



GenAI in journalism: An ethical analysis of implications, best practices, and challenges

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ABSTRACT

Generative artificial intelligence (GenAI), which involves the creation of automated content in any format, has become a challenge in journalism. This technology is forcing us to rethink the traditional ethical postulates of the journalistic profession. This study analyses the impact of GenAI on journalism from an ethical perspective. To this end, it examines the perceptions of professionals by means of a survey of journalists (N = 324) and in-depth interviews with those responsible for the ethical use of artificial intelligence in ten relevant media outlets in Spain. The main problems and challenges posed by using this technology in journalism, as well as the measures taken to implement responsible use in newsrooms are addressed. Among the main findings, the survey respondents highlight the lack of verification of automated news as the main problem of GenAI, while those responsible for its ethical use highlight its biases. For both groups of professionals, the establishment of ethical guidelines and training for newsrooms are two key actions that need to be taken for the responsible use of this technology to be achieved. This study is the first to analyze perceptions of the ethical impact of GenAI in one of the European countries belonging to the polarized pluralist model.

Keywords: artificial intelligence, generative artificial intelligence, ethics, automated journalism, journalists, Spain

INTRODUCTION

The application of artificial intelligence (AI) to journalism is changing the way news is selected, produced, distributed and consumed (Center for News, Technology and Innovation, 2025; Dörr, 2021; Parratt-Fernández et al., 2021). Generative artificial intelligence (GenAI), which creates content in any format, will be used in all stages of the journalistic process, from gathering newsworthy topics to verification, content curation, news production and distribution (Cools & Diakopoulos, 2024; Hofeditz et al., 2025). In terms of public perception, only two out of ten people believe that the media are using GenAI responsibly. This is one of the findings of a Reuters Institute survey of 12,000 people in six countries across Europe, Asia, and the Americas (Fletcher & Nielsen, 2024). Journalists, for their part, see a lack of human oversight, inaccuracy of information, and bias as the main ethical concerns in using this technology, according to an Associated Press study based on surveys of journalists around the world (Diakopoulos et al., 2024).

In Spain, the country where this study is conducted, the annual report on the journalism profession 2024 shows that 60% of journalists believe that the use of GenAI should be restricted, partly because they believe that it promulgates disinformation (Asociación de la Prensa de Madrid, 2024). Most respondents (journalists

and communication technicians) believe that it is appropriate to let the public know when GenAI is being used. In early 2025, journalists from a Spanish regional newspaper warned on X about the publication of automated news on the newspaper's website without telling readers that it had been generated by AI, which was a sign of a "total lack of professional ethics" (DNA Committee, 2025). To what extent do Spanish journalists attach importance to ethics when using GenAI, what do they consider to be the main ethical issues when using this technology and how do they think they can overcome them? This research analyses the ethical implications of GenAI in journalism, as perceived by Spanish journalists, through a survey. In addition, it addresses through in-depth interviews the opinions of other key actors: those responsible for the ethical use of AI in ten relevant media outlets in Spain.

THEORETICAL AND CONCEPTUAL FRAMEWORKS

Ethical Implications and Challenges of GenAI in Journalism

AI is a "human-made technology that can display human intelligence using ordinary computer programs" (Chen et al., 2024, p. 8). When this technology is conceived as a communicative subject, which is what is happening in Western media (Lewis et al., 2019), the traditional theoretical paradigm is overcome and human-machine communication (HMC) is achieved (Guzman & Lewis, 2020). HMC is based on the idea that machines create meaning and act as communicators (Jamil, 2021; Shi & Sun, 2024). Another framework from which to approach AI is the actor-network theory, which implies that both humans and machines are actors that produce effects in complex networks (Gutiérrez, 2024; Latour, 2017). Such a framework has been linked to journalistic AI in various studies (Paik, 2023; Wiard, 2019), given its prominent role in the media ecosystem (Chen et al., 2024). This humanization of AI brings ethical implications that journalists must consider when using it in their work.

As for GenAI, which is the focus of this research, it includes systems that generate multimodal content, such as text, images, and code, from input data, thanks to algorithms that copy the patterns from the data on which they were trained (Odisela, 2023; UNESCO, 2023). Concerns have been raised in and by the media about the ethical implications of using GenAI (De Lara et al., 2022; De-Lima-Santos & Ceron, 2022). Ethics should be the basis for the application of AI in journalism, with new approaches and from a technological perspective (Forja-Pena et al., 2024; Tzachor et al., 2020). Despite its importance in journalistic practice, this has not yet been addressed in depth in academic work (Porlezza & Schapals, 2024).

When using this technology, transparency is of key importance to engender public trust (Guzman, 2021; Jamil, 2023). This transparency must apply both to the working process of the algorithms—which are real black boxes for the audience (Beckett & Yaseen, 2023; Wang & Ophir, 2024)—and to the authorship of automated texts (Karlsson et al., 2023; Kim, 2019). Both actions fall under Karlsson's (2010) disclosure transparency, which implies that the media should explain how they selected and produced the news that is published¹.

