

Generative AI

Risks and opportunities for journalism





OberCom

INVESTIGAÇÃO E SABER EM COMUNICAÇÃO

OberCom - Observatório da Comunicação
Palácio Foz, Praça dos Restauradores
1250-187 Lisboa
Portugal

www.obercom.pt
obercom@obercom.pt

TITLE

Generative AI – Risks and opportunities for journalism

DATE

February 2025

SCIENTIFIC COORDINATION

Gustavo Cardoso
Vania Baldi

AUTHORS

Paulo Couraceiro
Miguel Paisana
António Vasconcelos
Gustavo Cardoso
Vania Baldi

DOI

PUBLISHER

OberCom – Observatório da Comunicação
NPC 504326856

PUBLISHER ADDRESS

Palácio Foz, Praça dos Restauradores, 1250-187 Lisboa

DEPÓSITO LEGAL

196339/03

ISSN

2183-3478

REGISTO ICS

ERC 123.566



Licensed under Creative Commons Attribution 4.0 International (CC BY 4.0)

Index

| | |
|---|----|
| Introduction | 5 |
| 1. Generative AI in journalism: definitions and uses | 8 |
| 1.1 Before Generative AI | 8 |
| 1.2 The emergence of Generative AI | 10 |
| 1.3 Potential and uses of GenAI in journalism | 13 |
| 2. Economic, legal and ethical implications | 21 |
| 2.1 GenAI and copyright | 21 |
| 2.2 Growing dependence on large technological platforms | 24 |
| 2.3 The consequences for the journalistic labour market | 30 |
| 2.4 Ethical use of AI in journalism | 33 |
| 3. Case Studies and best practices | 37 |
| 3.1 AI for back-end automation | 38 |
| 3.2 AI for content creation | 40 |
| 3.3 AI for news automation | 42 |
| 3.4 Examples of AI for distribution and recommendation | 46 |

Index of figures

| | |
|---|----|
| Table 1. Journalism: forces of resistance vs. forces of pressure in the adoption of AI systems..... | 14 |
| Figure 1. Main uses of GenAI tools such as ChatGPT in newsrooms (2023)..... | 15 |
| Figure 2: Tasks in which journalists would most like to use AI (2024) | 16 |
| Figure 3. Most important uses of AI for news organisations (2024) | 17 |
| Figure 4: Main concerns about the use of generative AI tools in newsrooms (2023) | 23 |
| Figure 5: "Do you think generative AI tools change the roles and responsibilities of editors and/or other professionals?" (2023)..... | 32 |

Introduction

Introduction

The rapid evolution of Artificial Intelligence (AI) is redefining the media and journalism landscape around the world. AI is no longer a future trend, but a present reality that influences the organisation of work in the sector, from the production of content to the distribution and consumption of news. As AI technologies become more sophisticated and accessible, media organisations face new risks and opportunities.

OberCom has been following this theme over the years, with previous works such as "Artificial Intelligence Vs. Human Factor: Impact of Algorithmic Automation on Journalism¹" (2020) and "Algorithms and News: The opportunity of artificial intelligence in journalism²" (2021) (available only in Portuguese).

While the AI systems dealt with in these past reports have already set a significant precedent in the field of journalism, generative artificial intelligence (GenAI) offers new possibilities that go beyond the automation of tasks. Its ability to respond to requests from human users and to generate language (written, visual, auditory) in a more enhanced way makes it a powerful (and potentially dangerous) tool for journalism.

In the field of journalism, GenAI is being experimented with to optimise operational processes, especially in content production. However, the integration of this technology is not without its challenges. Among the potential risks is the threat to the autonomy and quality of journalistic work. GenAI's ability to create content in an automated and opaque way could lead to the dissemination of inaccurate or biased information, jeopardising the quality and reliability of the news. In addition, ethical and legal issues, such as copyright ownership and the implications for the labour market, are increasingly pressing.

¹ <https://obercom.pt/inteligencia-artificial-vs-fator-humano/>

² <https://obercom.pt/algoritmos-e-noticias-a-oportunidade-da-inteligencia-artificial-no-jornalismo/>

These complexities and challenges emphasise the need for scrutiny and informed debate. The overall aim of this report is therefore to provide a critical and comprehensive analysis of the influence and implications of the GenAI in the field of journalism.

The report is divided into three parts. The first seeks to clarify what GenAI is and to identify the main uses and potentialities of applying GenAI across the board in journalism. The second, questioning the relationships of power and dependence between the media and large technology companies, lays the foundations for an ethical and professional discussion on the responsible integration of GenAI in journalism. The report continues in the third part with the presentation of case studies, with practical examples of the application of AI by different news organisations.

As such, the report aims not only to inform professionals in the field and the public about the capabilities and constraints of GenAI, but also to foster an informed dialogue about best practices for its ethical and effective implementation in journalism. The report aspires to be a comprehensive resource that contributes to understanding and debate around this emerging topic, thus making it easier to navigate the operational and ethical complexities that GenAI introduces into the media ecosystem.

1. Generative AI in journalism

Definitions and applications

1. Generative AI in journalism: definitions and uses

In this chapter, we analyse some of the best-known features of AI and its new generative component, as well as their uses in newsrooms. Firstly, we explore the multifaceted impact of AI on society, with a particular focus on its influence on digital communication and journalism (1.1). We then examine the evolution towards generative AI, a more sophisticated form of AI that integrates different disciplines and technologies to create more complex and personalised content (1.2). Finally, we address the potential and uses of AI in journalism, with a focus on generative models (1.3).

1.1 Before Generative AI

The influence of artificial intelligence (AI) on society existed before the advent of ChatGPT and other advanced language models. Conventional AI systems are deeply rooted in various facets of platformised everyday life, playing a crucial role in the automation of social and professional tasks that traditionally required human intervention.

In addition to automating tasks, AI is playing an increasingly prominent role in the sphere of digital communication, particularly regarding personalisation, advertising and content monetisation. AI determines the content and ads that users encounter when they browse the internet, shaping not only individual experiences but also the monetisation strategies of digital platforms and services.

Computer systems fueled by *big data* and algorithms have a substantial impact on the way online content is consumed and, by extension, on the formation of audiences with specific digital habits, influencing their discursive practices, purchase intentions or social perceptions. AI has therefore already set a significant precedent in terms of its multifaceted impact on society, ranging from operational efficiency in industrial sectors to shaping online communication and interaction frameworks.

In the field of journalism, AI has become increasingly important, as was evidenced in a previous OberCom report³. AI has been particularly useful in more basic and repetitive tasks that require a significant investment of time on the part of journalists. These tasks include indexing and tagging content, transcribing interviews, translating content, analysing and extracting data, as well as identifying trends and events on social media. However, it's important to note that even before the advent of large language models, AI was already employed in tasks considered more complex.

These include managing workflows, optimising *paywalls* and digital subscriptions, news recommendation and personalisation systems, automatic writing of short news pieces, greater interactivity in online audience engagement, creating alerts about news and possible biases (e.g. gender or racial), and detecting *fake news*, *deep fakes* or *bots*.

By examining the uses of AI described above, it becomes clear that many of the functionalities offered by generative AI are not entirely new. For example, the automatic writing of short informative pieces was already common practice with previously existing AI systems, although it was only applied to the production of simple texts with a predictable structure, such as the presentation of financial or sports results.

Thus, the innovation introduced by generative AI lies in its ability to carry out the automation of tasks in a more sophisticated, contextually rich and accessible way. Generative AI can, for example, generate written and audiovisual content that in terms of complexity and creativity resembles that produced by humans. This raises the potential for personalisation, in the sense of creating more individualised and distinctive products.

³ <https://obercom.pt/algorithmos-e-noticias-a-oportunidade-da-inteligencia-artificial-no-jornalismo/>

Generative AI simplifies, from the user's point of view, the production of content based on specific instructions and their characteristics, needs and preferences, maximising the peculiarity of the content generated. In addition, because generative AI is easier to use (compared to previous technologies) and does not require programming skills, it reduces the barriers to its adoption. It can be applied to everyday tasks, which makes it potentially useful in everyday life, increasing the spectrum of situations in which it can be used.

1.2 The emergence of Generative AI

Generative Artificial Intelligence (GenAI) represents a new category of artificial intelligence, a development of AI that also differentiates itself by creating new synthetic data from pre-existing data. GenAI uses mathematical and statistical models to generate new and apparently original content (such as text, images, audio or videos) from the patterns learnt during a computer training process fed by a large volume of data.

Different disciplines and technologies work together to make GenAI a powerful tool⁴, capable of creating complex and personalised content, as well as improving interaction between the real world and digital environments. *Machine* learning allows computer systems to process and interpret large volumes of data, learning and applying new knowledge in an automated way - with or without human supervision - to create new content.

Within this area, *deep learning*, especially through advanced neural network architectures such as *transformers*, is effective in recognising complex patterns and understanding countless sequences of data.

⁴ <https://www.sciencedirect.com/science/article/pii/S2667241323000198>

Other key areas include Natural Language Processing (NLP), which helps GenAI recognise and generate human language, enabling the creation of diverse and contextually relevant textual content. In addition, image processing and computer vision allow GenAI to analyse large-scale visual data to create content or interpret environments.

In turn, audio processing and speech synthesis expand this capacity into the sound domain, enabling speech recognition and generation. Together, these disciplines and technologies make GenAI capable of generating complex and personalised content, significantly enhancing the interaction between various spheres of the real world and the digital environments designed for this purpose.

The emergence of GenAI is attributed to a seminal innovation in the way computers process language, developed by Google scientists in 2017.⁵ The innovation, known as the "*transformer*" model, was initially designed to improve machine translation, more specifically the operation of Google Translate. This model can pay attention to all the words in a sentence simultaneously, capturing their interrelationships, which makes understanding long texts faster and more efficient than previous models that processed words sequentially.

Google's "*transformer*" model was a significant turning point in the evolution of AI, which can be compared to other historical transitions in the development of the internet. Today there are many advanced AI applications that utilise the assumptions of this initial model, including large-scale language models such as ChatGPT or Gemini, and it is also used in other areas such as image generation, computer code and even music.

This development has fueled a new generation of devices, applications and services that use integrated AI technologies and are accessible to a wide audience.

⁵ <https://www.ft.com/content/37bb01af-ee46-4483-982f-ef3921436a50>

Generative AI: what are language models and how do they work?

