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Rethinking the Relation between Media and Their Audience: The Discursive Construction of the Risk of Artificial Intelligence in the Press of Belgium, France, Portugal, and Spain

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Abstract: It is believed that the way in which media speak about emerging technologies can influence the public perception of their benefits and risks. Risk statements highlight the possible negative effects, real or imaginary, that a particular event could have on audiences. Just as journalism varies over space and time, what is considered a risk is deeply rooted in specific social, economic, and technological contexts. This variability implies that journalistic practices are neither universal nor static; instead, they change and adapt according to circumstance. Moreover, technological advances have allowed the press to better understand their audiences and adhere to their demands. In this context, the discursive construction of the risk of artificial intelligence was studied in the press of four European countries: Belgium, Spain, France, and Portugal. In total, 290 texts published in January 2024 were examined. Mentions of "artificial intelligence" were found in the following newspapers: Le Soir, El País, Le Figaro, and Público. Fourteen risk categories and seven groups of voices responsible for their enunciation were identified, with significant variations between the studied newspapers. It was concluded that national contexts make it possible to differentiate the way in which the press communicates the risks associated with artificial intelligence. Although these results do not directly reflect public awareness of the risks in each of these countries, they open a line of research on the possible influences of the progressive monitoring and knowledge of audiences in the construction of the media agenda.

Keywords: risk; artificial intelligence; public debate; audience

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1. Introduction

Research shows that the way the media reports on emerging technologies can shape perceptions of their possibilities, effects, benefits, harm, and risks to society (Vicente and Dias-Trindade 2021; Nguyen 2023; Sartori and Bocca 2023). For their part, Cave et al. (2020) argued that stories and myths about AI, from Homeric epics to contemporary science fiction, have shaped public expectations and fears regarding intelligent technologies. The role of technology in everyday life is a public concern as it affects broad societal dimensions, such as individual well-being, the labor market, economic growth, social stratification, culture, politics, and security (Nguyen 2023).

Paraphrasing Nguyen (2023), risks are sentences that emphasize the potentially negative and harmful impacts of AI development and its implementation, whether intended or unintended, recognized or minimized. In this sense, risks are not fixed; they are fluid. Risks emerge, evolve, and disappear over time. Factors such as changes in cultural norms, consumer trends, policies, and new forms of scientific knowledge shape risks and the assessment of their societal severity (Nguyen 2023). Furthermore, the sociocultural situation

of individuals and social groups influences the perception of trends, developments, and practices that are considered problematic (Luhmann 1991; Wynne 2002).

Few studies focus on and critically address the press discourse on artificial intelligence (von Pape et al. 2017; Paganoni 2019; Bunz and Braghieri 2022; Nguyen 2023; González-Arias and López-García 2023). Research regarding the representation of technology in the press and the debate about the risks associated with its implementation is linked to other complementary research areas, such as critical data literacy and data justice, which share the goal of increasing citizens' sensitivity to data risks and building resilience against data malpractice (Taylor 2017).

It is believed that media has the capacity to raise awareness among non-expert audiences regarding the benefits and risks of technology for different social groups (Paek and Hove 2017). In the "Global West", public discourses on digital transformation seem to be marked by contradictory tendencies between celebrating and criticizing the rise in data-driven technologies (Nguyen and Hekman 2022).

Sartori and Bocca (2023) point out how narratives about AI are filled with both utopian and dystopian exaggerations. These narratives shape both public perceptions and emotional responses toward technology. Examples of these narratives include themes of immortality versus dehumanization, freedom versus obsolescence, gratification versus alienation, and domination versus uprisings.

For their part, Cools et al. (2024) conclude that in the United States, media coverage of artificial intelligence and automation has been more positive than negative over time. However, there has recently been an increase in attention to dystopian frames. These dystopian frames include four main categories. First, the "Deficiency" frame refers to technologies requiring human assistance to function correctly. Second, the "Conflict" frame encompasses technologies causing struggle and resistance among different groups. Third, the "Kasparov Syndrome" describes technologies with the potential to surpass human capabilities in the future. Finally, the "Frankenstein's Monster" frame refers to technologies posing a crucial threat to humanity.

Sartori and Bocca (2023) argue that AI technology should not be viewed in isolation but as part of a socio-technical system where society and technology mutually influence each other. The socio-technical imaginaries and narratives surrounding AI play a crucial role in how society perceives and adopts these technologies.

