Policy Brief

Media Innovation in Entrepreneurship and Arts

IRCAM: Manon Blot, Louise Enjalbert, Hugues Vinet
NMA: Nico Lumma, Merlene Vrielmann
LUH: Gerrit Rosam, Alexandra Garatzogianni, Michael Fribus

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 951962.
Disclaimer
This document was written as part of the MediaFutures project under EC grant agreement 951962. The information, documentation and figures available in this deliverable were written by the MediaFutures project consortium and do not necessarily reflect the views of the European Commission. The European Commission is not liable for any use that may be made of the information contained herein.

Statement of originality
This document contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

How to quote this document

This document is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0).
The effect of media in society has been extensively discussed by scholars. The shift from “legacy media” such as print media, TV or radio broadcasting to “new media” and in particular social media had a profound impact on the dynamics of how people consume and share media and on how public opinion is formed. The role of consumers has changed in recent years increasingly to the role of a “prosumer” - a consumer that actively participates in producing, shaping and disseminating the very content they consume. Additionally, with a continuously decreasing threshold to create and effectively disseminate own content, there is a drastic increase of information and with that: alternative ways and a radical increase of sources to consume news and information from. This shift has led to an abundance of content with often questionable or not even traceable or verifiable sources. Furthermore, such content is often infused with ulterior motives by the publisher, political motivations as well as with ideological bias and other types of biases. This in turn can lead to increasing polarisation and social divides in society. Phenomena such as “confirmation bias” - the willingness of an audience to seek and accept information that confirms preexisting beliefs as well as algorithms that direct an audience to content and spaces of information that maximise engagement can further accelerate this problem. In such an environment it becomes more and more profitable to optimise content for clicks and engagement, rather than basing content on facts and evidence. News outlets and content creators that are willing to take up the cost and effort of verifying, fact checking and editing content based on journalistic principles have a much harder time to compete for an audience and viewership in this environment while maintaining journalistic ethics and integrity. The media landscape has indeed transformed and there is not only one shift or one root cause which leads to problematic content creation and consumption. The problem and challenges in media are rather multifaceted and as such the effects on society are multifaceted as well. Below we are providing a selective overview of some of the most pressing challenges we observed during our work at MediaFutures.

1. Challenges in Media

The effect of media in society has been extensively discussed by scholars. The shift from “legacy media” such as print media, TV or radio broadcasting to “new media” and in particular social media had a profound impact on the dynamics of how people consume and share media and on how public opinion is formed. The role of consumers has changed in recent years increasingly to the role of a “prosumer” - a consumer that actively participates in producing, shaping and disseminating the very content they consume. Additionally, with a continuously decreasing threshold to create and effectively disseminate own content, there is a drastic increase of information and with that: alternative ways and a radical increase of sources to consume news and information from. This shift has led to an abundance of content with often questionable or not even traceable or verifiable sources. Furthermore, such content is often infused with ulterior motives by the publisher, political motivations as well as with ideological bias and other types of biases. This in turn can lead to increasing polarisation and social divides in society. Phenomena such as “confirmation bias” - the willingness of an audience to seek and accept information that confirms preexisting beliefs as well as algorithms that direct an audience to content and spaces of information that maximise engagement can further accelerate this problem. In such an environment it becomes more and more profitable to optimise content for clicks and engagement, rather than basing content on facts and evidence. News outlets and content creators that are willing to take up the cost and effort of verifying, fact checking and editing content based on journalistic principles have a much harder time to compete for an audience and viewership in this environment while maintaining journalistic ethics and integrity. The media landscape has indeed transformed and there is not only one shift or one root cause which leads to problematic content creation and consumption. The problem and challenges in media are rather multifaceted and as such the effects on society are multifaceted as well. Below we are providing a selective overview of some of the most pressing challenges we observed during our work at MediaFutures.

