Artificial Intelligence in Journalism

White Paper

J. Heesen et al.
Working Group IT Security, Privacy, Legal
and Ethical Framework

Executive Summary

Journalism is already undergoing a process of change as a result of digitalisation. Artificial intelligence (AI) is playing an important role in this process and is already shaping the daily editorial routine of many newsrooms. AI systems support research, facilitate the dissemination of news and create automated texts: With the latest developments around large language models such as ChatGPT, applications in this area will continue to grow in the near future. These AI applications can make the work of editorial teams and media houses more efficient, increase the quality of contributions, and thus promote trustworthy media communication. However, this presupposes that AI technologies are developed, trained and integrated into editorial work responsibly and in accordance with journalistic quality standards and socially anchored ethical principles.

Applications of AI technologies in journalism

AI systems can already be used in various areas, including journalism. Here, above all, they have the potential to profoundly and sustainably influence the way in which media content is researched, generated and received.

Investigation: AI systems support media professionals in selecting and sorting journalistic content. AI use goes beyond mere applications in search engines by also including technologies for targeted research. The systematic evaluation of digital archives or data sources with the help of AI plays a significant role, for investigative data journalism in particular: This makes it possible to systematically explore complex topics from the finance and banking sector, for example, or to conduct data-based research based on satellite images or movement data. At the same time, AI systems can help identify suitable content for balanced investigation by specifically suggesting alternative information offerings on certain positions or topics and thus counteracting biased, one-sided reporting (media bias) or even uncovering false news.

Production: AI applications offer journalists the possibility of automatically creating text, image and audio material, linking them together or even generating entirely new content (so-called synthetic media). Today, AI systems are already being used to produce weather or sports reports. To do this, they access databases in which the necessary information – such as weather data and match results – is available in a structured form. AI applications such as the transcription of audio recordings (e.g., after interviews) and the translation of articles have also been used intensively in many editorial departments for years and can make daily editorial work easier.

In addition to their creative potential, synthetic media content can also make abusive forms of use possible, especially in the audio and video sector, such as deepfakes. In these, it is possible to manipulatively produce personal characteristics such as voices, facial expressions or gestures with new text and image content. In order to maintain trust in AI-based synthetic contributions, journalists and editorial teams therefore have an important role to play as a corrective: automated content must be checked according to specified quality criteria, and it must be determined where and to what extent an AI system should be used at all.

Distribution: In the context of distribution, the goal is to offer digital media users a range of products that is as tailored as possible to their respective interests, while at the same time representing a broad, relevant news base. AI can support this personalization and improve the allocation of media products and target groups, for example by forming user preference profiles based on usage data and deriving next read recommendations from them. But AI can also offer more detailed personalisation, for example according to regional interests, or versioning of news content such as according to preferred media types.

Opportunities for journalism

AI systems offer advantages and relief especially when (routine) activities can be standardized and automated, such as research in archives or transcribing texts. The free space thus gained enables journalists to devote themselves to more creative and more substantial tasks: investigative research, creating articles or conducting interviews and background discussions.

AI systems can help journalists to make the criteria according to which a news selection was made transparent and thus also identify biases. After all, despite their professional journalistic experience, training and journalistic due diligence, editors' personal backgrounds or world views can (unconsciously) play a role in the selection. For example, in the case of quoted experts, variety can be created, and one-sidedness avoided.

With the help of AI algorithms, media professionals also have a tool to automatically filter comments and remove inappropriate posts, thus making discourse spaces on the Internet safer for media users – on their own platforms as well as those of others. AI systems can also become a valuable tool for media regulators to identify (criminally) relevant content and act against the authors and responsible parties.

Challenges

The use of AI applications in journalism also poses challenges and dangers at various levels that relate to the technologies themselves as well as to the social practices and norms in dealing with AI in journalism. First and foremost, editorial departments must ask themselves whether they want to develop the appropriate AI technologies for the identified fields of application themselves – possibly with a partner from research – or whether they want to rely on external solutions. Both variants have advantages and disadvantages: An internal development is resource-intensive and requires corresponding AI or data science specialists. An external solution, on the other hand, can lead to dependencies on large tech companies and thus to a loss of quality at the expense of the company's own credibility. Coupled with this, there is also the risk of discrimination and bias, as the AI technology has been trained or developed with data that itself already contains a bias.

With the introduction of AI systems, questions arise on the ethical-normative level about the changing reality of work and the new competencies and skills required with it, about quality standards of journalistic work, journalistic responsibility and labelling obligations for automated content. On the other hand, there are also reservations about AI technology and the concerns about the loss of journalistic self-conception.

Outlook

AI systems can make an important contribution as a supporting tool for contemporary digital and AI-based journalism. In this way, AI and journalism can be brought together – according to journalistic quality standards as well as socially anchored ethical and press law principles.

To this end, the necessary framework conditions must be created in the media houses and newsrooms so that the potential of AI systems can be utilised by journalists: Facilitating work from routine tasks, more time for investigative research, faster provision of personalized media content. For the constructive interplay between AI-based automation and journalistic skills, newsrooms are called upon to actively participate in shaping this technology in order to promote a transparent and responsible approach to AI and to carefully review

continuously where its benefits and limitations, lie. In this way, the potential of AI can be activated for better journalistic work, economic efficiency can be increased, and journalists can be prevented from being overburdened by an accumulation of tasks or job cuts.

Other recommended actions, which maintain journalistic due diligence, include building the necessary AI competencies within editorial teams, raising awareness for a critical and reflective approach to AI systems, exploring technical possibilities, preserving human autonomy, providing free access to open-data portals in government agencies and state institutions, adhering to security and quality standards of certified AI, and, above all, as confidence-building measures, a labelling requirement for automated media content.

In order for media creators to be able to fulfill their mandate to build up the content basis for democratic opinion-forming with the help of AI, society is also called upon to actively support the discourse on how automated media content should be evaluated for trustworthy media communication.