In this landscape of technological development, the near real-time analysis that the media conducts on the interests of their audiences raises new questions about the effects of audience monitoring and adaptation practices on the construction of media discourses, specifically in the way content is presented, the approaches taken towards technological advancements, and the socio-technical imaginaries constructed around AI (Sartori and Bocca 2023). In this sense, it can be assumed that technology allows newspapers to tailor their content to the interests of their readers. Thus, it is not difficult to imagine that media offerings increasingly align more efficiently with audience preferences, creating a more direct relationship between audience interests and the products offered to them. However, this relationship between supply and demand occurs in specific, temporally, and spatially situated contexts. Therefore, the media's ability to cater to their audience's interests is also limited by available resources, the flexibility of their editorial project, and the relationship that the media establishes with other social actors, such as businesspeople and politicians.

In this context, we explore how newspapers handle content related to the risks of artificial intelligence over four newspapers from different national contexts. Specifically, we analyze the discursive construction of the risks associated with the implementation of artificial intelligence (AI) algorithms in the press of four European countries: Belgium, Spain, France, and Portugal.

Our research identified fourteen main risks and seven groups of voices; it also registered significant variations between newspapers in the countries studied. The main risk categories were described, and the results were linked to corresponding national contexts. The main takeaway from this is that national contexts allow us to differentiate the way in

which the press builds and communicates the risks related to artificial intelligence and the voices summoned to talk about it.

A careful reading of our results provides at least partial insight into how the media in different cultural and political contexts take globally circulating content and adapt it to their audiences. While it cannot be said that these results are an indicator of the public awareness of AI risks in each of the countries, due to advancements in technologies for monitoring media content consumption, a series of questions arise about the potential effects that the monitoring and understanding of audiences could have on the discursive practices of the media.

2. The Impact of AI on Journalism

The impact of AI started affecting journalism at the beginning of the 2020s, which is a moment when journalism reflected on its successes and failures after three decades of digitalization and the migration of its products to the web. Task automation, large-scale data analysis, and the increase in algorithms that allow audience tracking and content recommendation have been added to a long list of tools that demand critical reflection in order to face the challenges of the new wave of digitalization under the long-casting shadow of AI. Although no one doubts the contributions and facilities these new tools can offer journalism, it is necessary to contemplate the challenges faced when seeking to carry out journalism of social importance.

The increase in conferences, congresses, and forums in various countries, promoted by journalistic organizations and professional associations as well as communication researchers, reflects the importance of these issues.

The popular opinion is that AI will not be the elixir that solves the multiple problems of digital journalism (Simon 2024). There is a consensus on AI improving the capabilities of journalists, especially by saving time, which they can devote to added-value tasks (Canavilhas and Giacomelli 2023). In addition, AI can increase the industry's productive efficiency. However, it is also known that there are many open questions, and a change in mentality is required in the media and journalistic environment to address the many ethical issues AI raises, which implies the constant control and supervision of the processes carried out by artificial intelligence (Noain-Sánchez 2022).

To avoid diluting the roles and powers of journalism professionals and preventing vicious effects, the media must develop guidelines for the responsible use of AI. In addition, it is encouraged that the three key stakeholders—news organizations, journalists, and audience—proactively embrace their roles in upholding journalistic ethics (Shi and Sun 2024). This most certainly requires useful information on how journalistic practices are evolving.

3. A Communication Catalyst

Although research on AI has a long history and tradition in the scientific field, it has intensified particularly since 2015, when there was an observed increase in scientific articles dedicated to the subject, especially in the United States. Likewise, a diversification of perspectives can be observed in the field of communication, including the automatic generation of content, data journalism, big data, and its application to social media or information reviews (Calvo-Rubio and Ufarte-Ruiz 2021). Research on the use of these tools in newsrooms has revealed their progressive incorporation, which has become more intense in recent years, and their effectiveness in automating processes, rewriting texts, analyzing data, or serving as a generator of content ideas (Gutiérrez-Caneda et al. 2023).

Public interest in this technology and the tools that have become popular in recent years sparked at the beginning of the third decade of the current millennium. The public launch of ChatGPT in November 2022 was the event that caused a truly major upheaval in the communications sector, fueling social debate on the implications of artificial intelligence and intensifying academic research on this tool. AI technologies, which include automated learning, deep learning, natural language processing, and computer vision (Getchell et al.

2022), are present in all the processes of the networking society. For this reason, it is imperative to understand their capabilities and limitations when using them in the service of journalism.

Following the technological milestone of ChatGPT, the media discourse has highlighted the strengths of these technologies, the business potential they promise, the need for regulation, the ethical problems they bring to the table, and the limitations of the tool itself, such as the inability to distinguish between true or false information (González-Arias and López-García 2023). Simultaneously, research in the field of communication has provided evidence of the impact of AI on media and communication companies while uncovering the main areas of interest for researchers and experts where, among many others, ethical issues and transparency stand out (Codina et al. 2024).