1 Shanto Iyengar & Douglas S. Massey (2018)
2 Within this document we distinguish news as a specific type of content that contains timely and factual information about current events of public interest, presented in an objective manner and according to journalistic principles. Whereas content is a more broad term, which can also refer to opinion pieces, posts on social media or other.
3 M. Carmen García-Galera & Angharad Valdivia (2013)
4 Osborne, C. (2018)
6 Engin Bozdag (2013)
In the online media landscape there is a large variety of content available. News outlets and content creators need to compete for viewership and engagement. Therefore content designed to grab attention and entice users to click, often using sensationalised, emotionally stimulating or even misleading information as opposed to presenting the information in a neutral, objective or informative way. Many commercialization and business models e.g. from social media platforms that are designed to maximise engagement reinforce this trend.

The fragmentation of media consumption can contribute to the formation of echo chambers\(^7\) and filter bubbles\(^8\). Due to cognitive biases some groups of people are prone to consume content that largely reinforces their pre-existing notions and beliefs. Due to the high amount and variety of online content, the legitimacy of such content highly varies as well. Therefore less legitimate sources and content which cater to almost any topic from flat earth theory, climate change denial or conspiracy theories increase this trend of polarisation. This is accelerated by algorithms designed to lead the audience to articles that are of interest to them individually.

There are Individuals, groups and even state-sponsored actors that create and spread misinformation for various reasons such as political manipulation, financial gain or ideological agendas. Such actors often make use of sophisticated tactics to make misinformation look more credible and harder to detect.

Generative AI can write highly realistic and coherent text, making it easier to increase the pace and quantity to create and spread false or misleading information. Beyond that Generative AI can be used to manipulate images, videos, and audio, leading to the creation of “deepfakes”\(^9\), which can be used to spread false information, manipulate public statements, or fabricate events, further blurring the lines between truth and fiction.

All of the aforementioned challenges are contributing to and amplifying the overarching problem of misinformation and disinformation. The problems are multifaceted and as such the effects and impact that these problems have on our society are multifaceted as well, ranging from social divisions, manipulation, hate speech as well as distrust in democratic and public institutions. Therefore multidimensional and most importantly continuously new approaches are needed to shape new forms of detection methods, content creation, moderation and mediation to tackle current challenges in the media sector. In the following we will introduce innovation strategies employed in MediaFutures to provide new impulses for this demanding challenge.

\(^7\)Echo chambers are environments in which a person encounters only beliefs/opinions that coincide with their own, while being shielded from opposing points of view.

\(^8\)A filter bubble is a space of ideological isolation that results from a user’s personal interaction with algorithms, which filter out undesired content based on the user’s search history, click behaviour or other types of interactions.

\(^9\)A deepfake is manipulated image, video or audio material made to look authentic. Deepfakes are often used to steer or manipulate public opinion.
Innovation in Media

The current approach to the mis- and disinformation challenges is the monitoring and moderation of online news and articles, through debunking algorithms. However, these detection methods are content-oriented. This approach is not sufficient, when the spread of online content cannot be exhaustively monitored and controlled. It also excludes people from the discussion and moderation process as well, while contrasting mis- and disinformation is a social and democratic issue\textsuperscript{10}. There is a current and urgent need for user- and community-centred solutions to the multi-faceted challenge of mis- and disinformation online, following a bottom-up and collaborative approach. During the three years of the MediaFutures programme (2020-2023), the teams developed and incorporated various and innovative approaches to audience engagement in their work, in order to involve citizens in combating mis- and disinformation and gain knowledge from their input, their reaction to the artwork and their use of the tools created. There are many ways to classify the over 60 projects supported in MediaFutures e.g. based on outcome, use of technology as well as various ways to classify their social impact. One thing we noticed when having a deeper look at the social impact is that projects can be clustered in a way that resembles a “Citizen’s Journey” to engage with the subject of misinformation, with multiple levels of mediation including:

- **Gaining awareness** about misinformation and disinformation
- **Recognition & action** to recognize and counteract mis- and disinformation techniques
- **Collective Thinking** by fostering open debate
- **Sustainable Media Consumption** through behavioural changes

This part of the brief will explain how the projects supported by MediaFutures are empowering people and communities against mis- and disinformation. The four identified strategies and projects listed hereinafter are relying on a fair and critical use of AI technology and data. In each of them, art is a powerful approach to address the critical issue of online mis- and disinformation and guarantee responsible use of technology and social impact. When collaborating with startups/SMEs, artists help think critically about the media ecosystem & value chain. Artists also help ensure the accessibility and inclusiveness of the product.