Another important risk is linked with the verification of the content produced by GenAI—the so-called hallucinations—, content that can be completely fabricated, even if it appears to be credible (Bender et al., 2021), and this is a problem which can amplify disinformation (Porlezza & Schapals, 2024). Thus, contrasting information is fundamental to ensure the rigor and credibility of the content generated by algorithms (Cools & Diakopoulos, 2023b). Bias and stereotypes are another drawback of GenAI because these factors reproduce the biases of the programming technicians (Bradshaw et al., 2023; Kim, 2019). It would be desirable for this technology to represent social diversity and multiple perspectives on the facts being reported, but this is not often the case (Lin & Lewis, 2022; Ventura-Pocino, 2021). In this sense, the lack of interpretation and context in generated content is another weakness in the use of GenAI, which distances it from journalists' creative work (Calvo-Rubio & Ufarte-Ruiz, 2020; Kim, 2019).

Other relevant risks are privacy and data protection issues in content handled by algorithms (Pierson et al., 2023; Ventura-Pocino, 2021), as well as AI's lack of human awareness when having to make editorial decisions, which implies potential harm (Karlsson et al., 2023).

¹ Karlsson (2010, p. 537) distinguishes between *disclosure transparency* and *participatory transparency*, which implies that the public is actively involved and "invited to participate in different stages of the news production process". In the field of GenAI, it is recommended to carry out actions related to the former.

As for the prospective challenges engendered by the use of GenAI, as highlighted by many studies, most of them align with the identified difficulties. These issues are complex and will require ongoing research and work to be resolved, without the provision of a readily apparent solution. These issues are multifaceted in nature and include the following: dissemination of misinformation (Thomson et al., 2024); bias (Al-Kfairy, 2024); lack of transparency (Bayer, 2024); uncertainty regarding responsibility for errors made (Dörr & Hollnbuchner, 2017); intellectual property issues (Díaz-Noci, 2020); and changes in journalistic roles (Shi & Sun, 2024). Another challenge is the homogenization of content due to an increasing number of media outlets using services provided by a few companies whose AI systems are trained with similar data sets and may have standardized templates (Bommasani et al., 2024; Sonni et al., 2024).

Good Practice in the Use of GenAI

There are several measures to safeguard the ethical values of journalism—objectivity, accuracy and transparency (Dierickx & Lindén, 2023)—that can be put in place when using AI (Guzman, 2021; Poynter, 2024). One of them is external regulation, which, according to a survey of 1,800 Spanish citizens, is considered to be an effective action. The survey also indicated that there should be a national institution independent of the government to regulate the use of journalistic AI throughout the country (Forja-Pena et al., 2024). The creation of a sandbox—a controlled-testing environment to test the implementation of the requirements for high-risk AI systems as per a European regulation—was approved in 2023 by the Spanish Government in collaboration with the European Commission (Ministry of Economy, Trade, and Industry, 2023). The European regulation, known as the AI Act, came into force on August 1, 2024, although it will not be fully applicable until two years after that date. It aims to promote the responsible use of AI in the European Union (EU) by addressing its potential risks to citizens (Regulation [EU] 2024/1689, 2024). The AI act considers the lack of transparency in the use of AI to be a limited risk and requires companies to indicate whether content of public interest is automated “unless it has undergone a process of human review or editorial control, and an individual holds editorial responsibility” for its publication (Regulation [EU] 2024/1689, 2024, p. 34).

Media self-regulation is another ethical measure in the field of AI (Parratt-Fernández et al., 2024; Veiga, 2023). Codes of ethics, which promote ethical behavior among journalists and ensure that ethical practices are followed in newsrooms (Karlsson et al., 2023), are one example. Developing guidelines with clear rules for the use of AI, so that journalists know which boundaries they cannot cross, will help newsrooms use this technology appropriately (Haapanen, 2020; Hofeditz et al., 2025; Shi & Sun, 2024).

A study by Cools and Diakopoulos (2024, p. 13), based on the perceptions of early adopters of GenAI tools in Danish and Dutch media, proposed the creation of “AI task forces” in newsrooms, i.e., specialized teams composed of computer scientists and journalists tasked with evaluating the use of AI tools in the journalistic process, a measure which is already in place at NCRC and NOS media in the Netherlands and Berlingske Media in Denmark. These would be interdisciplinary teams that combine technical knowledge with journalistic ethics (Ventura-Pocino, 2021).

Training is another key aspect of achieving the responsible use of GenAI (Porlezza & Schapals, 2024; Poynter, 2024). In addition to journalists, it would be appropriate for such literacy to cover the entire newsroom—reporters, editors, photographers, graphic designers, etc.—in order to provide them with a basic understanding of how AI works, its capabilities, and its limitations (Cools & Diakopoulos, 2024).