Regarding the coverage of risks associated with technological development, the work of Nguyen (2023) is particularly noteworthy. Nguyen conducted a longitudinal study between 2010 and 2021 on the Anglo-Saxon press. This study identified what he calls "the risk of data", including the development of AI. The study identifies the following risks: privacy invasion and surveillance, data bias and algorithmic discrimination, cybersecurity, and misinformation. It also reflects on how potential situations can be considered a risk or not and how this depends significantly on the perspectives and situations of the parties involved. Likewise, Nguyen suggests that for citizens to form an opinion and be able to participate in data risk discussions, they need to be aware of the potential threats, harms, and ethical challenges involved.

In this sense, as witnesses of technological developments, the media build their content by undertaking the role of informing and educating on aspects considered to be of public interest.

4. Materials and Methods

From the perspective of Discourse Analysis and Communication Studies, a qualitative and comparative study of the textual analysis of a corpus of journalistic articles of different genres from Romance language newspapers from different national contexts is proposed: *Le Soir* from Belgium, *El País* from Spain, *Le Figaro* from France and *Público* from Portugal. The selection of newspapers was guided by the criterion of the social relevance of each medium in the national media ecosystem[1] and the accessibility of the texts in databases available to the researchers. The texts were selected in their entirety through the Factiva tool, using the keywords "Inteligencia Artificial" or "AI" in the corresponding languages of French, Spanish, and Portuguese. A time criterion covering the whole month of January 2024 was established. The first month of the year was chosen because, traditionally, evaluations and projections are made on topics of social relevance in that period. A total of 290 texts were identified that referred at least once to artificial intelligence or its acronym AI. The details of the corpus can be seen in Table 1.

Table 1. Texts with mentions to AI during January 2024.

Country	Journal	Number of Texts
Portugal	*Público*	31
Spain	*El País*	86
France	*Le Figaro*	91
Belgium (fracophone)	*Le Soir*	82
Total		290

4.1. National Contexts and Journal Screening

Without intending to be exhaustive, this section briefly describes some aspects of the context in which the newspaper included in this study originated.

France has a proactive approach to AI regulation, driven by strong government initiatives and an interest in maintaining technological sovereignty. From France, we selected the newspaper Le Figaro, as it is one of the largest national circulating newspapers and is also available in the press database. Le Figaro is a generalist newspaper with a conservative line, identifying with the French center-right, with ample national circulation and a focus on political and economic news. The newspaper is owned by Serge Dassault and is part of the Dassault Group.

As the seat of the European Union, Belgium is heavily influenced by EU policies on AI and cybersecurity. Belgium has three linguistic communities, the most numerous being the Dutch and French-speaking ones. We selected the newspaper *Le Soir*, as it is the primary option in the French-speaking community and offers comprehensive coverage of national and international issues. The newspaper is identified with progressive ideas and is owned by the Rossel Group, which has a long tradition in the Belgian French-speaking press.

Portugal has shown a growing interest in technological innovation and has taken steps to attract technology companies. From Portugal, we selected Público, a newspaper founded in the 1990s that has achieved wide circulation. The newspaper is identified with progressive ideas in Portugal and is known for its in-depth coverage of current affairs. Público is owned by Sonae, a multinational business group.

Spain has expressed an interest in adopting emerging technologies and regulations to mitigate the risks associated with AI's impact. From this country, we selected the generalist newspaper El País, one of the traditional newspapers of reference in Spain. It is known for its extensive coverage of national and international current affairs. The newspaper is associated with the Spanish center-left and is owned by Grupo Prisa.

4.2. Analytical Procedures

The analysis was fundamentally interpretative. The labeling was carried out complementarily between the two researchers, and any doubts that arose during the process were collaboratively discussed and solved. The analysis involved the following steps:

(a) Reading the texts to identify statements dedicated to risks to people derived from the development and implementation of AI.
(b) Based on the identification of risk statements, the risk situation and the voices responsible for such mentions were coded. Risk situations were labeled according to the probable or potential harm involved in the broad spectrum of social activities of public interest. When coding voices, the author of the text himself or a source cited by the author of the text was labeled.
(c) Once the mentions were identified through semantic similarity and abstraction, the risk situations and voices were grouped.

The interpretative analysis consisted of a global reading of the data and a comparison between the studied newspapers.

