

Artificial Intelligence and Journalism

Practices and training in Portugal



Collaboration:



OberCom
INVESTIGAÇÃO E SABER EM COMUNICAÇÃO



Support for dissemination:



IBERIFIER
Iberian Digital Media
Observatory



Title	Artificial intelligence and journalism: Practices and training in Portugal
Date	March 2026
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Recommended citation (APA ^{7th})	<p><i>Full reference:</i> Pais, P.C., Crespo, M., Couraceiro, P., Pinto-Martinho, A., Paisana, M., Vasconcelos, A., Cardoso, G., Baldi, V. (2026). <i>Artificial intelligence and journalism: Practices and training in Portugal</i>. OberCom – Communication Observatory. https://doi.org/10.5281/zenodo.19134656</p> <p><i>In text:</i> (Pais et al., 2026)</p>

Collaboration:




Support for dissemination of questionnaire:



Support for dissemination of report:



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Introduction



Introduction

OberCom – Observatório da Comunicação, in collaboration with CENJOR, the Portuguese Journalists' Training Center, and with the support of the Journalists' Union for dissemination, conducted a survey to investigate the practices and training of journalists in Portugal in the field of Artificial Intelligence (AI).

The online questionnaire “Artificial Intelligence and Journalism: Practices and Training in Portugal” was aimed at all journalists working in the country and sought to understand how journalists perceive the integration of AI tools into journalistic practices and newsrooms in Portugal; what has been done in terms of training in this area, as well as what is lacking; to identify the tools they use or could use; and to identify the impact of AI on journalism.

In total, the questionnaire “Artificial Intelligence and Journalism: Practices and Training in Portugal” was completed by 203 validated respondents, of whom 177 completed it in full. For this reason, throughout the analysis, the sample size (n) may differ between questions.

Through the description and analysis of this data, the aim is to provide educational and training institutions, as well as media organisations, with detailed and relevant information on the subject, enabling the identification of new aspects and perspectives to be considered in the present and future of journalism training in the context of AI.

It is also important to note that this survey complements another published in 2019, which dealt, more broadly, with journalistic practices and training in Portugal. Thus, in addition to seeking to map the issue of AI in journalism, the new questionnaire can partly serve as an update on the types of practices and training (particularly further training) existing in Portugal – comparative aspects which, where deemed relevant, are identified.

Executive Summary



Executive Summary

About the questionnaire:

The online questionnaire “Artificial Intelligence and Journalism: Practices and Training in Portugal”, which was open for responses between 2 December 2025 and 6 February 2026, was aimed at all journalists working in the country and sought to understand how journalists perceive the integration of AI tools into journalistic practices and newsrooms in Portugal, what has been done in terms of training, to identify the tools they use or could use, and to identify the impact of AI on journalism, both in day-to-day work and on the future of the profession and the industry.

Chapter 1. Profile of respondents

- 59.1% of the journalists in the survey are female and 40.9% are male.
- In terms of employment status, 61.6% currently have a permanent contract and 13.3% work as freelancers, followed by contract work (7.9%);
- One third of the journalists surveyed say they always work on-site (which includes business travel, as in the case of reporters), this being the most common working arrangement, followed by a hybrid arrangement (with a balance of on-site and remote work).
- Of the journalists surveyed, almost a third say they have been in the profession for over 30 years, whilst 28.1% say they have been in it for between 21 and 30 years.



Chapter 2. Journalists' education and AI

- Most journalists are not currently studying or undertaking any form of training, with around 10% attending higher education, 6.4% on journalism-related training and 4.5% on technical or technological training (Figure 12).
- The majority (57.4%) state that in the last 5 years they have received some form of supplementary training related to journalism (Figure 13), with more than a third of these having received training specifically on AI and the use of such tools, a figure that highlights the need for professionals to familiarise themselves with these tools through training (Figure 14);
- Furthermore, among those who have received further training in the last five years, AI is central, with training on the use of chatbots such as ChatGPT (35.3%) and other more specific skills, such as the use of AI tools for audio or video transcription (31%). Furthermore, technical issues related to digital media are the most frequently selected, linked to digital platforms (37.1%) and specifically to digital journalism (32.8%) (Figure 15).
- When asked how or where they learnt to use AI tools specifically for journalism work (Figure 16), the vast majority (70.8%) stated they were self-taught, with 22.8% stating they learnt through *workshops* or training centres, and 19.3% within their company. In part, these results point to an apparent lack of structured courses and teaching initiatives in the field of AI in Portugal.
- However, although self-teaching is the most common approach to acquiring AI skills, fewer journalists consider self-learning to be an effective way of acquiring such skills (see Figure 17), preferring instead educational institutions, particularly training centres, which may offer short courses. Thus, there appears to be a perception among journalists that institutional education is the most effective in this area.



- As for whether the media organisation or newsroom where they work offers any kind of training on AI (Figure 18), more than half of journalists (56.4%) replied that it does not.
- When asked about their colleagues' habits in the workplace (Figure 19), almost half of respondents said that their colleagues use AI tools for journalistic work occasionally, and around a quarter said they use them frequently. These figures indicate the current trend towards wider adoption and use, with the majority of professionals using AI in some way in their journalistic work.

Chapter 3. Practices and use of AI in journalism

- Around 7 in 10 journalists have used Generative AI tools (e.g., ChatGPT) in the last six months (Figure 22). This again points to a strong uptake of this type of technology by journalists and newsrooms in Portugal and, consequently, to practical adaptation.
- Of those respondents who reported having used AI in the last six months as part of their work, 8 in 10 journalists said they used it for research, and more than half said it was for translations (57.8%) and transcriptions, particularly of interviews (53.3%). These figures demonstrate a tendency for this technology to be used to complement the journalist's work, with tasks such as translations and interview transcriptions standing out; these can be seen as functions that allow the journalist to 'save time' and enable them to focus more on interpreting and writing journalistic content.

○



- As for the frequency of use of AI tools in their work (Figure 24), around a third of respondents state that they use them daily, and 28.9% on a weekly basis; these figures point to a notable frequency in the use of this technology and, once again, to the adoption of this type of technology in newsrooms within the context of their work;
- As shown in Figure 25, the platform most used by journalists is ChatGPT, with around two-thirds of responses (66.3%), standing out from the rest. Next in the list of most-used platforms are Gemini (35.3%), Copilot (27.4%) and Perplexity (22.1%). The predominance of this type of Generative AI platform points to the usefulness that journalists perceive in these broader tools, which enable a wider range of tasks, from research to data processing.
- As shown in Figure 27, regarding the effective use of *prompts* (instructions for Generative AI), journalists themselves admit to using them with little precision or, at the very least, feel they could use them more effectively. In this regard, training and education in this area may be something to consider when discussing how to improve journalists' capabilities in the context of using AI tools.
- When asked whether AI tools increase or decrease their productivity as journalists (Figure 28), more than 7 in 10 journalists state that they increase it, with only 3.2% stating that they decrease it. This therefore points to a positive perception of the impact that this type of technology may have on the day-to-day work of professionals.
- The failure to use tools that journalists believe would be of benefit to them (see Figure 29) appears to be linked, on the one hand, to the limited resources made available to professionals by media companies, and, on the other, to an apparent lack of training, whereby the aforementioned 'lack of time' on the part of professionals should lead to the development of shorter courses and *workshops*;

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- As shown in Figure 30, 55.3% of journalists state that their company does not give them access to these tools, including paid services, compared with 15.8% who state that they are provided with such resources. These figures highlight that it may be relevant for each media company to identify the needs of its journalists, assessing to what extent it can make more AI resources available.
- As can be seen in Figure 32, 85.9% of respondents state that having more training or improving their skills in this area would lead them to use more tools, which highlights the importance of providing further training in this field.
- Finally, respondents were asked for what purposes they would like to receive further training (Figure 33), with 67.4% stating that they would like training in the use of specific tools for journalistic practice, and 59.5% stating that they would like training to help them be more effective in fact-checking and detecting fake news, in the context of AI, which ties in with journalists' perception of using this technology for verifying information as well (see Figure 23);
- Thus, there is a general desire among journalists to improve practical aspects related to their functional literacy through training, that is, to acquire more skills in the technical and specific use of various tools and platforms in order to utilise them in their work at various levels, whether for tasks such as transcribing interviews or reviewing content, obtaining more effective results and information (through more precise prompts), or even for assistance when working with extensive databases.



Chapter 4. Perceptions of AI in the context of journalism

- When asked about their strongest feeling regarding the growing integration of AI in journalism (Figure 34), the data points to a higher incidence of negative feelings, with over a third expressing uncertainty and 25% saying they feel apprehensive.
- Regarding the possible influence AI may have on public trust in journalism, the perception is that public trust is greatly affected: 46.2% even say that it is significantly affected.
- As to whether AI might replace journalists in certain tasks, the majority believe that any replacement, if it occurs, will take place more at a technical level (e.g., transcriptions, translations), rather than at an interpretative or critical level. Meanwhile, 41.8% believe the technology will be complementary, with human supervision; in other words, a complete replacement is not perceived here, but rather a supportive relationship in which humans retain control over all tasks.
- When asked about the greatest ethical risk associated with the use of AI in journalism, around a third cited the creation of disinformation and, in particular, so-called *deepfakes*, whilst 22.3% of respondents argued that it is the devaluation of traditional journalistic skills.
- As shown in Figure 38, 38% of journalists believe that journalists will become overly dependent on AI, losing traditional and basic skills; 28.3% state that this technology will likely help journalists free themselves from more technical tasks, allowing them to focus on human skills; and 31% argue that this depends on the individuals and the context, preferring to grant each journalist the ability to balance the relationship between their work and AI. These data demonstrate a tendency towards a certain division of opinion, although they lean more towards a fear of dependence on this type of technology.



Chapter 5. Levels of agreement on AI and journalism

- Most journalists agree to some extent with the idea that AI has, overall, helped journalists' work.
- There is also a noticeable perception of support for more technical tasks, such as transcriptions and translations (Table 1);
- Table 2, however, confirms fears regarding journalists' over-reliance on this technology in the future, whilst they value complementarity and human supervision. On the other hand, the majority believe that AI will become increasingly integrated into newsrooms.
- Most respondents also agree to some extent that the public should always be informed when an AI tool is used in the production of a news story (Table 3), thereby paving the way for greater transparency with the public regarding AI in journalism.
- As shown in Table 4, respondents' perception of their relationship with their work is not particularly positive, with concerns appearing to exist regarding the pressure and stress of the profession – and, consequently, reduced personal fulfilment – as well as regarding the pervasive nature of work in a journalist's life, which includes aspects such as social media and promotional work related to their profession;
- According to Table 5, there remain fears of increasing job insecurity in the profession and a decline in pay, as well as a significant concern among respondents that journalists will have to resort to other types of work outside journalism, which is linked to the issue of job insecurity.
- The data in Table 9, meanwhile, point to a perception of the relative importance of university education, with extra training – potentially ongoing or complementary – also appearing to be highly valued, as well as the experience that professionals acquire over time.



Chapter 6. Open-ended question – Is AI training adequate in Portugal?

Criticisms and suggestions for improvement:

- Most respondents state that AI training in journalism in Portugal is somewhat inadequate (Figure 39);
- As for their perception of the content itself (Figure 40), a key point is the view that training should convey more ethical and deontological principles, so as to better contextualise their uses and consequences within journalism; and the perception that courses tend to be too theoretical and not closely linked to everyday reality, with one respondent suggesting that trainers should be more active journalists, who know the field better and can help to apply AI tools effectively;
- As for other reasons for considering the training inadequate, the perception stands out that Portugal – both in terms of training and media companies' resources – lags behind other countries, as well as the limited accessibility of courses, whether because they are very expensive (with the suggestion that companies could provide free courses), or because they neglect smaller organisations and businesses, particularly in the interior of the country (face-to-face training limited to major urban centres). The view that many courses are too long also suggests that shorter, more intensive courses should be considered.
- It is also worth noting the perception that there is a limited supply of AI courses in both universities and companies (here referring to supplementary courses), alongside the significant perception that there is a lack of general knowledge of AI (e.g., potential, impacts on society and journalism) among a significant proportion of Portuguese journalists.



- Finally, Figure 41 presents journalists' suggestions on what could be improved in the courses in terms of content, with an emphasis, on the practical side, on greater functional literacy (e.g., use of journalism-related tools), as well as an improvement in the effectiveness of *prompts*.
- As for the more theoretical aspect, it is worth highlighting the need to invest in ethical and deontological concepts and those relating to algorithmic bias, as well as greater skills regarding the verifiability of information, both within or as a result of AI, and with its support.

General conclusions of the report:

- The data points to journalists' perception that AI has helped boost newsroom productivity, but, at the same time, there are uncertainties regarding the technology and its impact (both present and future), ethical and deontological concerns, as well as a lack of formal training in this area.
- There is thus a tension between (i) the adoption of AI and its tools in newsrooms and (ii) general uncertainties regarding the impact of this technology on journalism.
- As such, more structured and continuous training in this area appears to be necessary, both in universities and other educational and training institutions, as well as within media organisations themselves. In this regard, it may be beneficial to establish more partnerships between media organisations and educational and training institutions.
- At the same time, according to journalists' perceptions, with regard to the AI content taught, greater dialogue between practical elements (e.g., use of tools) and theoretical elements (e.g., ethical and deontological concepts) may be important.

**Data from the questionnaire “Artificial
Intelligence and Journalism:
Practices and training in Portugal**



Data from the questionnaire “Artificial Intelligence and Journalism: Practices and Training in Portugal

1. Profile of the journalists surveyed

In this first part of the report, it is important to profile the journalists surveyed in terms of aspects such as gender, age group and years of professional experience, which allows for a brief overview of the industry and its professionals.

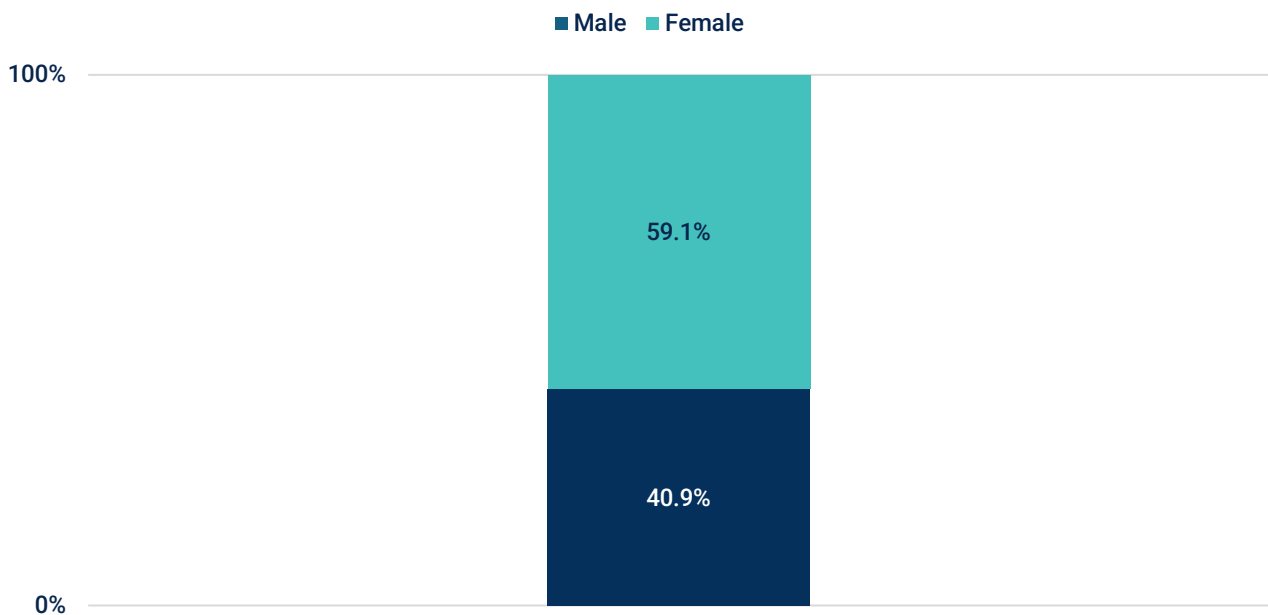


Figure 1. Gender

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

As shown in the first figure, 59.1% of the journalists in the survey are female and 40.9% are male.

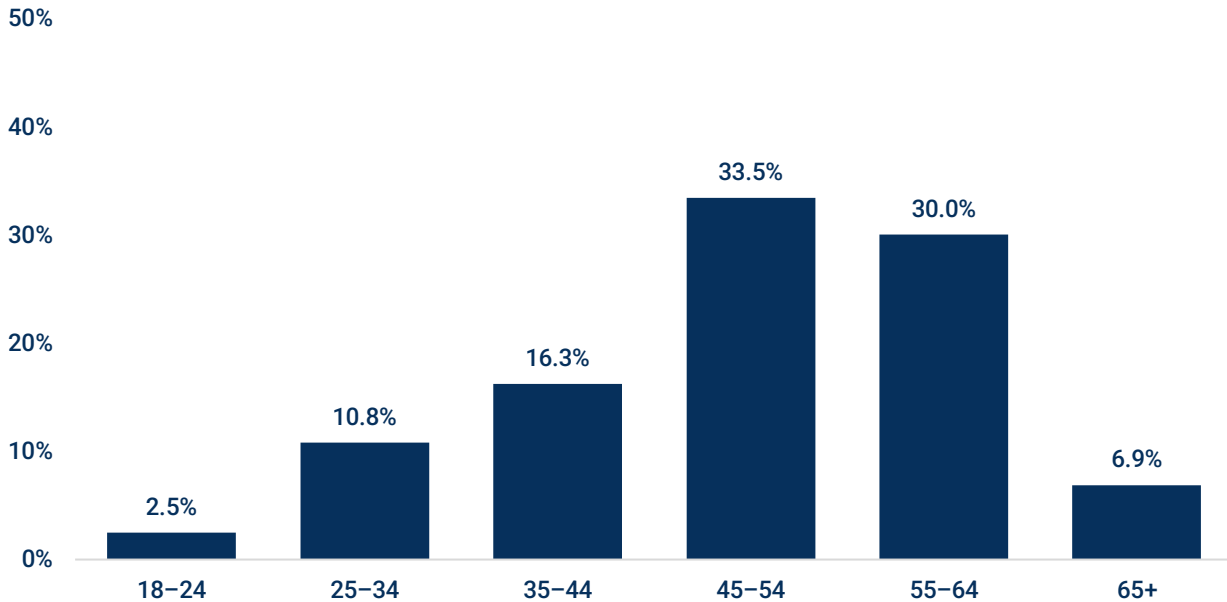


Figure 2. Age groups

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

With regard to age, almost two-thirds of the journalists surveyed fall within the broadest age group, between 45 and 64 years old. As for the remainder, 16.3% are aged 35–44 and 10.8% aged 25–34; the youngest group (18–24) accounts for just 2.5%, whilst 6.9% belong to the age group of those over 65 who are still working.

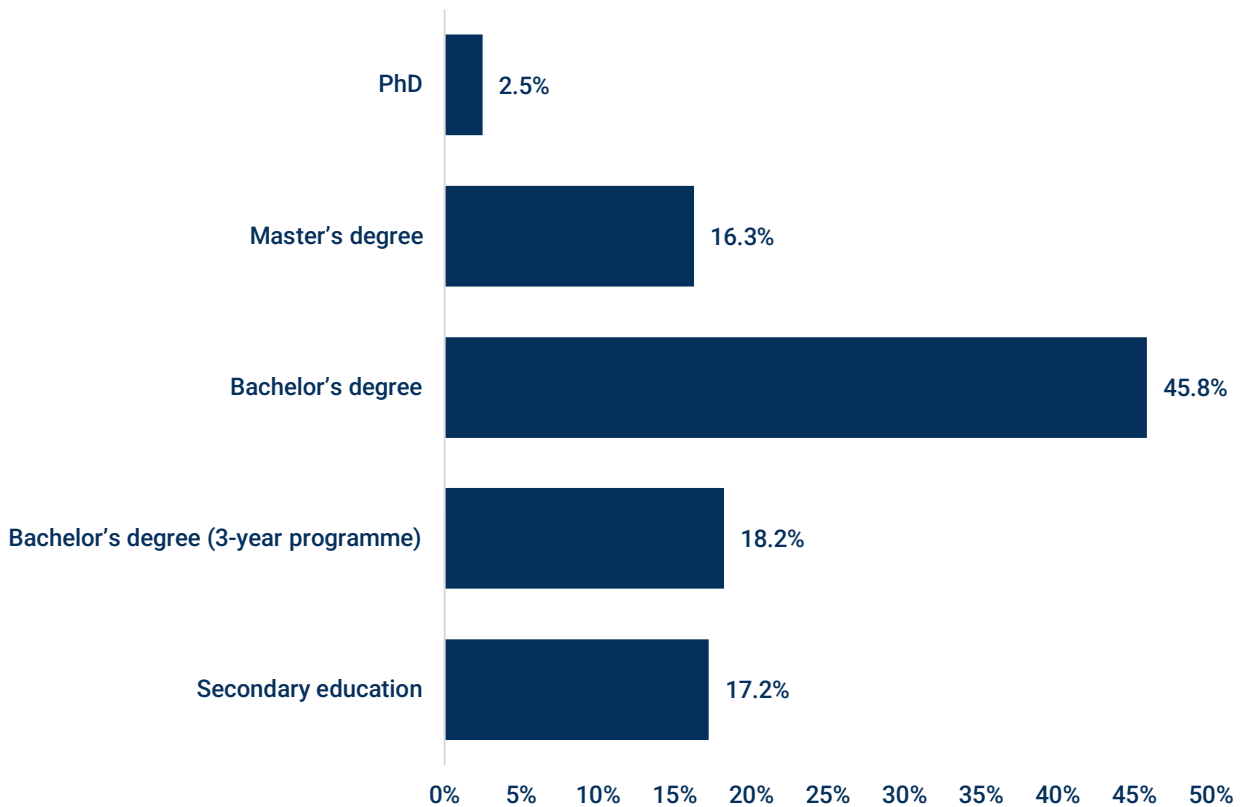


Figure 3. Level of education attained

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

With regard to academic qualifications and the highest level of education attained, 45.8% of the journalists surveyed reported holding a four- to five-year degree, with 18.2% reporting a three-year bachelor's degree. 17.2% state that their highest level of education is secondary education, 16.3% a master's degree and 2.5% a doctorate. These figures thus reveal some heterogeneity in academic qualifications within journalism in Portugal.

