



Welcome to the third issue of the AI4Media Newsletter!

Successfully deploying state-of-the-art AI technologies in real-life media industry scenarios

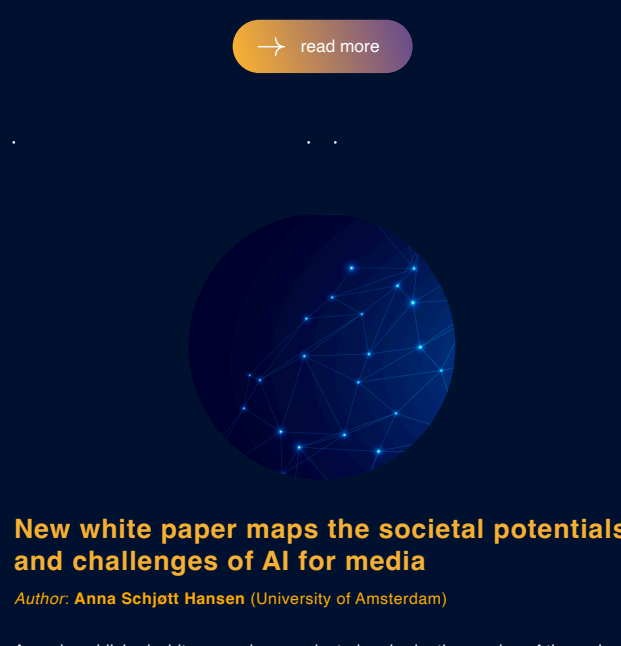
The **seven use cases defined by AI4Media** highlight how AI applies throughout the media industry value chain, from research and content creation to production, distribution, consumption/interaction, performance and quality measurement. They present emerging market opportunities and urgent industry challenges, raising specific requirements and research questions. An exhaustive list of user requirements was defined for the seven use cases through an iterative co-design approach, and mapped against relevant AI4Media research activities. After this process, industry partners started working towards the first release of the industrial demonstrators, in close collaboration with AI4Media's research partners that develop the AI technologies that were integrated within the different media systems. The systems and platforms that are used as the basis for AI4Media's demonstrators cover a wide range of system types, from internal Content Management Systems and tools to fully-deployed Software-as-a-Service solutions, that address a variety of media processes in different industry sectors.

Let's take a closer look into the status and progress in some of the AI4Media Use Cases:

- UC1 – AI for social media and against disinformation:** In this Use Case, AI4Media partners Deutsche Welle and Athens Technology Center leverage AI technologies to improve support tools used by journalists and fact-checkers for digital content verification and disinformation detection. For this release, AI tools and services for deepfake detection, speech synthesis detection, and audio/image manipulation have been integrated into Truly Media, a journalism platform for the collaborative verification of digital content. Moreover, the work extended to cover Trustworthy AI aspects through a technical and a user-oriented approach.
- UC3 – AI in Vision - High Quality Video Production & Content Automation:** In this Use Case led by the Italian broadcaster RAI, AI4Media partners worked towards implementing AI technologies for supporting broadcasters' newsrooms (and in general information and entertainment production) in reporting unexpected events like natural disasters. For this release, the focus was on integrating AI tools dealing with activities related to archive exploitation, mainly advanced visual indexing and search within large media archives and person identification in videos.
- UC6 – AI for Human Co-creation:** In this Use Case, the Barcelona Supercomputing Center works on music generation, aiming to make novel techniques of content creation, in particular raw audio, more accessible to artists and creators. For this release, the work focused on the integration of advanced AI learning and training methods (such as distributed training and representation learning approaches) for complex datasets, with the primary goal being the training of models for the generation of RAW audio files from a training dataset of recorded music.

The results from this work already show how state-of-the-art AI technologies can be fruitfully deployed in real media production processes and usage scenarios and how real data coming from professional production represents an important test case for developed AI methods.

Overview of Research Outputs integrated in AI4Media's Use Cases



Author: **Danae Tsaouraki**
(Athens Technology Center - ATC)

Our News



Discover the AI4Media Roadmap on AI technologies and applications for the Media Industry!

Author: **Filareti Tsakakidou** (Information Technologies Institute - Centre for Research and Technology Hellas)

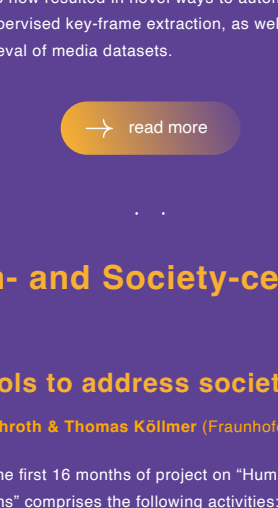
The AI4Media project developed a Roadmap on AI technologies and applications for the Media that aims to provide a detailed overview of the complex landscape of AI for the media industry.