5. Results

Firstly, we present the general results, which display the risks built in each of the four newspapers studied. This was based on the count of the absolute frequencies of textual fragments dedicated to the presentation of risks associated with AI in the press. The risks are characterized by means of their percentage distribution and a descriptive characterization of the most prominent risk categories and the voices that appear responsible for these statements. Secondly, a comparison is made between the newspapers studied.

5.1. Risk Categories

Fourteen categories were established from 271 statements dedicated to the presentation of risks. Table 2 shows the percentage distribution of the categories. In the first place, with 25% of occurrences, *public opinion manipulation* stands out, followed by *general disarray and uncertainty*, and *content misappropriation*, with 13% of occurrences each. In fourth place, with 12%, is *job disruption*. These four risk categories account for 63% of the total risk occurrences.

Table 2. Risks of AI in journalism.

Risk Category	%
Public opinion manipulation	25
General disarray and uncertainty	13
Content misappropriation	13
Job disruption	12
Loss of privacy and security	8
Increased inequality	7
Manipulation of desires and feelings	6
Predominance of economic interests	5
Errors due to AI "hallucinations"	4
Increased mortality in armed conflicts	2
Bias and discrimination	2
Worsening of the environmental crisis	2
Loss of cognitive abilities	2
Loss of transparency and explainability	2

Next, as a way to illustrate the results, only the first four categories of artificial intelligence risks identified in the set of news outlets studied are described. It is worth noting that all the risks identified have a global scope and do not account for particular situations in individual countries. It is also worth mentioning that most of the risks identified directly and indirectly involve the press, with the most significant being the risks of public opinion manipulation and misappropriation of content.

5.1.1. Risk of Public Opinion Manipulation

Public opinion manipulation considers the risks of disinformation through the propagation of fake news and the ability to control the distribution of information by technology companies and governments, including the recommendation for algorithms and personalization that are being massively implemented on the Internet. This includes some of its most direct effects, such as the influence on electoral processes, polarization, and the proliferation of harmful content. Also included are the medium and long-term consequences of the manipulation of public opinion, such as the weakening of democracy and the loss of social cohesion.

Example 1

- "La inteligencia artificial generativa, en concreto, supone un doble riesgo: uno cuantitativo, pues ahora la producción de desinformación puede multiplicarse sin que tenga que haber un humano detrás de todo; y otro cualitativo, con el llamado deep fake, el falso profundo, con un altísimo nivel de credibilidad, una capacidad de persuasión extraordinaria y mayor dificultad para desmentir" (Rizzi 2024).
  ["In particular, generative AI poses a double risk: On one hand, quantitative, because disinformation production can now multiply without the need for constant human input. On the other hand, it is qualitative, thanks to the so-called deep fake, AI technology with a very high level of credibility and an extraordinary capacity for persuasion, plus a greater difficulty to disprove"] [Author's translation].

Example 2

- "Le boom de l'IA facilite la désinformation, pointée par un rapport récent du Forum économique mondial comme l'un des plus grands risques pour l'humanité alors que des milliards d'habitants de la planète sont appelés aux urnes cette année" (AFP 2024).

["The AI boom facilitates misinformation. This was pointed out by a recent report from the World Economic Forum as one of the greatest risks for humanity as billions of the planet's inhabitants are called to the polls this year"] [Author's translation].

5.1.2. Risk of General Disarray and Uncertainty

Artificial intelligence generates significant stress due to its rapid and expansive nature, encompassing various societal sectors. Its disruptive capacity is comparable to the intrinsic risks of nuclear bombs. Not only does AI amplify existing dangers on the internet, but it also introduces uncertainties due to risks that are impossible to measure, posing a threat to human survival. The factors contributing to widespread risk are diverse: economic interests driving technological development or the competition between the United States and China, for example. Thus, humanity faces a significant challenge in that, without adequate regulation, AI represents a substantial danger. Although some see transhumanism as a favorable integration of AI, the uncertainty of our ability as humans to adapt to changes puts us at risk of being relegated to an insignificant role in the face of these powerful technologies.

Example 3

- "Jerry Brown, ex-governador da Califórnia e presidente executivo do Boletim, lamentou que os dirigentes mundiais estejam "a conduzir o mundo para uma catástrofe", quase "como se estivessem no Titanic", com "bombas nucleares, grandes emissões de carbono, agentes patogénicos perigosos e inteligência artificial" (Almeida Mendes 2024).
  ["Jerry Brown, ex-governor of California and executive president of the Bulletin, lamented that world leaders are 'driving the world towards catastrophe', almost 'as if they were on the Titanic', with 'nuclear bombs, large carbon emissions, dangerous pathogens, and artificial intelligence'"] [Author's translation].