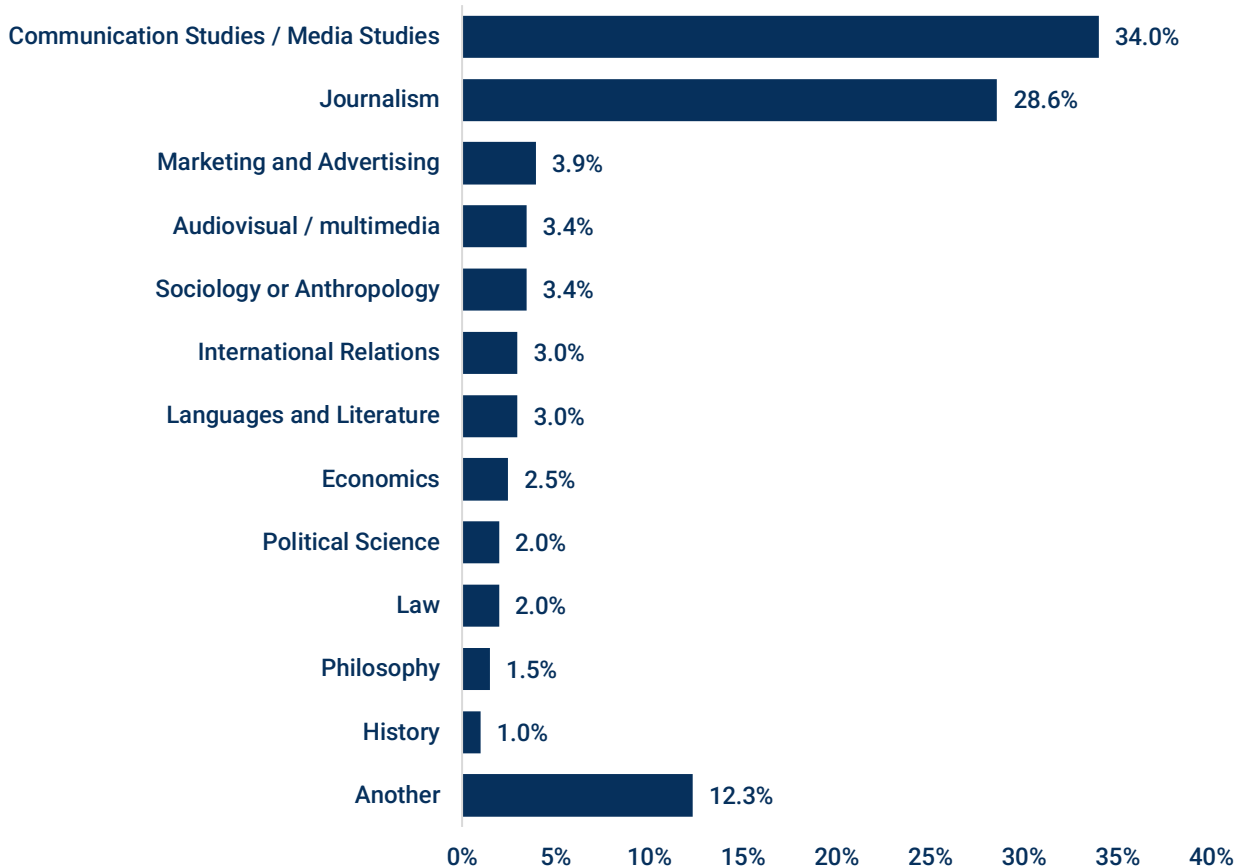


Figure 4. Field of academic training

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

It can be seen from the figure above that the majority of journalists surveyed have an academic background in Communication Sciences or Media Studies (34%) and Journalism (28.6%). The remaining fields of study are less common, with marketing and advertising standing out at almost 4%.

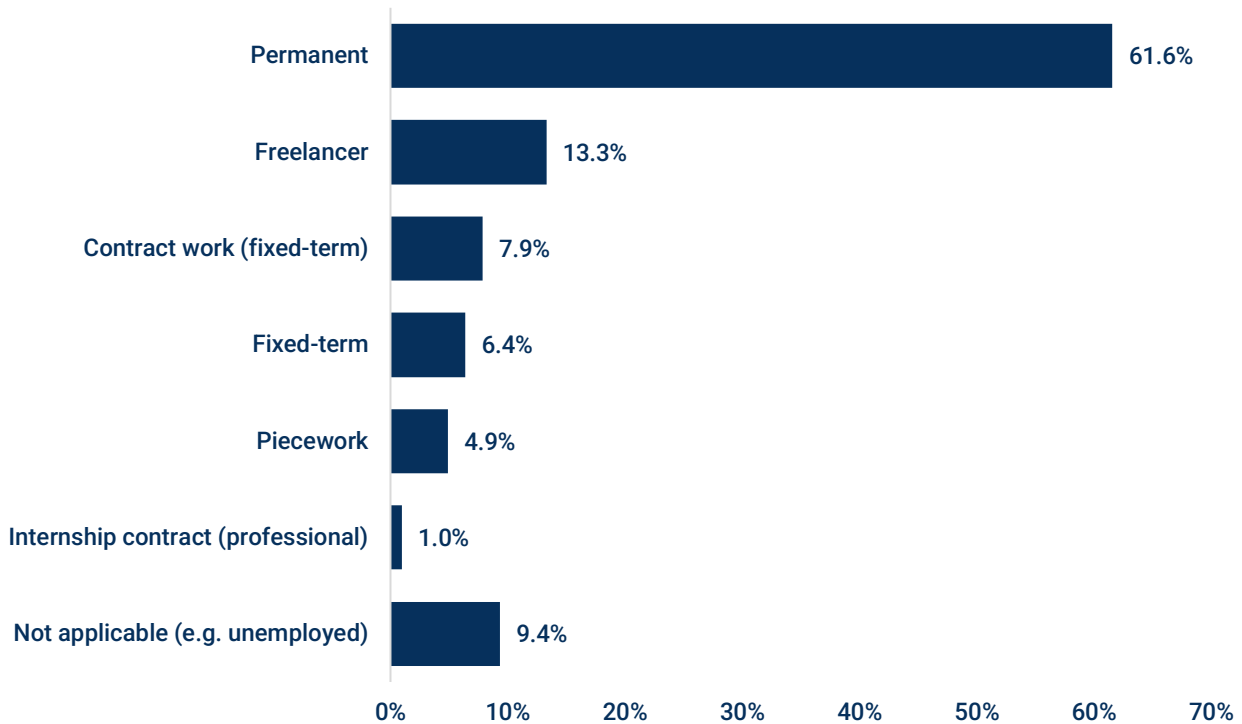


Figure 5. Current employment status

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203 (multiple responses)

In terms of employment status, 61.6% currently have a permanent contract and 13.3% work as freelancers, followed by contract work (7.9%). Almost 10% state that none of the above applies, which may indicate situations of unemployment.

Compared to 2019, the nature of employment relationships has changed slightly because, although there was a similar percentage of permanent contracts at that time, there were also more journalists working as freelancers (23.3%) and on fixed-term contracts (12.3%). On the other hand, freelance work (on a piecework or contract basis) remains similar.

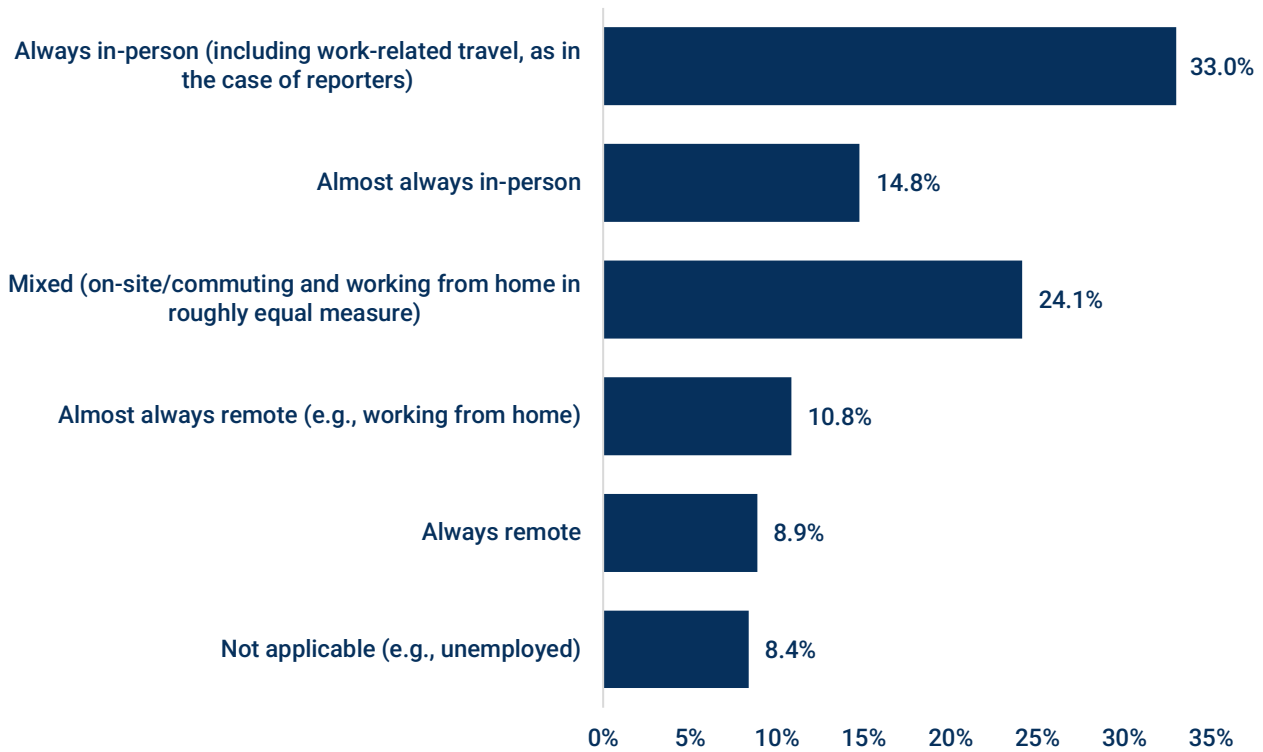


Figure 6. Employment status

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

It appears that a third of the journalists surveyed say they always work on-site (which includes work-related travel, as in the case of reporters), this being the most common working arrangement, followed by a mixed arrangement (with a balance of on-site and remote work), at 24.1%. Around a fifth of professionals report working remotely almost always or always.

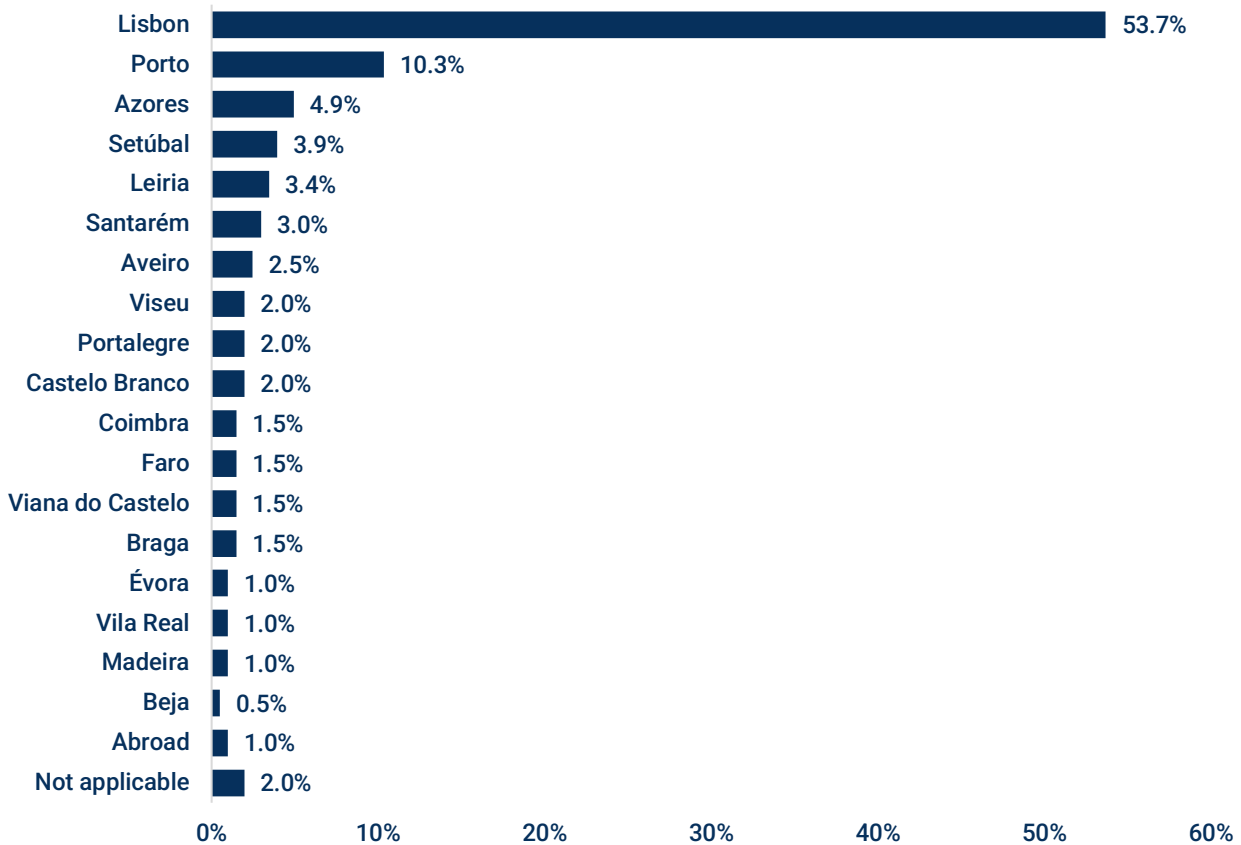


Figure 7. In which district or region is your workplace located?

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

As for the district or region where the workplace of the journalists who responded to the survey is located – even if they always work remotely – more than half answered Lisbon, followed by Porto, at 10.3%. The remaining regions have lower and similar levels, notably the Azores, at 4.9%, which corresponds to 10 journalists.

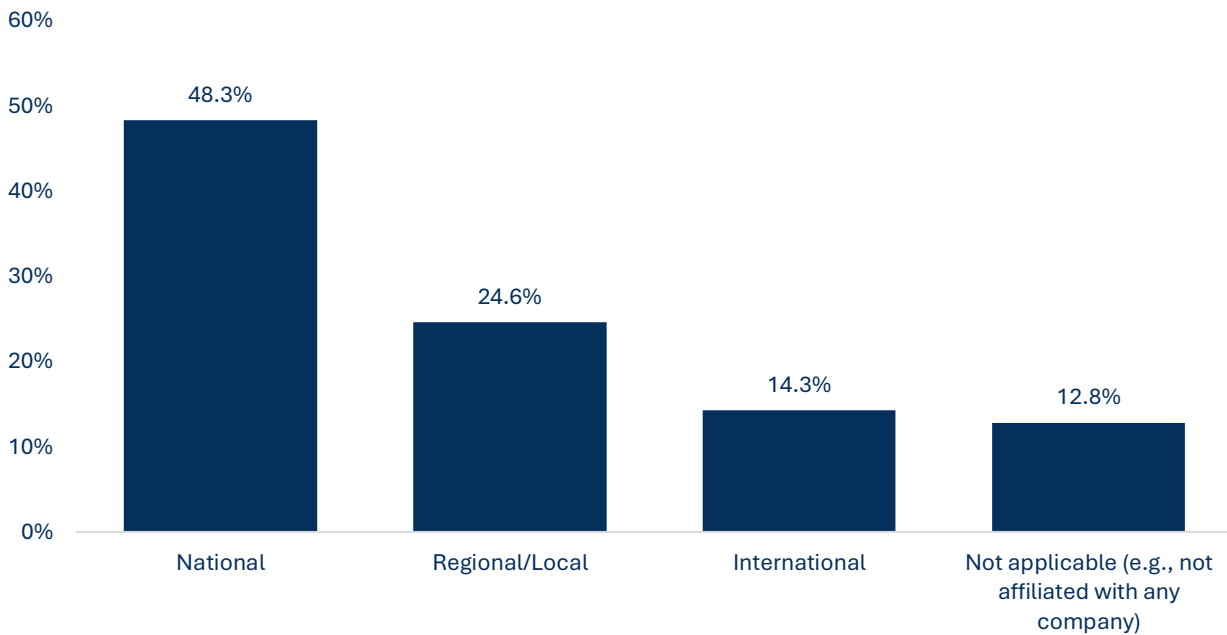


Figure 8. What is the coverage area of the media organisation you work for?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

As for the type of media organisation they work for, in terms of its reach, almost half of the respondents stated it was national in scope, 24.6% said it was regional or local, such as local newspapers or radio stations, and 14.3% said it was international.

Compared to the previous survey, it is worth noting that there is now a higher number of journalists working for regional or local media outlets (it was around 17% in 2019) – which may provide greater balance and diversity to the journalists’ opinions gathered in this survey.

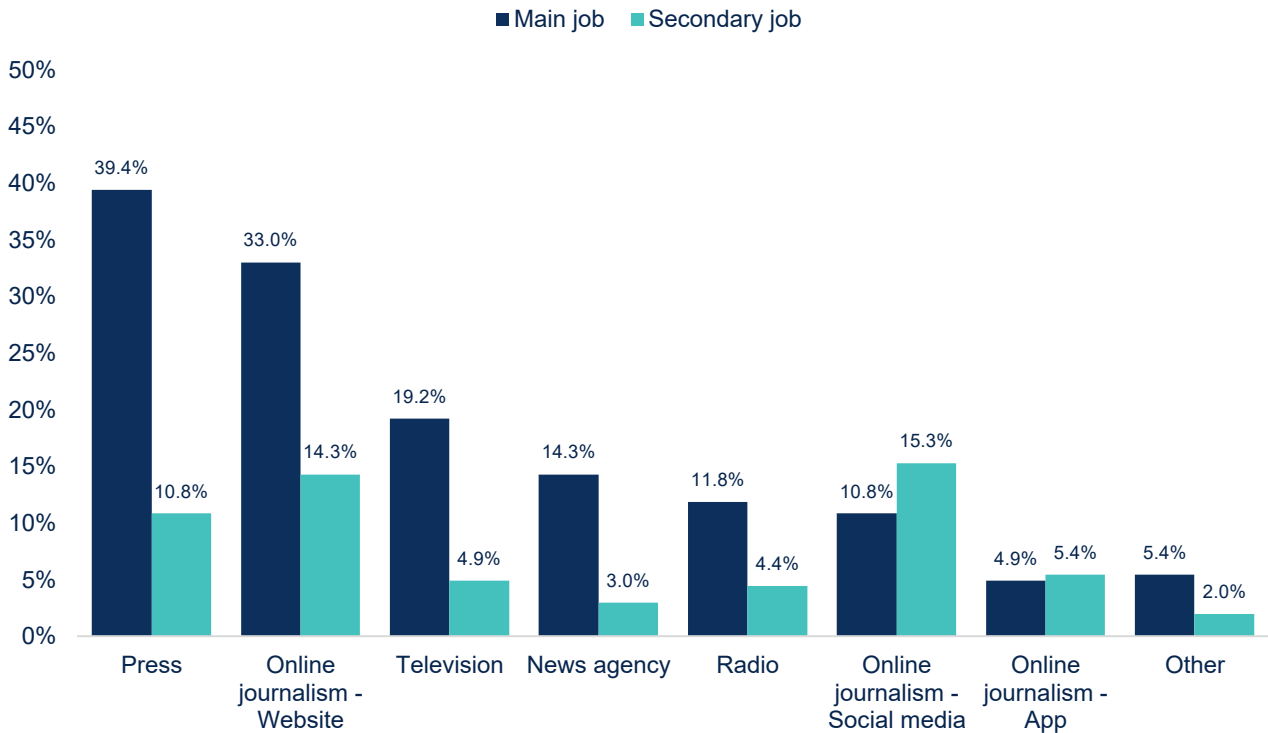


Figure 9. What type of media do you work for?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

More respondents cite working in the print media as their primary activity (almost half), followed by online journalism on websites (a third of journalists), and television (almost a fifth). It should be noted that, in terms of secondary activity, online journalism on social media is the most common (15.3%), a figure considerably higher than that recorded in the 2019 survey (which was around 8%), which may attest to the growing importance of social media in terms of news production and dissemination.

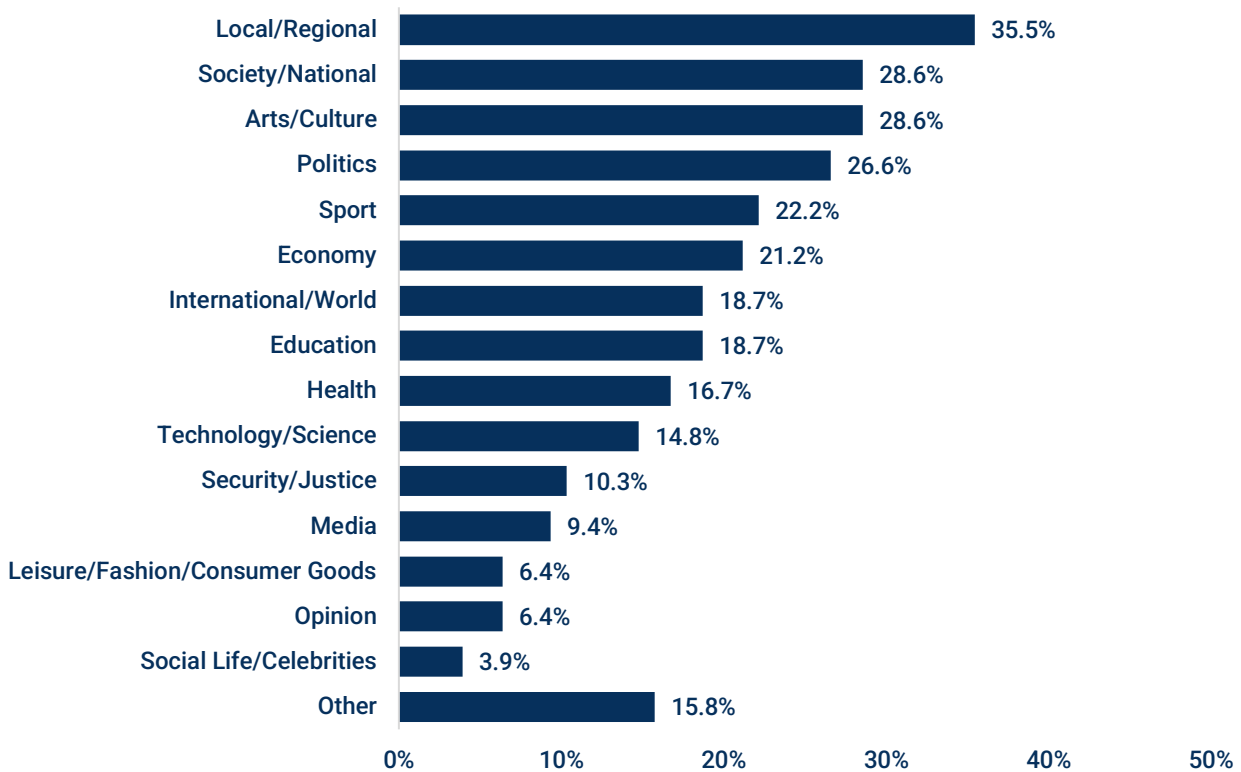


Figure 10. In which sections or specialisms do you work most of the time?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203 (multiple responses)

With regard to the sections or specialisms in which respondents work, the regional/local sector stands out (35.5%), which once again underscores the growing importance of this type of journalism, even compared to the 2019 survey. Also noteworthy are the Society/National and Arts/Culture categories (both at 28.6%) and Politics, at 26.6%.