"Large language models are an application of deep learning⁶. Working in a predictive way, they look at word patterns in large bodies of training data to compute the probabilities that certain words would follow a particular sequence of other words. They do it so well because of the vast amount of data they're trained on. This creates incredible fluency that is consistent not just with the language in the training data, but also with the prompt the user specifies. Then of course you can respond to their output, and you get a dialogue. They're not thinking like humans do but, nonetheless, their effect is dramatic and significant. The result is human-to-machine communication⁷

David Ferrucci, artificial intelligence expert

The launch of ChatGPT at the end of 2022 marked a turning point in the field of artificial intelligence and was also a significant media event. OpenAI's generative language model was met with great interest and scrutiny, generating diverse narratives ranging from the revolutionary potential of the technology to ethical and security concerns.

Social networks were flooded with countless screenshots of dialogues with ChatGPT and, in the first 60 days after its launch, ChatGPT even reached the mark of 100 million active users per month, distinguishing itself at the time as the technological platform with the fastest growth rate.

Since the launch of ChatGPT, the field of GenAI has been the scene of intense competition.⁸ Companies such as Microsoft, Alphabet/Google and Facebook/Meta have reorientated their business strategies to gain control over what they believe to be a new infrastructure of the economy. A projection by Bloomberg indicates that generative AI could become a 1.3 trillion-dollar market by 2032⁹, with its impact covering various sectors such as healthcare, the manufacturing industry and the media.

⁶ Deep learning is a specialised sub-area of machine learning that uses complex neural networks to model high-level abstractions, allowing for deeper and more accurate analysis of complex data. Unlike traditional machine learning methods, in which there is manual human intervention in selecting the most informative and relevant attributes for the model, deep learning has the ability to learn these characteristics autonomously, directly from the data. This makes deep learning particularly effective for tasks involving large volumes of unstructured or semi-structured data, such as natural language processing or image recognition.

⁷ <https://am.gs.com/en-fi/institutions/insights/article/2023/machines-learning-the-rise-of-henerative-ai-in-business-research-and-education>

⁸ <https://time.com/6255952/ai-impact-chatgpt-microsoft-google/>

⁹ <https://www.bloomberg.com/company/press/generative-ai-to-become-a-1-3-trillion-market-by-2032-research-finds/>

Despite the initial projections of growth, there are subsequent market studies¹⁰ that point to a cooling of the initial enthusiasm, highlighting a slowdown in the pace of private investment in AI and increased concerns about implementation costs and the return on investment.

1.3 Potential and uses of GenAI in journalism

The rise of Generative Artificial Intelligence (GenAI) in journalism has caused a profound transformation in the sector, generating both resistance and pressure for its adoption. On the one hand, there are concerns related to possible excessive automation, loss of editorial control and ethical challenges, which fuel resistance from professionals and news organisations. These issues are particularly exacerbated by the rapid evolution of AI technologies, which call into question organisational capacity and the human, financial and technological resources needed to keep up with the ongoing change.

On the other hand, there are forces pushing hard for the integration of AI into newsrooms. The promise of increasing efficiency, reducing costs and personalising content to better meet readers' needs makes AI attractive to many organisations. In addition, competitiveness in the news market, where technological innovation is increasingly seen as essential, drives the adoption of these tools. Table 1, on the following page, organises the main resistance and pressure factors that have emerged prominently in the context of the introduction of AI systems in journalism, reflecting from the outset the dilemmas and opportunities that newsrooms began to face even before the media emergence of GenAI.

¹⁰ <https://lucidworks.com/post/the-state-of-generative-ai-adoption-in-2024-benchmarking-the-hype-vs-reality/>

Table 1. Journalism: forces of resistance vs. forces of pressure in the adoption of AI systems

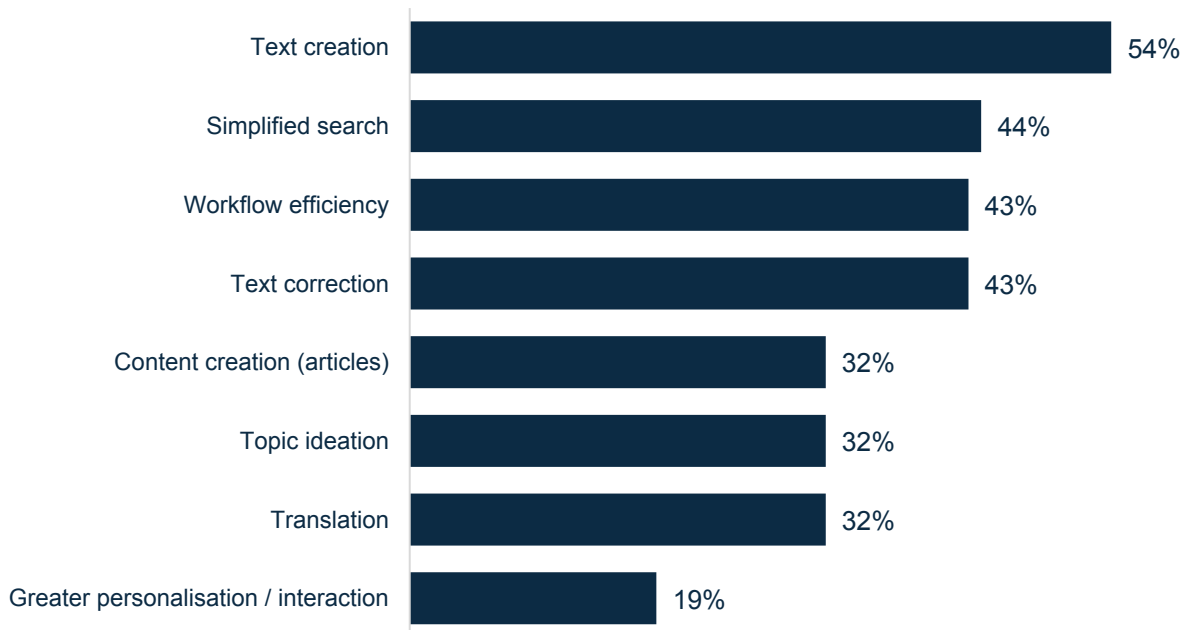
| Resistance forces | Pressure forces |
|---|---|
| Resistance from news professionals <ul style="list-style-type: none"> ➤ fear of losing jobs and control over the process | Increased efficiency and productivity <ul style="list-style-type: none"> ➤ automation of repetitive tasks, freeing up |
| Financial constraints <ul style="list-style-type: none"> ➤ high economic costs of implementing AI systems | Reduced operating costs <ul style="list-style-type: none"> ➤ reduced financial costs by replacing manual processes with automation |
| Concerns about public opinion <ul style="list-style-type: none"> ➤ fear of negative reactions or social criticism about the use of AI in journalism | Content personalisation <ul style="list-style-type: none"> ➤ use of AI to analyse audience data and offer news aligned with individual interests |
| Normative and ethical challenges <ul style="list-style-type: none"> ➤ lack of regulations in journalism and concerns about algorithmic bias in news production | Dependence on technology companies <ul style="list-style-type: none"> ➤ growing pressure to collaborate with large technology companies driving the adoption of AI |
| Lack of qualified professionals <ul style="list-style-type: none"> ➤ shortage of human resources with the technical skills to work with technologies | Speed in analysing large volumes of data <ul style="list-style-type: none"> ➤ efficient processing of information scattered across multiple online sources or long documents |
| Insufficient technical infrastructure <ul style="list-style-type: none"> ➤ lack of adequate technological resources or quality data to train AI models | Rise in competitiveness <ul style="list-style-type: none"> ➤ the need to innovate and keep up with technological trends in the sector |

Source: own elaboration

In mid-2023, the World Association of Newspapers (WAN-IFRA) published a study in which it surveyed different journalism professionals, pointing out the main ways in which newsrooms were working with GenAI tools such as ChatGPT.

The figure in the next page shows that the greatest use relates to creating text for different platforms from the journalist's original text (54 per cent), doing simplified research on certain topics (44 per cent), increasing efficiency in work processes (43 per cent) or making corrections to texts (43 per cent). On the other hand, increasing the personalisation and interaction of the content produced was the least mentioned factor (19%).

Figure 1. Main uses of GenAI tools such as ChatGPT in newsrooms (2023)

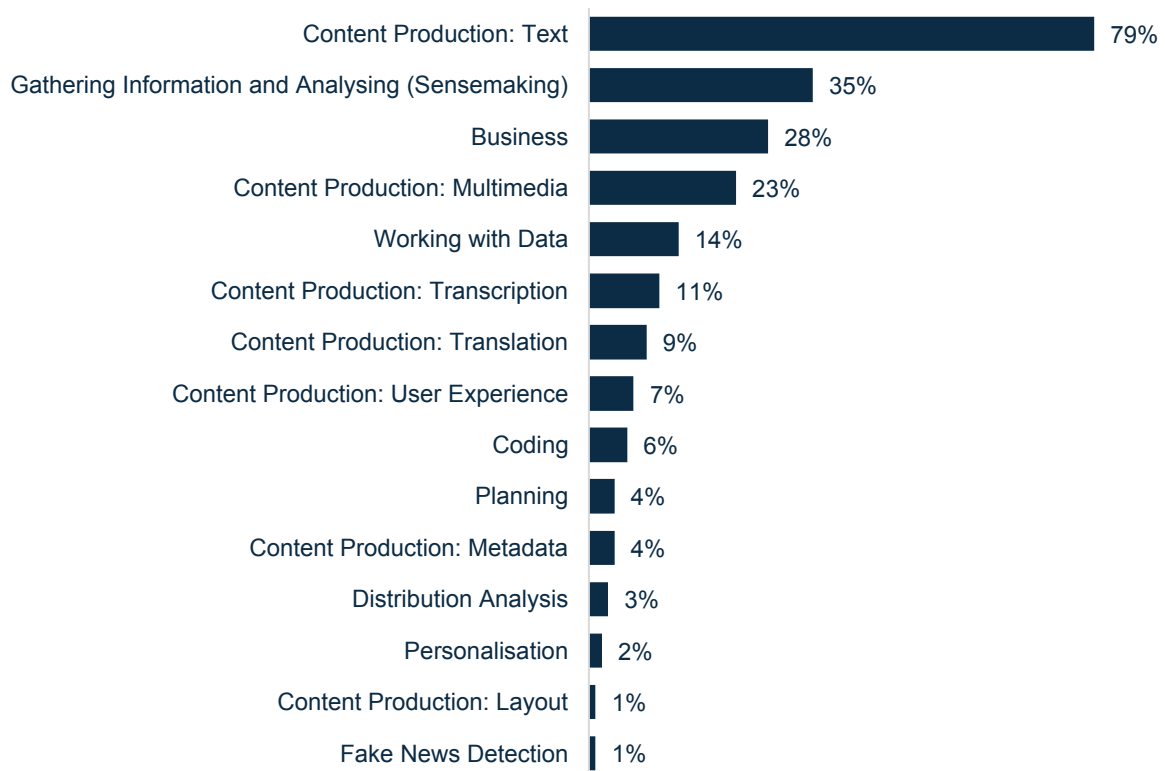


Source: WAN-IFRA. "Gauging Generative AI's Impact in Newsrooms" (2023). N=101.

