

Executive Summary

Strengthening democratic competence:

The challenge of artificial intelligence and the conveyance of media literacy

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Key messages and objectives

The ongoing development of artificial intelligence (AI), and generative AI in particular, is having a profound impact on the media sector and is changing the way news is consumed and produced. AI is ambivalent in nature. On the one hand, it offers opportunities, for example through personalisation and automation, to reach more people with relevant information and contribute to a better-informed society. On the other hand, the use of AI also harbours risks that can manifest themselves in the form of disinformation or filter bubbles, for example. In order to shape the changes in the media sector successfully, the opportunities that AI offers society must be exploited and the risks minimised at the same time. Strengthening the media literacy of citizens' media skills is an essential component for achieving these goals.

In modern societies, media – especially digital media – act as central sources of information. The internet and social media are becoming the main source of news for a steadily growing proportion of the population, especially for young people, and social opinion-forming is also increasingly shifting to digital platforms. Information and opinion-forming skills are therefore an indispensable prerequisite for actively participating in the formation of social opinion and thus in the democratic process, making informed decisions and orientating oneself in a pluralistic environment. It is therefore essential that citizens acquire media literacy that does justice to the changing media sector. This is the only way they can participate in politics in a confident manner, which in turn is necessary for a functioning democracy.

This report analyses the effects of AI on the media sector and proposes measures to strengthen media literacy. Firstly, the changes that have already taken place and are expected to take place in the media sector as results of AI are analysed. On the one hand, specific applications based on machine learning and generative AI are discussed and, on the other, the systemic risk of disinformation, which has increased in relevance and potential danger due to generative AI in particular, is considered.

AI applications in the media sector

AI-based applications can lead to significant changes in the media sector. One key area of application is algorithmic recommendation systems, which form the basis for content distribution on social media and other online platforms. These systems personalise the content presented, often with the aim of keeping users on the respective platform for longer. For an individualised user experience, content can be adapted to personal preferences and interests.

Another area of application for AI is automated content management. For example, AI can be used to automatically filter platform content for unwanted or illegal content. This can help create safer and higher quality online environments by effectively identifying and removing potentially harmful or inappropriate content.

AI tools have fundamentally changed the possibilities for journalists when analysing and researching data. They are used to collect information, analyse large amounts of data and support the verification or falsification process of content.

This enables more efficient and precise information gathering. Synthetic media production is also becoming increasingly important, with synthetic content such as images, videos or texts being created using generative AI technologies.

The ambivalence of AI technology is clearly evident in all of these applications. AI can serve as an extremely useful tool to facilitate access to information, tailor content precisely to the individual needs of consumers and create relevant content in the shortest possible time. These efficiency gains can help to manage information overload and create personalised experiences for users. At the same time, AI also harbours significant challenges and risks in these applications. The personalisation of content can lead to a restriction of the diversity of opinions presented or even to the presentation of false information. This creates filter bubbles that encourage social polarisation. Bias in AI applications and unresolved copyright issues in generative AI are further challenges.

Disinformation

The potential negative effects of AI in the media sector are particularly evident in the systemic risk of disinformation, which is based on several of the developments mentioned above. Although disinformation is not a new phenomenon, AI has significantly simplified the creation and dissemination of misleading information. There are fears that the internet will be flooded with misinformation and disinformation from various actors with multiple agendas in the future. This could pose a serious threat to freedom of information. Recipients would face the challenge of assessing the factuality of content, but would not be able to trust reputable media intermediaries on social media platforms. Suggestion algorithms from digital platforms can be exploited to make content appear more relevant and reach a wide audience. The sheer and potentially omnipresent amount of convincing disinformation makes it considerably more difficult for users to evaluate and could undermine trust in online content. Especially in the context of elections, this can also become a threat to democracies.

Fields of action

This report identifies three key areas of action in order to exploit the opportunities offered by AI and at the same time minimise the risks posed by AI: Regulation, technological measures and strengthening media literacy. The first two fields of action pursue the goal of banning harmful content from the media and labelling synthetically generated content in order to prevent citizens from being overwhelmed.

Field of action Regulation

Policymakers must establish a framework to create legal certainty regarding the use of AI and to clarify responsibilities, particularly on social media platforms. The EU has already adopted key regulations for this with the General Data Protection Regulation (GDPR) and the Digital Services Act (DSA), and the planned AI Act will also make an important contribution to minimising the risks posed by AI and strengthening the protection of fundamental rights. Some effort is still required to implement the respective regulations in order to enable their enforcement in the member states. Long-term or implicit risks for society have hardly been addressed in the regulations to date and must remain a topic of political discussion.