There is thus a relatively balanced distribution across different topics, which again points to some positive heterogeneity in the sample.

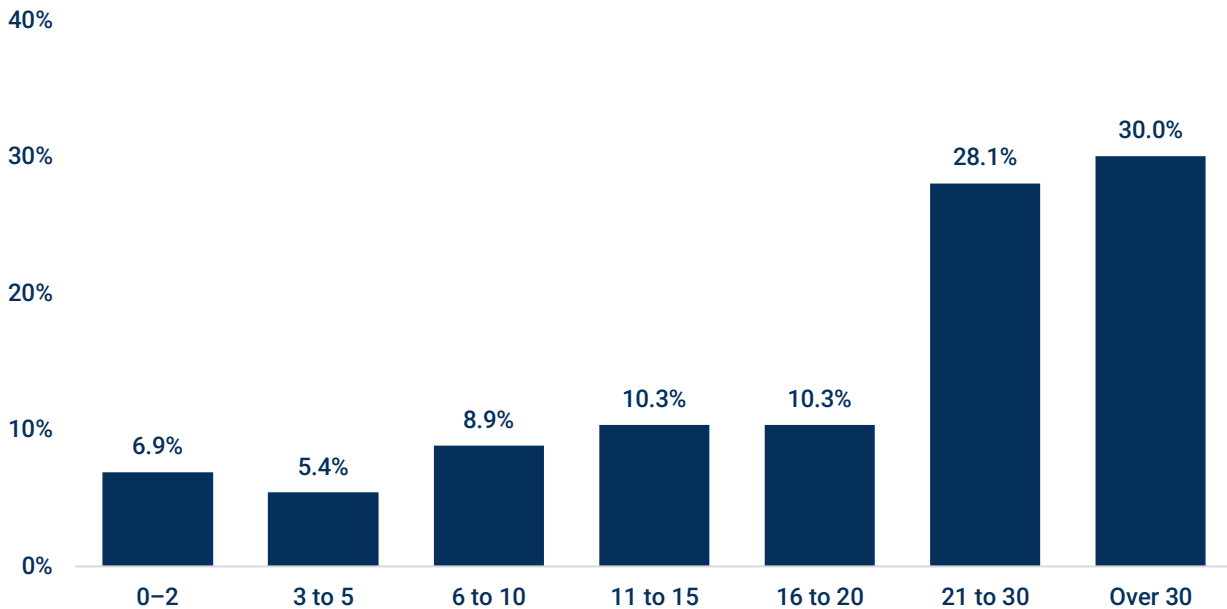


Figure 11. How many years have you been working as a journalist?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=203

Of the journalists surveyed, almost a third state they have been working in this profession for over 30 years, whilst 28.1% state they have been doing so for between 21 and 30 years.

The high proportion of journalists who have been working in the profession for over 11 years may provide a particularly interesting analysis, given the subsequent questions in the survey regarding training and practices in the field of AI, as these professionals will have witnessed the emergence of such practices within the industry and in the day-to-day workings of newsrooms, and can compare them with an earlier phase when they were not as pressing or did not exist.



2. Journalists’ training and Artificial Intelligence

This chapter introduces the issue of journalists’ training, specifically further training (short courses, *workshops*) and training in the field of AI.

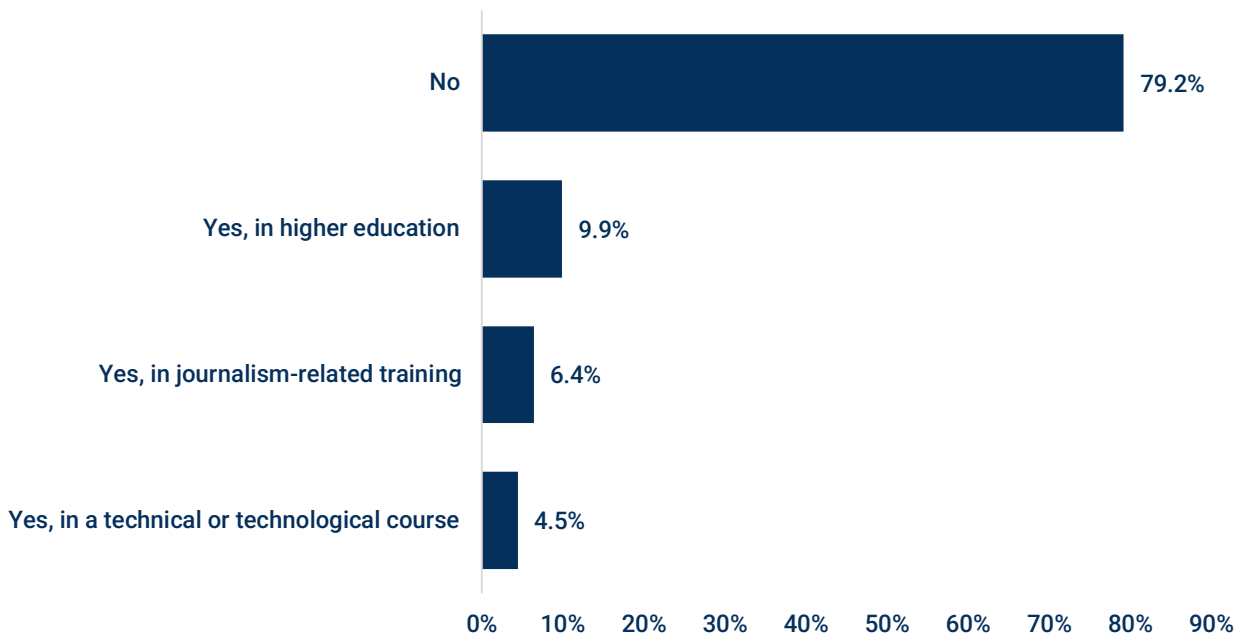


Figure 12. Are you currently studying or undertaking any form of training?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=202

As can be seen, the vast majority of journalists (almost 80%) are not currently studying or undergoing training, with around 10% attending higher education, 6.4% in journalism-related training and 4.5% in technical or technological training. Compared to the 2019 survey, the figures remain virtually unchanged.

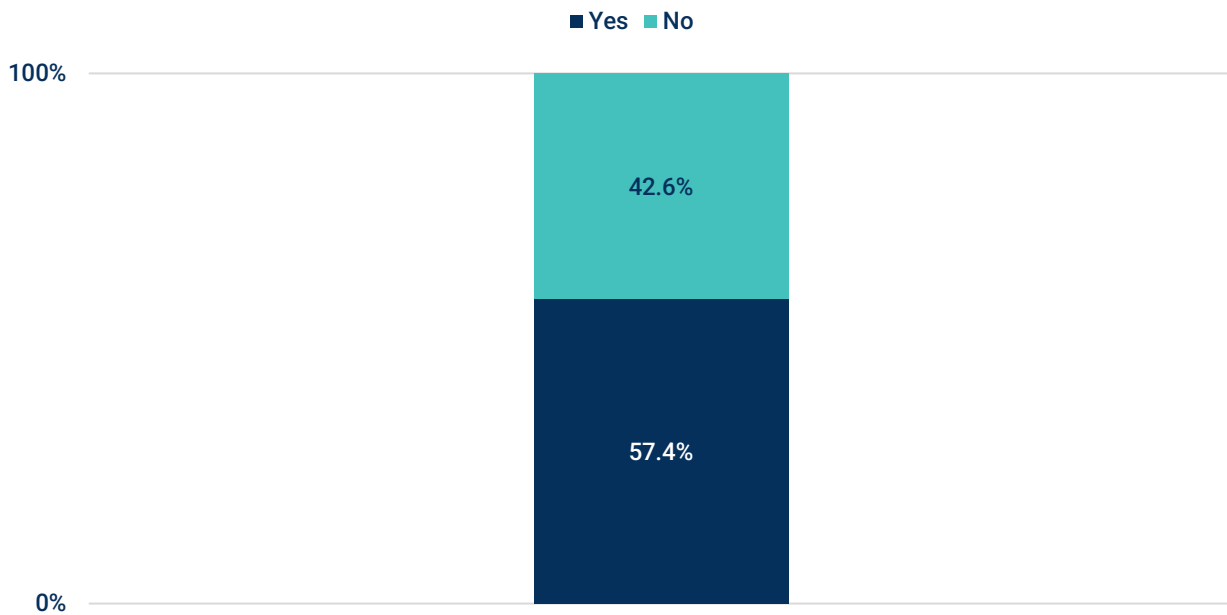


Figure 13. Have you received additional training related to journalism in the last 5 years?

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n=202

When asked **whether they had received any form of supplementary training related to journalism in the last 5 years, the majority (57.4%) said they had**, which is a significant figure. Again, when compared with 2019, it is interesting to note how the percentage has once more remained quite similar, pointing to a **consistent trend among these professionals to seek some form of supplementary training**.

Considering those who answered in the affirmative, the next figure explores whether AI was part of this type of further training.

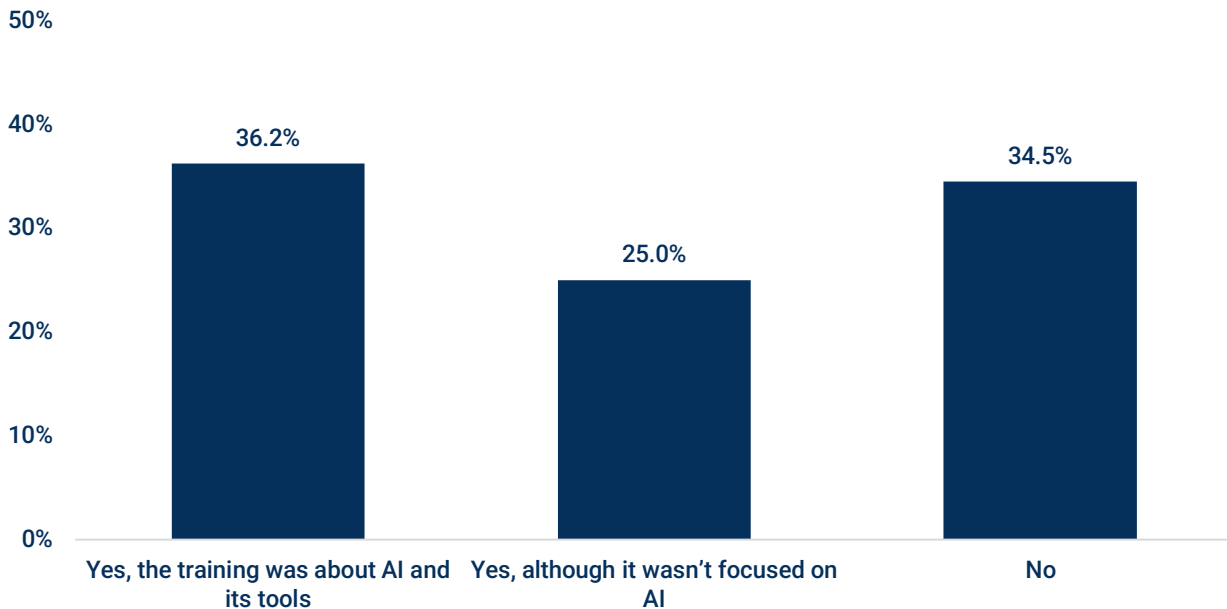


Figure 14. Having answered 'yes', was any of this training in any way related to AI?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 116 (those who reported having received supplementary training in the last 5 years)

More than a third of this type of training was specifically on AI and the use of such tools, a significant figure that highlights the need for professionals to familiarise themselves with these tools through training. Furthermore, 25% of respondents indicated that, although the training did not focus specifically on AI, it did cover the subject. Meanwhile, 34.5% of journalists who reported having received further training in journalism over the last 5 years stated that it did not relate to AI.

Among those who reported having received some form of further training (with or without AI), the following figure shows the types of skills covered in these training courses.

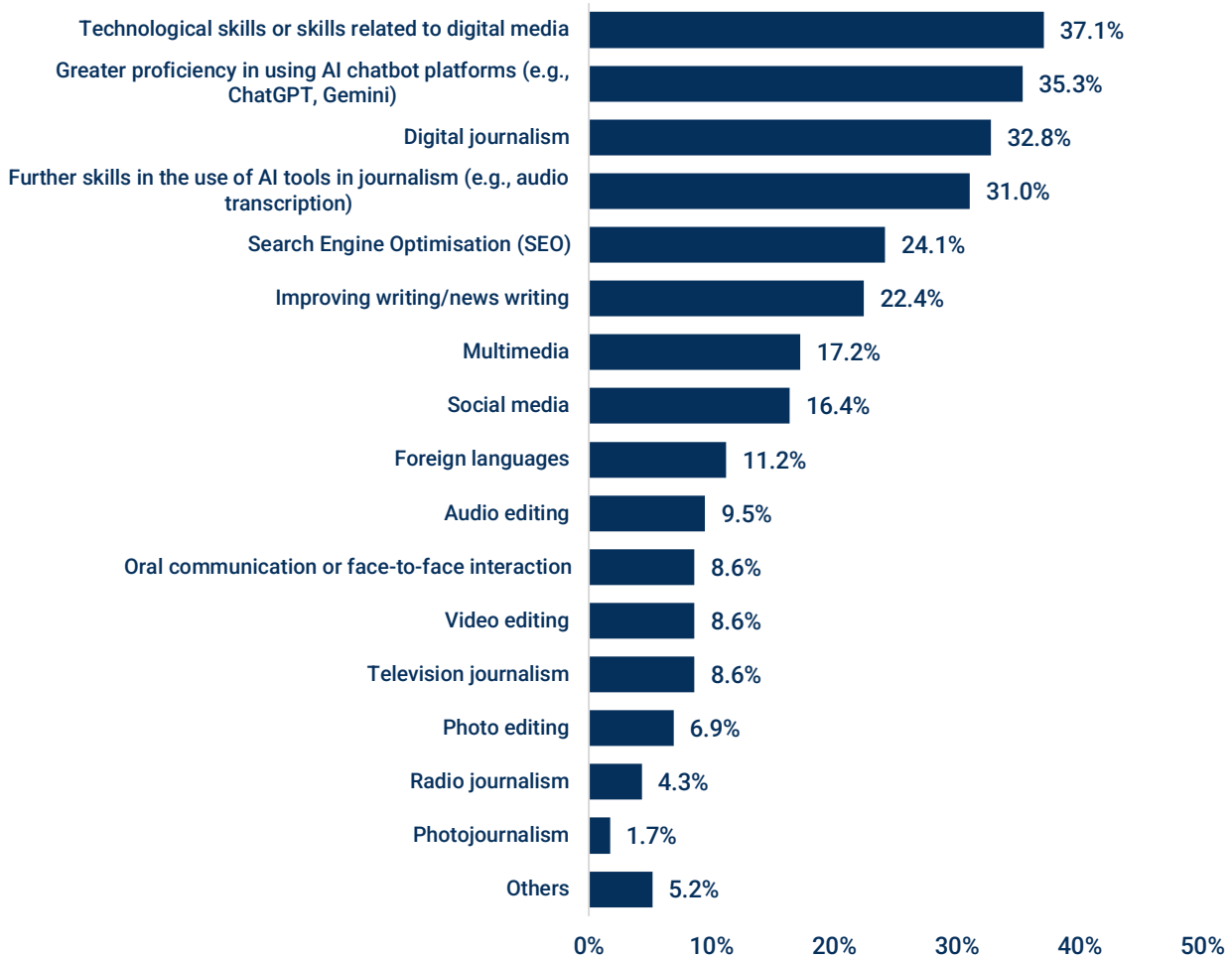


Figure 15. For what purposes did you receive further training?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 116 (those who reported having received further training in the last 5 years)

As can be seen, AI-related skills feature among the most frequently selected options, with **training on the use of chatbots such as ChatGPT (35.3%) and other more specific skills**, such as the use of AI tools for audio or video transcription (31%). Furthermore, technical issues related to digital media are the most frequently selected, linked to digital media (37.1%) and specifically to digital journalism (32.8%).



As also noted in the 2019 survey, **training remains heavily focused on aspects related to technical, technological and digital processes, with the issue of AI now being added to the mix.** As we have seen, this training focus is pressing, just as in the previous questionnaire, as it highlights the need for journalists to keep pace with developments in digital technical aspects, which are becoming increasingly prominent in the field of journalism.

On the other hand, it is also interesting to note the significant number of journalists undertaking further training in improving news writing/editing (22.4%), whereas in 2019 this figure was around half (11%). In a world where AI makes it possible to generate text without human input, it is therefore pertinent to highlight this trend among journalists to seek further training in improving the writing of journalistic pieces.

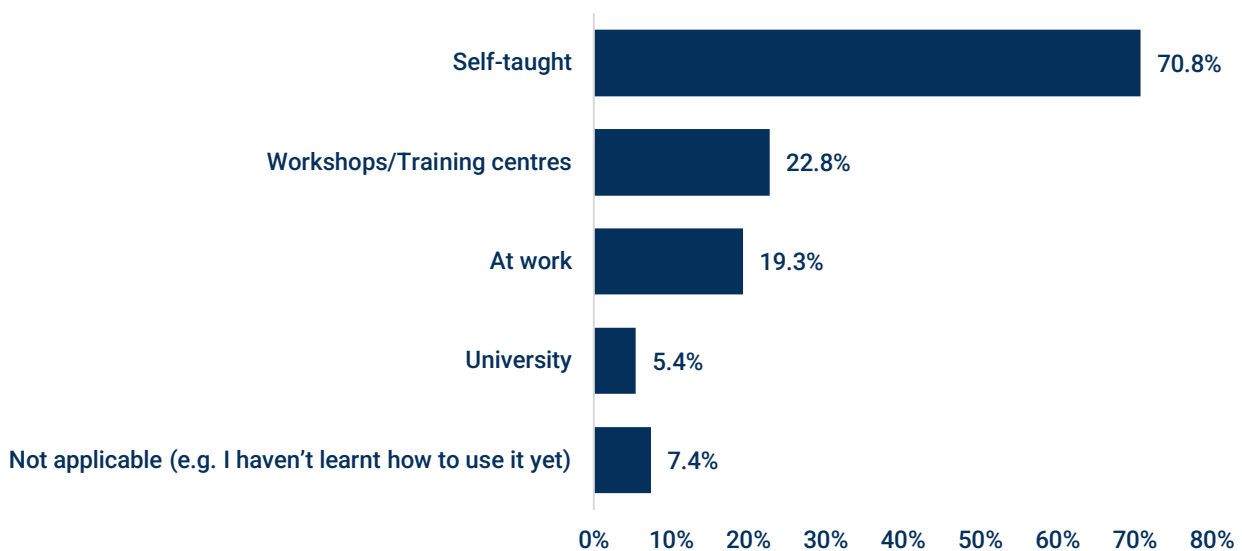


Figure 16. How or where did you learn to use AI tools for your journalistic work?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=202



When asked how or where they learnt to use AI tools specifically for journalism, **the vast majority (70.8%) stated they were self-taught**, with 22.8% stating they learnt through *workshops* or training centres and 19.3% within their company. Only 5.4% said it was at university, which may be due to the fact that most respondents attended university before the more frequent use of AI.

These results – particularly the tendency for learning to take place independently – point, on the one hand, once again to the need journalists feel to familiarise themselves with these kinds of techniques, and, on the other, to **an apparent lack of structured courses and teaching and training initiatives in the field of AI in Portugal.**

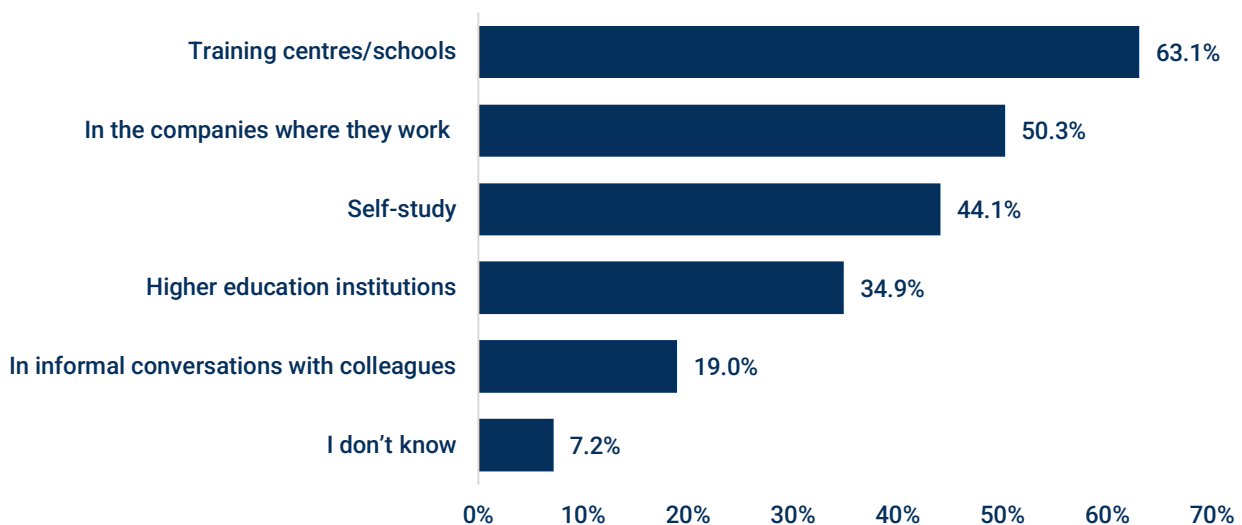


Figure 17. Where do you think journalists can most effectively acquire AI skills?

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n=195 (multiple responses)



Following on from the previous question, respondents were asked where they believe journalists can most effectively acquire AI-related skills; almost two-thirds replied that it is at training centres or schools, half said at the companies where they work, and 44.1% said through self-study. Furthermore, 34.9% believe it is through higher education institutions and 19% through informal conversations with colleagues – a possibility that in some ways overlaps with self-learning, insofar as neither is institutionalised.

It is worth noting that, although the previous figure identified self-study as the most common way of acquiring AI skills, **fewer respondents consider self-study to be an effective way of acquiring this type of skill**, opting instead for educational or training institutions, **particularly training centres, which may offer short courses**.

Thus, there appears to be **a perception among journalists that institutionalised training and education are the most effective**, although there is significant scope for acquiring skills through self-taught or more informal methods.