Literature Review

Various studies have been carried out in recent years to explore journalists’ perceptions about the use of AI in countries such as the United States (Paik, 2023), Pakistan (Jamil, 2021), the Netherlands, Denmark (Cools & Diakopoulos, 2024), South Korea (Kim & Kim, 2018), Indonesia (Ulfa, 2025), China (Xiao et al., 2024), Congo, Kenya, Tanzania, Uganda, Zambia (Gondwe, 2023), Bolivia, Brazil, Colombia, Cuba, Venezuela, and Peru (Soto-Sanfiel et al., 2022). This present research focuses on Spain, which, together with Greece, Italy and Portugal², embodies the polarized pluralist model according to Hallin and Mancini (2004). These countries are characterized by journalism with a low level of professionalization, high state interventionism in public media,

² Hallin and Mancini (2004) include part of France in this model. However, it was decided not to include it in this research as the whole country was not included.

and a predominance of opinion over information (Media Landscapes, n. d.). As for journalists' perceptions about the ethical implications of GenAI, none of the above-mentioned countries of the polarized pluralist model has addressed them in depth³, which indicates that they should be analyzed in order to achieve a more holistic understanding of this technology (Cools & Diakopoulos, 2024). In Spain, some research based on journalists' perceptions about the impact of AI has been published, although it has not focused on the question of ethics, nor, in most cases, on GenAI.

Túñez-López et al. (2018) conducted a survey among journalists and found that they lacked knowledge about the degree of implementation of automated news, and that they doubted its usefulness. Rojas-Torrijos and Toural-Bran (2019) carried out a case study on automated sports journalism in *El Confidencial* digital newspaper, by means of interviews with two journalists, who pointed out that the use of AI aims to save time by taking over mechanical work from editors. Calvo-Rubio and Ufarte-Ruiz (2020) interviewed teachers and media innovation managers, and surveyed journalists and journalism and audiovisual communication students. Most journalists indicated that the quality of automated news had shortcomings due to its lack of contrast. Noain-Sánchez (2022) conducted 15 interviews between 2019 and 2021 with journalists, academics, media experts and AI providers from Spain, the United Kingdom, Germany, and the United States. The interviewees voiced a lack of confidence in AI because they thought it could undermine the essence of journalism. Similarly, De Lara et al. (2022) conducted 21 interviews with media executives and communication companies, who emphasized the importance of transparency when using AI. Gutiérrez-Caneda et al. (2023) conducted an experiment on the use of ChatGPT by 12 journalists and concluded that they perceived risks such as inaccuracy and a lack of empathy. Finally, Olabe and Arias (2025) conducted a survey of 20 editors of the sports sections of generalist and sports media on the use of GenAI. The editors criticized the lack of contact with sources and the possible inaccuracies that resulted from the use of this technology.

It is therefore observed that no study has analyzed in depth the ethical impact of GenAI on Spanish journalism—on one hand based on the perceptions of the professionals using the technology, and also of those responsible for its ethical use on the other—which is the aim of this study. In this research, attention is also paid to how the negative effects could be mitigated, and the positive ones consolidated, which has not been addressed before in the Spanish context (Túñez-López et al., 2018). To achieve the objective of the study, the following research questions (RQs) are posed:

RQ1: What are the main ethical issues raised by the use of GenAI in Spanish journalism?

RQ2: How can GenAI be used responsibly in journalism?

RQ3: What ethical challenges do Spanish journalists face when using GenAI?

MATERIALS AND METHODS

Survey for Journalists

In order to understand the perceptions of Spanish journalists about the ethical implications of GenAI, a survey was conducted. This is a technique that has been used in other studies on journalistic AI (Diakopoulos et al., 2024; Soto-Sanfiel et al., 2022). The survey questionnaire included two blocks of questions: a first block with socio-demographic variables—age, gender, education received, and the type of media in which the surveyed professional works—and another block focused on the ethical implications of GenAI in journalism. This second block addressed questions related to the importance of ethics and the main problems identified when using GenAI, as well as the most appropriate measures that can be taken to address them (Table 1). These topics are discussed in greater detail in the previous section of this article. In all cases, the possible answers that the respondents could choose from followed either the Likert scale or the selection of several options from a closed list of answers.

³ A study was published based on interviews with 12 journalists and 16 academics in Greece (Kalfeli & Angeli, 2025). Another study was published in Italy based on ten interviews with journalists, media managers and innovation managers (Murru & Carlo, 2024), neither of which focused on GenAI. In Portugal, two studies have been conducted, but again on AI in general: one based on a survey of 17 journalists from four newspapers (Gonçalves & Melo, 2022) and the other on a survey of 32 Portuguese sports media decision makers (Canavilhas, 2022).

