for content generation. Nearly half of the respondents (40%) have created text, and almost one in three (30%) have created images using this technology. However, these figures decrease further when referring to audio (10%) and video (5%).

TABLE 7

USE OF AI FOR CONTENT DISTRIBUTION WITH EXTERNAL TOOLS

	Automation		Moderation		Personalization		Monitoring	
Yes	3	15%	4	20%	1	5%	4	20%
No	12	60%	14	70%	13	65%	14	70%
ND	5	25%	2	10%	6	30%	2	10%

Source: The authors.

The respondents have also hardly ventured to use AI for tasks related to content distribution. One in five (20%) have used it for comment moderation and social media monitoring. Only one person has experimented with applying this technology to content personalization.

The various AI applications for commercialization are the least developed. Only one of the respondents has experimented with personalized paywalls, and two have used tools for subscriber acquisition

and retention. As will be discussed in the relevant section, this can be explained by the profile of many participants, who are typically closer to the editorial side than to the commercial departments.

TABLE 8

USE OF AI FOR COMMERCIALIZATION WITH EXTERNAL TOOLS

	Subscriber acquisition		Subscriber retention		Personalized paywall	
Yes	2	10%	2	10%	1	5%
No	15	75%	15	75%	16	80%
ND	3	15%	3	15%	3	15%

Source: The authors.

TABLE 9

PROBLEMS, RISKS, AND ADVANTAGES AND OPPORTUNITIES
OF AI APPLICATION

Problems		Risks		Advantages	
Lack of awareness about its potential	4.0	Lack of contact with sources	6.0	Increased speed	5.3
Resistance to change	3.3	Inaccuracies in the data	5.8	Resource optimization	3.8
Absence of a strategy	3.3	Job reduction	4.5	Search for new revenue streams	3.3
Low quality (text)	3.0	Reproduction of biases in content	3.8	Content personalization	2.5
Lack of training (university)	3.0	Lack of respect for copyright	3.3	Focus on more creative activities	1.8
Low quality (image)	2.0	Lack of transparency	2.8	Combating disinformation	0.5
Complexity of implementation	2.0	Increase in disinformation	1.5	Creation of new jobs	0.3
Cost (human)	1.8			Improved quality	0
Cost (material)	0.8				

Source: The authors.

The main issue with the application of AI, according to the respondents, lies in the lack of awareness about its potential (4 out of 10 on average). Following closely behind, professionals in the studied sports media are concerned about resistance to change within their newsrooms (3.3) and the lack of a strategy within their organizations (3.3). Costs, both human (1.8) and material (0.8), are considered less problematic issues.

The lack of contact with sources is the primary risk identified by the professionals who participated in this research (six out of ten). Close to this concern are potential inaccuracies in the data provided by AI (5.8). A possible reduction in job positions seems slightly less of a concern (4.5). The increase in disinformation barely worries the respondents (1.5).

Among the potential advantages of AI, sports journalists clearly highlight increased speed in performing their work (5.3 out of 10), which is closely linked to the second most valued advantage, resource optimization (3.8). Respondents barely see the creation of new professional profiles (0.3) and the improvement in the quality of their product (0) as possible benefits.

CONCLUSIONS

The analysis of the responses obtained from the survey reveals a complex reality regarding the implementation of artificial intelligence (AI) among sports journalism professionals in Spain. The research concludes that the adoption of AI in Spanish sports journalism is characterized by its inequality and emerging nature.

Most of the professionals surveyed have begun to experiment with this technology (PI1), especially after the rise of generative AI, confirming the entry into an early phase of adopting advanced tools. This technology has a notable influence on some stages of content production and distribution. However, it has not yet been fully developed in areas such as work organization and the commercialization of sports content.

The revealing fact that nearly one-third (30%) of the respondents had never used artificial intelligence (AI) before, and that 25% began experimenting with this technology in 2023, highlights a trend of late

adoption in the field of Spanish sports journalism. However, it is also true that this reflects an upward trend in the adoption of AI as a tool for their work.