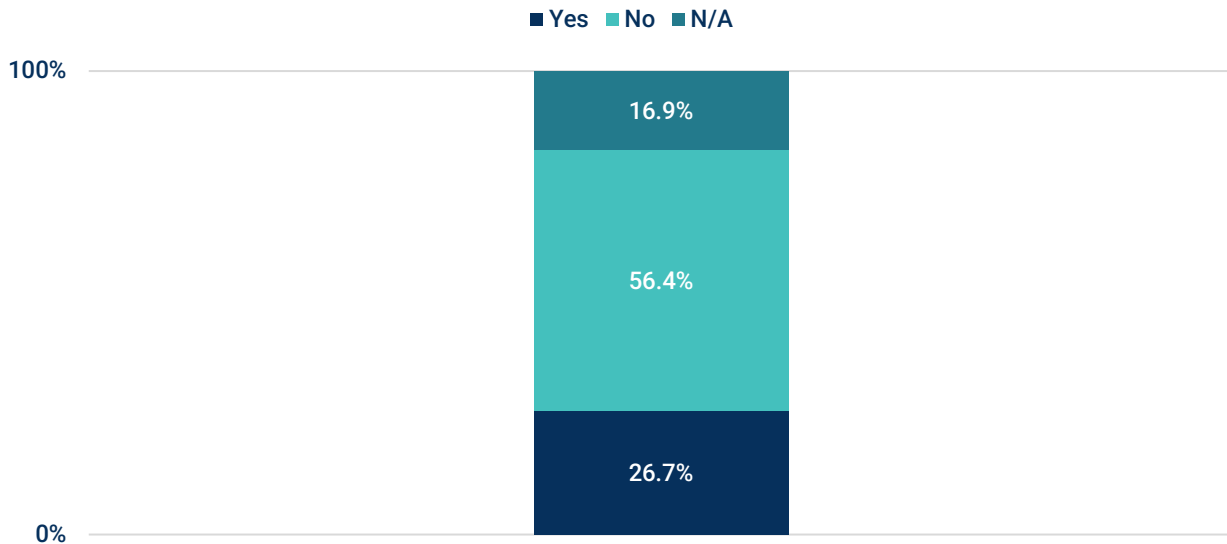


Figure 18. Does your company or newsroom offer training on AI?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=195

When asked whether the media company or newsroom where they work offers any kind of training on AI, more than half of journalists (56.4%) replied no, with 26.7% saying yes. Even though the number of affirmative responses is lower – in line with the previous figure and an apparent lack of structured training initiatives in this area – there still appears to be some concern amongst companies regarding AI, whether in terms of acquiring skills or in other areas, such as the impact this technology may have on the industry and on journalistic work.

On the other hand, it is also worth noting that a considerable number of journalists state they do not know (or do not wish to answer), which may point to a lack of awareness of any such initiatives within the company. If this is the case, it may be important for companies to understand how they can better communicate any such initiatives to their own journalists.

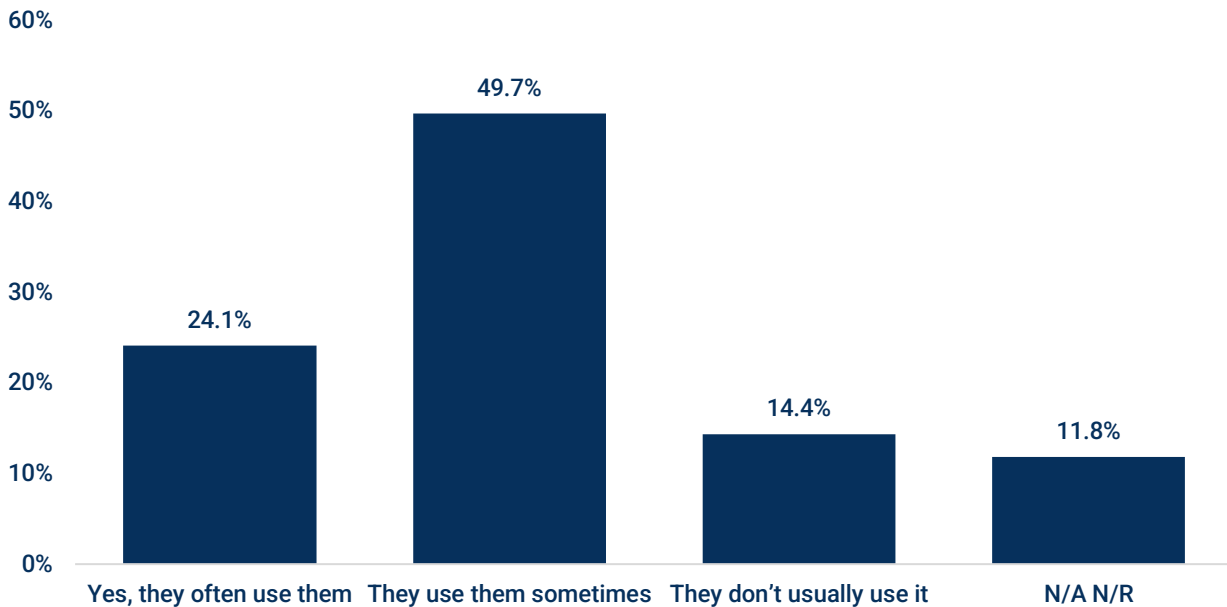


Figure 19. Do you consider that your colleagues in the newsroom or workplace use AI tools for journalistic work?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=195

When asked about their colleagues' habits in the workplace, almost half of respondents say that their colleagues use AI tools for journalistic work occasionally, and around a quarter say they use them frequently. These figures – in contrast to just 14.4% who say their colleagues do not use such tools – indicate **the current trend towards wider adoption and use of AI in journalistic work by the majority of professionals.**



The following figure shows the journalists – 28 respondents in total – who replied that their colleagues do not usually use AI tools in their journalistic work, having been asked the reason or reasons why they do not.



Figure 20. Motives why your colleagues in the newsroom or workplace do not use AI tools for journalistic work

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=28 (of those who replied that colleagues do not usually use AI tools in their work – multiple responses)

As can be seen, 13 responses indicate that the reason is because these professionals are against using these tools in their work, 12 state that they have little or no skills to use them, and 11 consider that these colleagues do not find them useful for their work. Fewer responses mention a lack of resources (5 responses) as well as a lack of time to learn how to use the tools (3 responses).



These considerations point to several hypotheses, starting with the opposition of some professionals to AI in journalism, possibly due to perceptions that the tools make work too easy, or even regarding the ethical impact this technology may have – aspects, it should be noted, that will be explored in this report. Meanwhile, the fact that some journalists do not consider these tools useful for their work raises questions about the actual effectiveness of such tools, depending on how they are used.

3. Practices and use of AI in journalism

In the next set of questions, journalists were asked to describe their day-to-day journalistic practices in greater detail, particularly with regard to the use of AI – whether in terms of frequency or the type of tools they frequently use.

The first question, however, focuses on the evolution of technology in general and the impact that journalists say they have or have not felt in the context of their work. The fact that, as we saw in Figure 2 regarding the age groups of the respondents, the majority are aged 35 or over allows, in general, for a comparison between the use of technology today and 10 years ago.

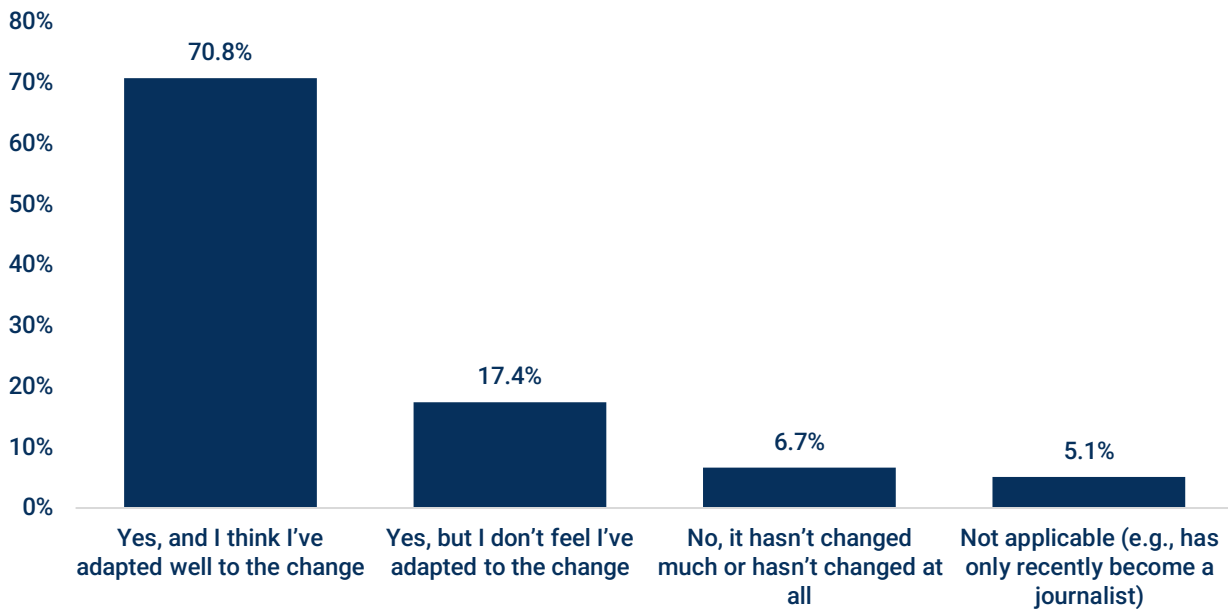


Figure 21. Do you feel that, over the last 10 years, the evolution of technology and publishing media has changed the way you practise journalism?

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n=195

As shown in the figure, the vast majority (almost 90%) consider that, over the last 10 years, the evolution of technology and publishing media has changed the way they practise journalism. Furthermore, around 7 in 10 journalists say they feel adapted to the evolution of technology and publishing media over the last 10 years, with 17.4% stating they do not feel adapted.

Compared to the 2019 survey, in which the same question was asked, the figures remain virtually unchanged – thus pointing to a consistent majority who say they have adapted. However, there is a significant minority (around two in ten journalists) who do not consider themselves adapted to the change, which may have significant implications for the way they practise journalism.



As shown in the following figure, respondents were asked whether they had used Generative AI tools in their work as journalists over the past six months. Generative AI is a subfield of AI focused on creating new original content such as text, images, videos or audio, with systems such as ChatGPT or Gemini serving as examples.

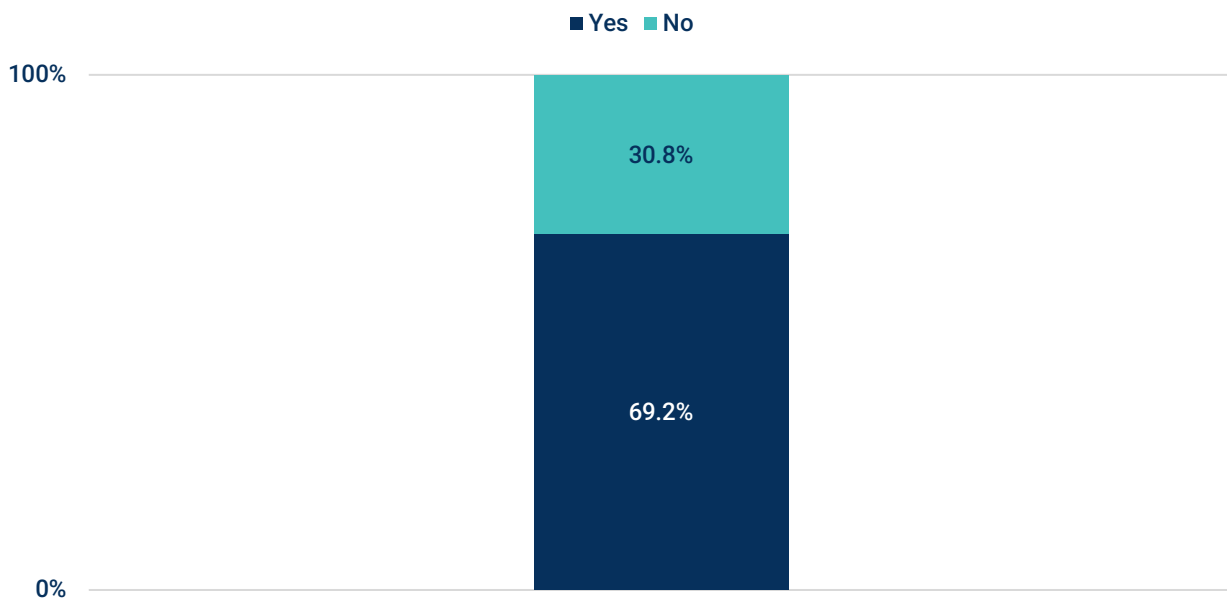


Figure 22. Have you used Generative AI tools in your work as a journalist in the last six months?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=195

As we can see, around 7 in 10 journalists have used Generative AI tools (e.g., ChatGPT) in the last six months, a figure that can be linked to the previous figure, in which a similar percentage of respondents said they were well-adapted to technological developments in journalism. This **points to a strong uptake of this type of technology by journalists and newsrooms** in Portugal and, consequently, to practical adaptation.



It is not, however, certain that such adoption necessarily translates into effective functional AI literacy (i.e., regarding the efficient use of the tools) in the workplace – an aspect that will be mentioned again throughout this report.

On the other hand, it is worth noting once again that a significant minority say they are not very well adapted (Figure 21) and, in this case, reveal that they have not used this type of tool – which also points to the need to look at these professionals and understand the reasons for their lack of adaptation and non-use of this technology.

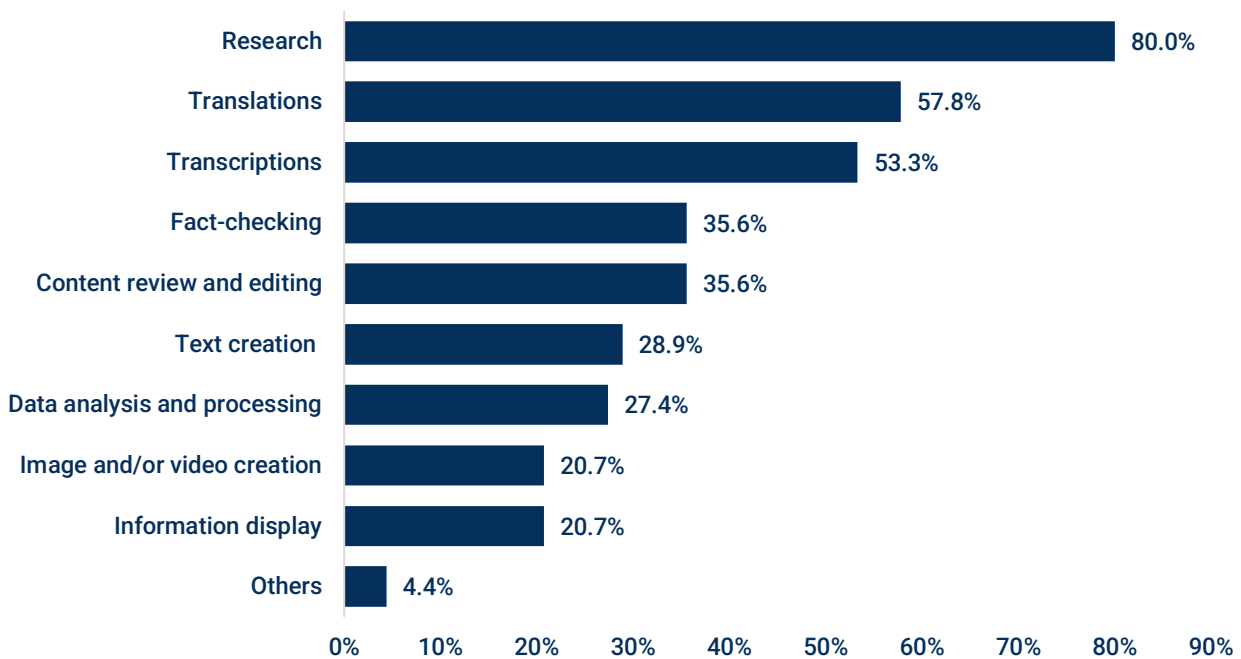


Figure 23. Having responded that you have used Generative AI in the last 6 months, for what purposes did you do so?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=135 (of those who answered affirmatively to having used Generative AI in the last 6 months – multiple responses).



Of those respondents who answered 'yes' to the previous question, they were asked for what purposes they used Generative AI in the context of journalistic work. As can be seen from the figure, 8 out of 10 journalists reported using it for research, and more than half said they used it for translations (57.8%) and transcriptions, particularly of interviews (53.3%).

The use of this type of technology for fact-checking and content review and editing (both 35.6%) is also significant, as is text generation (28.9%), data analysis and processing (27.4%) and the creation of images and/or video (20.7%).

What these figures demonstrate is **a trend towards this technology being used to complement the journalist's work**, with tasks such as translations and interview transcriptions standing out; these can be seen **as functions that allow the journalist to 'save time'** and enable them, for example, to focus more on interpreting and writing journalistic content. The emphasis on research, meanwhile, appears to be in line with the general use of this type of AI, with even a feature such as Google's *AI Overview* already integrated into its search engine.

It is also interesting to note that over a third of respondents use the technology for fact-checking, which may partly relate to the research category. It is thus evident that **Generative AI is viewed by a significant proportion of journalists as something applicable to the validation and accuracy of information.**

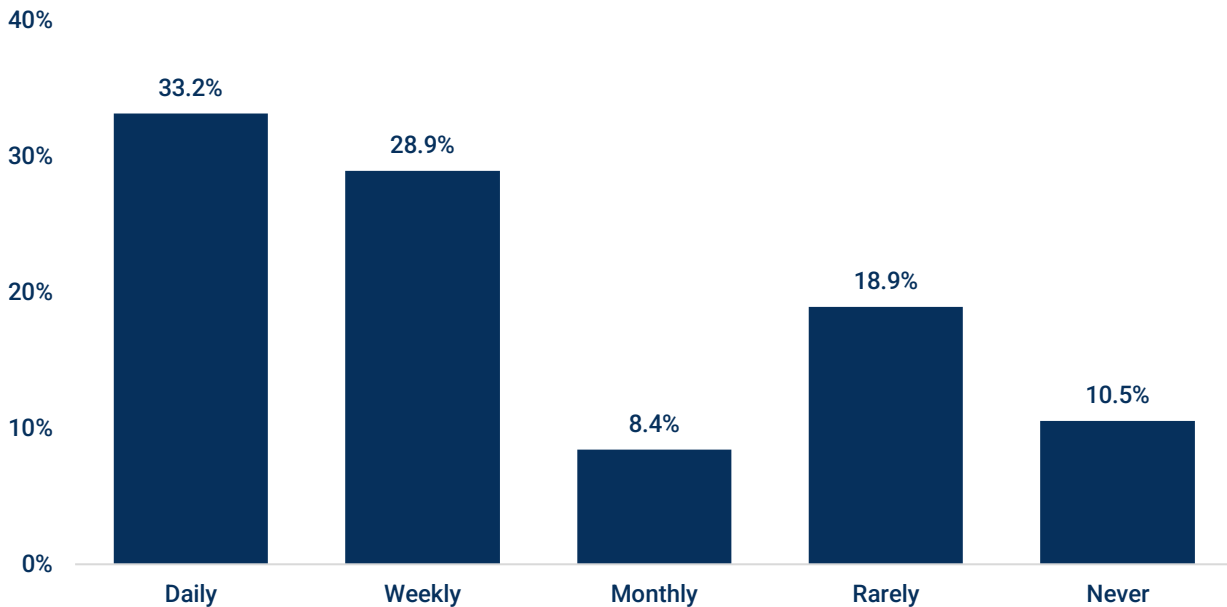


Figure 24. How often do you use AI tools in your work?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=190

As for the frequency of use of AI tools in their work, around a third of respondents state that they use them daily, and 28.9% on a weekly basis; these figures point to a notable frequency in the use of this technology and, once again, to newsrooms' adoption of this type of technology in the workplace.

On the other hand, it is worth noting that almost 30% report using them rarely or never, which again ties in with the data in Figure 22 – thus drawing attention to a **significant minority of professionals who, to some extent, rarely or never use these tools** for journalistic purposes.



Furthermore, these are *chatbot* platforms and, as such, **more interactive, allowing for dialogue and a sequential exchange of ideas and information**. Thus, the multiplicity of functions and the text-based interaction that these platforms, such as ChatGPT, enable appear to be highly valued.

Returning to the word cloud analysis, alongside AI Overview (integrated into the Google search engine), which accounted for 13.2% of responses, Turboscribe (15.3%) stands out – an AI tool specialising in transcription. This aligns with the data in Figure 23, which highlighted the value of this type of technology in relation to the transcription of interviews. This tool – which, in its free version, allows up to three transcriptions per day – thus enables journalists to reduce manual work, relating to the aforementioned issue of ‘saving time’.

Also worth noting are Grammarly (7.4% of responses), which assists with text and grammar checking, and Plain X (4.2%), which offers transcription or translation services – **more specialised tools that, together with Turboscribe, facilitate the development or smooth running of journalism-related tasks** (e.g., transcription, writing).

Finally, it is important to note that 12.1% of respondents said they do not use any AI tools, a figure that is to some extent echoed in the following figure, which, following on from the word cloud in Figure 25, specifically addresses the question of which is the main AI tool that journalists use for their work.

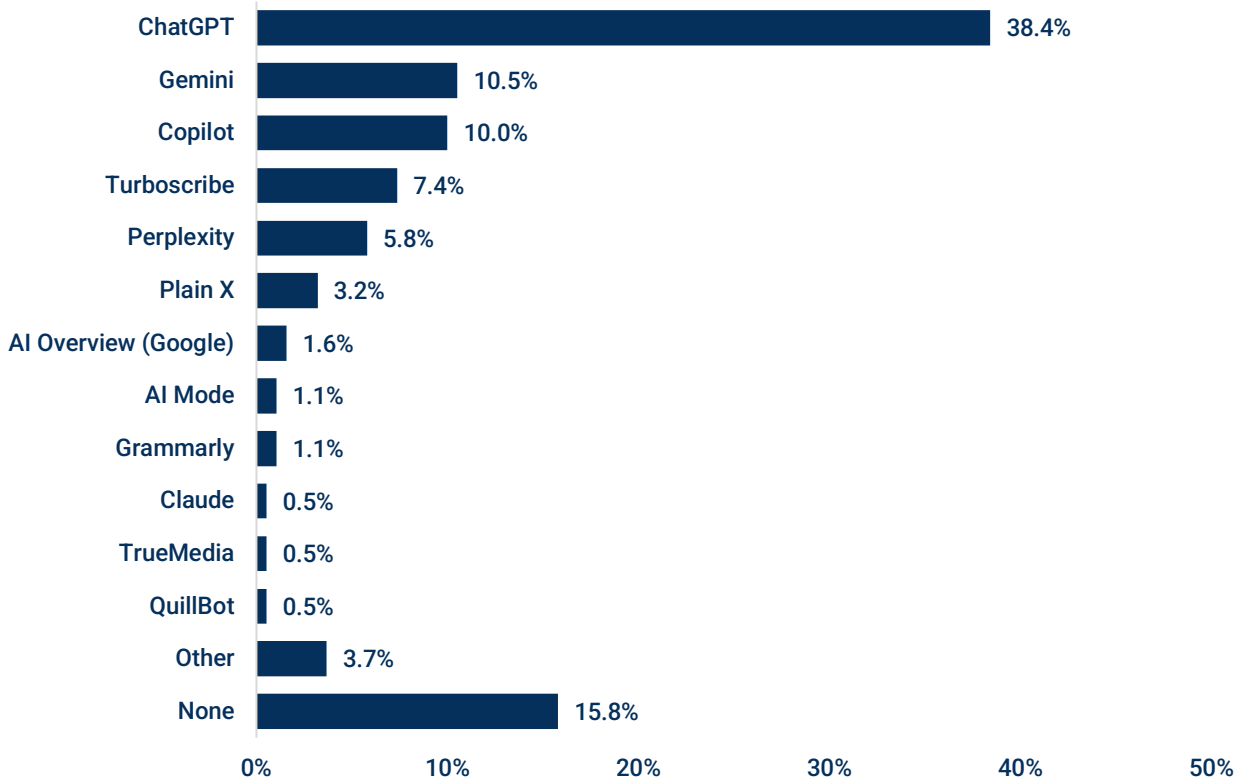


Figure 26. What is the main AI tool you use in your work?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=190

Following on from the previous figure, the most widely used AI tool and platform remains ChatGPT (38.4%), followed by Gemini and Copilot (both used by around 1 in 10 journalists).