Example 4

- "En el caso de la IA, estamos ante una materia que tiene un riesgo intrínseco como no hemos conocido hasta este momento" (Ayuso 2024).
  ["In the case of AI, we are dealing with a matter that has an intrinsic risk unlike anything we have known until now"] [Author's translation].

5.1.3. Content Misappropriation

In the creative sector, there is growing concern about the use of artificial intelligence tools due to content misappropriation and copyright infringement. Large language models (LLMs) have faced criticism for breaching open-source licenses by appropriating vast amounts of data without proper recognition and compensation to their creators or owners. This issue directly implicates the press, as the American press led the first accusations of content misappropriation for training AI systems against OpenAI, the company that developed ChatGPT.

Example 5

- "Nous sommes les fournisseurs de matière première de cette nouvelle industrie de l'intelligence artificielle (IA) générative, et il est grand temps que nous soyons reconnus comme tel », martèle Emmanuel Parody, secrétaire général du Geste, la fédération des éditeurs français de presse en ligne" (Cohen 2024).
  ["We are the raw material suppliers for this new industry of generative artificial intelligence (AI), and it is high time we were recognised as such", asserts Emmanuel Parody, general secretary of Geste, the federation of French online press publishers."] [Author's translation].

Example 6

- "OpenAI a utilisé notre travail pour développer et commercialiser des produits d'intelligence artificielle (IA) générative sans avoir la permission du Times » affirme le quotidien" (Woitier 2024).

["OpenAI used our work to develop and market generative artificial intelligence (AI) products without the Times' permission", claims the newspaper] [Author's translation].

5.1.4. Job Disruption

Artificial intelligence raises serious concerns regarding job disruption through automation and the replacement of people with machines. AI is already reshaping organizational structures and significantly altering job roles, potentially leading to massive job losses and replacing humans in various work functions. It is estimated that 300 million jobs could disappear due to automation, affecting 60% of employment in advanced economies. This transformation threatens not only lower-skilled jobs but also extends its risks to higher-paying positions. The demand for young university graduates could decrease if their profiles become redundant, further deepening inequality.

Example 7

- "La question n'a pas été soulevée sur la place publique alors que, pour ne citer que cet exemple, l'impact de l'intelligence artificielle sur le marché du travail y est vivement débattu" (Smith 2024).
  ["The issue has not been raised in public, whereas, to cite just this example, the impact of artificial intelligence on the labour market is being hotly debated."] [Author's translation].

Example 8

- "L'IA aura également un impact sur le marché du travail et sur certains types d'emplois" (Duqué 2024).
  ["AI will also have an impact on the labour market and certain types of jobs."] [Author's translation].

5.2. Comparison between Newspapers

If we examine the data obtained separated by newspaper, significant differences can be observed. Table 3 presents the results in percentages relative to each newspaper, allowing for a comparison of each newspaper's orientations.

Table 3. Relative distribution of risks by newspaper.

Risks	*El País*	*Público*	*Le Soir*	*Le Figaro*
Public opinion manipulation	25	16	10	42
Content misappropriation	11	24	10	10
General disarray and uncertainty	22	12	8	2
Job disruption	16	4	10	10
Loss of privacy and security	4	12	10	10
Increased inequality	8	12	10	2
Manipulation of desires and feelings	1	0	13	10
Predominance of economic interests	1	8	13	2
Errors due to AI "hallucinations"	1	4	8	4
Increased mortality in armed conflicts	1	0	3	4
Bias and discrimination	3	4	3	0
Worsening of the environmental crisis	1	0	3	2
Loss of cognitive abilities	4	0	0	0
Loss of transparency and explainability	1	4	3	0

- *El País* (Spain) expresses concern about public opinion manipulation (25%) and the general disorder and uncertainty that AI can generate (22%). Together, these two issues account for nearly half of the risks raised in the newspaper. Additionally, it

also significantly addresses the risk of job disruption (16%). Other issues like loss of privacy and security (4%) and increased inequality (8%) are also mentioned, but with less prominence. The coverage reflects predominant concern about the potential destabilization of both the labor market and public perception by AI. *El País* also highlights a risk not addressed in any other newspaper, which is the risk of cognitive capacity loss (4%), highlighting the concern that relying on machines for tasks like writing or summarizing information might lead to a decline in our ability to perform these tasks ourselves.