These findings align with those reported in previous studies, which warn of the increasing reliance on AI by journalists and how it influences news production (Ufarte et al., 2023). In the case of sports journalism, the penetration of this technology is more pronounced among North American professionals than their European and South American counterparts (Canavilhas & Giacomelli, 2023). However, this research reveals a scenario in which Spanish sports journalists are also impacted, particularly in terms of work organization, content production, and distribution.

The results obtained in this research show that in Spanish sports newsrooms, the most widespread use of AI is focused on ideation, with minimal use in workflow management and teamwork. However, it is important to note that these are professionals in charge of various teams, and they will soon recognize the advantages of using AI, for example, to distribute tasks in collaborative work.

Although they acknowledge the use of ChatGPT to generate content, this can include not only content published in the media but also responding to e-mails or completing reports. It is evident that the journalists surveyed have barely experimented with generating audio (voice) and video, two formats that are likely to become highly relevant (as we are already witnessing with platforms like Spotify or Runway, for example, or the new multiformat version of ChatGPT, which now integrates DALL-E).

This reality aligns with one of the great promises of AI: making it possible to generate multiple versions of the same content to adjust to the habits, preferences, and needs of different types of audiences. In this scenario, only one of the journalists interviewed acknowledges using AI for content personalization.

The sports journalists surveyed identify various advantages and disadvantages of this technology, but most notably, they highlight their lack of awareness about its transformative potential (PI2). In fact, this absence of information is one of the main limitations to the use of AI in their work, which makes sense given its novelty and constant evolution. Therefore, it is prudent to approach its use with caution.

Moreover, this caution expressed by the heads of sports sections is also extended to the journalists under their charge, which suggests that there is still resistance to change among these professionals, who continue to work with productive routines that are distant from the possibilities offered by AI. According to Mondría Terol (2023), "a change in mindset is needed in newsrooms, overcoming the fear of replacement, and emphasizing the value of human creative capacity and editorial decisions" (p. 41).

In this regard, it is significant that the primary risk for these professionals is the potential reduction in contact with traditional sources of information due to the use of AI in their productive routines. This raises concerns about the overreliance on desk-based journalism or the possibility that a bot could replace a personal source. Additionally, issues such as the consistency, transparency, and reliability of sources are highlighted, as warned by Cuartielles et al. (2023). Despite these reservations, it is important to remember that sports journalists are already using digital sources, such as the X (formerly Twitter) accounts of sports organizations or athletes themselves (Oelrichs, 2022).

As previously noted, experts agree on the need to integrate AI into production processes, making it an urgent and relevant task for media outlets, as well as for journalists, in how it contributes to helping them achieve their professional goals (Peña Fernández et al., 2023). One of the advantages they could leverage is greater efficiency in their work, freeing them from certain tasks and enabling them to focus on adding value. For example, using AI to create better content through the collection or automated processing of large data volumes. Given the managerial profile of many of the respondents, it is striking that there is a lack of strategy regarding the incorporation of generative AI capabilities into the core of newsrooms, highlighting that it is an urgent and relevant task for media organizations (Becket & Yaseen, 2023). This is especially true, as mentioned earlier, since sports journalism is characterized as a testing ground conducive to innovation (Rojas-Torrijos, 2014) and the application of AI (Rojas-Torrijos & De Santis, 2024).

The limitations of many generative AIs, materialized in the phenomenon known as "hallucination", likely explain why many professionals do not trust the people or documents to which they may be

redirected. Therefore, it is not surprising that the heads of sports sections find it difficult or are little interested in incorporating professionals with new skills. This is further compounded by the ongoing debate regarding the ethical use of content (Franganillo, 2023), particularly with regard to information privacy, data ownership, and algorithm transparency (Sanguinetti, 2023). It is no surprise that voices are already emerging, warning about the need for self-regulation (Sanahuja & Esteban, 2023).

This article also has its limitations. First, it should be noted that the sample of 20 professionals cannot be used to generalize to the entire population of sports journalists, nor to their counterparts in generalist and specialized media. In addition to increasing the number of responses, future studies should complement these quantitative responses with in-depth interviews or other methods such as non-participant observation in newsrooms. Comparative studies between different countries would also be very interesting. Finally, it would be advisable to complement the questions about general aspects with more specific ones regarding the types of content created with AI or coverage supported by this technology.

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