What the data from these last two figures highlight is, in addition to the aforementioned preference for broader and more interactive Generative AI platforms such as ChatGPT, the trend towards using more than just one AI tool – that is, a platform like ChatGPT and a tool like Turboscribe will tend to coexist within the context of journalistic work.



As such – and without forgetting the 15.8% of respondents who do not report using any such tool – **these figures point both to the integration or adoption of this technology in journalists’ work and to diversity in the types of tasks and platforms.**

On the subject of diversity, it is also worth noting that in the “Other” category – selected by 3.7% of respondents – tools such as DeepL (for translation); ElevenLabs (for audio conversations); Notta.ai (for organising schedules); and NotebookLM (which facilitates interactions based on notes or annotations) are mentioned.

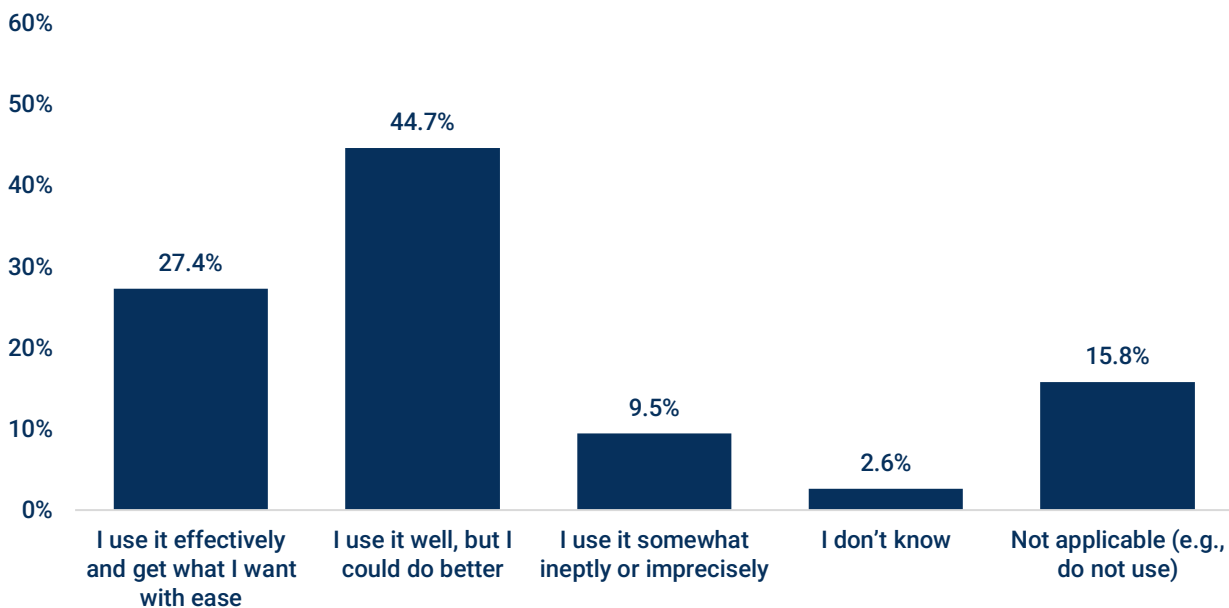


Figure 27. When using *chatbot* platforms such as ChatGPT, how do you consider you use *prompts*?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=190



The figure on the previous page focuses on the issue of *prompts*, which, in the context of Generative AI, refers to the instructions given to *the chatbot*, the quality of which (e.g., accuracy, brevity) significantly influences the results obtained in the responses and content produced by platforms such as ChatGPT or Copilot.

In this regard, respondents were asked what level of effectiveness they consider themselves to have in the context of their work as journalists – for example, in research or fact-checking. As can be seen from the figure, 27.4% state that they use *prompts* effectively, feeling they obtain what they want with ease; 44.7% state that they use them well, but could do better; and 9.5% openly state that they use them in a somewhat incompetent or imprecise manner.

It is thus evident that, as far as the effective use of *prompts* is concerned, journalists themselves **acknowledge a lack of precision or, at the very least, recognise that they could use them more effectively**. In this regard, **training and education in this area** – where the use of prompts is structured according to the journalist's objective – **may be a specific factor to consider when discussing how to improve journalists' capabilities in the context of using AI tools**.

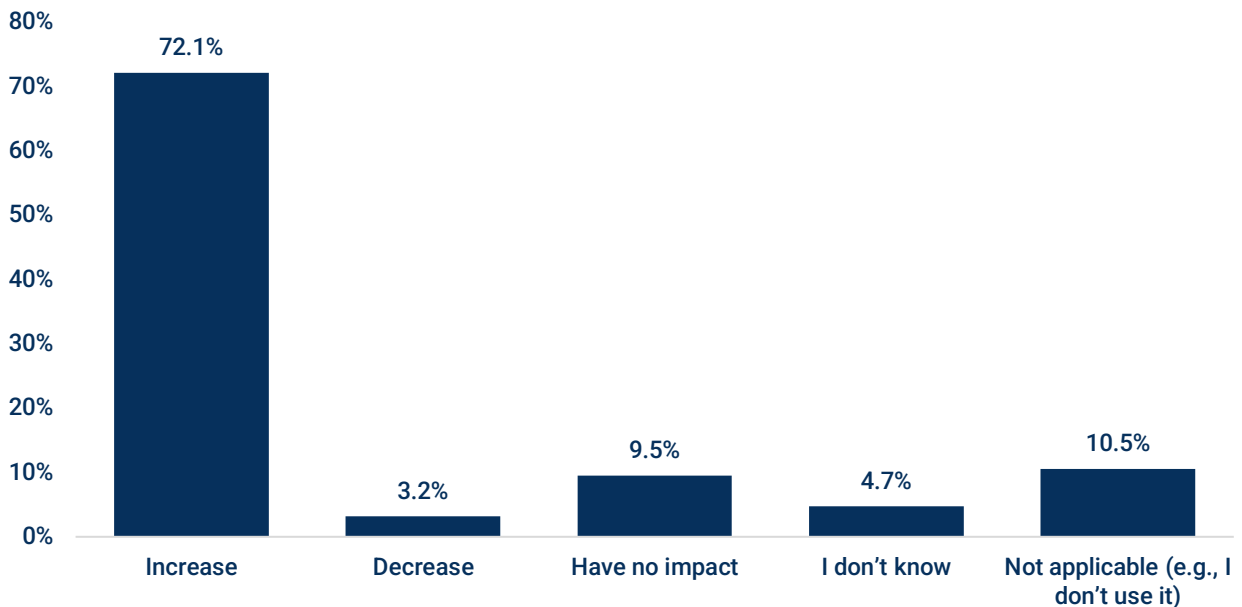


Figure 28. Do AI tools increase or decrease your productivity as a journalist?

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n=190

When asked whether AI tools increase or decrease their productivity as journalists, more than 7 in 10 journalists state that they increase it, with only 3.2% stating that they decrease it.

This therefore points to a **positive perception of the impact this type of technology may have on the day-to-day work of professionals**, justifying and legitimising its aforementioned adoption in Portuguese newsrooms.

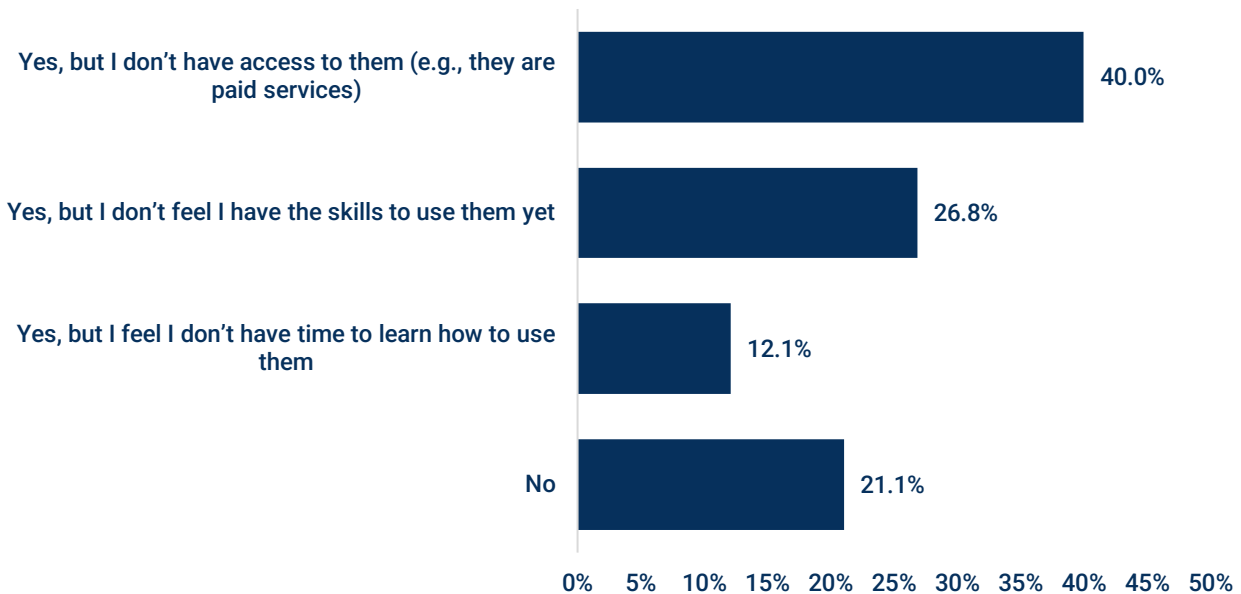


Figure 29. Are there any AI tools you would like to use but do not currently use?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=190

With regard to the question of whether there are AI tools that respondents would like to use but do not, the aim was to understand the reasons why journalists would not use certain tools that could assist them in their work. As can be seen, 21.1% answered in the negative; whilst this suggests that some are satisfied with the tools they use, it may also include respondents who do not use AI tools at all.

Thus, the number of journalists who answered in the affirmative (8 out of 10) is very significant, immediately pointing to the perception that they could be using more AI tools than those they currently use; in other words, they consider in some way **that their work could benefit from more technological support of this kind.**



Furthermore, it also points to journalists' apparent awareness of this type of tool, including those they do not use – that is, it reveals a **certain level of literacy regarding the applicability of such tools** to their work.

When considering the reasons for this non-use of tools they could utilise, it is found that 40% of respondents say it is due to a lack of access (usually associated with paid services), an aspect that may be linked to **media companies providing fewer resources to their staff**. Meanwhile, 26.8% state that it is because they do not yet feel they have the skills to use them, which may be linked to the issue of a lack of specific training in this area, and 12.1% state that it is due to a lack of time to learn how to use them.

In particular, **this issue of the perceived lack of time among journalists – combined with the perception of a lack of skills to use them – may make it relevant to organise shorter courses or workshops with more flexible timetables**, which, in this case, could help professionals achieve greater functional literacy in the use of specific tools.

In short, the non-use of tools that journalists believe would benefit them seems to be linked, on the one hand, **to the limited availability of resources** for professionals, and on the other to **an apparent training gap**, where the aforementioned 'lack of time' could lead to the creation of shorter courses or *workshops*.

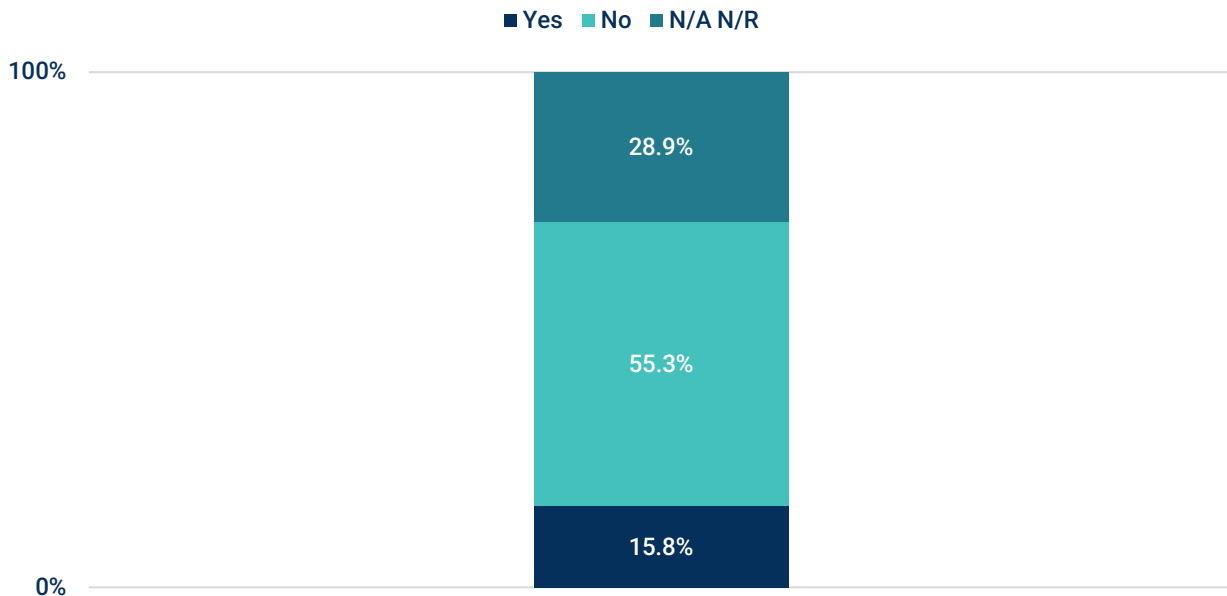


Figure 30. Do you consider that your company gives you access to all the AI tools you need, including paid services?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=190

Following on from the previous figure, which raised the hypothesis that media companies do not make many tools available to their staff, this figure reinforces it, as 55.3% of journalists state that their company does not give them access to tools, including paid services, compared with 15.8% who state that they are provided with such resources.

These figures thus highlight that **it may be relevant for each media company to identify the needs of its journalists**, understanding to what extent it can make more resources available, particularly AI.



It is also worth noting the significant proportion of respondents who do not know or did not answer (28.9%), which may suggest two possible, potentially interlinked interpretations: first, that journalists are unaware of the resources made available by their company; second, that the company may not be effectively communicating the resources it provides to its staff.

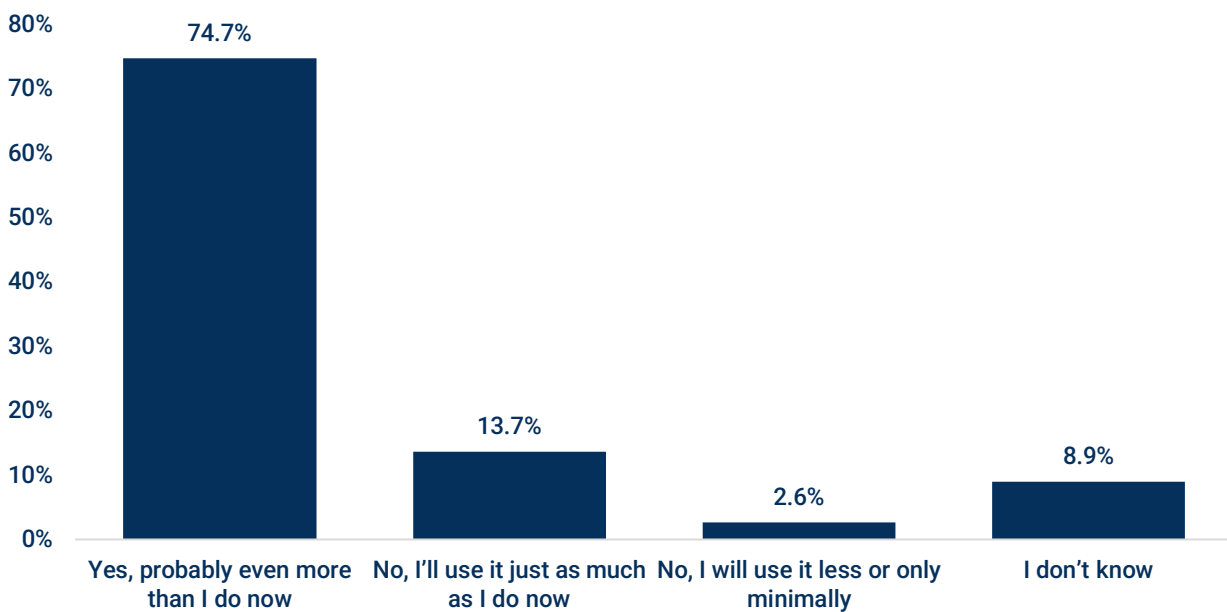


Figure 31. Do you think you will use more AI tools in your work as a journalist in the future?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=190

As for the question of whether they believe they will use more AI tools in their work in the future, around three-quarters of journalists say they are likely to do so, with only 2.6% stating they will use them less.

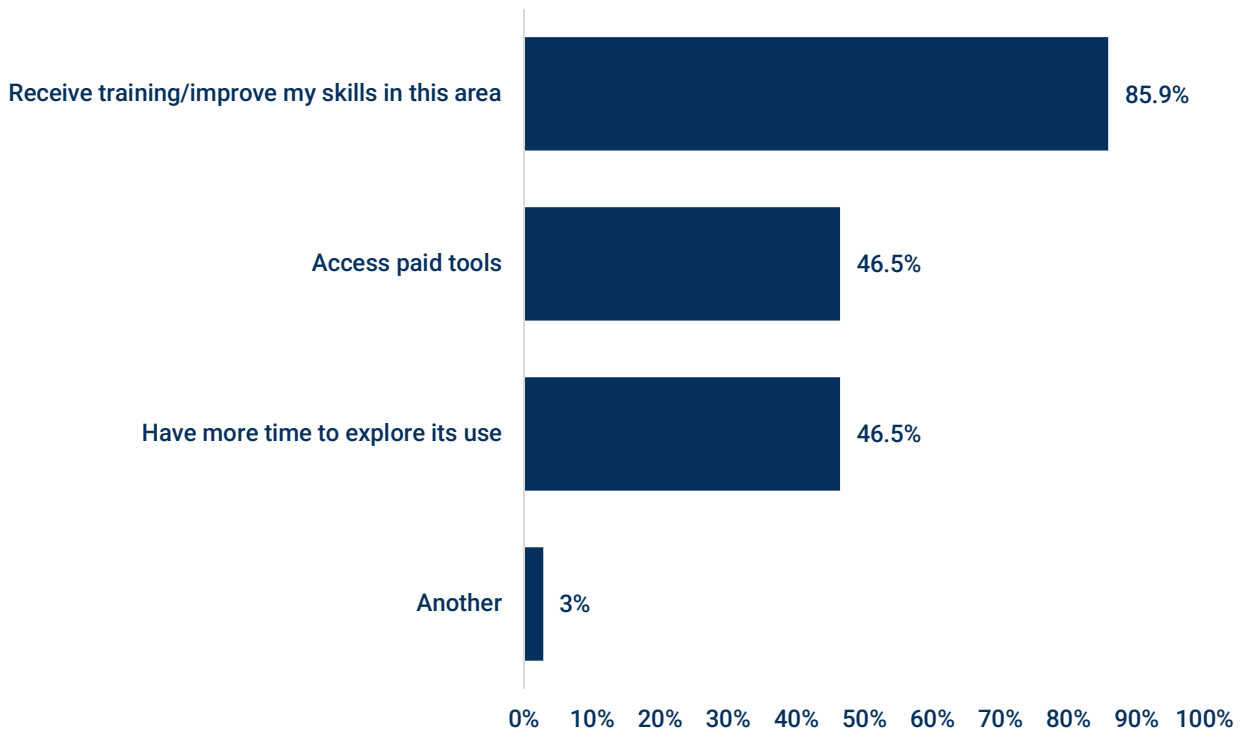


Figure 32. Having answered 'yes', what would lead you to use AI tools more?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n=145 (of those who answered 'yes' to the previous question – multiple answers allowed)

The figure above complements this data, as respondents who answered in the affirmative were asked what would encourage them to use more AI tools. 85.9% of these respondents revealed that **having more training or improving their skills in this area would lead them to use more tools** – which highlights the importance of providing more training in this field, particularly when combined with the data from the previous figure and the perception that the use of such tools will continue and even increase in the long term.

Furthermore, 46.5% of these journalists' responses indicated that both access to paid tools and having more time to explore them are other reasons for using these tools more.



This makes it all the more urgent for media companies to focus on the AI resources they can make available to professionals, particularly paid services, as well as once again highlighting the need for a different structure for courses and *workshops* which, due to a general perception of a lack of time, could benefit from being shorter and more intensive, or even focused on a specific topic (e.g., the specific use of an AI tool, or how best to use *prompts*).



Figure 33. For what purposes would you like to receive training on AI?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 145



Respondents were then asked for what purposes they would like to receive further training, data which complements that in the previous figure. As can be seen, 67.4% of respondents stated that **they would like to receive training to gain more knowledge on the use of specific tools** for journalistic practice. Meanwhile, 59.5% stated that they would like training to help them be more effective in factchecking and detecting fake news within the context of AI, which ties in with the aforementioned perception among journalists of **using this technology for verifying information** (see Figure 23).

Next, 55.8% would like to gain more skills in using transcription tools through training, which once again highlights the usefulness of this type of specialised resource for these tasks; and 54.2% state that they would like to improve their *prompts* for *chatbots* such as ChatGPT or Gemini, which ties in with the data in Figure 27 and the perception among the majority of journalists that they could, at the very least, improve their use of *prompts* and make the results obtained from them more effective.

Still with very significant figures, 42.1% of respondents say they want to improve their data analysis and processing skills through training, followed by aspects related to content (35.8%).

More abstract or theoretical issues, linked to the impact and achievements of AI in journalism or to ethical and deontological challenges, are comparatively given less consideration, although around 3 in 10 journalists still believe they could gain more knowledge about them through training courses.

This figure thus points to a general desire among journalists to **improve practical skills related to their functional literacy**, that is, to gain more skills in the technical and specific use of various tools and platforms in order to utilise them for their work at various levels, whether for tasks such as transcribing interviews or reviewing content, obtaining more effective results and information (through more precise *prompts*), or even using them to assist with extensive databases.