Table 1. Variables of the ethics and GenAI questionnaire*

Questionnaire questions	Sources underlying the questions
How important do you think ethics are in the use of GenAI in journalism?	De-Lima-Santos & Ceron, 2022; Lin & Lewis, 2022
Which of the following ethical issues raised by GenAI in journalism do you think are the most important? Choose three: <ul style="list-style-type: none"> • Lack of verification in automated news • Lack of transparency in how algorithms work • Lack of transparency in the authorship of automated news stories • Propagation of bias and stereotypes in automated texts • Lack of interpretation and context in automated texts • Privacy and data protection issues with data processed by AI • Lack of human awareness when AI makes editorial decisions • Other 	Beckett & Yaseen, 2023; Bradshaw et al., 2023; Calvo-Rubio & Ufarte-Ruiz, 2020; Cools & Diakopoulos, 2023b; Karlsson et al., 2023; Kim, 2019; Pierson et al., 2023; Ventura-Pocino, 2021
Do you think it would be useful for your media outlet to have a document with ethical guidelines for journalists using GenAI?	Hofeditz et al., 2025; Shi & Sun, 2024; Haapanen, 2020
In some foreign newsrooms, such as those in Denmark or the Netherlands, AI working groups have been set up. They are specialized teams of computer scientists and journalists who evaluate the application of AI tools in journalistic processes. Do you think it would be useful for your media outlet to have a similar group to ensure the responsible use of generative AI?	Cools & Diakopoulos, 2024; Ventura-Pocino, 2021
Another measure proposed to ensure the ethical use of AI in journalism is training on AI for the newsroom at all levels: reporters, editors, graphic designers, photographers, etc. In this way, the entire newsroom would be aware of the possibilities, benefits and dangers of working with this technology. Do you think this newsroom GenAI literacy would help meet the ethical standards of the profession?	Cools & Diakopoulos, 2024

* The definition of the variables can be found in the previous subsections "Ethical Implications and Challenges of GenAI in Journalism" and "Good Practices in the Use of GenAI"

The survey questionnaire was reviewed and validated by two researchers with expertise in journalism and AI who were not involved in the research. The survey was conducted with the approval of the research ethics committee of the university where the authors of the study are affiliated⁴. It was then distributed online to 81 groups of Spanish journalists: 50 associations belonging to the Federation of Associations of Journalists of Spain (FAPE), 15 associations affiliated to FAPE, nine professional associations and seven trade unions⁵. The survey was sent to these groups by email in mid-October 2024 and it was open for responses until the end of January 2025. During these three months, reminders were sent, and snowball sampling was used to increase the number of responses, as has been carried out in other studies in the field of journalism (Martin & Murrell, 2021; Martín-Neira et al, 2024). In the end, 324 responses were obtained⁶, which is a higher sample than in other survey-based studies of Spanish journalists (Chaparro-Domínguez et al., 2020; Calvo-Rubio & Ufarte-Ruiz, 2020).

The results were processed using the SPSS 28 statistical analysis program. Descriptive statistical analyses of the data were performed, followed by an examination of the dependence in the relationships between variables using Pearson's Chi-square test. Twenty-five percent of the cells with an expected frequency of less than 5 were accepted, as well as only one cell with an expected frequency of less than 1. If neither of these requirements were met, Fisher's exact test was used.

In-Depth Interviews

In addition to the survey, in-depth interviews with those responsible for the ethical use of AI in ten relevant media in Spain were conducted. This technique has been used before in the field of journalistic AI (Jamil, 2023; Paik, 2023), although never before for interviewing professionals with this profile in Spain or in other

⁴ The survey design was favorably evaluated by the research ethics committee in its session of October 14, 2024 (ref: 666_20241014_01_SOC).

⁵ In contrast to other countries, Spanish journalists are not required to be members of a professional association to practice their profession. Consequently, there is no census of journalists that can be used as the survey population.

⁶ 38 responses from communication professionals who don't work neither as media journalists nor as freelance journalists were previously eliminated: PR, communication consultants and retired journalists.

Table 2. Identification of the interviewees according to the media outlet where they work

Media outlets	Name of the interviewees	Gender	Position of the interviewees	Identification of the interviewees	Date and duration of the interview
<i>El País</i> and <i>Cinco Días</i>	Gonzalo Teubal	Male	Director of audience and AI at Prisa Media	GT	24/01/2025 (41 min.)
<i>AS</i>	Vicente Jiménez	Male	Editor	VJ	25/01/2025 (35 min.)
<i>ABC</i>	Charo Sádaba	Female	Readers' ombudsman	CS	22/01/2025 (38 min.)
<i>La Vanguardia</i>	Joel Albarrán	Male	Deputy editor and readers' ombudsman	JA	26/01/2025 (29 min.)
<i>El Español</i>	Mario Vidal	Male	Head of innovation	MV	23/01/2025 (27 min.)
<i>El Periódico de Catalunya</i>	Alfonso Nogales	Male	Director of innovation and digital transformation at Prensa Ibérica Media	AN	26/01/2025 (26 min.)
<i>El Mundo</i>	Vicente Ruiz	Male	Deputy editor	VR	25/01/2025 (20 min.)
<i>Mundo Deportivo</i>	Héctor Coca	Male	Deputy editor	HC	23/01/2025 (29 min.)
<i>20minutos</i>	Alejandro Herrera	Male	Deputy editor	AH	22/01/2025 (45 min.)