Another report, produced by the Associated Press in 2024, which also surveys different individuals in the media industry, identifies the main potential uses of AI, specifically the three tasks in which journalists would like to use AI. The three most mentioned tasks were creating text content, gathering and analysing information, and business-related tasks.

Other tasks mentioned, despite seeming less relevant to the respondents, such as *coding*, planning, metadata production or *fake news* detection, are equally relevant to journalism.

Figure 2: Tasks in which journalists would most like to use AI (2024)

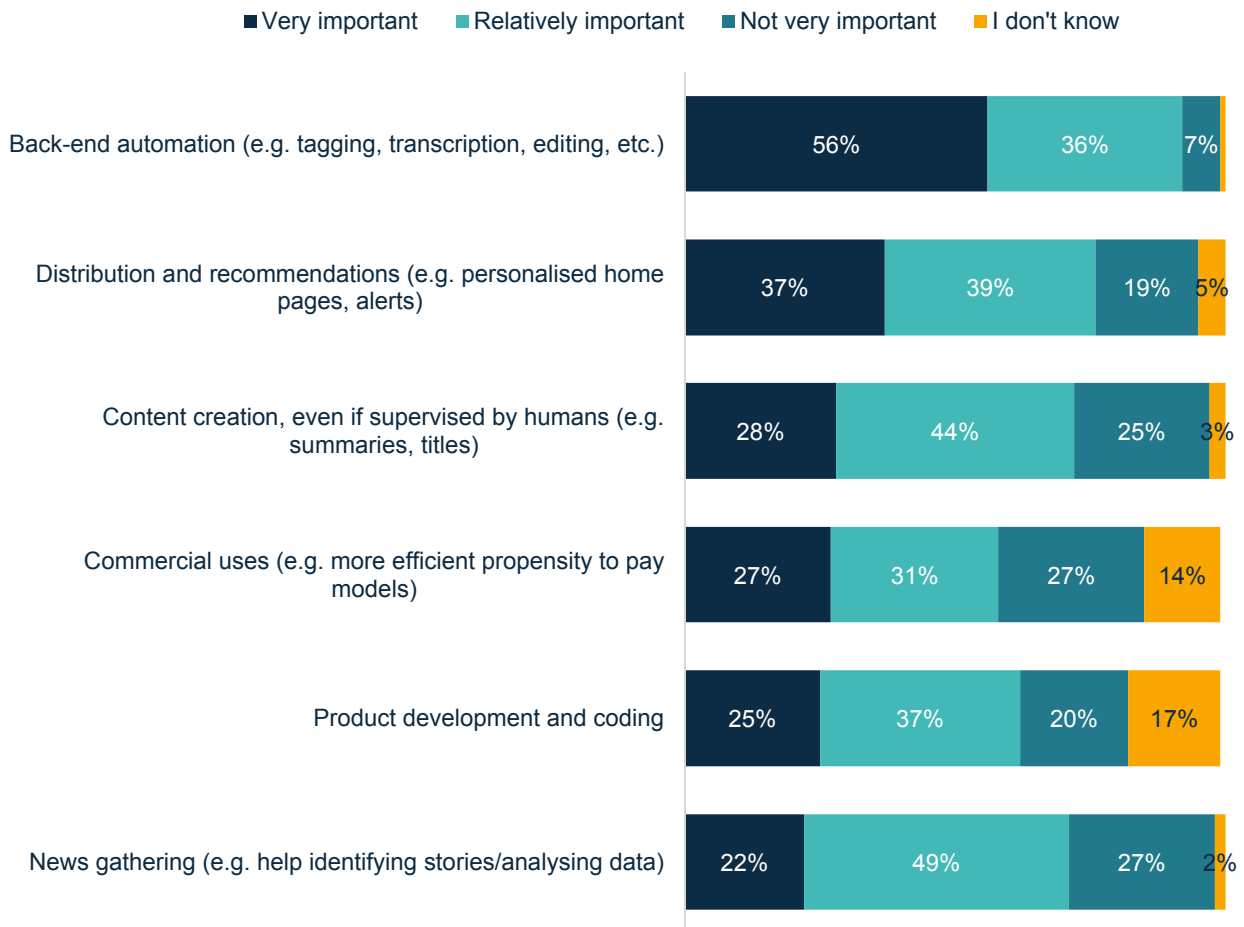


Note: Answer to the question "List at least three tasks that you would ideally like to use generative AI for in your work, if it were capable of producing quality results". Source: Associated Press: Generative AI in Journalism. "The Evolution of News work and Ethics in a Generative Information Ecosystem". (2024). N=290.

For its part, the Reuters Institute for the Study of Journalism, in a report on trends in journalism, asked professionals in senior positions what the most relevant uses of AI would be in 2024. This data is important because it reflects the strategic vision of decision-makers in newsrooms. Here we see a very different scenario from that presented in the previous figures, which included workers with different functions, and which emphasised the use of AI in text production.

Among managers, *back-end* automation is seen as the most important use of AI, considered "very important" by 56% of organisations. This reflects the perceived value of AI for automating repetitive processes such as transcription and proofreading, allowing newsrooms to be more efficient.

Figure 3. Most important uses of AI for news organisations (2024)



Note: Answer to the question "To what extent will the following uses of artificial intelligence (AI) and generative AI be important for your company in 2024?". Source: Reuters Institute for the Study of Journalism. "Journalism, media, and technology trends and predictions 2024". (2024). N=296.

In second place comes the distribution of personalised content and recommendations, which 37% of respondents considered "very important". This is one of the areas shown to have the greatest influence on audience retention and loyalty, and its strategic importance is therefore recognised.

This is followed by content creation supervised by humans (indicated as very important by 28% of respondents), commercial uses of AI, such as the creation of propensity to pay models (27%), product development and coding/programming with the help of AI (25%) and finally news gathering with AI, such as analysing data and identifying stories (22%). Also noteworthy is the greater lack of knowledge about the potential of AI in terms of commercial uses and product development.

GenAI is closely associated with language models such as Chat GPT, as indicated by the preference among journalists for using AI for automated text production. On the other hand, organisations are exploring the best use of these language models to generate relevant content for their audiences.

In the field of journalism, the Financial Times has developed a *chatbot* called Ask FT, which allows users to ask questions and receive answers in "natural language".¹¹ The language model used is Claude, from the company Anthropic, and the answers are derived both from the latest news published by the FT and from its archive of information with decades of history.¹²

The incorporation of functionalities such as full source attribution and the existence of internal security mechanisms help to guarantee the integrity and reliability of the result produced by the *chatbot*.

An emerging trend in the use of AI in journalism is therefore the creation of customised or proprietary tools for organisations' specific needs. Since 2018, Reuters¹³ has been using an AI tool created in-house, *Lynx Insight*, to automatically generate short story suggestions based on large data sets¹⁴, as well as offering real-time alerts to journalists about trends or relevant facts online.

In 2023, Reuters launched a new AI tool integrated into the Reuters Connect platform, with the aim of improving the production and discovery of video content by its customers¹⁵, speeding up the creation of multimedia packages. The tool analyses raw videos in real time, generating automatic transcripts, lists of scenes, multilingual translations and *tags* of public or local figures using *machine learning* technologies.

¹¹ <https://www.theverge.com/2024/3/23/24106296/ask-ft-generative-ai-chatbot-answers-tool>

¹² In addition to the Financial Times, Washington Post launched "Ask The Post AI" as an example.

<https://www.washingtonpost.com/pr/2024/11/07/washington-post-launches-ask-post-ai-new-search-experience/>

¹³ <https://www.reutersagency.com/en/media-center/how-ai-helps-power-trusted-news-at-reuters/>

¹⁴ Since 2024, Washington Post has had a similar tool (Haystacker) that identifies relevant themes and links in large data sets (photos, videos and text)

¹⁵ <https://www.reutersagency.com/en/media-center/reuters-launches-ai-powered-discoverability-features-for-video-library-on-reuters-connect-accelerating-discovery-editing-and-publishing/>

These examples suggest that journalism companies could benefit considerably from customised generative AI tools to speed up production processes and ensure greater efficiency in the dissemination of news, giving journalists greater confidence to incorporate technology into their work.

One of the main limitations for news organisations is that creating customised tools based on pre-trained models (as in the case of the Financial Times) or proprietary tools with algorithms created by the journalists themselves (as in the case of Reuters) has very high costs that most media cannot afford. It is therefore to be expected that more affordable GenAI tools will emerge to support journalistic work.

This is already being considered by Google¹⁶, which shows strategic potential for the journalism sector. Google's proposal would be to create a productivity tool that aids the news writing process, for example by helping journalists with headline options or different writing styles. However, it's possible that personalised GenAI tools could go beyond auxiliary instruments in operational tasks to become crucial elements in the journalism value chain.

It is also important to consider that the adoption of GenAI, or AI more broadly, varies according to the specific journalism tasks in which it is being applied. In some cases, it can even reduce the efficiency of the journalistic process, for example if the content needs to be thoroughly reviewed by humans or if it is not completely reliable. There are therefore economic and resource factors, but also ethical and functional ones, that can limit the extent to which GenAI is adopted in newsrooms, which suggests the need for careful implementation of the technologies.

¹⁶ <https://www.theguardian.com/technology/2023/jul/20/google-testing-ai-tool-that-writes-news-articles>

2. Economic, legal and ethical implications

2. Economic, legal and ethical implications

The possible uses of generative artificial intelligence (GenAI) in journalism presented above illustrate a fast-moving landscape where innovations in GenAI can alter and disrupt established information and communication systems.

This context of accelerated change demands a balanced approach from journalism, one that manages to harmonise technological imperatives with ethical, legal and economic considerations, but also social and political questions about the value of information and journalism for democracy.

In this second part of the report, we call for this consideration, starting by introducing the issue of copyright and the misuse of content to train GenAI models (2.1). We then move on to the more specific debate on the relationship between platforms and the media (2.2). The possible consequences for the journalistic labour market are also discussed (2.3). We conclude by emphasising some ethical principles, so that adapting to the new technological reality of AI does not neglect or undermine the principles of responsibility that journalism should have (2.4).