This Roadmap:

- analyses the **current status** of AI technologies and applications for the media industry;
- highlights existing and future opportunities for AI to transform media workflows, assist media professionals, and enhance the user experience in different industry sectors;
- offers useful examples of how AI technologies are expected to benefit the industry in the future; and
- discusses facilitators, challenges and risks for the wide adoption of AI by the media.

The roadmap comprises 35 white papers discussing different AI technologies and multimedia applications, use of AI in different media sectors. AI risks for the society and economy, legal and ethical aspects and latest EU regulations, AI datasets, benchmarks & open repositories, opportunities in the time of the pandemic, environmental aspects and many more.

→ [read more](#)

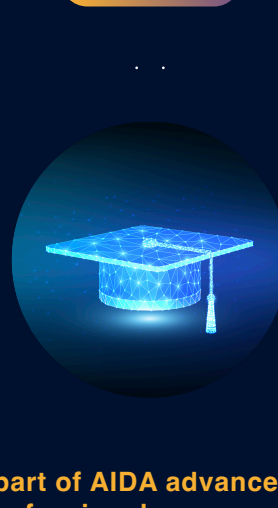


New white paper maps the societal potentials and challenges of AI for media

Author: **Anna Schjett Hansen** (University of Amsterdam)

A newly published white paper has conducted an in-depth mapping of the main potentials and challenges of AI applications in the media cycle, providing a unique overview of the state-of-the-art discussion of societal impacts of AI. Based on this mapping, some provisional guidelines and considerations are distilled to guide the future work of industry professionals, policy makers and researchers.

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Kick-off for the first 10 projects funded by the AI4Media Open Calls

Authors: **Samuel Almeida & Catarina Reis** (F6S)

The 10 projects funded by 1st Open Call of AI4Media are underway, having held their official kick-off meeting on 2 March 2022. As part of the funding programme, AI4Media will financially support each project with €50,000 and will provide tailored coaching, market-driven services, and business support, in addition to large-scale visibility. Some of the topics addressed by the projects include AI music and audio, media authentication, fact-checking, disinformation and much more.

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Check out our latest findings & results on:

Explainability, Robustness and Privacy in AI

The AI4Media

Evaluation-as-a-Service Platform

Author: **Bogdan Ionescu** (Politehnica University of Bucharest)

Benchmarking represents a vital tool for the development of new technologies as it allows and assess a fair process for comparing the performance of different AI algorithms on common grounds, e.g., data, training, and metrics. The dedicated AI4Media open Benchmarking Platform is in its Prototype phase at this moment, providing such capabilities.

→ [read more](#)

Legal and ethical framework of trusted AI

Author: **Noémie Krack** (KU Leuven)

AI4Media conducted an initial analysis of the legal and ethical framework for trusted AI, addressing the question of how the GDPR provisions should be interpreted when applied in an AI system context. This work comprises:

- an analysis of the EU data protection framework relevant for the AI systems;
- a reflection on the upcoming EU legislation;
- an initial suggestion towards the reconciliation of AI and GDPR legal frameworks;
- a preliminary list of recommendations for trusted and GDPR-compliant AI and ways to mitigate and prevent risks and gaps.

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Content-centered AI

One step ahead in multimedia analysis and summarization

Author: **Ioannis Mademlis** (Aristotle University of Thessaloniki)

AI4Media explores innovative Deep Neural Networks (DNNs) for image/video/ audio analysis and summarisation through cutting-edge machine learning. The work performed up to now resulted in novel ways to automatically shorten long videos through unsupervised key-frame extraction, as well as in novel AI tools for management or retrieval of media datasets.

→ [read more](#)

Human- and Society-centred AI

AI-based tools to address societal problems

Authors: **Patrick Aichroth & Thomas Köllmer** (Fraunhofer IDMT)

AI4Media's work in the 16 months of project on "Human- and Society centered AI Algorithms" comprises the following activities:

- policy recommendations for content moderation, which investigate aspects of future regulation;
- development of detectors for content manipulation and visual, which address the growing problem of disinformation based on speech, audio and textual content;
- development of trusted recommenders, which address challenges related to privacy and bias for recommendation services;
- development of tools for healthier political debate, aiming at sentiment analysis, public opinion monitoring, and measuring the overall "healthiness" of online discussions;
- and much more.

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Why and how to use the European AI-on-demand platform

Author: **Andreas Steenpass** (Fraunhofer IAIS)

According to its own website, the European AI-on-demand platform is a one-stop-shop for anyone looking for AI knowledge, technology, tools, services and experts. Its establishment is one of the main results of the AIDA EU project, which was funded by the European Union as part of the Horizon 2020 initiative. The ultimate goal of this platform is to contribute to European sovereignty with respect to data and technology in the field of AI.

In this article, we provide an overview of the many different facets of the AI-on-demand platform, which reflects the diverse and colourful European AI landscape.