countries. The selection of the media outlets was based on the SCImago Media Rankings (2024), the first world ranking that evaluates the situation and evolution of media according to their digital reputation (Trillo-Domínguez et al., 2023). The ten Spanish media outlets placed at the top of the winter 2024 edition of this ranking were, in this order: *El País*, *AS*, *ABC*, *Cinco Días*, *La Vanguardia*, *El Español*, *El Mundo*, *El Periódico de Catalunya*, *Mundo Deportivo*, and *20minutos* (SCImago Media Rankings, 2024).

Journalists and managers of these ten media outlets were contacted to identify the person responsible for ensuring the proper functioning, from an ethical point of view, of the AI tools in each outlet. Once identified, they were contacted directly by email and/or through their profiles on social networks (X and LinkedIn) to arrange in-depth interviews. Finally, nine professionals⁷—eight men and one woman—were interviewed. The average age of respondents is 48 years old. As it was the media themselves that decided who would be the most appropriate person to interview on ethical issues arising from the use of AI, the profiles of the interviewees are very diverse (Table 2). The nine interviewees represent the top ten media outlets in the aforementioned ranking.

The interviews started from the baseline of an open-ended questionnaire based on the items included in the journalists' surveys, in order to go deeper and address the ethical implications of GenAI from a qualitative point of view. The interviews were conducted in January 2025. They all took place via video conference using Microsoft Teams. The interviews, which lasted between 20 and 45 minutes, were transcribed using an AI application built into Teams and supervised and edited by one of the authors. The interviews were approved by the research ethics committee at the university where the study authors work⁸. All interviewees signed an informed consent form before being interviewed.

RESULTS

Main Ethical Issues (RQ1)

Half of the journalists surveyed (51%) are between 40 and 59 years old. The age groups least represented in the sample are 18–29 years (14.5%) and 60–69 years (11.8%). Just over half of the respondents are men (52.4%). In terms of education, 50.3% have a bachelor's degree in journalism, followed by 20.3% who also have a master's degree in journalism. As for the type of media outlet, digital media employ 31.5% of the journalists surveyed, followed by television (17.3%) and radio (13.9%).

Considering ethics in the use of GenAI in journalism is rated as very important or quite important by most of the survey respondents (92.7%). As for those responsible for the ethical use of AI, six of them agree that

⁷ As both newspapers *El País* and *Cinco Días* belong to the PRISA group, they have the same person in charge of the implementation of AI. Therefore, nine interviews were conducted instead of ten.

⁸ The design of the interviews was favourably evaluated by the research ethics committee in its session of January 21, 2025 (ref: CE_23012025_01_SOC).

Table 3. Main ethical issues in the use of GenAI*

Ethical problem	Frequency (N)**	Percentage (%)
Lack of verification in automated texts	113	28.5
Propagation of bias and stereotypes in automated texts	76	19.1
Lack of transparency in how algorithms work	60	15.1
Lack of human awareness when AI makes editorial decisions	52	13.1
Lack of transparency in authorship of automated news	37	9.3
Lack of interpretation and context in automated texts	33	8.3
Privacy and data protection issues with data handled by AI	12	3.0
I don't know	1	0.3

* The definition and theoretical justification of the variables can be found in the previous subsections "Ethical Implications and Challenges of GenAI in Journalism" and "Good Practices in the Use of GenAI"

** The frequencies add up to more than 324 cases because respondents were allowed to choose up to three options per answer

"the responsible use of any technology is key in journalism" (AN) because "this work holds in its hands a civil right, which is the right to information" (CS) and everything related to it "must be taken with the utmost seriousness" (VJ). AN describes AI as "a new source that needs to be contrasted and verified," which, according to CS, "does not mean that it cannot be used, but that the way in which it is used is very important" because "however much AI is integrated into journalistic routines, human judgment, ethics, verification and rigor are crucial" (JA). However, MV admits that the speed with which news organizations are adopting this technology has led them "not to think about the ethical component, or not to think about it enough".

GT does not downplay the importance of AI ethics but asserts that "it is no less important than other deontological aspects of the profession". Journalists "still have to take responsibility and adhere to ethical standards, just as when using Google or any other digital resource" because AI is "a tool that adds value rather than something that is going to radically change the journalistic landscape". VJ agrees with the latter and sees the need to "know how to distinguish what is transformative from what is innovative", although he recognizes that how this innovation is used "depends on the honesty and the professional ethics of the media". On the other hand, VR believes that the ethical part has "no importance", because although his media has decided not to use AI to generate content, this tool "has many other utilities that do not entail any ethical problems" (VR).