**Gain awareness on mis- and disinformation**

Through their installations, experiments and tools, some teams display information that would not be easily accessible otherwise. They publicly show the disinformation around some topics and invite the citizens to question the information they consume and its biases. In exhibitions or public events, the audience can face misinformation in a safe environment, discovering the power of misleading contents or biases induced by some of the newest technologies. This first level of mediation in the Citizen's Journey is an individual one, understanding what mis- and disinformation are and the threats they are causing.

*Keywords/Key ideas*: Being individually confronted with mis- and disinformation and its effects; discovering the power of misleading content (cognitive biases), biases induced by mass media technologies (algorithmic biases), misuse of data and AI technologies; and understanding what mis- and disinformation are and their danger.

*Developed example(s)*: This is the case of Edit Wars, supported in 2022. It is a project aiming to analyse, deconstruct, debunk and artistically interpret the narratives of Russian propaganda since the beginning of the war in Ukraine. This raises awareness and resilience against misinformation among international audiences. The project focuses on the use of aggressive narratives in government-controlled media that isolate public perception from the real state of affairs. The first iteration of the project is based on data analysis of propaganda narratives created and reproduced by the Russian digital media from January to July 2022. The team presents its results both through an online platform and a physical installation.

**Learn to recognise and counteract mis- and disinformation techniques**

The second level of mediation in the Citizen's Journey that we were able to observe from the MediaFutures teams calls for greater public commitment. To engage the general public, this approach often uses edutainment strategies, either in individual or collective experiences.

*Keywords/Key ideas*: Being individually confronted with mis- and disinformation and its effects; discovering the power of misleading content (cognitive biases), biases induced by mass media technologies (algorithmic biases), misuse of data and AI technologies; and understanding what mis- and disinformation are and their danger.

*Developed example(s)*: This is the case of Edit Wars, supported in 2022. It is a project aiming to analyse, deconstruct, debunk and artistically interpret the narratives of Russian propaganda since the beginning of the war in Ukraine. This raises awareness and resilience against misinformation among international audiences. The project focuses on the use of aggressive narratives in government-controlled media that isolate public perception from the real state of affairs. The first iteration of the project is based on data analysis of propaganda narratives created and reproduced by the Russian digital media from January to July 2022. The team presents its results both through an online platform and a physical installation.
Keywords/Key ideas: Entertainment, edutainment, being confronted with misinformation techniques, learning to recognise and counteract them (“the vaccine principle”), prebunking

Developed example(s): Trolls vs Elves, is a web-based application that fuses documentary film and gaming. This interactive experience sheds light on the anti-refugee propaganda fueling social media and uncovers the tactics used by internet trolls and activists known as Cyber Elves. Real-life footage, data visualisation, and expert insights guide the player on a mission to distinguish fact from fiction and resist online. The i-doc project seeks to promote critical thinking and media literacy among young people, while increasing awareness of the impact of disinformation campaigns on society, focusing especially on Ukrainian refugees. The project’s emphasis on immersive, interactive experiences and its innovative approach to data analysis make it a powerful tool for empowering cyber activists and experts in their efforts to combat disinformation and promote digital literacy.

Foster open debate and collective thinking
The third level in the Citizen’s Journey enables collective action. Artists and startups invite citizens to collectively and critically reflect on information. They help their audiences to be confronted with diverging ideas and bring people together, provoking debates and discussions and break out of filter bubbles, echo chambers and ideological isolation.