2.1 GenAI and copyright

The appropriation of copyrighted content by generative artificial intelligence models such as ChatGPT, Gemini or LLaMA raises considerable economic, legal and ethical concerns. Such models are trained with large volumes of data (texts, photographs, videos, audio and more), some of which is protected by copyright, without the explicit permission of the copyright holders. The argument that the use of this data could be framed as "fair use" under the legal doctrine of copyright remains a point of controversy.

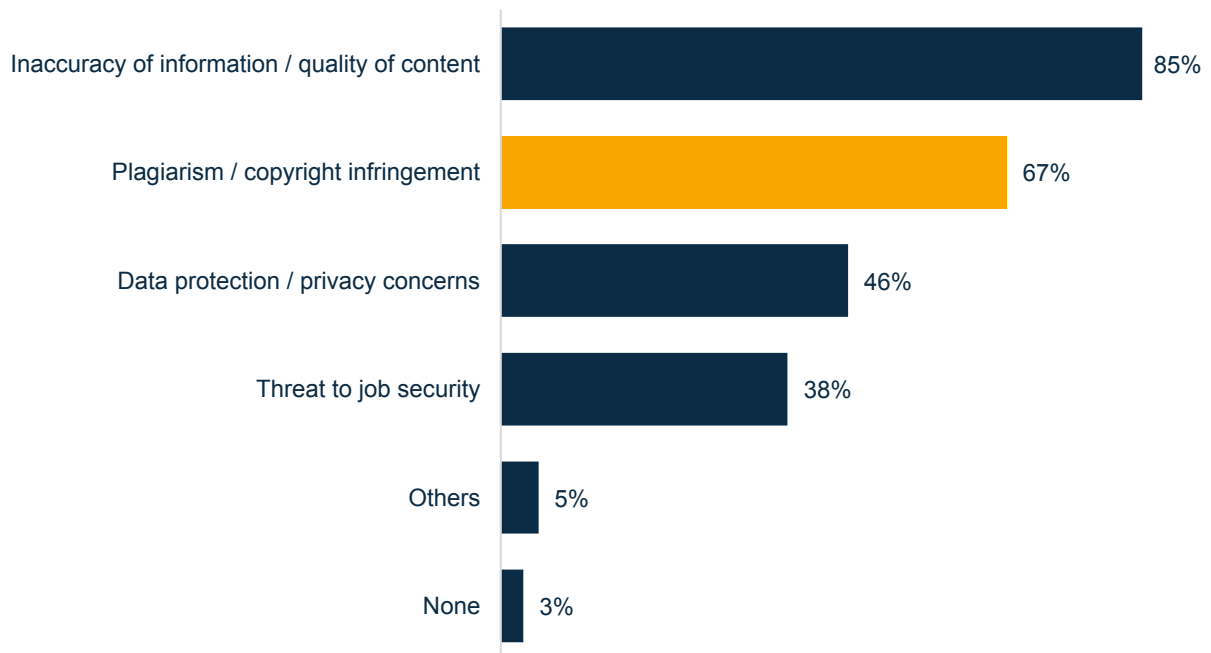
AI companies in fact claim that these models produce "new" works and do not harm the commercial market for original works.¹⁷ However, this logic does not address the intrinsic nature of the appropriation of intellectual content. While AI models may not fully replicate the content they have been trained on, they do reproduce considerable excerpts, as well as the essence, style and, in some cases, complex and creative ideas that are the product of intellectual labour and arduous and expensive research.

Additionally, the use of copyrighted data goes beyond legal issues and into the realm of ethics. A knowledge economy that prioritises technological development over the rights of creators of cultural and scientific content can trigger a scenario where the benefits of AI are disproportionately reaped by large technological platforms to the detriment of the individuals and institutions that contribute to the global body of knowledge.

In journalism in particular, concerns about intellectual property and copyright in the GenAI ecosystem have been growing. In mid-2023, as can be seen in the figure below, most journalists and editors surveyed by the World Association of Newspapers (WAN-IFRA) pointed to plagiarism and violation of authors' rights as one of the main problems of using GenAI tools, only surpassed by concerns about the accuracy and quality of generative content.

¹⁷ <https://www.theatlantic.com/technology/archive/2023/08/books3-ai-meta-llama-pirated-books/675063/>

Figure 4: Main concerns about the use of generative AI tools in newsrooms (2023)



Source: WAN-IFRA: Gauging Generative AI's Impact in Newsrooms (2023). N=101

In this regard, it's worth noting that at the end of 2023, around half of the world's leading media organisations blocked the *web crawlers* of OpenAI and Google.¹⁸ The aim of this blockade was to prevent these companies from training and updating AI models based on the crawling and extraction of content from media organisations' websites. Further exemplifying this tension, the New York Times and several media groups have taken legal action against OpenAI for collecting data from their websites without authorization.¹⁹ At issue is the use of *paywall-protected* news content to train the AI models of these tech giants, as well as the production of invented and misleading texts (so-called hallucinations²⁰) wrongly attributed to certain news brands.

¹⁸ <https://reutersinstitute.politics.ox.ac.uk/how-many-news-websites-block-ai-crawlers>

¹⁹ <https://www.nytimes.com/2024/04/30/business/media/newspapers-sued-microsoft-openai.html>

²⁰ <https://news.microsoft.com/pt-pt/2024/06/26/as-alucinacoes-da-ia-e-os-grandes-passos-para-as-ultrapassar/>

2.2 Growing dependence on large technological platforms

In the case of journalism, the ability of generative AI models to produce coherent and informative texts could be seen as a form of unfair competition with traditional media, further complicating the economic sustainability and future of journalism.

The growing asymmetry of power between the big digital platforms and the media refers to their respective business models, as well as the unequal technological and regulatory conditions that guide the sectors in question. This asymmetry is part of a debate that predates the massification of generative AI and whose negotiation is constantly developing, involving the most diverse social actors.

In Canada and Australia, for example, there have been initiatives by national governments to correct power asymmetries between media groups and large technology companies. The main argument was that the big digital platforms, as intermediaries in the information distribution system, profit from journalistic content without a fair financial return.

Legislation in 2023 in Canada, namely the Online News Act²¹, or C-18, obliges digital intermediaries (such as Meta and Alphabet/Google) to financially reward journalism companies. This law echoes another similar law passed in Australia²², which has led to payments from digital platforms to some media organisations for displaying links and excerpts of their content. In the case of Canada, the reactions to the legislation from the Meta and Google groups were different.²³ Meta partly blocked news content in Canada²⁴ on its services, which according to one estimate led to a 90 per cent drop in news visibility on Facebook, affecting local media ²⁵ the most.

²¹ <https://www.parl.ca/legisinfo/en/bill/44-1/c-18>

²² <https://www.reuters.com/technology/australia-says-law-making-facebook-google-pay-news-has-worked-2022-12-02/>

²³ <https://www.national.ca/en/perspectives/detail/navigating-the-complexities-of-canada-online-news-act-bill-c18/>

²⁴ <https://www.cbc.ca/news/business/meta-blocking-news-canada-1.6863294>

²⁵ <https://www.bbc.com/news/world-us-canada-67755133>

In the case of Google, the threat to remove news from Canadian media from its products was reversed, and an agreement was reached to return around 100 million dollars a year to Canadian *publishers*.²⁶

However, in parallel with government initiatives, media organisations have different strategies for positioning themselves in the face of the growing relevance of generative AI models in the information ecosystem. While some media organisations, as we saw earlier, are taking legal action, others have opted for parallel agreements with emerging generative AI companies.

The company Perplexity AI, which offers AI-generated summaries as search results - positioning itself as an alternative to Google²⁷ - presented its partnership programme with *publishers* in mid-2024, featuring names such as Time, Der Spiegel, or Fortune.²⁸ This development followed accusations of plagiarism, misappropriation and misrepresentation of *paywall-protected* content by Forbes and Wired magazine against Perplexity AI.²⁹

At the same time, the company OpenAI unveiled its AI-powered search engine, SearchGPT, and established agreements with The Atlantic and Vox Media, which join others such as News Corp (The Wall Street Journal, New York Post, and The Daily Telegraph), Axel Springer (Business Insider and Politico), Financial Times, and The Associated Press.³⁰ European groups such as Le Monde and Prisa Media (El País, Cinco Días, As, and El Huffpost) have also signed agreements with OpenAI.

This type of parallel agreement, which is not the result of a national negotiation, means that only a few *media players* will be able to demand due compensation for having their content collected to train these AI models.

²⁶ <https://www.theverge.com/2023/11/29/23981515/google-canadian-government-online-news-act-link-tax-agreement>

²⁷ Meta is also working on a search engine that will allow users to get answers from the Meta AI bot and has signed an agreement with Reuters to distribute news via its chatbot.

²⁸ <https://www.perplexity.ai/hub/blog/introducing-the-perplexity-publishers-program>

²⁹ <https://www.wired.com/story/perplexity-is-a-bullshit-machine/>

³⁰ <https://www.theverge.com/2024/5/29/24167072/openai-content-copyright-vox-media-the-atlantic>

These events show how important the actions of governments and regulatory authorities are in many contexts, since the power relations between the tech giants and the media in many countries are unequal, resulting in unbalanced negotiations in smaller markets such as Portugal.

In March 2024, the French Competition Authority fined Google 250 million euros for failing to comply with a set of commitments it had entered with a view to negotiating the licensing and remuneration of content from French media groups.³¹

One of the aspects in question was the technology giant's improper use of French editorial and journalistic content to train its Bard artificial intelligence model (renamed Gemini)³². The fine was in addition to another fine of 500 million euros in 2022, taken as compensation for misuse of other news content.³³

In the case of search engines, the implementation of Google's "Search Experience Generative AI" (SGE)³⁴, formalised as Overview AI³⁵, is paradigmatic of the power asymmetries between the news media and technology companies. This mechanism has the potential to revolutionise the way users access and interpret information on the internet, allowing them to get more direct and simplified answers through summaries that are highlighted in Google's search results.

Other parallel trends, such as the presentation of trend summaries on social networks, as proposed by X for its premium users³⁶, reinforce the change in online information consumption habits, in which summaries and main ideas are emphasised to the detriment of the detail of news information or the nuances of the debate they have generated on social networks.