What is also evident from these data is, once again, the very diversity of the types of AI tools used (ranging from more specialised ones to *chatbots*, such as ChatGPT), and the desire to improve skills in both through training. **Ethical and deontological issues should not be overlooked either**, particularly when – as we shall see in the final chapter of this report, concerning the open-ended question posed to respondents – this appears to be a particularly pressing concern for journalists regarding training (or, in this case, the lack thereof) in Portugal. However, **practical aspects and functional literacy seem, in the case of training, to be regarded as more pressing** by journalists.

To conclude this chapter, it is evident that, with regard to the practices and use of AI tools in the context of journalistic work, there appears to be **a growing adoption of this type of technology in Portuguese newsrooms**. On the other hand, it is also worth noting a certain resistance on the part of a significant minority, which may be explained by some uncertainty regarding the impacts of AI (particularly in the long term) on the profession – aspects explored in the next chapter. There is thus, to some extent, a tension between the already effective and diverse integration of AI in newsrooms (even in terms of the type of tools used, whether more specialised or more general) and uncertainty about its impact on the industry.

At the same time, with regard to training, there is also a clear desire among journalists to acquire further skills, particularly at a practical level and in the use of tools. In particular, media companies could play a significant role in this regard, whether by promoting shorter, more focused and intensive courses or *workshops* – which would help journalists who tend to feel short of time – or by making AI resources more widely available (and publicised) in newsrooms, particularly paid services.



4. Perceptions of AI in the Context of Journalism

Whilst the previous chapter primarily explored journalists' uses of AI and its tools, this chapter addresses their perceptions of the technology and the impact they believe it has and may have on journalism.

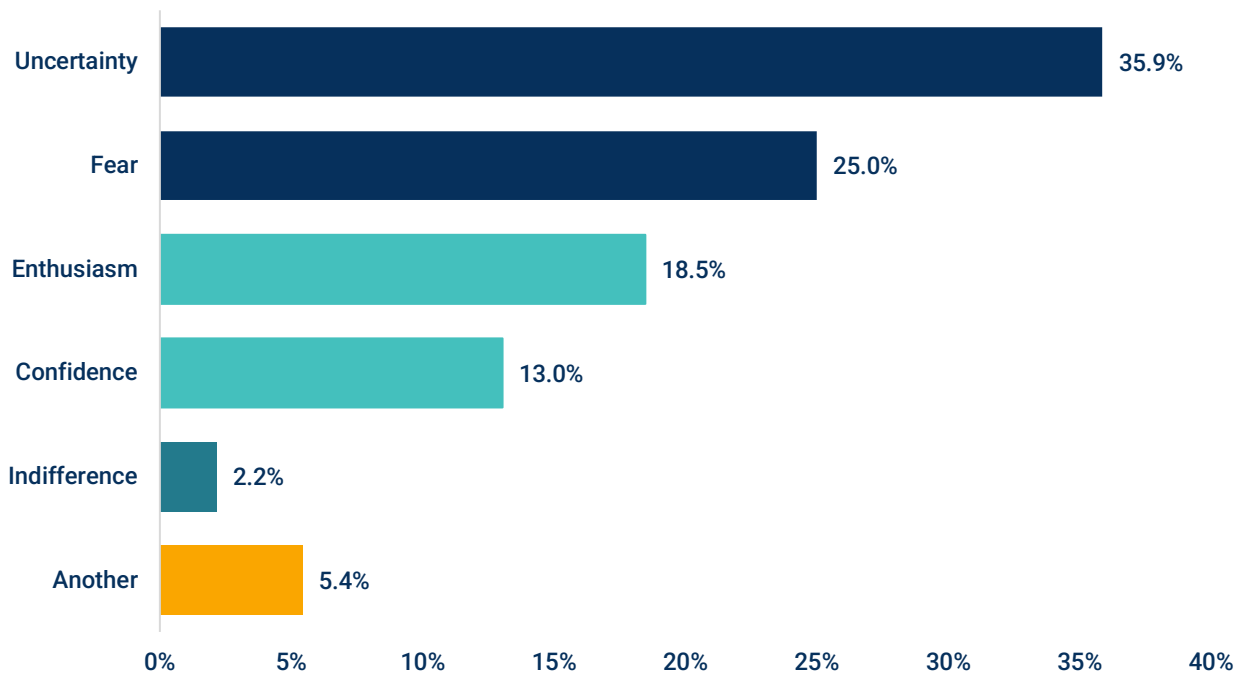


Figure 34. What is the sentiment regarding the growing integration of AI in journalism?

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 184

When asked about their strongest sentiment regarding the growing integration of AI in journalism, the data points to a **higher incidence of negative sentiments (highlighted in dark blue), with over a third expressing uncertainty and 25% stating they feel apprehensive.**



Although fewer in number, almost a third of journalists report having more positive feelings (light blue), both of confidence (13%) and, in particular, of enthusiasm (18.5%). It should be noted that, within the “Other” category, journalists were able to respond by essentially describing negative feelings such as mistrust, concern or a mixture (enthusiasm and fear simultaneously).

Thus, the trend is for journalists **to feel uncertain about the integration of AI into newsrooms in Portugal**. The next figure seeks to explore this aspect, particularly in light of the potential influence it may have on public trust in journalism.

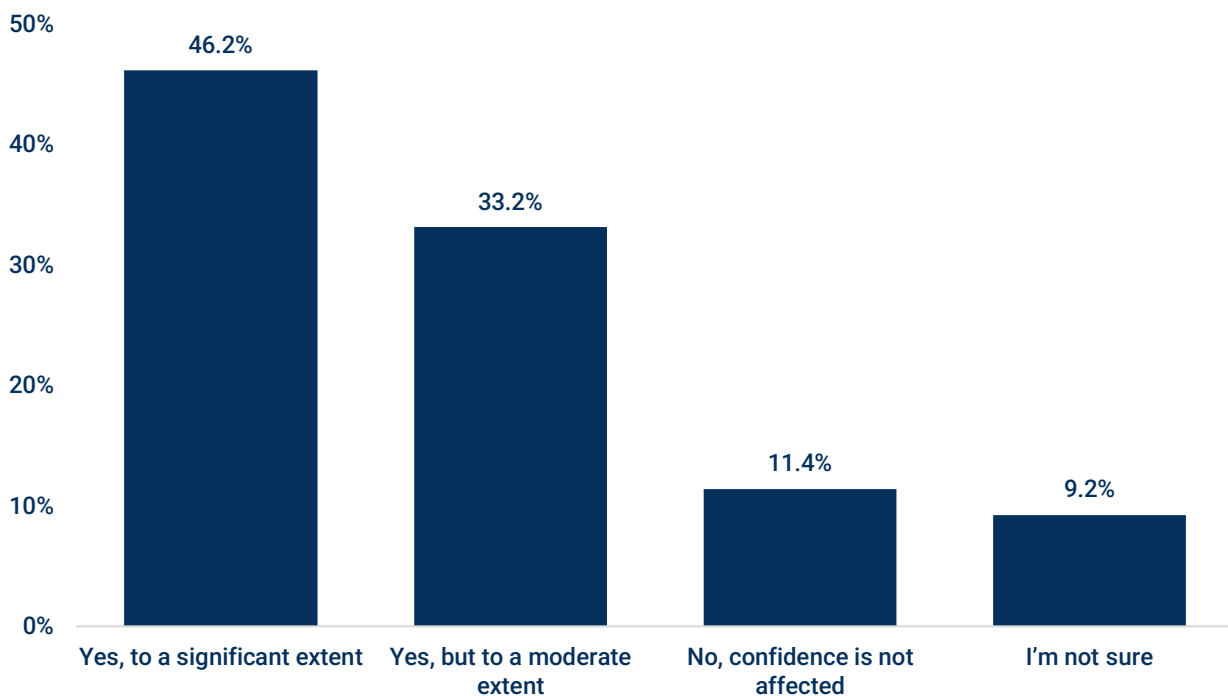


Figure 35. Do you believe that the use of AI could affect public trust in journalism?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 184



Here, as can be seen, **the perception is that public trust is greatly affected**: 46.2% say significantly so and around a third say moderately so – figures that may spark a wider discussion on the uses of the technology itself and possible ways to limit its drawbacks, but also on communication with the general public, in order to mitigate the apparent mistrust. On the other hand, only 11.4% of respondents say that trust is not affected at all.

On the part of journalists, it is interesting to note that practices linked to AI – which, as we have seen, are generally being adopted by newsrooms – may also prove to be a potential source of mistrust on the part of the public. Once again, there appears to be a tension between (i) the effective adoption of the technology and (ii) a degree of uncertainty, whether in the journalists' own perceptions (Figure 34) or in their perceptions of the public's trust in or distrust of their profession.

The next figure focuses on the work of journalists and, taking the long term into account, seeks to understand their views regarding the potential (complete) replacement of journalistic tasks by AI.

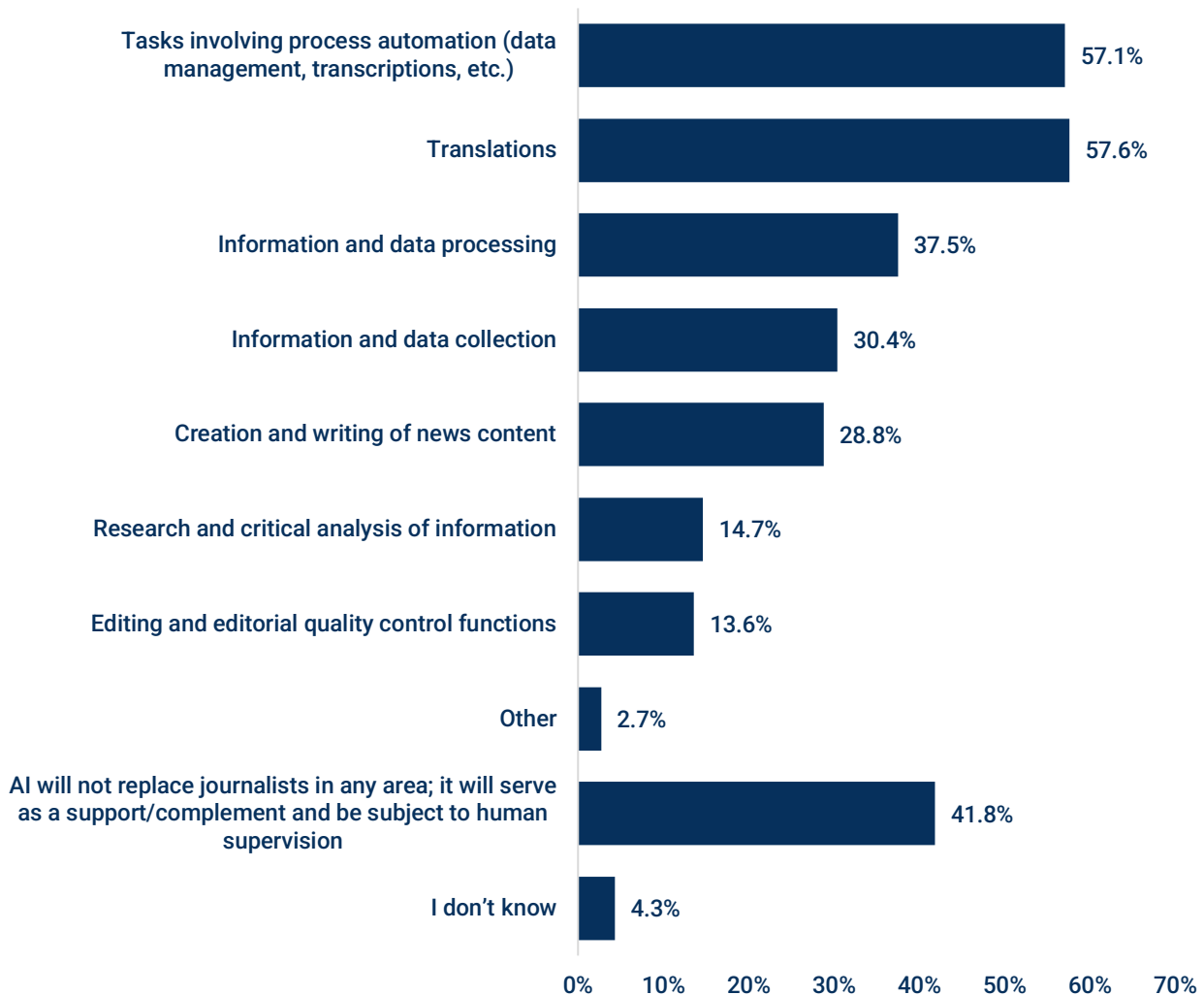


Figure 36. In which specific tasks do you consider that AI could completely REPLACE the work of journalists in the medium and long term?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 184

Overall, the figure shows that journalists are divided into two broad camps – the first, comprising the majority, who argue that AI will, to some extent, completely replace journalists in certain tasks, particularly those of a more technical nature, such as those involving the automation of processes like transcriptions (57.1%) and translations (57.6%).



It is also particularly interesting that 28.8% of respondents state that AI will create news content entirely, although fewer attribute to it the ability to critically analyse information (14.7%) or even to perform editorial and quality control functions (13.6%) – suggesting that **the majority believe that any replacement, should it occur, will take place more at a technical level, rather than an interpretative or critical one**. The second group consists of respondents who believe the technology will be complementary, with human supervision (41.8%). In other words, a complete replacement is not perceived here, but rather **a supportive relationship in which humans retain control over management** in all tasks.

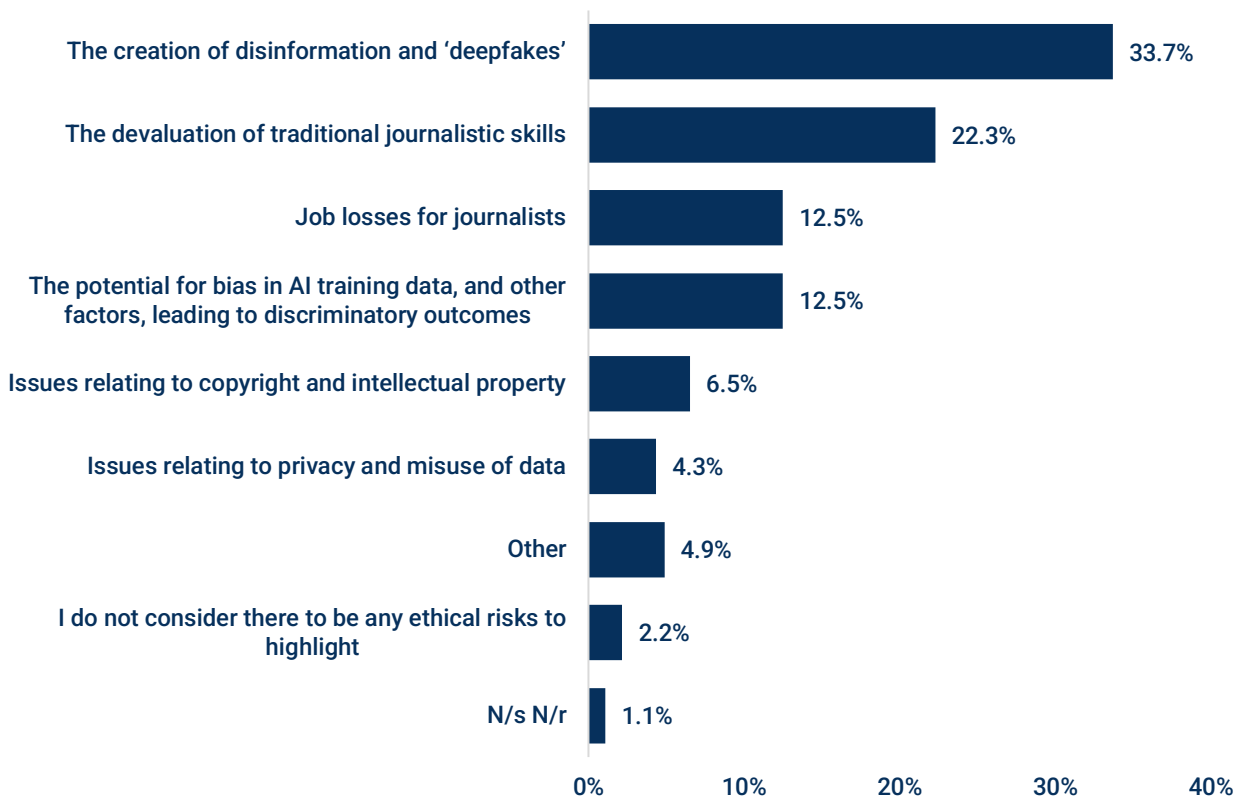


Figure 37. What is the main ethical risk associated with the use of AI in journalism?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 184



When asked about the greatest ethical risk associated with the use of AI in journalism – which may also help to better understand the public’s perception of mistrust towards journalism, as shown in Figure 35 – around a third cited **the creation of disinformation and, in particular, so-called deepfakes**, which are realistic digital forgeries capable of convincingly imitating a person’s voice or appearance.

This category can thus be linked to the aforementioned perception of journalists by their audience, as the possibility of false information passing for authentic with relative ease can blur the line between false and true information, thereby negatively impacting the general public’s perception and undermining the legitimacy of journalism.

Meanwhile, 22.3% of respondents argue that the greatest ethical risk is **the devaluation of traditional journalistic skills**, which can also be linked to the issue of uncertainty (see Figure 34) regarding technology. In this case, the changes brought about by AI – including the conveniences and advantages in day-to-day work – may also present challenges regarding the acquisition and development of other types of journalistic skills considered fundamental. This aspect is therefore of interest – particularly when linked to perceptions of AI’s impact on the profession – and it may be worthwhile to continue exploring it in future studies.

Meanwhile, 12.5% of respondents indicate that the greatest danger is **job loss for journalists**, a concern shared more broadly by society and other sectors, where at least partial replacement of the workforce by this type of technology is anticipated. The same number of respondents state that the greatest danger is bias in AI data, which can lead to discrimination – that is, it refers to a certain lack of control over information that may ultimately promote prejudice.



The last two categories relate to the issue of copyright and intellectual property (6.5%) and others linked to privacy and the misuse of data (4.3%). As can also be seen, **few respondents state that there is no ethical risk whatsoever**, thus pointing, at the very least, to the potential for AI to have harmful effects in some areas related to journalism.

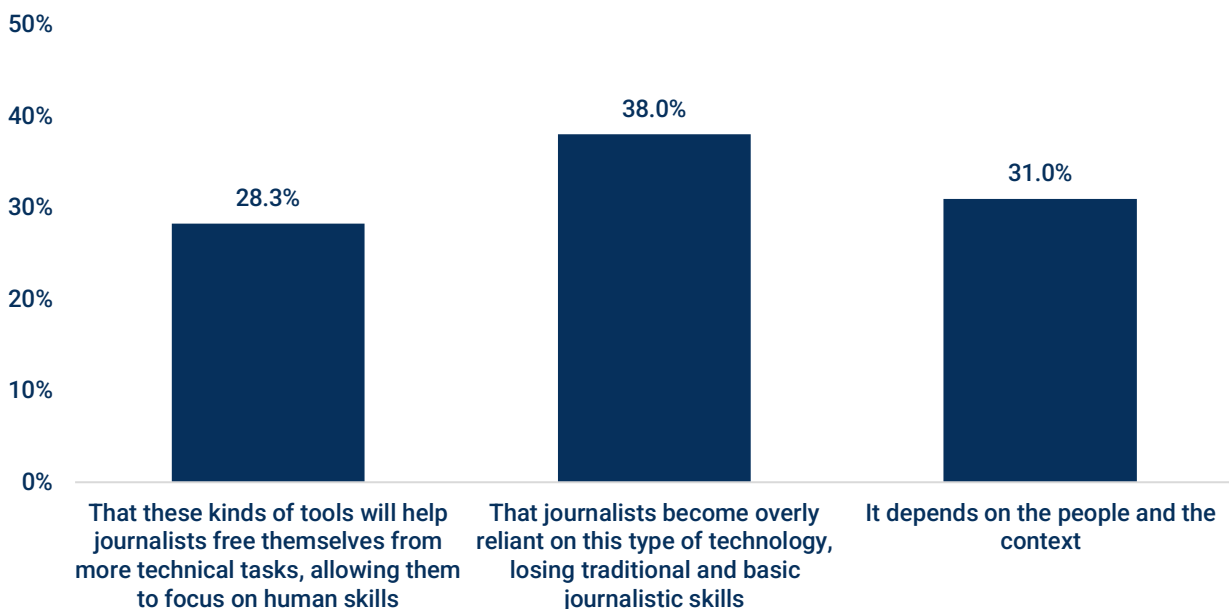


Figure 38. Which scenario do you consider most likely regarding the continued use of AI in journalism?

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 184

Finally, respondents were presented with three scenarios and asked which they considered most likely given the continued use of AI in journalism. As can be seen, 38% of journalists stated that they believe journalists will become overly dependent on AI, losing traditional and basic skills – an aspect linked to the previous figure and a significant fear regarding this future danger.



Meanwhile, 28.3% state that this technology will likely help journalists free themselves from more technical tasks, focusing instead on human skills such as building relationships with sources or improving personal contact (both of these skills were listed in the original questionnaire).

Finally, 31% state that this depends on the individuals and the context, preferring to grant each journalist the ability to balance the relationship between their work and AI; in other words, **this** can be understood as **the responsibility each professional bears in managing that balance**.

Thus, what these data demonstrate is **a tendency towards a certain division of opinion, although there is a greater inclination towards a fear of dependence on this type of technology** – which in turn relates to the sense of uncertainty shown in Figure 34.

5. Levels of agreement: statements on the impact of AI and the future of journalists and journalism in Portugal

This chapter presents journalists' levels of agreement regarding statements on AI in journalism, both in terms of the daily assistance provided by tools (first subchapter) and their practical and ethical impact on the profession (second subchapter). Subsequently, the third subchapter explores issues concerning the future of journalism and the role of its professionals, which, although not directly related to AI, engage with perceptions of changes in journalistic work and the industry, closely linked to the use of new technology and potential changes in media companies and the labour market.



It is important to note that, in the questionnaire, journalists were presented with a 1–7 agreement scale for each statement, ranging from “Strongly disagree” (1) to “Strongly agree” (7)¹. This broader scale allows for the identification of nuances within the disagreement or agreement with a given statement, which proves advantageous in some cases. Thus, although in this chapter the degrees are generally displayed in only three levels (“Disagree”, “Neither agree nor disagree” and “Agree”) – an option chosen to facilitate visual presentation and comparison of results – the nuances in the degrees of disagreement and agreement are nevertheless mentioned and explored whenever deemed relevant.

5.1. Statements on the impact of AI on journalists’ daily work

The following table seeks to illustrate the impact of AI and its tools on journalists’ daily work, particularly with regard to functional and practical aspects, such as transcriptions or content creation.