Public and private media providers should go beyond regulation and address how they want to deal with AI through standardisation processes or voluntary commitments. This is necessary in order to maintain high journalistic standards and the resulting continued high level of trust in established media. Many media organisations have already published corresponding voluntary commitments.

Field of action Technical measures

Technical measures for detecting and labelling AI content and for authenticating human-generated content are another building block. Labelling AI-generated content or decisions made by or with the help of AI leads to more transparency in communication and at the same time to better knowledge among users about where AI is involved. In addition to labelling and authentication methods, tools that enable the detection of AI-generated content and give users the opportunity to check content themselves are particularly helpful. However, these are currently not yet very reliable, especially for text content. Authentication of interlocutors, articles, images, videos, etc. can be done, for example, via watermarks or other types of labelling that are assigned directly when the medium is created and are technically designed in such a way that they are difficult to forge. This can lead to more trust in the respective content and thus creates an advantage for the creators and provides users with a good guidance. This gives platform operators additional options for filtering and structuring content. Dealing with such labelling and detection tools requires users to have technological skills and media literacy. The design of the technology must actively involve the users and offers must be created explaining the labelling and tools in a way that is appropriate for the target group in order to generate acceptance and trust. However, technological approaches, just like regulatory measures, can only ever have a supportive effect.



The full report can be found here:

www.die-medienanstalten.de/service/gutachten/kuenstliche-intelligenz

Field of action Media Literacy

The third field of action is therefore the strengthening of media literacy. This concerns both media creators and recipients. This report argues that, in the context of AI, it is particularly important to strengthen technological literacy. A basic understanding of AI is necessary in order to develop skills such as media analysis or media criticism. In this context, technological literacy not only means understanding technological mechanisms, but also includes the active handling of technology. In the context of AI, this means not only passively consuming media content, but also understanding the algorithms and mechanisms behind this content and discovering the creative potential of the technology.

Media literacy can be promoted through various measures, some of which have already been successfully implemented and will need to be adapted to the changing media landscape in the future. One effective strategy is practice-orientated offers that enable an interactive exchange with experts. This approach is already being used, whether in school projects, conferences or by media companies that provide insights into their production processes. Publications and manuals play a key role in teaching media literacy by not only imparting knowledge, but also providing guidelines and practical instructions. Online counselling and seminars are also key as they provide barrier-free access to educational content, regardless of geographical location. Media literacy campaigns can promote a critical understanding of media content by providing targeted education on topics such as fact-checking, safe online behaviour and the dangers of disinformation. This sensitisation enables citizens to participate more safely in the digital space.

AI can be very helpful for the development of new and innovative measures for teaching media literacy. For example, AI-based learning platforms enable personalised training. Individualised learning paths promote differentiated media literacy development, while critical engagement with AI fosters a reflective understanding of the technology. AI-supported chatbots or virtual assistants offer the opportunity to answer questions about media literacy, give advice and provide targeted information. These interactive applications promote self-directed learning and provide easy access to relevant sources. AI can be used to create personalised news aggregators. When implemented well, they can promote a balanced intake of information and help users to consider different perspectives and sources.

In order for media literacy measures to achieve the desired systemic effect, it is crucial that large sections of the population are reached. The various approaches should therefore be made as accessible as possible to as many people as possible, from as many different backgrounds and life situations as possible.

AI applications offer numerous potentials for media professionals. Utilising this potential requires a comprehensive understanding of how to use the new technologies. Dealing with AI applications should therefore be an integral part of journalistic training, for example in journalism schools and universities. Media companies must also digitalise internally in order to make their data usable for the digital market.

Research on media literacy is crucial in order to do justice to the technological changes in the media world. Based on research findings, educational strategies can be developed, adapted and evaluated to ensure that citizens acquire the necessary skills for dealing with media and can thus act confidently in the digital world. Further research is also needed into technical approaches for the detection and authentication of media content in order to develop reliable and easily understandable tools and labelling.

In addition to traditional educational institutions such as schools and universities, private and public initiatives and, in particular, the media authorities play a key role in implementing measures to strengthen media literacy. The latter can act as promoters, initiators, co-operation partners and multipliers. The media authorities disseminate relevant information, standards and best practices. As multipliers, they help to create a standardised understanding of regulatory requirements and ensure transparency with regard to the legal framework. Locally, they promote practice-orientated media literacy activities, issue publications and support online advice platforms. As sponsors, media organisations provide financial support for projects that strengthen media literacy among the population. This includes campaigns, testing and supervisory practice as well as support for educational institutions. Finally, the media authorities act as cooperation partners for various institutions and organisations in order to achieve common goals in media education. This includes research projects on media literacy and the promotion of AI in media literacy education.

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