- *Público* (Portugal) emphasizes content misappropriation (24%), indicating a strong concern over lawsuits filed by the North American press against OpenAI. Public opinion manipulation is at 16%, while concerns about general disorder and uncertainty, loss of privacy and security, and increased inequality each stand at 12%. These figures underscore *Público*'s critical stance on regulation and the impact of AI on rights and equity.
- *Le Soir (French-speaking Belgium)* presents a more varied coverage of associated risks. The two risks that appear most frequently are the risk of the manipulation of desires and feelings (13%) and the predominance of economic interests (13%). Both topics reflect concerns about the effects of personalization, persuasive technologies, and attention capture, which are significantly enhanced by AI tools. It also addresses, with 10% each, the manipulation of public opinion, the misappropriation of content, job destruction, loss of privacy and security, and an increase in inequality. Although less prominent, a general lack of control and uncertainty (8%) and AI 'hallucination' errors (8%) are also present.
- *Le Figaro* (France) stands out considerably for its high focus on public opinion manipulation (42%), reflecting a strong concern about the potential impact of AI on democracy and public perception. The other four risks it addresses each have a 10% occurrence: content misappropriation, job disruption, loss of privacy and security, and the manipulation of desires and feelings.

All four newspapers recognize the risk that AI poses for public opinion manipulation, with varying degrees of emphasis: *Le Figaro* reaches 42%, *El País* (25%), *Público* (16%), and *Le Soir* (10%). Regarding the risk of content misappropriation, *Público* stands out at 24%, *El País* reaches 11%, and *Le Soir* and *Le Figaro* remain at 10%. In the case of risks associated with general disorders and increased uncertainty, *El País* achieves the highest percentage at 25%, while both *Le Soir* and *Le Figaro* have significantly lower values, with *Le Figaro* notably achieving only 2%.

These differences reflect how newspapers prioritize different dimensions of AI risks in each country.

5.3. Voices Articulating the Risks

The voices responsible for the risk statements have been described through seven categories. The detailed percentage distribution can be seen in Table 4. The following provides a description of the identified voice categories:

- Author of the Text: This includes the individuals who write the articles, regardless of their profession or contractual relationship with the medium. This category also includes unsigned texts representing the newspaper. It broadly represents the voice of the newspaper through hired or invited individuals to write on its pages.
- Researcher or Expert: This category includes academics, scientists, or specialists in the field of AI or related disciplines. Specialists are consulted for various purposes: due to the highly specialized nature of the topics, to generate more credibility, or because experts seek to disseminate their research in the press.
- Public Institution or International Organization: This category includes governmental entities, non-governmental organizations (NGOs), or international bodies like the UN, the European Union, or the International Monetary Fund. These institutions present

official positions and can access the media either due to media interest or as part of communication campaigns within the scope of their functions.

- Politician: Elected officials or delegates involved in public administration functions. These individuals participate in the discussion of topics of public interest at local, national, or international levels. Their statements reflect an interest in certain public policies or legislative orientations concerning AI.
- Tech Company Representative: this includes leaders of local or international companies developing AI tools or providing services in the AI application area.
- Foreign Press and News Agencies: this category includes citations from news-generating agencies or other national or international newspapers.
- Other Voices (Readers, Anonymous, and Religious Authorities): this category includes mentions with low occurrence. Specifically, it includes readers, anonymous voices, and religious authorities such as the Pope.

Table 4. Voice groups.

	El País	*Público*	*Le Soir*	*Le Figaro*	**Total**
Author of the text	32	45	27	40	35
Researcher or expert	22	32	38	19	26
Public institution or international organization	18	5	24	9	15
Politician	12	9	0	17	10
Representative of a technological company	9	0	8	11	8
Other voices	4	5	0	2	3
Foreign press and news agencies	3	5	3	2	3

Certainly, the primary responsibility for the discourses circulating in the press lies with the journalistic enterprise, which has an editorial line built on an economic and political project that guides all the newspaper's activities. Within this framework, journalists, generically referred to here as the "Author of the Text", choose their sources to construct their texts. This decision is likely influenced by various factors: the editorial line, the degree of specialization of the topic, the journalist's training, material access to specialized sources, and the evaluation of the authority of a person to speak on a specific topic. Thus, the initial observation we need to make pertains to the "Author of the Text" category. In these cases, the article's author assumes the content's evaluation or assessment discursively. Considering the newspapers together, this category has the highest representation at 35%, which breaks down in descending order: *Público* with 45%, *Le Figaro* with 35%, *El País* with 32%, and *Le Soir* with 27%. These percentages show the extent to which the journalists and editors of these newspapers are involved in discussing and analyzing AI risks. It is noteworthy that *Le Soir* exhibits a different trend compared to the other newspapers, as it has the highest percentage in the "Researcher or Expert" category at 38%.