The first statement, however, is broader, with **around 8 in 10 journalists stating they agree with the idea that AI has on the whole, helped journalists’ work**. It is worth noting that more than half of respondents selected the ‘agree’ option, whilst fewer agreed ‘somewhat’ or ‘strongly’ – which highlights a level of agreement that, despite everything, still seems to harbour some reservations.

¹ The full scale used for each statement was as follows: 1 – Strongly disagree; 2 – Disagree; 3 – Neither agree nor disagree; 4 – Agree; 5 – Strongly agree; 6 – Agree; 7 – Strongly agree.



	Disagree	Neither agree nor disagree	Agree
Overall, AI has helped journalists' work	9.0%	11.8%	79.2%
AI has helped journalists with the transcription of interviews	2.2%	4.5%	93.3%
AI has helped journalists with fact-checking	28.1%	28.7%	43.3
AI has helped journalists with content creation (e.g. text drafts)	29.8%	16.3%	53.9
AI has helped journalists with content editing (e.g. text revisions)	28.1%	18.5%	53.4%
AI has helped journalists with translations	3.4%	7.9%	88.8%
AI has helped journalists with data analysis and processing	11.2%	15.2%	73.6%

Table 1. Statements regarding AI's assistance with daily journalistic tasks

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 178 (Note: Disagree = Strongly disagree / Disagree / Disagree; Agree = Strongly agree / Agree / Agree)

The remaining statements in Table 1 are more specific; regarding the assistance provided by technology in relation to transcriptions, the vast majority (93.3%) agree that it has been helpful, which is consistent with other data highlighting the importance of AI in this specific task (see Figures 23 and 36). The other task where AI most helps journalists is translation (88.8% agree with the statement), followed by assistance with data analysis and processing (73.6%).



Although significant, fewer agree that it has helped with factchecking (43.3%), with almost 3 in 10 journalists disagreeing with the statement – a figure that may point to some mistrust regarding the effectiveness of verifiability and the type of information produced by these tools and platforms.

More than half of journalists agree that AI has helped them both in terms of content creation (such as drafting texts) and content editing, such as proofreading. On the other hand, the level of disagreement (3 in 10 respondents) also raises some doubts regarding these tasks, which are in some way related to creative aspects.

Thus, overall, it can be concluded that **journalists tend to agree more with statements asserting that AI has aided technical tasks**, such as transcription, translation or data analysis, whilst **agreement is less significant regarding assistance with more creative or interpretative matters**, such as factchecking and the creation and editing of content.

5.2. Statements on journalists' relationship with AI and perceptions of its practical impact on the profession

The first table in this subchapter presents statements that reflect journalists' perceptions regarding the relationship between journalists and AI, and the impact of this technology on journalism and the way journalism is practised.



	Disagree	Neither agree nor disagree	Agree
In the context of journalistic work, I believe that AI should be used to complement human work and under human supervision, without taking over from human work	3.9%	17.4%	78.7
Overall, I feel that the use of AI tools makes journalists more 'passive' or more dependent on technology	14.6%	15.7%	69.7
Skills other than those involving AI are still considerably more important than skills relating to the use of AI tools	5.1%	13.5%	80.9%
It is inevitable that, in the short term, AI will become a fundamental and unavoidable part of the work of journalists and newsrooms	9.0%	9.0%	81.5%
The negative aspects that AI has brought regarding disinformation outweigh the benefits it has also brought in combating 'fake news'	20.2%	28.7%	50.6%

Table 2. Perceptions of the impact of AI on the journalism profession and on journalists

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 178 (Note: Disagree = Strongly disagree / Disagree / Disagree; Agree = Strongly agree / Agree / Agree)

The first statement seeks to ascertain whether journalists consider that AI should, rather than merely serving as a replacement, be used in a complementary manner and under close human supervision, with the majority (78.7%) agreeing – of whom 61.2% strongly agree, indicating a consistent level of agreement.



Meanwhile, around 7 in 10 journalists agree to some extent that **the use of AI tools makes them more 'passive' and dependent on technology**, an aspect that again may highlight some of the uncertainty observed in previous data. Next, respondents **consistently agreed that skills other than those involving AI are considerably more important** (with almost 5 in 10 agreeing strongly and completely), drawing attention to skills that predate this technology and which may relate to more interpretative and critical aspects of the work.

On the other hand, the high level of agreement with the statement that, in the short term, AI will become a fundamental and inevitable element in the work of journalists and newsrooms points, once again, to **the strong adoption of this technology in this field** – that is, despite doubts regarding its true impact, particularly in the long term, its deep integration into journalism appears inevitable. This suggests the idea that, rather than viewing AI as the enemy of journalism, it is advisable – even for those who harbor the most uncertainties – **to find the best way to engage with the technology, particularly by maintaining continuous and meaningful human oversight** that does not make the journalist overly dependent.

As for the final statement – that, in the context of combating disinformation, the negative aspects of AI outweigh the positive ones – around half of journalists agree to some extent, which brings **to the fore somewhat negative sentiments in journalists' perceptions** (as also visible in Figure 34). It also draws attention to the issue of misleading information that AI can help to create and disseminate (e.g., *deepfakes*), which, as can be seen in Figure 37, is viewed by journalists as one of the greatest ethical risks to the profession, potentially influencing the public's level of trust in journalism.



	Disagree	Neither agree nor disagree	I agree
I consider that, in general, journalists seem to have little knowledge of the ethical problems that may arise from AI as far as journalism is concerned	14.0%	12.9%	72.5%
Readers should always be informed when an AI tool is used in any way in the production of a news story	9.6%	14.0%	75.8%

Table 3. Statements on ethical dimensions in journalism and AI

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 178 (Note: Disagree = Strongly disagree / Disagree somewhat / Disagree; Agree = Strongly agree / Agree somewhat / Agree)

These two statements in Table 3 touch on the issue of ethics: the first from the journalists’ point of view, the second from the public/reader’s perspective. The vast majority (72.5%) agree to some extent with the statement that, in general, journalists seem to have little knowledge of ethical issues that may arise from AI in the context of journalism, pointing to the importance of taking ethical and deontological impacts into account, in particular, and possibly through training in this area.

From the public’s perspective, however, the majority of respondents also agree to some extent that the public should always be informed when an AI tool is used in the production of a news story – with more than 4 in 10 journalists agreeing fully with this statement, making the level of agreement more consistent.



It should be noted that this desire to increase transparency with the reader may align with the concept of ‘ ‘ or ‘slow journalism’ (), a practice that considers journalism within the context of, and as a consequence of, the digital age (Le Masurier, 2015² ; Greenberg, 2013³).

This concept seeks to counterbalance the frenzy of online news not only in its temporal dimension (referring to the production of more in-depth or longer reports), but also by creating a more transparent connection with the reader, shedding some light on how the information is obtained and, for example, providing digital source documentation, background research material, as well as other news items relevant to the topic in question (Le Masurier, 2015).

It is also possible that, in the case of this assertion, increased transparency regarding how AI is used – whether in more technical aspects, such as transcriptions, or even possibly interpretative and ethical dimensions – might improve the public’s perception of journalism – a perception which, as we saw in Figure 35, is currently a major concern for journalists given the consequences brought about by AI.

² Le Masurier, M. (2015). What is Slow Journalism? *Journalism Practice*, 9(2), 138–152.

<https://doi.org/10.1080/17512786.2014.916471>

³ Greenberg, S. (2013). Slow Journalism in the Digital Fast Lane. In R. L. Keeble & J. Tulloch (Eds.), *Global Literary Journalism: Exploring the Journalistic Imagination* (pp. 381–393). Peter Lang.



5.3. Statements regarding journalism professionals and their future in relation to work and the market

This subchapter does not focus on the issue of AI itself, but rather on journalists’ broader and more varied perceptions regarding aspects of their practical relationship with work, job insecurity, or what legitimises the activity of journalism.

	I disagree	I neither agree nor disagree	I agree
The pressure to produce more journalistic pieces will increase in the future.	6.2%	13.0%	80.8%
In the future, journalists will never be completely disconnected from work, but will always be working on stories, promotional tasks or social media.	14.1%	21.5%	64.4%
In the future, journalism will be a more stressful job than any other profession.	11.9%	35.0%	53.1%
In the future, journalism will be a more satisfying and personally rewarding activity.	51.4%	33.9%	14.7%

Table 4. Journalists’ future relationship with their work

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 177 (Note: Disagree = Strongly disagree / Disagree / Disagree; Agree = Strongly agree / Agree / Agree)

The first table in this subchapter presents statements regarding journalists’ potential relationship with their work in the future. The vast majority (80.8%) agree to some extent that there will be greater pressure to produce more journalistic pieces, with 64.4% agreeing that, in the future, these professionals will never be completely disconnected from work, but will always be working on stories, promotional tasks or social media.



Furthermore, more than half agree that journalism will be a more stressful activity than any other liberal profession, which is coupled with a general disagreement with the statement that it will be a more satisfying and personally rewarding activity.

In these statements, **respondents’ perceptions of their relationship with work do not appear particularly positive**; there seem to be concerns regarding the pressure and stress of the profession – and, consequently, lower personal rewards – as well as regarding the ubiquity of work in a journalist’s life, which includes aspects such as social media and promotional work related to their profession.

The following table presents statements that complement these perceptions, focusing on the issue of financial independence and job insecurity in journalism.

	Disagree	Neither agree nor disagree	I agree
In the future, work as a journalist will become increasingly precarious and uncertain.	11.3%	15.3%	73.4%
Pay and benefits will decrease for most journalists.	11.9%	17.5%	70.6%
Journalists will, in future, have less independence and autonomy than they had in the past.	19.2%	25.4%	55.4%
In the future, journalism will be practised by part-time workers who support themselves with income from other types of work.	26.0%	29.4%	44.6%

Table 5. Financial independence and job insecurity in journalism

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 177 (Note: Disagree = Strongly disagree / Disagree / Disagree; Agree = Strongly agree / Agree / Agree)



As can be seen, the majority of respondents (73.4%) agree with the statement that the work of journalists will become increasingly precarious and uncertain in the future, with a similar percentage agreeing with the hypothesis that pay and benefits will decrease for most journalists. Thus, combined with a relationship with work which, as we saw in the previous table, is not expected to be the healthiest, **fears remain regarding increased precariousness in the profession and a reduction in pay.**

Such uncertainties may, in part, relate to the very issue of AI and the impacts it has and will have on the journalism labour market and beyond; on the other hand, the 2019 survey already identified increasing job insecurity in journalism as one of the major short-term risks – thus pointing to an ongoing issue within the industry and for professionals.

As for the following two statements, more than half agree to some extent that journalists will have less financial independence and autonomy than they did in the past, with 44.6% agreeing to some extent that in the future journalism will be practised by part-time workers who support themselves through income from other types of work.

This last point in particular may indicate **a significant concern among respondents that journalists will have to resort to other types of work outside journalism**, which ties in with the issue of job insecurity; nevertheless, the greater balance of agreement seems, within the general negative perception, to foster some hope that journalists will continue to make a living solely from journalism.



	Disagree	Neither agree nor disagree	I agree
Journalists will become increasingly entrepreneurial in the future, setting up their own businesses.	26.0%	41.2%	32.8%
There will be an increasing number of journalists working for non-profit media organisations.	15.3%	49.7%	35.0%
In the future, journalists will not be able to work for a single media organisation throughout their entire career.	13.6%	33.9%	52.0%

Table 6. Journalists’ future relationship with the market and companies

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 177 (Note: Disagree = Strongly disagree / Disagree somewhat / Disagree; Agree = Strongly agree / Agree somewhat / Agree)

Following on from the latest tables, the first finding is that journalists will become increasingly entrepreneurial in the future and set up their own businesses, with responses showing a fairly even split (41.2% actually replied that they neither agree nor disagree). On the other hand, the fact that around a third of respondents agree may indicate a trend towards greater entrepreneurial activity within journalism.

Similarly, roughly a third agree to some extent that there will be an increasing number of journalists working for non-profit media organisations, with around half neither agreeing nor disagreeing. More than half agree that in the future journalists will not be able to work for a single media organisation throughout their entire professional life, again pointing to a perception of a certain instability in the market and the profession.



	Disagree	Neither agree nor disagree	I agree
Journalists should be affiliated with a professional association that represents the interests of journalism and journalists.	12.4%	13.6%	74.0%
Journalists need to work as part of a team with other journalists to develop and maintain the quality of their work.	11.3%	15.8%	72.9%

Table 7. Relationships with other journalists and the associations that represent them

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 177 (Note: Disagree = Strongly disagree / Disagree / Disagree; Agree = Strongly agree / Agree / Agree)

As can be seen, respondents (around three-quarters) tend to agree that they should be affiliated with a professional association representing their interests, a sense of collective belonging that fits within the context of a perception of precariousness and instability in the profession and the market.

The vast majority also agree with the statement that journalists need to work as a team to develop and maintain the quality of their work, which highlights the value of collaboration between professionals.



	I disagree	Neither agree nor disagree	I agree
People who photograph, film or write about events on social media or blogs act as journalists.	59.3%	8.5%	32.2%
Anyone who applies the practices, techniques and knowledge of journalism should be considered a journalist.	62.7%	14.7%	22.6
Journalism is the application of a set of fundamental practices and techniques, which do not depend on the medium of publication.	28.8%	19.2%	52.0%
Only people who work for recognised media companies are real journalists.	36.2%	15.8%	48.0

Table 8. The legitimacy of journalistic activity

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 177 (Note: Disagree = Strongly disagree / Disagree / Disagree; Agree = Strongly agree / Agree / Agree)

A number of statements were also presented regarding what it means to practise journalism and to be a journalist. The first two statements elicited a high degree of disagreement: the first, that people who use social media to react to events act as journalists, and the second, which states that anyone who applies the practices and knowledge of journalism should be considered a journalist. With the rise of social media and the greater ease with which information is reported – or even fabricated, in an unprofessional manner – the boundary between what it means to be a journalist and what it does not has potentially become less clear; however, the general perception is that a journalist, to be truly so, requires greater legitimacy.

Even so, around half consider that journalism is the application of a set of fundamental practices and techniques, which do not depend on the medium of publication; and roughly the same number of respondents agree to some extent that only people working for recognised media organisations are truly journalists.



	Disagree	Neither agree nor disagree	I agree
Journalism is a profession that should require training and experience, but not specific higher education in journalism.	35.6%	14.7%	49.7%
Journalism is an activity based on a theoretical framework and professional conduct that requires specific university training.	35.0%	16.4%	48.0%

Table 9. University education for the practice of journalism

Source: OberCom and CENJOR. Survey on Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 177 (Note: Disagree = Strongly disagree / Disagree / Disagree; Agree = Strongly agree / Agree / Agree)

Finally, there are statements regarding journalism and university education, which generally reveal a certain balance in perceptions of the importance this type of education should hold for journalism: whilst almost half (48%) consider specific university training essential, a similar number of respondents emphasise that the profession requires training and experience, but not necessarily a higher education degree in journalism.

Thus, these data point to a perception of the relative importance of university education, **whilst additional training – potentially ongoing or complementary – and the experience professionals acquire over time also appear to be highly valued.**

6. Open-ended question: Is training in Portugal adequate for the challenges of AI?

At the end of the questionnaire, respondents were asked an open-ended question (with no space or character limits) regarding the adequacy or inadequacy of education and training in Portugal relating to AI.



It is important to note from the outset that open-ended questions, unlike the closed questions typical of questionnaires, allow respondents to explore certain aspects they consider important to mention in greater depth and with greater diversity, without constraints or pre-defined categories, and that these contribute to the analysis and discussion of the topics addressed. It should therefore be noted that all the categories mentioned below – grouped by the researchers of this report – were written by the respondents of their own volition. Consequently, less frequently mentioned categories are also taken into account in the analysis, with the percentages presented in the figures serving essentially as an analytical reference and a vehicle for further discussion.

The question put to respondents was, in full, as follows:

- *Do you consider that, in Portugal, there is training that is appropriate to the reality of these new challenges brought about by Artificial Intelligence? If so, how could the provision be improved; if not, what training is lacking?*

This question allows the analysis to be divided into several dimensions: first, a more direct one that examines whether journalists consider there to be adequate training in this area; second, the reasons for such inadequate training (e.g., few courses, long courses), as well as an understanding of what journalists consider to be lacking – whether in the training itself or more generally within the industry – in relation to AI, such as a lack of general literacy regarding what this technology is and its impacts; finally, a third dimension in which, more specifically, respondents' suggestions are set out regarding what could be improved in the courses themselves in terms of what is taught (e.g., more practical work with tools, discussion of ethical and deontological issues).



6.1. Adequacy of training and journalists’ views on the relationship between journalism and AI

The first figure presents the most direct results regarding whether journalists consider training and teaching on AI in Portugal to be adequate.

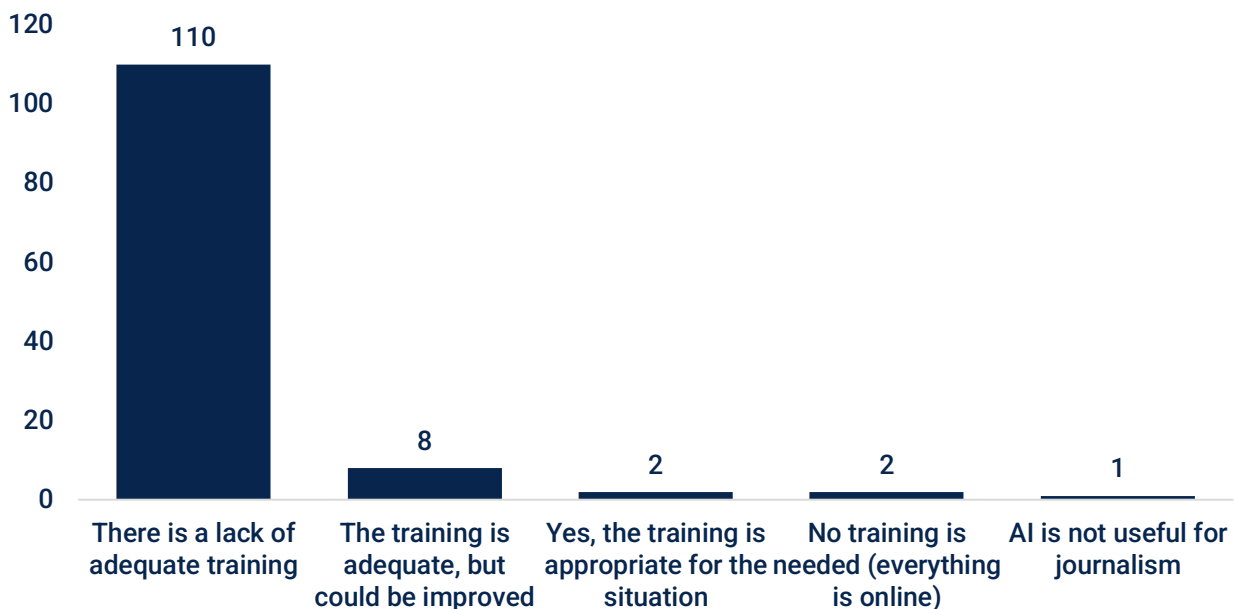


Figure 39. Adequacy of AI training in journalism in Portugal as perceived by journalists

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 133

As can be seen, **the most significant category was that training is, in general, somewhat inadequate**, whilst the category of respondents who state that it is adequate is considerably smaller, although they insist that it could improve if more attention were paid to teaching certain aspects – which will be discussed in the following figures.

These data thus point to a **widespread perception that, in some way, teaching in Portugal regarding AI, in the context of journalism, is clearly insufficient.**



Few consider it adequate as it stands, nor are there many who argue that training is unnecessary, given that everything is available online; in other words, that self-learning is sufficient without the involvement of any educational institution.

The next figure seeks to bring together several different aspects, first and foremost – and following on from the previous figure – why journalists consider the training inadequate, whether for practical reasons (e.g., few initiatives, inaccessible courses), or due to a perceived lack of quality, such as the view that the AI topics taught are not the most appropriate or relevant.

It is important to note, however, that these subsequent data have been organised into four sections (in different colours and with space between them), as the journalists' comments touched on several points. Thus, at the top of the figure, in dark blue, are the categorised reasons pointing to aspects considered deficient by respondents regarding the courses themselves and their content (e.g., too theoretical).

Next, in light blue, there is a group of categories where criticisms are raised not about the content of the courses, but rather about more structural issues in this type of teaching, such as the perception that the training is outdated in terms of subject matter, its limited accessibility, or the criticism that these types of courses or *workshops* are too sporadic. This group, therefore, proves particularly interesting in terms of understanding the apparent lack of structure in AI training for journalism in Portugal, shedding some light on journalists' perceptions of this weakness.

Following on from this, the next group highlights journalists' criticisms regarding the lack of courses offered by companies and universities, and the final group (in grey) highlights broader issues described by respondents (e.g., lack of resources, insufficient AI legislation) which, although not directly linked to training and education, they considered important to highlight as they relate to the issue of AI in journalism.

