ROADMAP ON AI TECHNOLOGIES & APPLICATIONS FOR THE MEDIA INDUSTRY

SECTION: "ONLINE SURVEY ON AI FOR THE MEDIA INDUSTRY (QUICK OVERVIEW)"

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This report is part of the deliverable D2.3 - "*AI technologies and applications in media: State of Play, Foresight, and Research Directions*" of the AI4Media project.

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Online survey on AI for the media industry – Quick overview

One of the tools used to deliver this roadmap on AI for the media industry was a public survey addressed to both AI researchers working on multimedia AI but also to people working in the media industry or whose work is closely related to this industry (e.g. researchers studying the media, media regulators, people working in relevant NGOs, etc.). The survey aimed to collect their *opinions on the benefits, risks, technological trends and challenges of AI use in the media industry* as well as their experience on AI strategies and AI skills in media organisations, their insights on the most promising ways to facilitate AI adoption and knowledge transfer and, finally, their perceptions about ethical use of AI. In total, 150 people completed the survey, 98 from the AI research community and 52 from the media industry or organisations related to the media.

The full analysis of the survey is presented in section "*Online survey on AI for the media industry (full analysis)*" of this Roadmap. Below, we offer a quick overview of the main findings per survey section.

Future AI technology trends. Automatic content analysis & content creation, multi-lingual NLP, learning with limited data, explainable AI and fair AI are considered to be the AI technologies & applications with the biggest potential, aspiring to solve the most pressing problems of the media industry, which are: the ever-growing need for new content, the need to automatically analyse content to extract knowledge, the language barrier, the lack of data to train algorithms for new tasks or domains, and the need for AI that can be trusted.

Benefits of AI. Automation & optimisation of routine tasks, personalisation of content and services, increased productivity & operational efficiency, and enhancement of current services as considered to be the most important benefits that the use of AI brings to the media industry. Respondents were much more sceptical about the potential of AI to directly increase creativity. AI researchers were more eager to believe in AI's transformative role for the media than media professionals were, highlighting the need to increase awareness about AI's capabilities in media organisations and adopt clear strategies for its operationalisation.

Risks of AI. Unethical use of AI, biased AI, AI's lack of explainability, and AI used to hinder fundamental human rights are the risks that concern most survey respondents both as professionals but also as citizens. On the contrary, automation leading to loss of jobs or limiting human creativity is perceived as a lower risk, at least for now. At the same time, high expectations & low return, failure of AI in a critical mission, and ethical risks are the top reasons of concern for media industry companies.

Challenges of AI. AI researchers consider by far the greatest challenges the lack of data to train their algorithms but also the reluctance of the media industry to share their data to help and accelerate AI research. The US-China big tech monopoly in AI software and data, facilitated by enormous funding and generally much less regulation, is also something that creates challenges especially for European researchers. Media professionals, on the other hand, consider the integration of AI in business operations and processes, understanding what AI can do to improve workflows in the media industry, the lack of relevant skills in media professionals, and big-tech monopoly the biggest challenges for the wide adoption of AI by the industry.

AI strategies and skills. 73% of the PSM and the media & entertainment industry organisations affiliated with the survey respondents have invested in AI in the last year. Only 42% of the media professionals surveyed said that their organisation has an AI strategy in place. Among those organisations that do have a strategy in place, only 9% have a clear framework to manage AI-related risks (incl. ethical risks) and only 13% have established specific KPIs to measure impact of AI in the organisation. This lack of ethical AI strategies poses a significant risk for media organisations and public trust in media. AI software developers, data scientists, and experts on AI ethics/legal issues is the kind of skilled personnel that media organisations need in order to overcome the AI skills gap.

Adoption of AI solutions. Media professionals already use a variety of AI/ML applications, with the most popular ones being image/video analysis and NLP (with 44% each), followed by audio analysis (35%), and user experience/audience analysis (31%). Applications with low penetration are automatic-decision making for business (6%) and market analysis/forecasting (10%). Open source development tools, ready to use components from AI repositories, and co-development with research partners are considered to be the most promising ways for the development/adoption of AI tools in the media industry, showing the clear preference of respondents towards open AI solutions and collaborations that will lead to the adoption of AI that they can trust. Collaboration between the research and media communities (including shared projects, internships etc.) is considered the most promising approach to strengthen the transfer of AI knowledge and best practices from academia/research to the media industry. At the same time, researchers put special emphasis on sharing media industry data while media professionals point out the importance of training to increase the AI skills of media practitioners.

AI ethics & AI regulation. AI researchers and media professionals need more guidance by policy makers on implementation of AI ethics, highlighting topics such as data privacy (and balance between need for privacy and need for more data); IP issues; AI bias; automated AI content creation; development of trustworthy and explainable AI; and clear information on regulation frameworks and their impact. At the same time, they strongly believe stronger regulation is required for such issues (e.g. for user profiling and monitoring, data privacy, synthetic content generation, AI bias, targeted advertisement, AI transparency, and disinformation). The survey also showed the lack of ethical processes in many organisations, with almost 39% of all survey respondents declaring either that their organisation doesn't have specific ethical measures in place or that they do not know if it has. Similarly, only 11% of AI researchers and 4% of media professionals has ever done some kind of impact assessment like DPIA, HRIA, or ALTAI.

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