On the other hand, the lack of verification of automated messages (28.5%), followed by the propagation of biases and stereotypes in automated texts (19.1%), and the lack of transparency about how the algorithms work (15.1%)⁹ are considered the most serious problems in the use of GenAI by the journalists surveyed (Table 3).

Most of the interviewees—only one of whom claims not to have had "any problems that are not susceptible of happening with other technologies" (VJ)—point out the existence of distortions "that are everywhere" (AH) as the most significant problem. "A chat, for example, has such distortions because it is fed with information from the media, which in turn also has them" (EM). They also note the lack of information and updating of data when contextualizing a news item (AH and AN). They see "errors in the correct identification of personalities, which the AI even got wrong" (AN), they question "the rigor of the answers that generated content can give" (GT), and they warn of potential ethical dilemmas related to "the intellectual property rights of content or voice" (GT). For example, when using AI "for scripting a social media video, as you don't know if you've used your own news or a competitor's, from an ethical point of view, who signs off on that?" (MV). The possibility that any journalist "can take a text from a competitor, pass it through ChatGPT and claim it as their own without the knowledge of their superior" (MV), is also an issue.

Authorship is another topic of debate:

Do we have to say that a piece was made with AI? My first reaction is yes, but there are problems here. We had an article that had a part with information obtained from ChatGPT—although it was written by the editor—and we discussed whether to put "optimized news", "improved", or "made with AI intervention" (VJ).

⁹ There are no significant differences according to age, gender, education or type of media in which the journalist works.

HC's view is the opposite: "If GenAI only contributes to a part of it, I don't agree so much, because if I'm writing an article and I'm looking for information online, that's also part of journalistic research".

Towards the Responsible Use of GenAI (RQ2)

The survey questionnaire suggested several measures that could be applied for the ethical use of GenAI in the media. One of them was the implementation of **ethical guidelines** in newsrooms. Most journalists surveyed considered this measure to be either very useful or quite useful (84%)¹⁰.

The interviewees also rely on these "documents of good practices and AI governance" (AN) that respond to the need to "apply ethical criteria to news writing, because this had not been done with the use of social media at that time, and then they did not know how to handle them" (VJ). Just as many media outlets have "a style book where it says that photos cannot be manipulated, you cannot plagiarize, if you quote another medium you have to say so, with AI there has to be one too" (VJ), even if it must be updated periodically (JA, MV, AN). Contrary to the others, HC has not yet seen the need to take measures in his outlet because "they do not publish literal content, but it is possible that at some point this will have to be included in the style guide".

AI working groups are another measure that has been implemented in the media in countries such as Denmark and the Netherlands. Most of the journalists surveyed think that introducing this measure in their respective media would be very useful or quite useful (74.5%) to ensure the responsible use of GenAI. The application of Fisher's exact test between this measure and the age of the journalists yielded a p-value of 0.018 (< 0.05), which means that age conditions opinions on the usefulness of the working groups. The type of media where journalists work also influences their perception of this measure. The application of Fisher's exact test between both variables resulted in a p-value of 0.030 (< 0.05), which indicates that there is a significant relationship between the two.

As for the professionals interviewed, although CS suggests that there should be "a committee or group that proposes guidelines, because doing things ethically requires work and reflection", only AN and GT state that their media outlets have done something about this. In AN's case, there is "a multidisciplinary team—which created a handbook of good practices in the use of AI in 2024—with profiles in technology, marketing, product and data, content and journalists" (AN) that is exploring ways to make the information offered by AI "have a soul and not look robotic". As for GT, there is a committee

that approves all AI tools to be used, so whoever wants to use one will have to let the committee know through the appropriate channel; then the committee approves whether it is viable for our standards, which include, among others, security and privacy, and it also ensures that the work complies with the current laws on risks, such as those of the European Union (GT).

On the possibility of having a **specific figure** in charge of the ethical use of AI tools, the interviewees' positions differ. For MV, it depends on how AI will be used: "If it is going to generate articles without control or with little journalistic editing, there must be a figure to control its use, but if it is only going to add bold type to some phrases, and edit the text a little, or do automatic translations, there's no need". HC still doesn't think it is necessary, although "there may come a time when there is such a large volume of content generated that some kind of filter needs to be considered, but whether this would be a person or a team, I don't know". AH explains that "as happened at the time of the transition to digital, if everything is in the hands of one person, there is a risk that the ethical guidelines will not reach the others". GT would not rule this out if the need arose, although he believes that "it is more of an individual responsibility than having someone as a watchdog". CS is of the same opinion:

I'd like to think that good journalists are those who have a built-in ethical vision of their work and the tools they use, and if they need to resolve an issue with someone, then they can go to their boss. It's a matter of human dialogue. A specific individual makes the problem someone else's, and I think that's a mistake (CS).

¹⁰ There are no significant differences according to age, gender, education or the type of media where the journalist works.