³¹ <https://www.nytimes.com/2024/03/20/business/france-google-fine.html>

³² <https://eco.sapo.pt/2024/03/20/franca-multa-google-em-250-milhoes-por-violar-acordo-com-grupos-de-media/>

³³

³⁴ <https://blog.google/products/search/google-search-generative-ai-learning-features/>

³⁵ <https://blog.google/products/search/generative-ai-google-search-may-2024/>

³⁶ <https://techcrunch.com/2024/05/03/x-launches-stories-on-x-delivering-news-summarized-by-grok-ai/>

This form of AI-generated information consumption raises significant concerns, especially regarding the provenance and authenticity of the content. By generating summaries resulting from multiple sources, the answers given by generative AI make it difficult to clearly attribute a single source, discouraging users from consulting the original media articles. Emerging AI-generated news aggregation platforms, such as Particle³⁷ or Artifact (which has since been acquired by Yahoo³⁸), reveal new proposals for aggregating news content.

Both AI-powered search and new AI platforms or applications that generate generative content mean fewer hits on media organisations' websites. At the same time, traffic from social networks such as Facebook has been falling, partly due to Meta's strategic decision to give less visibility to news, which has penalised local media more sharply.³⁹

Google has even experimented with expanding its search engine results to highlight content from social media platforms (e.g. Instagram or TikTok) and question and answer forums (e.g. Reddit or Quora).⁴⁰ This new service is seen as a response to users' desire for more practical, lightweight and personalised information (first-hand advice or specific personal experiences and accounts), especially in video format (see the success of TikTok) or in the form of community content or alternative formats (such as online forums).

The future online visibility of news will therefore depend on how GenAI is integrated into search engines and other products. From a pessimistic perspective, a decrease in "organic traffic" is anticipated, since keyword searches in search engines may no longer directly highlight websites, giving greater visibility to summaries generated by GenAI and content from social networks and online forums. In addition, a reduction in "referral traffic" is expected, given the possibility of new news aggregators using summaries created by GenAI. Finally, a drop in "social traffic" is also expected, as the visibility of news on social networks tends to decrease.

³⁷ <https://particlenews.ai/>

³⁸ <https://www.yahooinc.com/press/yahoo-announces-the-acquisition-of-artifact-the-news-discovery-platform-created-by-instagram-cofounders-kevin-systrom-and-mike-krieger>

³⁹ <https://pressgazette.co.uk/platforms/how-far-facebook-referral-traffic-to-news-sites-has-plummeted/>

⁴⁰ <https://blog.google/products/search/google-search-perspectives/>

These trends are problematic because they suggest a future in which the experience of consuming information will take place on the fringes of websites, which could harm the traffic metrics and revenues of news organisations. Websites, being the digital home of the media, are also an important way of monetising content and converting users into subscribers, and are indispensable for building a community of readers/listeners/viewers of news brands

Based on these recent developments, one might think that the big tech companies behind the main digital platforms, and those emerging in the framework of generative AI, would be disregarding the value of news content for their business model. However, news content is essential to feed the major digital platforms and in particular the GenAI *chatbots*, and we can see more and more agreements to compensate news companies for the use of their news content.

The Associated Press (AP) was one of the first organisations to sign an agreement with OpenAI, allowing the company to use the news agency's archive to train its AI models. This agreement provides OpenAI with access to a comprehensive history of high-quality data, which is essential for the model to generate plausible and informative answers. GenAI models are trained on vast sets of textual data, and the news plays a crucial role in this process due to its quality and diversity.

However, in addition to historical data, GenAI projects rely heavily on continuous access to quality news sites to provide up-to-date content on current events. Without this constant flow of new information, the knowledge provided by the generative model is limited to a specific date, which can result in outdated, inaccurate or false answers about recent events.

As Felix Simon (2023)⁴¹ writes, by using the AI services of the big platforms, news organisations are inadvertently empowering technology companies that could threaten their business models and their role as *gatekeepers* of quality and trustworthy information. By providing access to their data, allowing the extraction of their content or using AI tools that collect their data, media groups strengthen these external AI systems.

⁴¹ Page 36

This could lead to the big digital platforms consolidating their dominance in the field of AI and even taking over functions that were previously exclusive to journalism, such as providing quality information to citizens on important matters of public interest

Journalism's possible resistance to the adoption of GenAI applications may therefore stem from the fact that AI companies want to control their strategic information.

Faced with the technological movement that favours generative content, more and more media outlets are choosing to block *web crawlers* from Google, Perplexity or OpenAI. However, this option needs to be considered strategically, as it can be counterproductive for the interests of news brands. The big technology companies control various products that are relevant to the visibility of journalism (such as Search, News, Discover or News Showcase in the case of Google).

Due to this concentration of online distribution channels, preventing the content of media organisations' websites from being crawled by blocking *web crawlers*, as well as preventing the brand's content and link from appearing in AI-generated results, can also mean that it doesn't appear in other parallel content display mechanisms.⁴²

This example reflects the tension between the need for news brands to protect their content and valorise their journalism and the pressure to give in to the commercial and strategic interests of the large technology companies that control important online channels for distributing news content.

The growing dependence on large technological platforms therefore raises questions about the status of journalism. The debate is about fair compensation for the use of news content and the display of journalistic brands as a source. More profoundly, it is not just a question of recognising the importance of the data that is the source of GenAI *outputs*, but of recognising the importance of journalism and quality information for a democratic and informed society.

⁴² <https://www.engadget.com/ai/online-publishers-face-a-dilemma-allow-ai-scraping-from-google-or-lose-search-visibility-202246891.html?src=rss>

2.3 The consequences for the journalistic labour market

The impact of generative artificial intelligence (GenAI) on the journalism labour market is a topic of growing relevance. Digital automation is increasingly permeating sectors traditionally dependent on skilled human labour, such as journalism. Large language models, such as GPT-4, offer possibilities for the automation of complex and specialised tasks, from news curation to copywriting. Consultancy firm KPMG has made a projection that 43% of the tasks carried out by authors, writers and translators could be automated by AI.⁴³

Faced with the idea that GenAI could be a threat to the journalism profession, we need to consider the "Lump of Labour" fallacy. The assumption that automation will only eliminate jobs ignores the possibility that new classes of jobs will be created, particularly jobs that require skills associated with or complementary to AI.⁴⁴

For example, at the end of 2023 the reputable New York Times created the position of Editorial Director of Artificial Intelligence Initiatives, with the aim of trialling and implementing generative AI solutions in the newsroom.⁴⁵ It is therefore likely that the time saved by using generative AI will be redirected to new needs in the sector.

In the context of journalism, we can expect an increase in demand for journalists specialised in interpreting, contextualising and validating AI-generated information. In this sense, professionals with in-depth investigative skills, supported by AI tools, will become essential for exploring and presenting the nuances and implications of stories in a way that AI alone cannot.

⁴³ <https://kpmg.com/uk/en/home/insights/2023/06/generative-ai-and-the-uk-labour-market.html>

⁴⁴ <https://www.ben-evans.com/benedictevans/2023/7/2/working-with-ai>

⁴⁵ <https://www.nytc.com/press/zach-seward-is-the-newsrooms-editorial-director-of-a-i-initiatives>

The UK's Newsquest Media Group has posted a job advert for "AI-assisted reporters", presenting them as "someone who will be at the forefront of a new era of journalism, using AI technology to create national, local and hyperlocal content."⁴⁶ To this end, they have built a personalised AI tool to be used by these professionals.⁴⁷

The tool allows journalists to *input* quality and reliable information, such as press releases or quotes from a particular source. After this *input*, the journalists give the AI system instructions on the story to be produced, such as the number of words or a specific theme. These professionals also have the task of checking the final piece, guaranteeing the quality and originality of the content.

In addition, with the increase in the production of artificially generated online content, the risks associated with disinformation are also growing. The use of generative AI to create or reinforce the credibility of fake content, such as fabricated news or visual manipulation through *deepfakes*, represents a growing challenge.

For this reason, the demand for journalists who are highly qualified in *fact-checking* is also likely to increase. These professionals will have the critical responsibility of combating the spread of disinformation, using advanced AI tools to detect fraud, trace the origin of information and assess the authenticity of content, both textual and audiovisual.

Another relevant aspect is the need for continuous training for professionals in the field. The development of generative AI is not just limited to the automation of simple tasks but is also influencing the way narratives are constructed and presented.

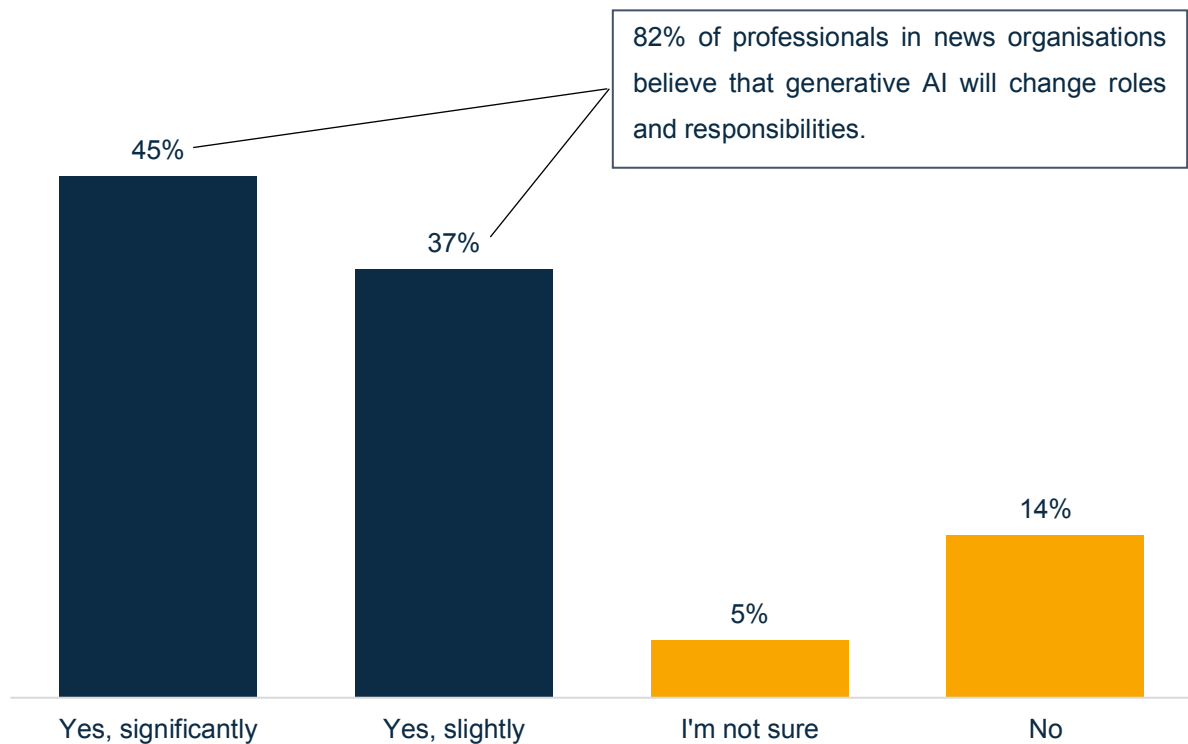
This creates opportunities for journalists to gain new skills, learning to work in synergy with AI technologies, using them not just as support, but as an extension of their analytical and creative capacity. Topics such as algorithmic literacy for journalists will become increasingly important in the training of future journalists.⁴⁸