→ [read more](#)



How being part of AIDA advances your academic/professional career on AI

Author: **Vasileios Mygdalis** (Aristotle University of Thessaloniki)

The International AI Doctoral Academy (AIDA) has been created to offer access to knowledge and expertise to attract Ph.D. talents in Europe. It is an academic institution, currently composed of 75 members, including academic, research institutions and industry companies.

- For registered Ph.D. students, AIDA provides complete and modular academic paths, which enable knowledge and skills development according to their preferences, by providing access to a wide spectrum of AI-focused resources and academic events.
- For lecturers, AIDA also attracts excellent lecturers throughout Europe, offering a seal of excellence and targeted dissemination for their courses.

→ [read more](#)

30 research exchanges already implemented through the Junior Fellows Program

Authors: **Daniel Gatica-Perez** (IDIAP Research Institute) & **Filareti Tsakakidou** (Information Technologies Institute - Centre for Research and Technology Hellas)

The AI4Media Junior Fellows Program is the project's international research exchange initiative. Junior Fellows are PhD students, MS students, and early career postdocs, who actively participate in research exchanges within and beyond the AI4Media Consortium. The program is built around three values:

- Diversity:** Junior Fellows are women and men from anywhere in the world working on AI for Media & Society
- Visibility:** Junior Fellows benefit from close interaction with the consortium partners and from opportunities for professional growth as members of the AI4Media network.
- Impact:** Junior Fellows contribute to core tasks of the project, from research to development and integration. Through their work, Fellows generate concrete results, including code, data, prototypes, and publications.

As of June 1, 2022, a total of 30 individuals have participated or are scheduled to participate in the program.

→ [read more](#)

Great scientific outputs just one click away

The project has produced until now more than 100 scientific publications, more than 50 software, and 9 open data-sets, which are mostly open-access and available one click away to the research community and industry in the field of AI and Media.

Check out this small sample.

Scientific Publications

Multiple Future Prediction Leveraging Synthetic Trajectories → [Access](#)

AI for the Media Industry: Application Potential and Automation Levels → [Access](#)

The Pixels and Sounds of Emotion: General-Purpose Representations of Arousal in Games → [Access](#)

→ [discover more](#)

Open Datasets

Face verification dataset focused on demographic diversity and difficult imposters → [Access](#)

Predicting Media Memorability Datasets → [Access](#)

Dataset for the evaluation of user awareness about the effects of photo sharing → [Access](#)

→ [discover more](#)

Software

Word-Class Embeddings for Multiclass Text Classification → [Access](#)

Adversarial Robustness Toolbox (ART) → [Access](#)

VISIONE content-based retrieval system → [Access](#)

→ [discover more](#)

Our Associate Members - how to join the network

AI4Media's Associate Members currently include 52 organisations from around the world, and growing! Joining our community and benefiting from the collaboration opportunities of the network is simple.

We welcome any organisation, EU-funded project or initiative with experience or interest in AI with particular application in the media sectors, and motivation to contribute to research and technological advances in this field.

Your application can be submitted via email or online. All applications go through a quick validation process by the AI4Media General Assembly.

→ [read more](#) Submit your application →

Best Ph.D. Thesis Award!

Ms. Mara Graziani, a post-doc researcher from the Institute of Informatics of the HES-SO Valais-Wallis and AI4Media's partner, received the prestigious award from the IEEE Technical Committee on Computational Life Sciences (TCCLS) 2021 for her Ph.D. Thesis on the interpretability of Artificial Intelligence.

→ [read more](#)

Upcoming events

Get your agenda ready for the next events where AI4Media will present its work and progress.

05-08 September 2022 / Bologna

ImageCLEF 2022 – Benchmark on visual information retrieval → [know more](#)

14-16 September 2022 / Graz

Conference CBMI2022 → [know more](#)

23 September 2022 / Thessaloniki

AI Mellontology (futurology) Symposium 2022 → [know more](#)

In case you've missed it

You may have missed it but we'll bring it back to you. Check out AI4Media's past events.

AI4Media's stakeholder consultation – Policy recommendations in AI and Media

29 June 2022 - Online

[KNOW MORE](#)

1st ACM International Workshop on Multimedia AI against Disinformation - MAD '22

27 June 2022 - Newark, NJ, United States

[KNOW MORE](#)

DH Benelux conference

01-03 June 2022 - Online/Luxembourg

[KNOW MORE](#)

AI4Media's session at 2022 PSIS workshop "Putting Science into Standards"

09 June 2022 - Online

[KNOW MORE](#)

1st Cross-cutting TDW: AI: Mitigating Bias & Disinformation

18 May 2022 - Online

[KNOW MORE](#)

DeepFake Detection Webinar

16 December 2021 - Online

[KNOW MORE](#)

The ImageCLEFaware Task 2022

15 November 2021 - 6 May 2022 - Online

[KNOW MORE](#)

The ImageCLEFfusion Task 2022

15 November 2021 - 6 May 2022 - Online

[KNOW MORE](#)

AI4Media Workshop on the European AI-on-Demand Platform

11 November 2021 - Online

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