MediaFutures results:
→ Games: Truth Detectives
→ Apps / platforms: PSi, Social Sandwich, PONTE, FakingNE.WS, Polltix
→ Experiments: 730 hours of violence, Ctrl.Alt.Img, Mining Hate

Keywords/Key ideas: Collective reflection through open debate and participatory approaches, from confrontation to diverging ideas, online dialogue, public consultation to find consensus, co-creation and dialogue with citizens, and innovative audience engagement.

Developed example(s): It was the aim of Fast Familiar when they created Social Sandwich, a relational participatory artwork about online encounters with strangers. Social Sandwich invites citizens to talk to people in other countries, see the world from their perspective, and make sense of the world together. It happens through a 15-minute message-based conversation where the players can find what they agree on - and how to keep talking when they don’t.
At a more local level, the artist Momchil Alexiev and the startup Concept Studio from Bulgaria developed an Augmented Reality board game about a conspiracy that nurtures critical thinking and media literacy. The goal of Truth Detectives is to be the player discovering the truth about this potential conspiracy and who the mastermind is. The players have 5 turns to travel around the world to retrieve as much information as possible, evaluate what is information or disinformation, guess who the culprit is and defend their accusation at the end of the game, leading to a collective debate.
Foster behavioural changes towards more sustainable consumption habits
The final level of mediation, helps citizens sustainably change their habits in terms of information consumption online through different types of tools and engagement. This is showcased by various MediaFutures teams that developed apps, APIs and plug-ins that give access to wider sources of information and content, help fact-check pieces of news or choose the websites they use.

MediaFutures results:
→ Apps: Gokind, Ject-Sense, Dark Listening, Online Debate for Impact, Overtone, Self
→ API: Factiverse
→ Plug-in: Invisible Voice

Keywords/Key ideas: Fact-checking, making informed decisions, having access to quality information, having access to diverse points of view, widening the information sources, ensuring sustainable access to information in the long term, supporting transparency

Developed example(s): Invisible Voice by Mark Farid is a free browser plug-in that reveals key information about the companies and individuals who own the websites that the user visits, thanks to a toolbar on the side of the browser, which includes: the owners, the parent company, any affiliated companies, political leanings, revenue, assets, environmental policy and much more. It also mentions any controversies and allegations in which the company is involved, as well as any track record of racism, sexism, homophobia, gender discrimination, poor environmental practice, cheap labour, tax avoidance, etc.. It does not only constitute a negative view, as it also highlights where companies have made significant efforts to combat climate change or made real commitments to diversity and inclusion, for example. This tool empowers users to make informed decisions about the websites they use. In addition to the information displayed, they can boycott some websites. If they click on the “boycott” button, they won’t be able to access the website anymore (unless they ask for it). With this functionality and others to come, this tool aims to become a collective empowerment tool which will have an impact on the citizens and society.
3
Policy Recommendations

The MediaFutures programme is designed to foster innovation and support startups and artists that focus on misinformation and disinformation. This is a niche market in the media sector, highly focused on social impact, that currently lacks innovation, new business models and forms of mediation that can adequately tackle the challenge at hand.

The Citizen’s Journey is a concept that roots in observations of the solutions and artworks developed by the MediaFutures startups and artists. It showcases various cognitive levels on how citizens can perceive and engage with the subject of misinformation and disinformation. The four stages (1) **Gaining awareness** about misinformation and disinformation; (2) **Recognition & action** to recognize and counteract mis- and disinformation techniques; (3) **Collective Thinking** by fostering open debate; (4) **Sustainable Media Consumption** through behavioural changes; are just some pieces of the puzzle to innovate and tackle the challenge of misinformation and disinformation. While we could only share a few examples, for each level of mediation there are multiple examples of the over 60 MediaFutures teams we have supported within the last three years. Therefore, one important lesson we want to share is that it is highly important to address this challenge holistically, to identify new pieces of this puzzle and to find new methodologies to foster innovation in the media sector. Programmes such as MediaFutures can significantly contribute to this endeavour. However, meaningful and systemic change can only be reached through policy. Drawing from our experience of the innovation framework we developed and applied over the years, we are therefore sharing the following policy recommendations:

**Recommendation 1 - Funding of innovation hubs with a social mission:** Achieving sustainable social impact and tackling the challenge of misinformation and disinformation through art and new business models centred on a social mission, is a highly complex task. It is therefore all the more important to provide startups and artists with the support they need in achieving that. This includes support in terms of mentoring, early stage funding, collaborative infrastructure as well as access to networking events and the networks of accelerators, universities, multipliers and cultural institutions. Furthermore, trainings about legal and technical aspects of new media technologies and innovation, ie. use of artificial intelligence (generative AI, machine learning), fair use of data, GDPR compliance, IP law and any relevant topic to the challenges proved to be essential and of great contribution to the teams’ reflection and the evolution of their innovation processes.
Further funding and support for support programmes like MediaFutures as well as similar programmes with a social mission is critical to ensure adequate support for startups and artists in developing new ideas, research and solutions, to new approaches and artworks to shed light on and tackle the various societal challenges we face in Europe, such as MediaFutures did with the challenges of online mis- and disinformation.

**Recommendation 2 - Further funding for innovation hubs with a framework to facilitate art-tech collaboration:** As showcased through different examples in this policy brief, artistic influences to technology focused startups has proven to result in a variety of unique solutions, approaches and art works that are not commonly seen in standard accelerators or residencies. Both startups and artists introduce each other to new working methodologies, mentalities and world views. Within MediaFutures we developed an Innovation Framework that facilitates art-tech collaboration, introducing new methodologies and modes of cooperation to tackle the challenge of misinformation and disinformation. We therefore recommend further support for similar programmes and initiatives throughout Europe. Drawing on lessons learned from our programme we furthermore recommend extending the period of support for startups and artists to 9-12 months (in MediaFutures it was 6 months) to allow for collaborations to better develop and flourish.

**Recommendation 3 - Favour collaborative practices instead of competitive ones:** Throughout MediaFutures we observed that the collaborative sessions such as, joint face to face meetings and workshops, networking sessions, peer learning, collective meetings with other teams and gatherings have been the sessions that were most fruitful in terms of the development of the individual projects. Competitive elements on the other hand such as competitions in terms of pitching or awarding “best projects” counter the collaborative spirit of the programme. It is therefore recommended to support future programmes and initiatives that put these collaborations in the centre of their work.

**Recommendation 4 - Advocate for audience engagement and bottom-up approaches:** Including citizens and engaging them in the topic of misinformation, making them aware of the importance and societal consequence, supporting them in recognizing and countering misinformation integrating them in public discourse to discuss strategies to mitigate negative effects of misinformation and disinformation is vital to achieve meaningful change. Shifting from content-centred solutions such as AI or platform powered fact checking to user and citizen-centred solutions that actively involve citizens in these steps is therefore paramount in addressing the challenge of misinformation/disinformation. Therefore promoting and supporting European initiatives, projects and innovation hubs is highly important to maximise the opportunities for the actors eager to innovate and provide European citizens with meaningful tools and impactful artworks.

**Recommendation 5 - Advocate for the involvement of venues/cultural centres:** Based on the experiences made in MediaFutures, the face to face meetings, networking events, group peer learning, collective meetings with other teams and gatherings have been the most valuable experiences. Therefore involving venues and cultural centres in order for people to meet, initiate networking events and exhibitions into programmes like MediaFutures is a good way to create more meaningful interaction between teams and different stakeholders (professionals, general public, policy makers, etc.).

**Recommendation 6 - Create shared spaces for startups and artists:** For similar reasons as outlined in recommendation 5, it would be beneficial to create shared spaces for startups and artists to meet, initiate joint collaborations and work together. This could take the form of coworking spaces especially for startups and artists or startup-artist projects, in order to systemically foster art-tech collaborations.
The Citizen’s Journey is a theoretical concept developed to showcase different cognitive levels on how citizens can experience, perceive and engage with the subject of misinformation and disinformation. It is not a scientifically proven concept but rooted in our own observations on how the MediaFutures teams tackled the challenge of misinformation and disinformation through innovation and art.

References