If we highlight the trends in the newspaper, it is noted that *El País* uses a variety of sources to address AI risks, while *Público* concentrates most of the voices on the authors of the text and researchers or experts. *Le Soir*, with the highest percentage of researchers or experts (38%), also stands out for citing public institutions or international organizations, indicating a preference for specialized and academic sources to discuss AI risks. Conversely, *Le Figaro* presents a lower percentage of researchers or experts (19%) and has the highest percentage in the political category (17%). Politicians are also an important source for *El País* (12%), while they do not appear in *Le Soir*.

The absence of representatives of tech companies in *Público* contrasts with the other newspapers, especially *Le Figaro* at 11% and *El País* at 9%.

The voices of other readers, anonymous sources, and religious authorities are minimal in all newspapers, with *Público* and *El País* recording the highest values (5% and 4%, respectively). Similarly, the presence of foreign press and news agencies is low and uniform in all newspapers, indicating a lower dependence on external sources to discuss AI risks.

6. Discussion

AI-based algorithms are ubiquitous and powerful tools that are transforming multiple sectors, from the economy to health, culture, education, and the arms industry. In this sense, it is a transversal and global issue. Consequently, at least in Europe, the impacts of AI will occur in all countries, most likely in the same sectors and the same manner. This circumstance arouses interest in exploring how different newspapers manage knowledge about the impact of AI on society, particularly the treatment of risks associated with AI developments.

From the perspective of Marres et al. (2024), who analyzed controversies about AI through the voices of experts, social media, and the press in England, it was concluded that contemporary AI is seen as a harmful technology for society. This perception differs from other controversial topics of the 20th century, such as nuclear energy and genetically modified foods, which were characterized by a denial of risks by companies. In the case of AI, it has been the scientists and developers of AI tools themselves who have raised the alarm about the risks of AI.

Similarly, in line with the observations of Marres et al. (2024), the risks of AI identified in our research not only address scientific issues but also articulate the structural problems of social justice, economy, politics, and ethics of diverse origins. In other words, each of the stated risks amplifies social problems that preexisted the technological developments of AI.

For his part, Ananny (2024) suggests that the public importance of generative artificial intelligence arises from its dual identity as both an ontological and epistemological concern. This duality manifests in the failures of AI, such as errors in facial recognition or biased chatbot responses, which illustrate, combine, and extend the ideals of the public.

This ontological concern addresses issues related to the nature and existence of AI, which implies reflecting on what AI is, how it exists, and how it affects our understanding of being and reality. On the other hand, the epistemological concern refers to issues related to the knowledge and truth of AI, reflecting on how we know and understand AI, how knowledge is constructed through it, and how it affects our perception of the truth. Ananny (2024) argues that this duality of generative AI manifests in its failures, as the limitations and technical problems of AI illustrate how these deep concerns interact and affect the public sphere, influencing our understanding and management of matters of common interest. From our perspective, the differentiated attention paid to the risks of AI in each of the national contexts studied also reflects, to some extent, a different configuration in the construction of the meaning of the public opinion.

Also concerning public interest, risk communication carries a social responsibility as it involves an interest in modifying the recipient's behaviors in the face of risk situations. In some cases, the aim is to mobilize the population to develop behaviors that minimize harm, and in others, it is to pressure the authorities to take measures to prevent negative effects on the population. However, in the specific context of the press, it could also be that the presentation of risks is aimed at capturing readers' attention with the simple interest of increasing the time spent on the reading page or having the news shared with other readers.

In any case, the media depend on the relationship they establish with their audiences, which they must nurture, maintain, and, as far as possible, increase. This involves a constant effort to bring the content closer to and adapt it to their audience. In this regard, Sun et al. (2020) argued that the impact of media coverage on emerging technology is deeper when that technology is linked to reality, stimulates plural interpretations, and sparks controversy.

Given that audience knowledge is always partial, the audience to which the media direct their messages is always imagined (Charaudeau 2003). In this context, it is relevant to

consider that, at present, it is the technological development itself that enables journalistic companies to continually improve their methods for monitoring and understanding audiences. Consequently, to varying degrees, journalistic companies progressively have more information with which to adapt their messages to the characteristics of their audience.

In this context, we can assume that the differences observed in how newspapers address risk reflect the image they construct of their audiences. However, what other factors could we associate with these differences? In light of these findings, it can be noted that the construction of AI risks could be influenced by at least three contextual elements: the socio-political and economic situation of each country, the presence and development of the local technology sector, and the editorial project of each newspaper.