⁴⁶ <https://www.euronews.com/next/2023/08/24/robot-reporters-heres-how-news-organisations-are-using-ai-in-journalism>

⁴⁷ <https://pressgazette.co.uk/publishers/regional-newspapers/newsquest-ai-assisted-reporters/>

⁴⁸ <https://obs.obercom.pt/index.php/obs/article/view/2433>

Figure 5: "Do you think generative AI tools change the roles and responsibilities of editors and/or other professionals?" (2023)



Source: WAN-IFRA: Gauging Generative AI's Impact in Newsrooms (2023). N=101

Transparency in the use of AI in news production, as well as in the management of cognitive and cultural biases in algorithms, is essential for safeguarding the integrity of information, and is therefore a concern that must be addressed by newsrooms. This scenario could lead to the emergence of new editorial roles, such as AI ethicists, to ensure that journalistic practices remain focused on the guiding principles of journalism.

In this sense, AI can increase the efficiency of journalistic work, while at the same time calling on traditional structures to reconfigure the management of their human resources. On issues related to the labour market and even considering that AI technology is primarily a support tool, we should still question the prevailing interests and logics. Rarely the discussion about AI focus on its potential to make journalism more creative or interesting. Instead, the adoption of AI is primarily aimed at increasing efficiency and productivity. The hope is that these gains will contribute to the economic viability of journalism.

2.4 Ethical use of AI in journalism

The emergence of new ethical demands and quality standards in the use of AI is crucial for the future of journalism and the quality of information. The American magazine Sports Illustrated, once an important and prestigious title, was criticised for generating articles by AI and fake writers created with AI, without warning readers.⁴⁹ This case exemplifies the misuse of technology, with damage to the reputation of brands.

In this regard, it should be noted that 1/3 of the news organisations that responded to a survey by the London School of Economics in 2023 said they had or were developing an AI strategy.⁵⁰ Another study, on the AI *guidelines* of 52 news organisations from different countries around the world⁵¹, highlights a growing trend towards the adoption of guiding principles for the use of AI in journalism, especially since April 2023, following the success of ChatGPT.

The analysis carried out in this study reveals that one of the main objectives of these *guidelines* is to distinguish between situations in which AI can be applied in journalistic processes and those in which it cannot. Even so, there are more cases in which the documents clearly state the permitted uses of AI (87 per cent) than those that determine prohibited uses (67 per cent).

As for the risks of AI, these are mentioned in 69 per cent of the cases, the most frequently mentioned being the "hallucinations" of AI models, in which information is invented, the bias of the information produced, which reinforces social stereotypes, and finally the issue of copyright and content licensing.

The same study identified the issue of transparency as fundamental. In the documents analysed, 90% mentioned that the use of AI in journalism should be made public, especially when it is used in a more than merely auxiliary way.

⁴⁹ <https://futurism.com/sports-illustrated-ai-generated-writers>

⁵⁰ <https://www.journalism.ai/info/research/2023-generating-change>

⁵¹ <https://ora.ox.ac.uk/objects/uuid:b527b298-a12b-4f0d-bf77-543e3375cdf7/files/sp2676x005>

The results reveal that the emphasis on transparency is in the use of AI for texts, followed by images, with automated and personalised content recommendation receiving only limited attention. Similarly, the importance of human supervision was mentioned in 85 per cent of the *guidelines*, although only 65 per cent always require human supervision when using AI.

Many reputable news organisations, such as the BBC⁵² or the Associated Press⁵³, have published guidelines on AI. Despite these specific notes, it is important to emphasise that the BBC has global principles and guidelines on AI, which include the generative component⁵⁴, and that the Associated Press has included a chapter on AI in its Stylebook⁵⁵. This option emphasises the importance of dealing with generative AI within the framework of a strategic positioning on AI.

In addition to the initiatives of different news brands, it's important to highlight the *guidelines* that have been agreed between different institutions. Below we highlight some of the global principles for artificial intelligence, conceived in 2023 by an alliance of media and journalism organisations.⁵⁶

- Respect intellectual property rights protecting the organizations' investments in original content.
- Leverage efficient licensing models that can facilitate innovation through training of trustworthy and high-quality AI systems.
- Provide granular transparency to allow publishers to enforce their rights where their content is included in training datasets.
- Clearly attribute content to the original publishers of the content.
- Recognise publishers' invaluable role in generating high-quality content for training, and also for surfacing and synthesizing.
- Comply with competition laws and principles and ensure that AI models are not used for anti-competitive purposes.
- Promote trusted and reliable sources of information and ensure that AI-generated content is accurate, correct and complete.
- Not misrepresent original works.

⁵² <https://www.bbc.co.uk/mediacentre/articles/2023/generative-ai-at-the-bbc>

⁵³ <https://blog.ap.org/standards-around-generative-ai>

⁵⁴ <https://www.bbc.co.uk/editorialguidelines/guidance/use-of-artificial-intelligence/>

⁵⁵ <https://reutersinstitute.politics.ox.ac.uk/news/focus-humans-not-robots-tips-author-ap-guidelines-how-cover-ai>

⁵⁶ <https://wan-ifra.org/2023/09/global-principles-for-artificial-intelligence-ai/>

- Respect the privacy of users that interact with them and fully disclose the use of their personal data in AI system design, training, and use.
- Align with human values and operate under global laws.

The collaborative effort of Reporters Without Borders (RSF) and 16 other media organisations has also resulted in another new charter aimed at regulating the use of AI in the media. The Paris Charter on AI and Journalism presents the following ten fundamental principles:

1. Journalistic ethics guide the way the media and journalists use technology.
2. Media outlets prioritise human agency.
3. AI systems used in journalism undergo prior, independent evaluation.
4. Media outlets are always accountable for the content they publish.
5. Media outlets maintain transparency in their use of AI systems.
6. Media outlets ensure content origin and traceability.
7. Journalism draws a clear line between authentic and synthetic content.
8. AI-driven content personalisation and recommendation upholds the diversity and the integrity of information.
9. Journalists, media outlets and journalism support groups engage in the governance of AI.
10. Journalism upholds its ethical and economic foundation in engagements with AI organisations.

The future of journalism in the age of AI is uncertain, but it seems clear that, while maintaining its fundamental deontological principles and values, the sector and the profession will change, both in the type of jobs available and in the skills required. The journalists of the future may need to be both proficient in language and journalistic ethics, as well as competent in using and understanding AI-based tools.

3. Case-studies and best practices

3. Case Studies and best practices

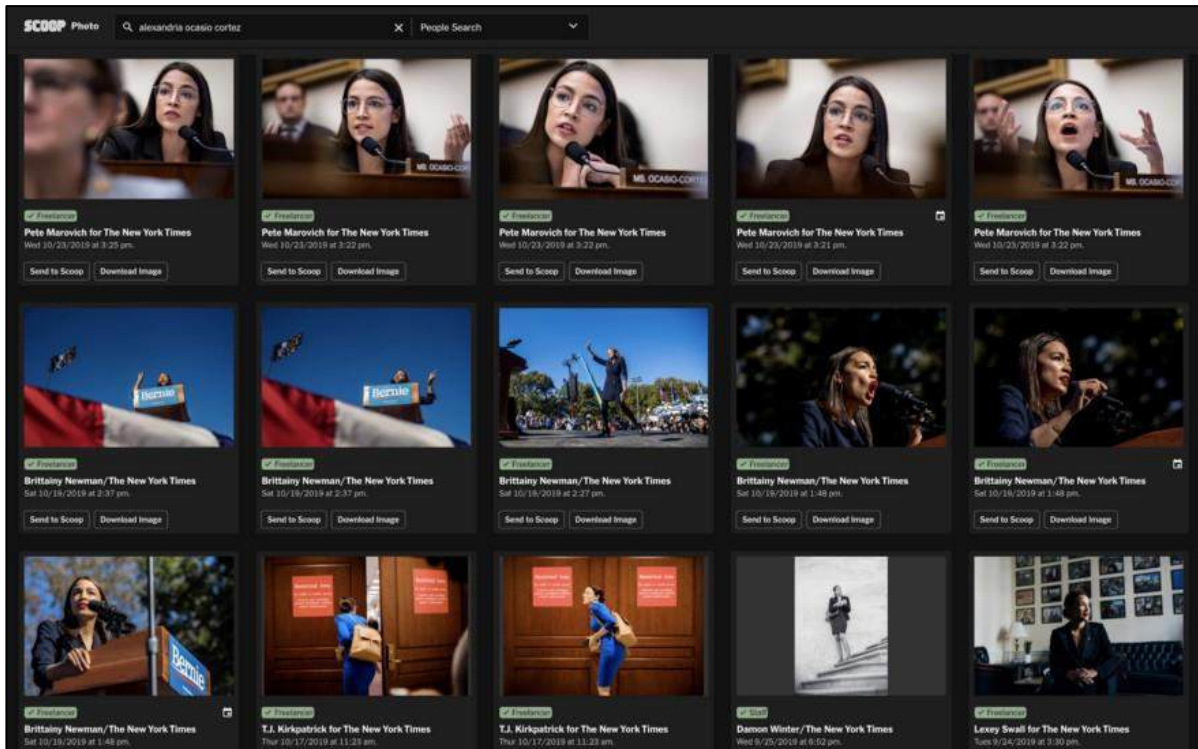
In this section, we present several case studies that exemplify how news companies have incorporated AI into their operations. In some of the cases presented, AI is used as a way of diversifying the offer to consumers. In this sense, it is important to consider that the adoption of GenAI models, or AI systems in general, can leverage an innovation strategy that involves new formats and genres of content.