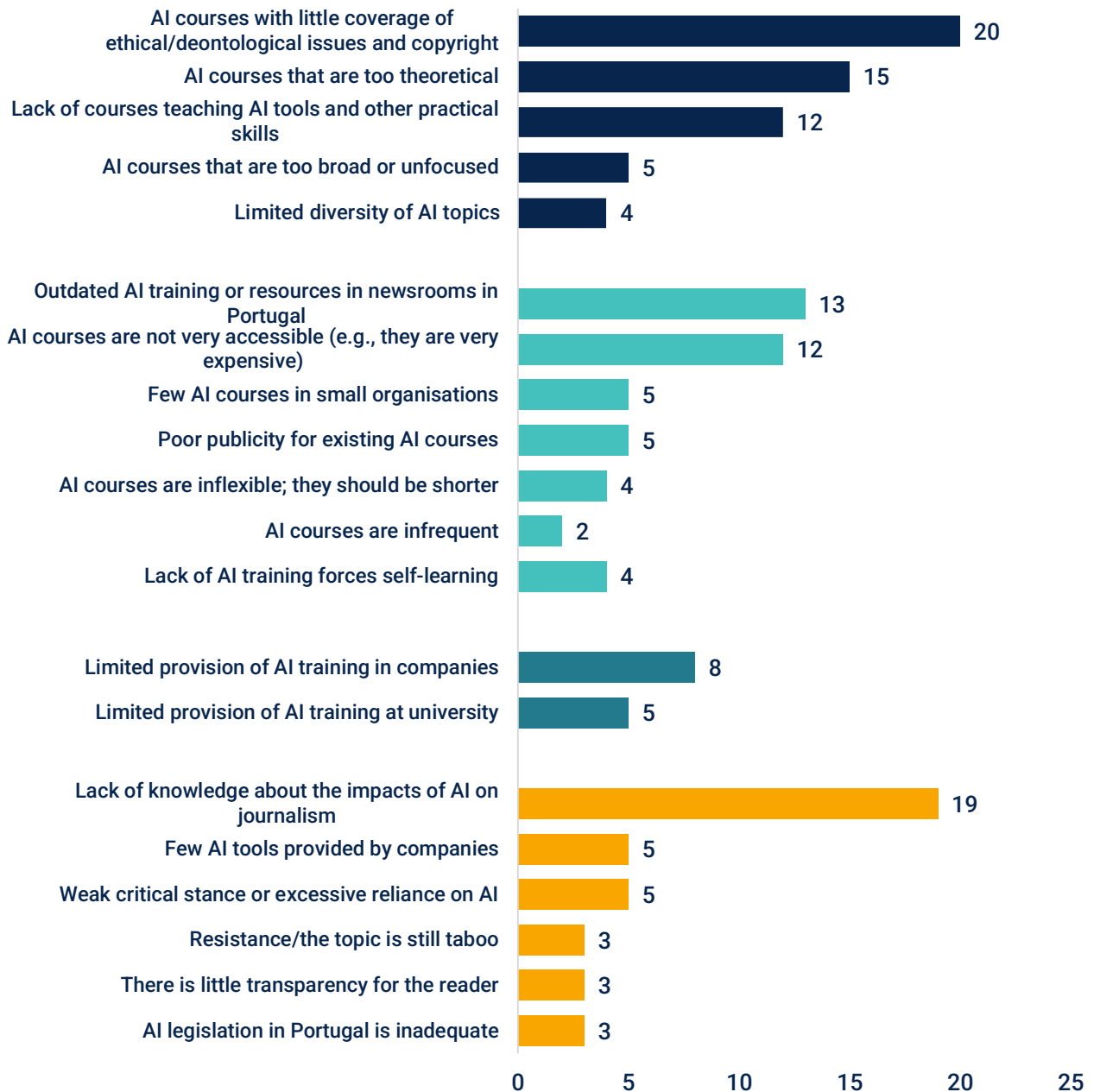


Figure 40. Criticisms of the type of courses involving AI and other considerations by journalists on the issue

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n= 133 (multiple responses)



Beginning the analysis of the first group of categories (in dark blue), the most significant category points to the perception that current training in the field of AI in journalism conveys few ethical and deontological concepts, as well as little regarding copyright or even privacy. In other words, weaknesses are perceived primarily in a certain reorientation of the profession in light of the advances and development of AI in journalism, where there is a noted **inability on the part of professionals to integrate this technology without neglecting other aspects considered fundamental** and relating to the principles required by the profession. To illustrate this point, one of the respondents notes that currently “there are various training courses teaching how to use AI tools, but there are no courses teaching the risks of their use, nor how to use them ethically”, an aspect which, according to the same journalist, has consequences for the “authenticity of journalistic output”, that is, the quality of the journalism produced. Another respondent highlights the need for a greater understanding of what “is permissible and what is not” with regard to the use of AI, whilst another journalist goes into greater detail on the ethical dimensions, writing:

“Current training addresses ethics in a generic way, but rarely touches on critical issues such as algorithmic bias, model opacity, responsibility for AI-generated content, copyright, protection of sources, and compliance with the GDPR and the future European AI Act. This aspect should be central, not ancillary.”

Thus, it can be argued that the perception of a lack of ethical and professional standards is related, firstly, to the complexity brought about by AI – with consequences ranging from assistance in daily work to challenges regarding the authorship of the content produced – and, secondly, by a significant lack of knowledge among a substantial proportion of journalists regarding these very issues and, consequently, deontological risks arising from the improper integration of this technology into journalistic production.



Another significant category is the view that AI courses, where they exist, are too theoretical or not practical enough, which, rather than contradicting the previous category – which is essentially ‘theoretical’, linked to ethical dimensions – complements it and, consequently, **makes a more comprehensive thematic scope (practical and theoretical) of AI courses and workshops in Portugal a pressing need.**

This category arises from the idea that training is currently poorly connected to day-to-day reality, with one respondent, referring to the integration of AI into newsroom workflows, stating the following:

“There is a lack of training geared towards real-world scenarios: support for journalistic investigation, large-scale document analysis, assisted fact-checking, transcription and summarisation of interviews, multimedia production and editorial optimisation. Many professionals learn through trial and error, without clear editorial criteria.”

Another respondent notes that “the main problem is not the total absence of training, but rather its practical irrelevance”, thus highlighting a significant perception that what is taught (or not taught) in training courses lacks practical applicability. In this regard, and in order to address this weakness, one of the journalists suggests that “whether in the field of [supplementary] training or in academia, practising journalists who work in the field should be integrated, as they are the ones who best understand the needs of journalism professionals in terms of AI.” In other words, **the inclusion of practising journalists in training programmes** – particularly in supplementary and even less formalised training, such as *workshops* or *webinars* – **can help reduce a tendency towards theoretical teaching or content with little practical application in day-to-day work.**



This category is also closely linked to the one grouping respondents' criticisms regarding **the excessive breadth or lack of focus of the courses**, particularly given, on the one hand, that a significant portion of the AI training journalists attend does not appear to be directly linked to journalism, but rather to the broader use or impacts of AI on society; on the other hand, that AI training within journalism seems to be perceived as lacking specificity to each area: as one respondent notes, there appears to be a lack of "concrete training tailored to each sector", whilst another journalist argues that, due to the demands of the profession, very few are able to "undergo long-term training with a scope more suited to their tasks in the media."

On the other hand, the least significant category in this first group reflects the perception of some respondents that the topics covered in the training courses they are familiar with are not always varied, which points to **the need to diversify the topics**, allowing for a broader coverage of a subject which, as we can see, has both practical and theoretical implications.

Another of the most significant categories is **the lack of work on AI tools and other types of functional literacy**. Here, this refers, first and foremost, to the perception that there are few specialised courses on AI tools applied to specific journalistic tasks, such as transcription tools or even, as some respondents mention, the improvement of *prompts* in generative AI; and also to other types of knowledge and functional literacy that enable one to understand and master various dimensions of the technology, so as to be able to apply it. On this point, one respondent writes:

"Journalists need to understand how language models, recommendation systems, content automation, AI-assisted verification and large-scale data analysis work. Not to programme, but to know how to use, question, validate and limit these tools in an informed manner."



In other words, ultimately it can be argued that functional literacy within AI should be taken into account when designing training programmes, since **deeper knowledge of tools and other areas** can enable journalists to manage the use of AI more effectively – whether **through broader application in certain tasks or more limited use in others**.

Turning now to the second group of categories (the light blue one), one of the most significant relates to the view that, in some way, both training in Portugal (particularly in AI) and the technological resources made available by companies are obsolete, with several respondents even pointing to what they consider to be a “lag in Portugal”, which has somehow “missed the boat” and therefore **still has a great deal of work to do regarding the establishment of effective and structured AI training**.

Another category draws attention to **the limited accessibility of the courses, particularly because they are considered very expensive**, with one respondent noting that “it was important for [supplementary training] to be affordable or even free.” Naturally, this criticism calls for a review of the pricing for this type of supplementary training, or even for companies, in particular, to offer free AI training to their staff more frequently.

Within this category of limited accessibility, difficulties are also mentioned regarding the fact that some courses are too long – making it difficult for journalists, given the lack of time characteristic of the profession, to participate; similarly, there is **a suggestion that courses should be more flexible and shorter or more intensive**, something that educational institutions (or companies) could take into account, helping to sharpen the focus of what is taught and allowing journalists to spend little time on this type of training.



Still within the same category of courses that are difficult to access, attention is also drawn to the fact that some respondents are not always able to attend face-to-face training, which is partly linked to another category, which includes criticisms that **there are few courses in local and small media outlets**, these being overlooked in favour of coastal areas and major urban centres, namely Lisbon and Porto. It therefore seems appropriate **to pay greater attention to small media companies located in the interior of the country**, which could benefit from greater practical and theoretical knowledge of AI in journalism.

In summary, one respondent wrote the following, encompassing several of the aspects now described regarding the limited accessibility of training:

“Most specialised courses are fee-paying and difficult to access outside major urban centres. There is a lack of modular and flexible provision for workers who wish to update their skills without returning to lengthy training programmes.”

Finally, within the light blue category group, it is worth highlighting the criticisms regarding the lack of publicity for courses (i.e. some respondents mention that they are unaware that training takes place), the low attendance at such courses, or even the idea – typically viewed with suspicion here – that the lack of AI training in the sector encourages self-learning of techniques and tools, whether from a cost-effectiveness perspective, with one respondent noting that “we are forced to learn on our own and bear the cost of that learning”; or from the perspective of a lack of guidance that leads to weaknesses in the use of tools, with one of the journalists noting that self-taught learning of tools “can lead to some errors and constraints in their use.”



Attention is thus drawn to the **benefit of some supervision, even if through supplementary training, which would allow journalists to gain a fuller understanding of the tools they use**, thereby increasing their productivity potential; at the same time, once again, the development of more courses, including through partnerships between companies and educational institutions, could enable journalists to incur lower costs for this type of training, something that could also increase their participation in such initiatives.

The following group (in blue) highlights **the perceived lack of training provision, as seen by journalists, both in universities and in companies**. In particular, one respondent suggests the creation of “more subjects at universities to complement academic studies”, and identifies the lack of “extracurricular courses that complement the professional training of journalists.”

Thus, although the focus is essentially on **obtaining more and better supplementary training**, including within their media organisation, **the university context is also seen as an important element** in training on AI in journalism.

The final group (in grey), meanwhile, lists several categories which, whilst not strictly linked to training or criticism in that area, give voice to general considerations regarding the relationship between AI and journalism. The most significant of these encompasses considerations regarding the general lack of knowledge about AI (e.g., what it is, how it works), which may have implications for a lack of understanding of its impacts on society and journalism.



Also significant are the criticisms regarding the limited availability of AI resources within organisations (particularly paid tools) and the excessive reliance of some journalists on this technology, as well as the uncritical stance – in the opinion of some respondents – particularly evident among younger journalists who have recently entered the professional market.

Of these 'yellow' categories, however, **the identification of a lack of transparency towards the public regarding the use of AI in the production of journalism** and the news they read stands out. On this point, one respondent writes the following, comparing news websites to educational institutions:

“Just as there are educational institutions that have tools to identify work produced by AI, news websites should be required to have a kind of plugin that informs the reader, in each article, of how the article was created and what role AI played in its production, as well as the sources used by the AI. News stories produced almost entirely by AI should have this information clearly visible to the reader.”

Another journalist appears to be even more specific in addressing the public regarding the use of AI (e.g., in translations), whilst also criticising the fact that, **although transparency is essential, there does not yet seem to be such openness on the part of management:**

“(...) I argue that we should always indicate the use of AI, even if only in transcripts and translations, making it clear when there has been human editing and when there has not – for example, in news items ‘read’ by AI, it should be explicitly stated that AI is involved. I believe transparency is essential, but unfortunately I do not see this view being shared by management.”



Finally, it should be noted that this lack of openness on the part of companies may also be linked to the criticism from some respondents that the subject of AI is still considered a “taboo”, which may partly help to explain some resistance when it comes to transparency towards the public.

6.2. How can AI training in journalism be improved in Portugal: suggestions for content

The figure in this subchapter presents, in a more direct manner, the journalists’ suggestions on how AI training could be improved, particularly supplementary training. The data is thus grouped into two categories: first, in dark blue, more practical issues, such as the use of tools; second, in light blue, aspects that tend to be theoretical.

Of the first set of categories, the dark blue one—the most significant—relates to the perceived need among journalists for AI training programmes in Portugal, within the field of journalism, **should focus on greater functional literacy**, which essentially relates to the effective use of specific tools (e.g. transcription, document analysis) and **greater practical applicability**. This echoes the criticisms highlighted in the previous figure regarding a certain practical disconnect.

With ‘tools’ and the need for more specialised training in this area frequently mentioned, one respondent, more specifically, writes that there should be “training in the use of AI for audio transcription, factchecking, translations and grammatical correction”, highlighting the utility that certain applications could bring to journalists in various areas.

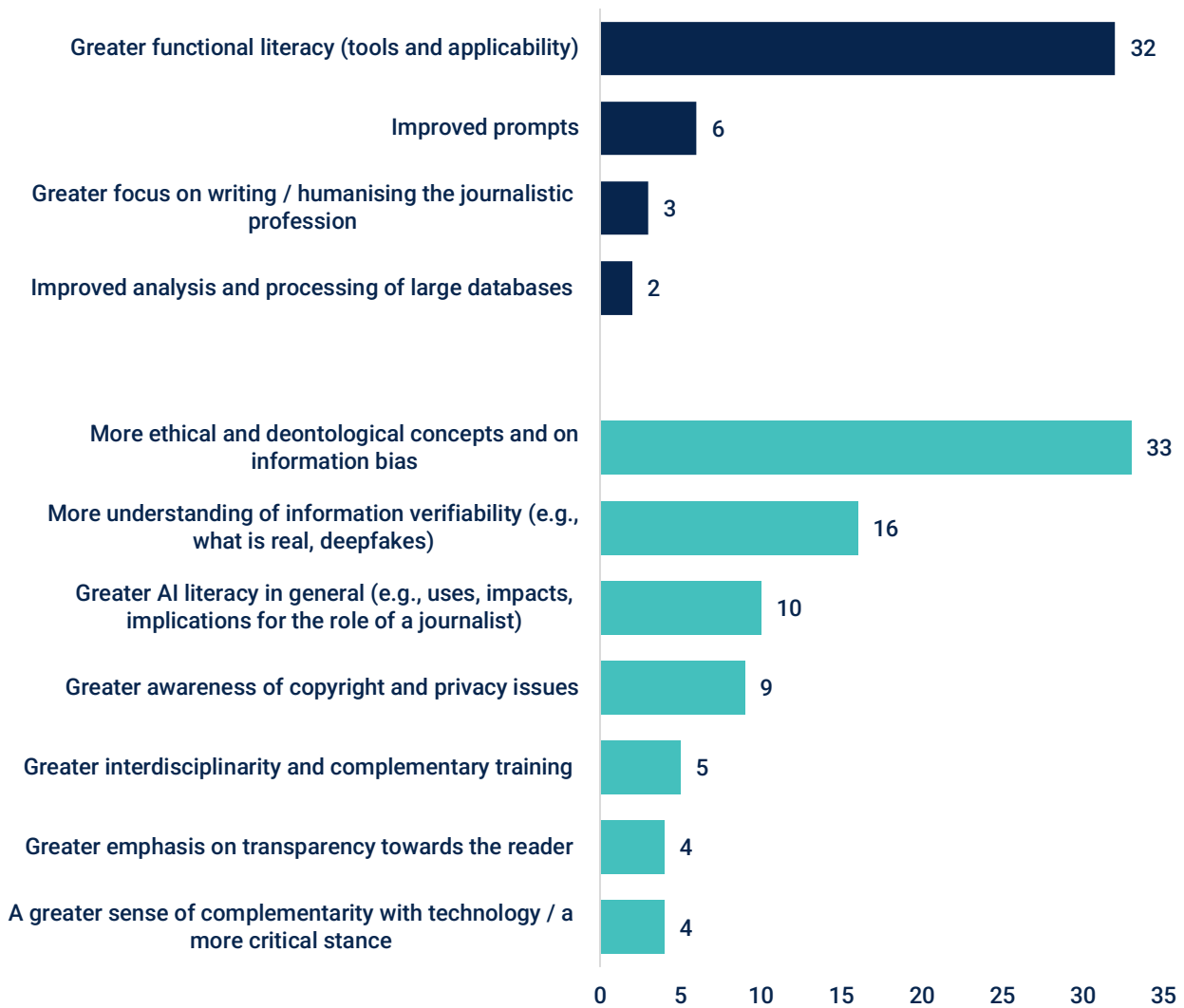


Figure 41. In which aspects and areas could AI training in journalism be improved in Portugal

Source: OberCom and CENJOR. Survey: Artificial Intelligence and Journalism: Practices and Training in Portugal. n=133 (multiple responses)



Ultimately, such functional literacy, as seen in the previous figure, encompasses a wide range of aspects that relate not only to the practical use of the tools themselves, but also to an understanding of their potential and risks. On this point, one of the respondents stated the following:

“The necessary training involves understanding what AI is, what tools are available, how we can use them, and what dangers they may pose – the credibility of the information received and how to verify it.”

In other words, the specific use of tools must be accompanied by a general understanding of AI, particularly AI in journalism. Thus, a category such as the one grouping suggestions for greater interdisciplinarity in training (the light blue one) promotes the **idea that courses, workshops or webinars should not be viewed as merely practical or merely theoretical**; and that, even if a course is essentially practical (e.g., the use of a specific tool), there should be others that can explore theoretical aspects, such as ethical and deontological considerations.

To this end, **AI training in Portugal, within the field of journalism, should become more structured, including the possibility of a greater number of partnerships** between educational and training institutions and media companies.

The issue of prompts is also mentioned, **along with the need for current training to pay greater attention to this skill**, which ties in with the data in Figure 27, where journalists generally admitted to at least some inaccuracy in the guidance provided by generative AI platforms in the context of their journalistic work.

Furthermore, in addition to a greater focus on improving data processing, it is also worth noting that respondents mentioned **the importance of greater attention being paid in training to writing (or how to write a news story)** and, as one journalist put it, “humanising the text, using our own words and expressions or those of our media”.



This is particularly interesting as it ties in with the data in Figure 38, where around 4 in 10 journalists predict that journalists will become overly dependent on technology, losing basic and traditional skills – such as news writing.

It is also interesting to link these results with the 2019 survey, insofar as that survey (which did not yet include the question of AI and focused solely on the type of journalistic training) reiterated, amongst other things, the importance of teaching and learning the fundamental aspects of journalistic practice, ranging from writing to an understanding of the ethical and deontological aspects of the profession.

The emergence of AI – a technology that even enables the creation of journalistic content in a way that is somewhat detached from the journalist themselves – does not therefore seem to minimise the need to invest in these areas considered fundamental; on the contrary, the development of technological tools and their impact on journalists' daily work may highlight the importance, in particular, of **reviewing and readjusting ethical and deontological principles, or even adopting criteria for verifying information** in light of the challenges posed by AI.

In the light blue category group, the most significant finding relates – in line with the data from the previous figure – to the view that **training should provide more ethical and deontological concepts, as well as addressing algorithmic bias**. One respondent commented as follows on biases and on AI training in journalism in general:



“In my opinion, there is no adequate training in AI, let alone for journalists, who should realise that the algorithms on which AI Large Language Models (LLMs) are based were created by (often prejudiced) and we must realise that we should use AI like a calculator, to perform specific operations; any attempt to grant it autonomy to interpret risks plagiarism, misinformation and the creation of subversive content. Training must be based on concrete, real-world situations...”

Once again, therefore, we see the importance of theoretical issues, which help to integrate the tools and understand the consequences of their use. As another respondent notes, there should be more “training on the use of AI tools, but always combined with an awareness of ethical issues and bias” – in other words, **there must be complementarity and interdisciplinarity, with more theoretical concepts helping to frame the very use of tools** which, ultimately, engage with dimensions such as the transparency that is or is not maintained with the reader.

Another of the most significant categories relates to **the verifiability of information**, which essentially concerns the perception among journalists that **training should focus more on teaching professionals what is real and what is not**, with *deepfakes* being one of the most frequently mentioned concerns. The challenges of AI are thus not limited solely to the general public, but also to journalism professionals themselves – who inevitably receive, verify and work with information – and it is particularly important that they, as mediators between raw information and the reader, possess all the necessary skills – including knowledge of *fact-checking* platforms and techniques – to verify the authenticity of information.



Finally, within these categories, it is also worth highlighting the greater attention that must be paid to copyright and privacy issues, which once again present challenges in an era of digitalisation and AI. Here, it is worth noting the possibility that AI may consume and process protected content, reproducing it and leading to intellectual property infringement. This and other issues are thus fundamental to a broader understanding of the relationship between AI and journalism.

Final considerations



Final considerations

Overall, the data from this survey point to journalists' perception that AI has helped boost newsroom productivity, whilst there are uncertainties regarding the technology and its impact, ethical and deontological concerns, as well as a lack of formal training in this area.

As mentioned throughout the report, there is thus a tension between (i) the adoption of AI and its tools in newsrooms and (ii) uncertainties regarding its impact on journalism. Journalists' insistence on the need for greater ethical and professional training (as evident from the data on the open-ended question in Chapter 6) may help explain some of this mistrust, seemingly linked to an idealised view of what it means to practise journalism and be a journalist.

Thus, there may be, at least in part, a certain 'existential questioning' within the profession, essentially linked to the impact of AI not only on journalism but on broader social structures, and particularly in view of the changes it is bringing about and may yet bring about in labour markets.

As for AI training itself, the general perception of inadequacy – particularly evident in Figure 39 – presents the challenge of establishing more structured, cohesive and forward-looking training in Portugal. As one respondent summarised in the open-ended section of the questionnaire:

"There are one-off initiatives, seminars and introductory modules, but it cannot be said that there is, in a structured and consistent manner, a training provision suited to the current reality of newsrooms and the media ecosystem."

Such cohesion, or broader vision, may refer, firstly, to the frequency and consistency with which courses are made available and updated, both within companies and other institutions as well as at universities, which could incorporate modules that explore AI-related content more effectively.



Here, too, the existence of more partnerships between media companies and education and training institutions may not only help to identify needs and a clearer, more comprehensive training pathway, but also enable the provision of shorter, more intensive and flexible courses (e.g., online and face-to-face) that specifically address professionals' perception of a lack of time.

Secondly, this vision also relates to the type of content taught, where, whilst there is an emphasis on tools and functional literacy – as evidenced by the data from the open-ended question – it is also considered pertinent for journalists to have a broader general understanding of AI and, in particular, of ethical and deontological issues, which appear to be challenged by this technology. In other words, even taking into account the succession of short, specialised courses, a dialogue between practical and theoretical aspects should be prioritised, since the ethical and deontological dimensions are, in a particularly complex subject such as AI, the foundation for the rest of the training, simultaneously expanding and limiting the possibilities of what is and should be taught, and how.

The persistence of doubts as to whether AI benefits journalists and journalism in the long term – such as the significant fear, as we have seen, that basic skills are considered increasingly less valued (see Figure 38) – does not rule out AI entirely, but rather encourages efforts to better clarify in what ways or where it can be useful in the context of journalism. In other words, the perception of uncertainty allows concerns about ethical and deontological risks to be taken into account and, in this way, clarifies the areas where they complement each other (e.g., a more technical and less interpretative use of AI).



Finally, it is worth mentioning the 2019 survey and some of the developments in journalism since then, in terms of practices and training. There are some similarities between the two surveys, in particular the need for journalists to keep pace with developments in digital technical aspects, which are increasingly evident in the context of journalism, and to do so primarily through further training. As shown in Figure 14, therefore, the emergence of AI means that much of this type of training is now focused on AI, or at least involves this technology, which once again attests to its importance – and inevitability – in journalism, both now and in the future.




DOI: [10.5281/zenodo.19134656](https://doi.org/10.5281/zenodo.19134656)



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Informação editorial: Proprietário: OberCom, Observatório da Comunicação, Palácio Foz, Praça dos Restauradores, 1250-187 Lisboa / Depósito Legal: 196339/03 / ISSN: 2183-3478 / Registo ICS: ERC 123566

March 2026