Regarding the socio-political and economic context, for example, it can be seen that Le Figaro's high concern about the manipulation of public opinion may reflect political tensions and polarization in France, while Público's focus on copyright may be related to the specific cultural and creative policies of Portugal.

The presence and development of the local technology sector can influence how AI risks are addressed. Nguyen (2023) suggested that the sense of remoteness versus the immediacy of technology's effects could be a factor likely to shape perceptions of technology's relevance and impact. For example, if France has a more developed technology industry with greater investments in AI, this could explain Le Figaro's concern about the risks of public opinion manipulation. On the other hand, in Portugal, with fewer companies developing AI technology but where the creative industry may have significant weight, Público focuses on copyright and content appropriation.

Lastly, the editorial project of each newspaper can also influence the selection and emphasis of topics. Le Figaro, with a more conservative editorial line, may focus on risks to democracy and public opinion, while Público, with a more progressive audience, may be more concerned with equity and creators' rights.

The variation in voices that convey concerns can be read as an achievement of greater or more limited pluralism in the construction of AI risk. This diversity of voices can allow for a more complex and rich perspective, while a concentration of few voices restricts an adequate understanding of the risks and their implications. However, the ability to bring diverse voices to the newspaper often depends more directly on material resources: having journalists specialize in technological topics and securing (whether through payment or not) authoritative voices to address specialized issues. Another relevant factor is the relationships that the media establish with political powers or business powers, which determine the ease with which these actors participate in the public debate generated in the media public space.

7. Conclusions

Studying the discursive construction of technological risks in the press from different national contexts provides valuable information on various aspects of journalistic practices and their production environments. These include the socio-economic and political contexts, the presence and development of the local technology sector, as well as editorial projects.

On the one hand, the identification of the fourteen categories of risk and their relative distribution offers a snapshot of the circulation of ideas in four countries of the European Union. It is noteworthy that no risks were identified that particularly affected any of the countries studied, as might occur with other types of risks, such as environmental or war-related risks. We have observed that in all cases, these are global risks that would potentially affect the entire population accessing AI technology in a similar manner.

The frequency of occurrence of risk statements in the press shows a significant predominance of fear in public opinion manipulation. While this is an issue that directly concerns the press due to its role in organizing public space, it is also true that it has been a widely disseminated concern by international non-governmental organizations, such as the World Economic Forum, which identifies misinformation as the most serious global risk alongside environmental collapse and war conflicts (World Economic Forum 2024).

Similarly, the second most widespread risk, the misappropriation of content, also directly involves the press, as American journalism companies have led the first wave of lawsuits for using their articles to train AI models, such as Microsoft, against OpenAI.

Because these are global risks, the differences found in the coverage of these risks by the media studied become even more interesting. If we consider the significant development of various techniques for monitoring and understanding audiences, we can imagine that the relationship between media offerings and audience demand is becoming closer. This suggests that audience knowledge may be increasingly considered in journalistic production.

In this sense, a greater understanding of the relationship between media and their audiences on these issues can help better appreciate and value the social role that media can play in the face of the rapid technological changes we are experiencing.

A hasty conclusion might lead us to consider that the uneven distribution of risks in the studied press reflects the interest and public awareness of these issues in respective national audiences. However, we cannot disregard the role that highly relevant aspects, such as national political contingencies, the presence of the technology sector, and the editorial line, may play, complementarily influencing the media agenda.

Following this line of thought, the main conclusion of this research is that national contexts significantly influence how the press constructs and communicates the risks associated with artificial intelligence, as well as the selection of voices summoned to discuss the issue. It is established as a working hypothesis for future research to confirm whether technological developments that enhance audience understanding lead to the increasing influence of audience interests in the construction of the media agenda and the configuration of their products. If this hypothesis is confirmed, it could be argued that media offerings and the treatment of critical issues, such as risk discourses, may reflect the degree of public awareness of these issues.

The interpretation of these results should consider the limitations of this work. Firstly, it would be advisable for future endeavors to expand the sample of newspapers per country to have a more ideologically representative sample, one that reflects the various linguistic communities of Belgium, for example. Undoubtedly, through a more extensive effort, the sample could be expanded to various countries inside and outside of the European Union.

Finally, it can be noted that in this tumultuous time of change that strains public communication, the press must find a sustainable business model and strive not to lose social relevance. For this reason, it is crucial to develop research that relates to journalistic practices, technological development, and audiences.

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Note

[1] In the case of France, the first choice was Le Monde, but it was not available in the database used. In the case of Belgium, which has three linguistic communities, we chose the French-speaking press because of limitations in our knowledge of Dutch and German.

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