Another measure proposed to ensure the ethical use of GenAI in journalism is **AI training for the whole newsroom** and at all levels, with the aim of making everyone aware of the possibilities, benefits and dangers of working with this technology. Most of the journalists surveyed consider this training to be very useful or quite useful (83.6%). When Fisher's exact test was applied, it was observed that there was a significant relationship between the perception of this measure and the type of media where the journalists work, with a p-value of 0.001 (< 0.05).

The interviewees' opinions about training are similar to those of the survey respondents. They argue that "it is important for journalists to understand that the use of AI has some risks" (GT) but that "it is difficult for them to be able to measure these risks if they do not know how to use the tool" (VJ). As "everyone has to be responsible and understand the limits and possibilities of AI", it is "necessary to train the whole newsroom" (VJ). To this end, "it is essential to train team leaders, so that they in turn can train their teams" (AH), "always leaving the final responsibility to lie with the journalist" (HC). The training plans implemented by the media outlets where AN and JA work have an informative dimension, "explaining how GenAI tools work", and another on their risks. In GT's workplace they have "training for the whole company and an internal channel where employees can ask questions". In the case of VR, although they have not yet decided to use AI in content creation, they have provided "basic information to the newsroom on how to use tools such as ChatGPT, which has also been integrated into their CMS".

Regarding the possibility of establishing some kind of **regulation** on the use of GenAI, only two interviewees would consider it positive. "We influence our readers and society, therefore there must be a minimum control or a framework that explains where the margins are for moving within this technology, beyond the interests of media companies" (AN). And, based on this general framework, "regulation can be adapted to the specificities of each media outlet" (AN) and "according to their uses" (AH). Of the remaining respondents, some are in favor of each outlet "adopting its own self-regulation as their use of AI progresses" (JA) and "knowing where the limits are that professionals should not cross" (GT). In other words, "self-regulation based on ethical, verifiable and even auditable criteria" (VJ). CS prefers "training and trust in good practice rather than someone coming in and telling you what to use and what not to use because, among other things, regulation always lags behind reality" (CS). VR has "more liberal ideas, and furthermore, [regulation] would make the company less competitive with the giants that are being created outside Spain".

Finally, GT admits that "the initial intensity sometimes played tricks" and that the general trend to minimize potential ethical problems seems to go in two directions. On the one hand, the limited use of AI: "we haven't automated anything" (AN); "we've never written a 100% automated article because we don't know if GenAI uses all sources or all points of view, especially on controversial topics" (GT). On the other hand, the conviction that "there has to be human supervision" (AH); "we have always been calm because we check everything" (AN); "the newsroom has not incorporated any automation through AI without supervision" (MV); "human supervision will always be necessary in any use of AI for writing news" (VR).

Ethical Challenges (RQ3)

Those responsible for the ethical use of GenAI in the main Spanish media were also asked about the ethical challenges ahead. VJ explains that media managers put a lot of focus on GenAI "as a means to reduce costs, but it is a mistake to do only what increases the audience: this tool must be accompanied by ethical principles" (VJ). AH also rejects the use of ethical codes "to try to impose business over journalistic responsibility" because "we are talking about respecting the rights of citizens" (CS) and a "basic principle of service to readers" (AN).

AH distinguishes two functions of GenAI. One is to assist in content creation, i.e., to help work faster and more cost-effectively by automating tasks that have no ethical or journalistic implications. The other is to assist in feeding content without actually knowing what sources the information is coming from. "That's the part that remains to be seen, the content creation, the writing, that's where we have to be careful in case there is some kind of complication or lawsuit in the future". MV gives as an example when journalists use Gen AI to make a summary:

Should we state that the journalist did not write it? This is not clear. Who has the authority for that, the editor who wrote the prompt in such a hurry that the AI gives an answer, those who developed

the AI model, or the media from which the AI learned? I have no answer, and this creates a lot of conflict for me (MV).

While JA is confident that the line between what humans need to do and what machines can do will not be crossed, he believes that “as time goes on, there will be a lot of pressure and more risk of doing things wrong by being overconfident”. But VJ has a different take:

Have we considered the bias that Google has? We’re aware of it, but nobody’s saying we mustn’t use it. When the media use government press offices, they are buying content from someone who has a bias, a point of view on the issues. So, the care that should be taken with that information should be the same as what we do with AI (VJ).

In a similar vein, GT invites reflection:

There has been apocalyptic talk since AI began to be implemented, but there will always be humans using new technology and then reviewing it, because ethical standards will always be there. Just as we use Google to get information, we will end up using AI to compile or summarize, which is not to say that the result should not have guarantees like any other newspaper article (GT).

VJ is “positive and pragmatic” about GenAI and is convinced that “we can do well with it, by raising the deontological standards that we will increasingly need”. But there is still a long way to go. For JA, when pieces with “a human, direct, personal vision” such as sports news stories are written with AI, “they turn out to be cold and neutral, the human touch has not been achieved yet” (JA). EN goes even further and believes that AI “homogenizes everyone, we need to differentiate ourselves, the more the better. And we need journalists for that”.