It should be noted that in 2021, as part of the report "Algorithms and News - The Opportunity of Artificial Intelligence in Journalism", OberCom carried out this same exercise, with the aim of exploring the use of AI in journalism. We believe that the cases previously covered continue to be relevant in the media ecosystem, with possible applications in journalism, which is why they will be presented again.

In addition, we will explore other more recent examples of practical applications of AI in journalism, which represent the innovation brought about by this type of tool since 2022

The case studies will be presented as representative of different areas of application of AI in journalism. However, despite the suggested division, many of the examples presented cross different areas, which reveals the transformative potential of emerging technologies in news organisations.

3.1 AI for back-end automation



Source: <https://open.nytimes.com/to-find-photos-in-our-archive-we-taught-the-cms-how-to-read-f9bd5f6703d7>

Note: OberCom (2021)

CMS Photo Project (The New York Times, USA)

- Instead of searching for photos in an unstructured way based on the captions (in which all the words have the same weight in determining the search), an algorithm was developed using *natural language processing* (NLP) techniques.
- This algorithm makes it possible to identify the most important words from the grammatical structure of the captions, and thus correctly identify the central elements to highlight in the photograph (people, places, institutions, etc).⁵⁷

⁵⁷ <https://open.nytimes.com/to-find-photos-in-our-archive-we-taught-the-cms-how-to-read-f9bd5f6703d7>

Uber, DoorDash Gig-Worker Victory in California Sets Tone for Other Fights
 The companies plan to lobby for national legislation on the California model, which provides drivers flexibility and some benefits

The California fight has led to changes in the way companies treat drivers. An Uber pickup at Los Angeles International Airport.
 PHOTOS: ETIENNE LAGRANTIER/ANSA/GETTY IMAGES

By Precilla Rane
 Updated Nov 4, 2020 9:29 am ET

- Level 0 (15 Topics):**
 - 13: Urban Centers
- Level 1 (50 Topics):**
 - 03: Startups & Silicon Valley
- Level 2 (100 Topics):**
 - 34: Uber
- Level 3 (590 Topics):**
 - 98: 2020 California Prop 22

Source: <https://medium.com/the-wall-street-journal/staying-on-topic-building-an-automated-topic-model-of-wsj-news-coverage-d4dc4369f71b>

Note: OberCom (2021)

Automated Topic Model (The Wall Street Journal, USA)

- Instead of using *tags* (based on the newspaper's divisions or keywords), which have to be added manually, an automatic system has been developed which groups articles by theme (from the most general to the most specific).
- It's an analytical tool that allows you to answer questions about content performance (for example, which topics have more audience interaction on the WSJ app on weekdays vs. weekends?).⁵⁸



Source: <https://www.sophi.io/>

Note: OberCom (2021)

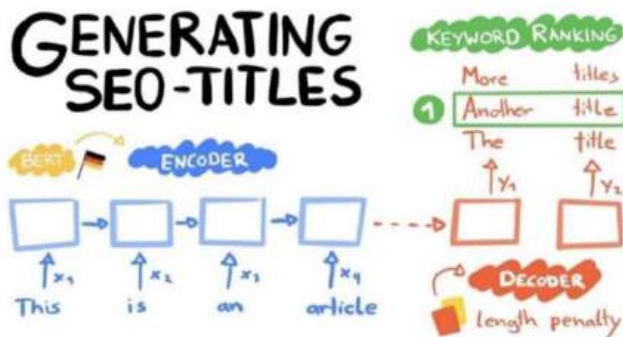
Sophi (sophi.io) (The Globe and Mail, Canada)

- Tool that automatically curates the *homepage* and the various sections of the *website* and decides whether the article should be behind the *paywall*.
- The *paywall* is dynamic, i.e. it offers different visitors different levels of access to the *website*, depending on the likelihood of subscribing.
- It analyses both content *performance* and user behaviour to determine which content should remain free and generate greater advertising revenue, or be placed behind a *paywall*, where the opportunity to generate subscription revenue is greater.
- As well as enabling the automation of tasks that are usually assigned to an editor, it is an example of the application of AI for commercial purposes.⁵⁹

⁵⁸ <https://medium.com/the-wall-street-journal/staying-on-topic-building-an-automated-topic-model-of-wsj-news-coverage-d4dc4369f71b>

⁵⁹ <https://www.sophi.io/insights/news/pat-white-writes-about-how-sophiio-impacts-journalism-in-canada/>

3.2 AI for content creation

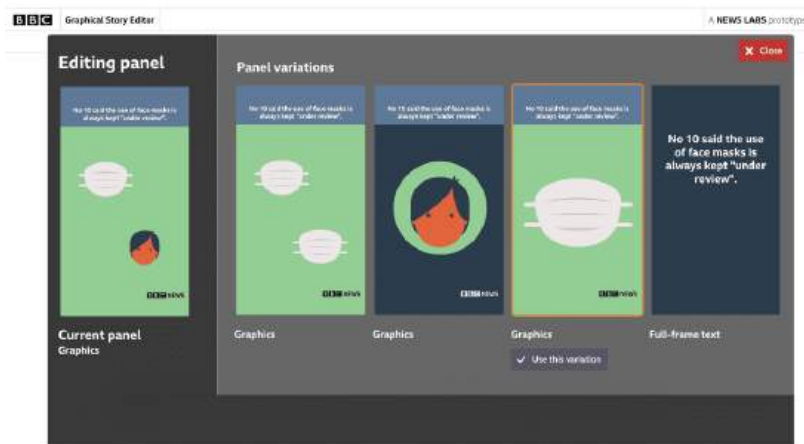


Source: <https://medium.com/axel-springer-tech/how-we-built-a-cutting-edge-nlp-model-to-generate-seo-titles-ac0fc80a5128>

Note: OberCom (2021)

NLP model to generate SEO titles (Axel Springer, Germany)

- Instead of manually writing a title for an article, a system based on *natural language generation* (NLP) has been developed to automatically generate article titles optimised for online search engines (e.g. Google).⁶⁰



Source: <https://bbcnewslabs.co.uk/news/2020/gst-on-social/>

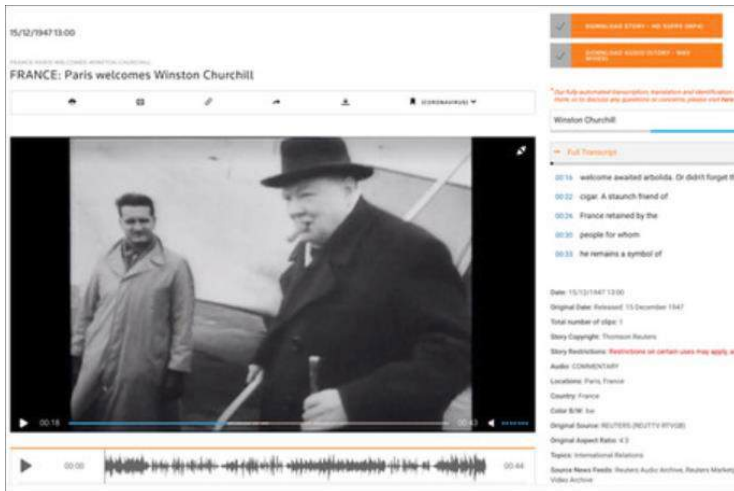
Note: OberCom (2021)

Graphical Story Editor (BBC, UK)

- Automating the process of creating content in the form of *stories* for Instagram and Facebook by generating multiple variations of illustrations from a library of images, which can then be edited by journalists.⁶¹

⁶⁰ <https://medium.com/axel-springer-tech/how-we-built-a-cutting-edge-nlp-model-to-generate-seo-titles-ac0fc80a5128>

⁶¹ <https://bbcnewslabs.co.uk/news/2020/gst-on-social/>



Source: <https://x.com/ReutersConnect/photo>

Reuters Connect AI Tool (Reuters, UK)

- AI tool incorporated into the Reuters Connect platform to enhance the creation and discovery of video content by the platform's users.
- It facilitates the production of multimedia packages by analysing videos in real time and generating automatic transcripts, scene lists, multilingual translations and *tags* of public or local figures.
- The use of *machine learning* makes it possible to speed up and automate these processes, benefiting journalists in the production of audiovisual materials.⁶²

All questions, answers and background information in this quiz were generated by an algorithm TIME designed using OpenAI technology.

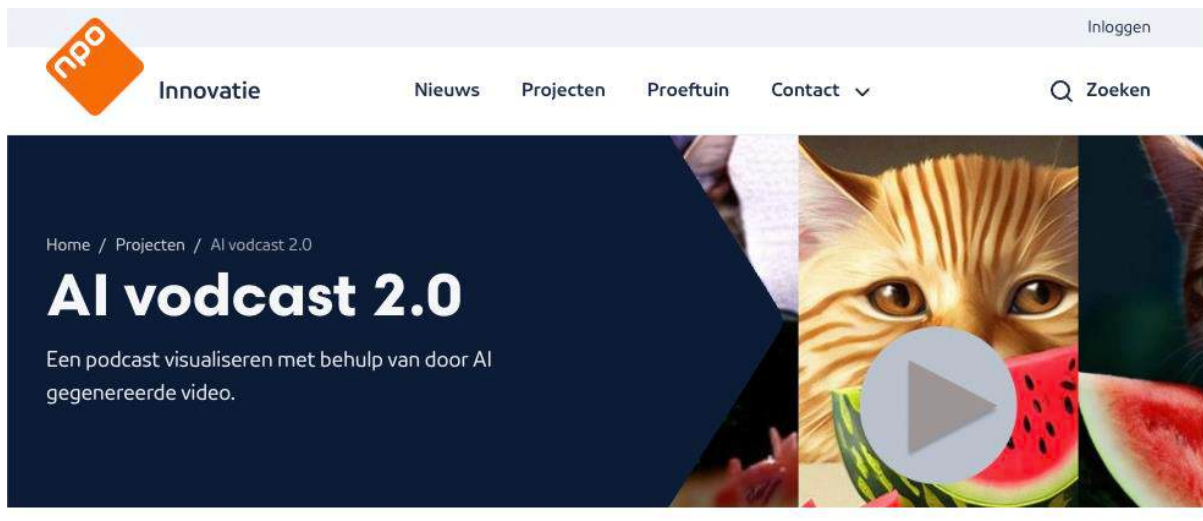


Source: <https://time.com/6284776/time-chatgpt-news-quiz/>

Automatic Quiz Generator (TIME Magazine, USA)

- Using Open AI's ChatGPT tool, TIME magazine produced 10 questionnaires derived from stories made freely available on its website.

⁶² <https://www.reutersagency.com/en/media-center/reuters-launches-ai-powered-discoverability-features-for-video-library-on-reuters-connect-accelerating-discovery-editing-and-publishing/>



Source: <https://npo.nl/innovatie/projecten/ai-vodcast-20>

AI VodCast 2.0 (KRO-NCRV, Netherlands)

- After transcribing a podcast into text, the AI generates a video based on the various contents covered in the podcast.
- The aim is to make it possible to visualise a podcast using AI, offering users a new consumption experience.
- This innovation makes it possible to reuse the content of the podcast, presenting it in a new video format that is growing in favour among young people.⁶³

3.3 AI for news automation



Source: <https://pa.media/radar/>

Note: OberCom (2021)

Innovation: **RADAR** (The Press Association, UK)

- Automatic news production system that allows you to write local pieces by extracting information from databases.
- It can generate 300 to 400 variations of a news story, each with specific data on a different location.⁶⁴

⁶³ <https://npo.nl/innovatie/projecten/ai-vodcast-20>

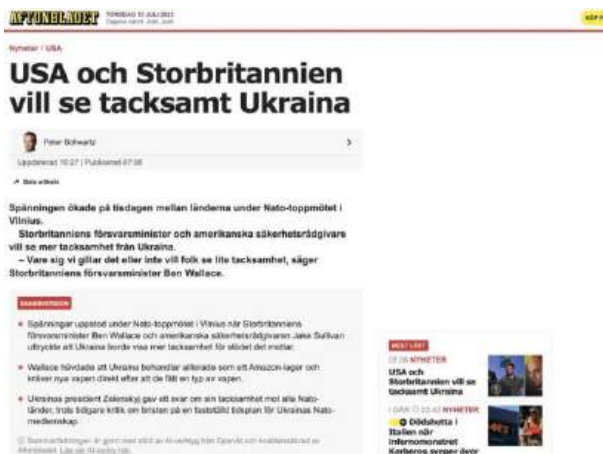
⁶⁴ <https://www.newsrewired.com/2018/11/07/press-associations-news-service-radar-has-written-50000-individual-local-news-stories-in-three-months-with-ai-technology/>



Source: <https://www.appliedxl.com/news/ap-appliedxl-to-deliver-ai-powered-news-tips-to-local-newsrooms>

AP AI-Powered News Tip Service (Associated Press, USA)

- Through a collaboration with AppliedXL, the Associated Press intends to provide local news through an AI-powered news tip service.
- This system uses AI to identify and contextualise the local impact of federal regulations from more than 430 US government agencies.
- In this way, the system helps journalists to report on the local consequences of federal regulations in areas such as health, the environment, the economy and public policy, among others.⁶⁵



Source: <https://pressgazette.co.uk/publishers/digital-journalism/aftonbladet-sweden-biggest-daily-use-chatgpt-in-the-newsroom/>

Snabbversion (Aftonbladet, Sweden)

- Aftonbladet has started using ChatGPT incorporated into its Content Management System (CMS) to generate summaries of the articles on its site.
- Initial results indicate that articles with AI-generated summaries, known as "Snabbversion", record longer reading times than those without summaries.
- This unexpected result suggests that presenting a brief overview encourages readers to read the full article

⁶⁵ <https://www.ap.org/media-center/press-releases/2024/ap-appliedxl-to-deliver-ai-powered-news-tips-to-local-newsrooms/>



Source: <https://www.bloomberg.com/professional/insights/trading/ai-summary-of-jpmorgan-transcript-holds-clues-for-wider-earnings/>

AI-Powered Earnings Call Summaries (Bloomberg, USA)

- AI tool that makes automated summaries from the transcripts of company *earnings calls*, using natural language processing techniques.
- It allows you to quickly identify the most important parts of these transcripts, facilitating quick access to the most important information, such as financial strategies and business decisions.
- Being aimed above all at financial analysts and investors, it shows the potential of AI to process large volumes of information efficiently to produce news or information pieces.⁶⁶

Reuters - Third Block - First Goal



Watford opened the scoring in the
10th minute with a shot from
Harry Kane . Carvahlo supplied the
assist.

Source: <https://www.forbes.com/sites/simonchandler/2020/02/07/reuters-uses-ai-to-prototype-first-ever-automated-video-reports/>

Note: OberCom (2021)

Automated Video Reports (Reuters, UK)

- Fully automated sports news summarisation system, with an artificial anchor (similar to *deepfake* videos) presenting the events of the game.
- An algorithm is used to combine the photo and minute-by-minute data of what happened in the game, automatically generating a script that combines the words describing the event with the relevant image.⁶⁷

⁶⁶ <https://www.bloomberg.com/company/press/bloomberg-launches-ai-powered-earnings-call-summaries/>

⁶⁷ <https://www.forbes.com/sites/simonchandler/2020/02/07/reuters-uses-ai-to-prototype-first-ever-automated-video-reports/?sh=4944fdda7a2a>



Source: <https://www.newscaststudio.com/2023/12/14/channel-1-launches-ai-generated-news-a-new-era-in-personalization-or-a-step-too-far/>

AI Generated News (Channel 1AI, USA)

- News platform that uses AI to create an automated news experience.
- This platform uses AI video generation to provide news segments based on reliable sources such as Reuters and the Associated Press.
- The news is presented by virtual anchors, created from *scans* of real people, who report the news in different languages with realistic voices.
- Image generation tools such as DALL-E 3 and Midjourney are also used to accompany the stories without photographic or video elements.
- The full launch is scheduled for 2024.⁶⁸



Source: <https://www.koreaherald.com/view.php?ud=20220324000361>

DeepBrain AI (Chinese Central Television (CCTV), China)

- Pivot generated by AI, using the DeepBrain AI tool, with voice, facial expressions and natural body behaviour.
- This pivot will be introduced to a programme in which it will interact and communicate for the first time with other human participants.
- Unlike other AI models used by CCTV, this is a fully 3D model, increasing the sense of realism and authenticity.⁶⁹

⁶⁸ <https://www.newscaststudio.com/2023/12/14/channel-1-launches-ai-generated-news-a-new-era-in-personalization-or-a-step-too-far/>

⁶⁹ <https://www.koreaherald.com/view.php?ud=20220324000361>

3.4 Examples of AI for distribution and recommendation



Source: <https://yle.fi/uutisvahti/>

Note: OberCom (2021)

Yle Uutisvahti (Yle NewsWatch) (Yle, Finland)

- Personalised news recommendation *mobile* application that incorporates journalistic ethics and editorial voice.
- The **Voitto** robot, which writes short pieces of information, acts as a personal assistant within the application.⁷⁰



Source: <https://www.pressgazette.co.uk/times-titles-halve-digital-subscriber-churn-with-tailored-emails-from-ai-named-james/>

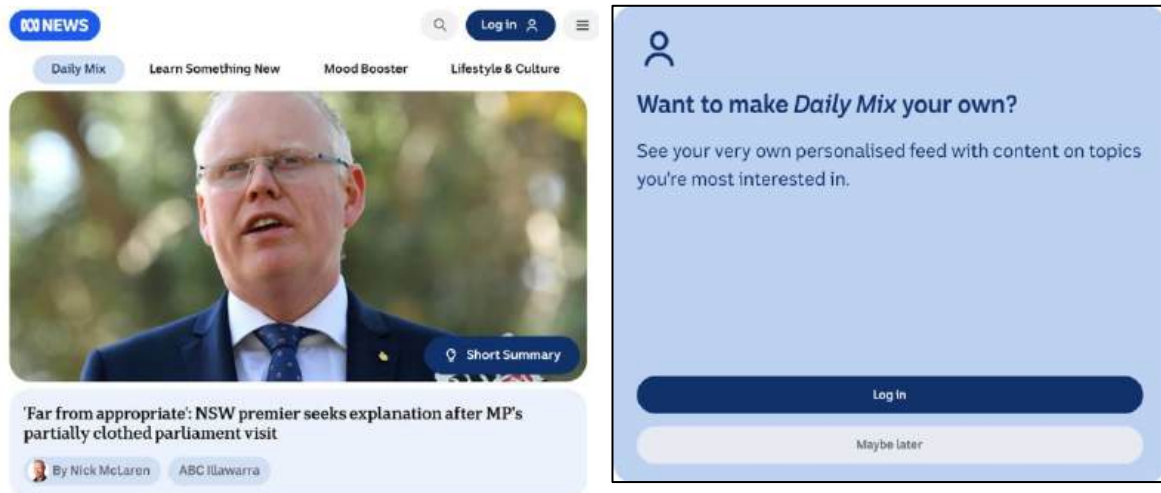
Note: OberCom (2021)

JAMES (Journey Automated Messaging for Higher Engagement) (The Times of London, UK)

- A system that creates personalised emails, predicting which content is of most interest to each subscriber, and sends these emails in their preferred format and at the time they are most likely to read them.⁷¹

⁷⁰<https://newslab.yle.fi/blog/16T3d1e7YcuwguOk8gsq8s>

⁷¹<https://www.pressgazette.co.uk/times-titles-halve-digital-subscriber-churn-with-tailored-emails-from-ai-named-james/>



Source: <https://www.abc.net.au/news/for-you/daily-mix/104390296>

For You Feeds (Australian Broadcasting Corporation, Australia)

- Users who *log on* to the *website* have the option of viewing content that is most relevant to them.
- This content, related to various themes, is determined by a new AI system that automatically prioritises the themes and topics most frequently consumed by the user.
- The news, with AI-generated summaries, is presented in a dynamic format, optimised for mobile devices, which resembles the presentation of content on online social networks.⁷²



Source: <https://www.youtube.com/watch?v=T08mJT190bM>

Innovation: ChatBot Ask FT (Financial Times, USA)

- *Chatbot* that allows Financial Times subscribers to ask questions in conversational mode.
- In return, users receive natural language responses based on news previously published by the Financial Times and its extensive archive of content.
- The presentation of the source and date of the information generated by the ChatBot offers a greater degree of transparency and reliability to this tool.⁷³

⁷² <https://help.abc.net.au/hc/en-us/articles/10140177202447-What-s-changed-on-the-ABC-NEWS-website>

⁷³ https://aboutus.ft.com/press_release/financial-times-launches-first-generative-ai-tool



IBERIFIER
Iberian Digital Media
Observatory



Project co-funded by the European Commission - Call
DIGITAL-2023-DEPLOY-04, European Digital Media
Observatory (EDMO) - National / multinational hubs
Project: **IBERIFIER Plus - 101158511**