DISCUSSION AND CONCLUSIONS

The aim of this research was to analyze the perceptions of journalists, and of those responsible for the ethical use of AI in Spain’s main media outlets, of the ethical implications of GenAI, focusing on the problems identified, responsible practices and the main challenges. According to the survey results, 92.7% of journalists consider ethics in the use of GenAI to be quite or very important, which shows the relevance of this issue in newsrooms, contrary to what has been observed in some previous studies (Beckett, 2019; Porlezza & Ferri, 2022). Those responsible for the ethical use of AI take a similar stance, albeit with some nuances. Some agree that ethics are of paramount importance, but equal to that of any other aspect of journalistic work, because they see GenAI as an innovation rather than a revolution. However, they do admit that in the rush to implement GenAI, not enough thought has been given to the ethical dimension. As a result, the ethical dilemmas resulting from the implementation of GenAI have been resolved as they arise. In fact, the heterogeneity of the interviewees’ profiles—none of them has the main task of managing the ethical use of AI—could be an indicator of the lack of foresight about the potential ethical problems arising from GenAI in newsrooms.

Regarding the main ethical problems identified (RQ1), the most important for the journalists surveyed is the lack of verification of automated news, which increases the effects of misinformation, as other studies have warned (Asociación de la Prensa de Madrid, 2024; Porlezza & Schapals, 2024). The propagation of bias in automated texts and the lack of transparency are two other relevant issues for the journalists, just as they are for professionals in other countries (Ulfa, 2025; Xiao et al., 2024). The European AI Act warns of the risks posed by the lack of transparency in the use of AI (Regulation [EU] 2024/1689, 2024). For their part, those responsible for ethics in GenAI focus on biases, lack of context and transparency, and dilemmas around intellectual property, in accordance with the results obtained in other studies (Al-Kfairi, 2024; Bayer, 2024; Díaz-Noci, 2020). The interviewees also agree that dilemmas and differences on how to resolve them will grow as the use of GenAI increases. Therefore, it can be seen that both the surveyed journalists and those responsible for the ethical use of this technology who were interviewed consider *disclosure transparency* necessary (Karlsson, 2010) for the media to explain to their audiences how the published content was AI-

generated. Such transparency will serve as a means of demonstrating accountability to audiences and, in turn, will enhance the credibility of the media.

Among the measures to ensure responsible use of GenAI (RQ2), most of the surveyed journalists cite ethical guidelines (84%) and newsroom training in AI (83.6%) as the most effective, as do the interviewees. All but one media outlet have created or are in the process of creating some form of ethics document, agreeing with Cools and Diakopoulos (2024) that strong ethical guidelines can act as a compass that supports and does not compromise journalistic values in newsrooms. Multidisciplinary teams which combine technical knowledge and journalistic ethics (Ventura-Pocino, 2021) would be welcomed by the Spanish interviewees, although they only exist in two of their newsrooms. Opinions are mixed on the existence of a specific individual tasked with managing the ethical side of GenAI, in line with Cools and Diakopoulos (2024).

Finally, one of the main challenges (RQ3) for the media is to integrate GenAI into newsrooms according to ethical principles that allow the social function of journalism to be fulfilled. The interviewees foresee that there will continue to be risks, especially in content generation, although they generally see GenAI as a very useful tool that, like any technology, must be used in accordance with ethical standards. They all emphasize the need for a human presence, on the one hand to supervise what GenAI is doing—also revealed by the Diakopoulos et al.'s (2024) survey—and on the other hand to create the content that this tool is not (yet) able to do as well as a human. In addition, one interviewee expressed concerns over the potential homogenization of content generated by this technology, a phenomenon that has also been identified in other studies (Bommasani et al., 2024; Sonni et al., 2024). This will add greater value to texts written by journalists.

This exploratory study is the first to analyze the perceptions about the ethical implications of GenAI in journalism in one of the European countries belonging to the polarized pluralist model proposed by Hallin and Mancini (2004). In the future, it would be appropriate to carry out similar studies in Italy, Greece and Portugal to observe whether the journalistic model shared by these countries conditions and therefore homogenizes the professional ethical perceptions about GenAI. With respect to such perceptions, and starting from the HMC framework, it would also be interesting to address whether journalists in different countries perceive AI as a communicative subject or, instead, solely as a channel or moderator of the communication process, as is the case in Pakistan (Jamil, 2021).

The use of GenAI tools in newsrooms poses another risk that should be explored in further studies: the homogeneity in newsrooms in terms of automated content—especially when it comes from third parties—and in other uses of this technology (Cools & Diakopoulos, 2023a). Lastly, based on ANT and considering that algorithms are becoming increasingly independent, it would be advisable to examine AI's role as an actor in the ethical discussion of journalism, along with other new actors such as programmers or software providers (Dörr, 2021; Shi & Sun, 2024).

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