# Artificial Intelligence - **Intelligent Politics**

## Challenges and opportunities for media and democracy

Ministerial Conference, Cyprus 2020


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Background Paper

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# Implications of AI-driven tools in the media for freedom of expression

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## Executive Summary

AI-driven tools play an increasingly important role in the media: from smart tools that assist journalists in producing their stories to the fully automated production of news stories (robot journalism), and from audience analytics that inform editorial board decisions to the AI-driven recommendation of which contents and users to match. As such, AI-driven tools are more than simple tools. *Within newsrooms*, AI-driven tools are elements of potentially far-reaching structural changes in internal routines and divisions of responsibility between humans and machines. New journalistic roles and actors are emerging, which affects the ways in which new technologies shape journalistic products, and requires a reassessment of professional ethics and the allocation of editorial responsibility. The introduction of AI-driven tools into the process of producing and distributing media content also brings with it substantial structural shifts and transformations of power *within European media markets*. Access to technology, skills and training data becomes a new important competitive asset, favoring a growing influence for new, non-European players, such as social networks and search engines, and creating potential barriers for smaller, less affluent news rooms, media in developing countries, and local news media.

While still in its early days, the introduction of AI-driven tools in the media can have implications for the overall quality and diversity of the information offer provided by the news media, for example by featuring societally relevant stories from the long tail, enabling new forms of investigative, data-driven journalism, enhancing diversity on various levels, and fostering a deeper understanding between societal groups. On the other hand, depending on the actual design of the algorithm, the persons having access to it, and the development process, possible threats for journalism include manipulation or abuse for (political) purposes, automated censorship, and the dissemination of propaganda and misinformation. With regard to automated content production, it has to be carefully evaluated which tasks AI-driven tools can take over from a technological and ethical viewpoint, and which effect the redistribution of journalistic tasks has on the journalistic job market and journalism training.

There are already measurable consequences of the introduction of AI-driven tools to the media for the user and the public sphere. Users can get more relevant news and benefit from new ways of researching and writing stories. On the other hand, there are concerns about selective exposure and selective access to information, detrimental effects on the public sphere, ill-designed recommendation algorithms, and concentration of attention on a few platforms to the detriment of a wider, flourishing media market. Undeniably, there is also a risk that AI-driven technologies will be developed to exploit vulnerabilities of users to manipulate, erode privacy, institutionalise intellectual surveillance, and create, intentionally or unintentionally, new digital inequalities.

Taking into account the particular role of the media in a democracy as a source of information, platform for deliberation, and critical watchdog, it becomes evident that freedom of expression is a central human right to consider in the deployment of AI-driven tools in the media, next to the right to privacy and the prohibition of discrimination. Article 10 ECHR entails a negative obligation for member States to abstain from interference with the freedom of expression rights of journalists, editors and users, including the use of AI in, for example, forms of automated censorship. Next to negative obligations, Article 10 ECHR also entails positive obligations for

member States to create the conditions for a favorable environment for the exercise of freedom of expression, also in the relationship between private parties.

Based on an analysis of the use of AI-driven tools in the light of Article 10 EHCR, this report highlights a number of points for attention and the need for further initiatives. In particular, we signal that:

- There is an important role for member States to ensure that access to innovative technologies, training data, digital skills and education in the use of new data-driven means of producing and distributing news is also open to smaller, local players. This is important also in the light of the growing competition with new media players, such as internet intermediaries, and the need to protect and promote diverse media markets.
- While the use of AI-driven tools in the media is in principle covered by Article 10 ECHR, the protection afforded under Article 10 ECHR also comes with specific duties and responsibilities for the media. In particular, we signal the need to and make concrete proposals for the development of professional algorithmic ethics regarding the question of how to promote the use of AI-driven tools in a way that is compatible with human rights and fundamental freedoms.
- In addition to the development of professional algorithmic ethics, the positive obligations of member States include the need to identify clear conditions for the responsibility and (editorial) oversight regarding automated processes, be that AI-driven recommendations in the media, media intermediaries or robot journalism, but also for creating fair conditions for the media to flourish in data-driven media markets.
- The report stresses the importance of value-centric design, but also the need for guidance on the translation of central values such as diversity, autonomy or user agency into the design and institutional organisation of algorithmic systems for use by the media. The Council of Europe could have an important function in that regard.
- It is important to realise that the use of AI-driven tools operates at the intersection of freedom of expression and other human rights, notably to privacy and the prohibition of discrimination. This means that regulatory frameworks and the division of responsibilities between regulatory authorities need to consider the way in which the different human rights interlink.
- While the introduction of AI-driven tools can create new opportunities for users to exercise their freedom of expression rights, the application of automated filtering and sorting can also result in new digital inequalities and unequal opportunities of access to information. Policy makers should identify potentially vulnerable groups, e.g. users that are structurally excluded from receiving media content, in danger of receiving a less diverse information offer, or pay an unproportionally high price (including in terms of privacy), and develop solutions that give users more agency in exercising their freedom of expression rights vis-à-vis automation in the media.

# 1 Introduction

The media play a pivotal role in Western democracies. The European Court of Human Rights (ECtHR) has repeatedly confirmed the democratic role of the media as 'purveyor of information,'[1] to create forums for public debate,[2] and to act as a public watchdog.[3] The role of the media is protected by Article 10 of the European Convention on Human Rights (ECHR), which safeguards the freedom for everyone "to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers."

Technology shapes the way in which the media exercise their democratic role (Balkin, 2018). Over the course of time, various technological innovations have caused new opportunities for the media to fulfil their democratic role, and for the audience to receive information. This is also true for AI-driven tools, the technology that is central to this report. AI-driven tools have the potential to revolutionise news production and distribution, the relationship between media and users, and more generally the conditions that dicate the wider media ecosystem. In the Digital News Report 2018, almost three quarters of the editors, CEOs and digital leaders interviewed indicated that they were experimenting with AI-driven tools or were planning to do so in the future (Newman, 2018, p. 29).

It is important to understand that AI-driven tools are more than a technology. In this report we understand AI-driven tools as a socio-economic construct, that is, as technologies that are embedded in organisations with their own goals, values and fundamental freedoms, and that mediate and impact interactions with the human/economic/social environment in which they are functioning. Insofar, AI-driven tools can affect the news ecosystem on at least three levels: news production and distribution, individual news users, and the broader media ecology and society more generally.

Regulators and law makers in Europe and around the world have considerable attention for AI-driven tools and their impact on society and public values. Many public and private institutions are drafting ethical and legal standards for the responsible use of AI-driven tools for a range of sectors, from medicine, to education, and public service. What sets the Council of Europe apart from other institutions, is the role that the Council has in protecting and promoting human rights in some of these sectors and the media sector in particular. The recommendations and declarations of the Council of Europe guide member States in how to create the conditions for a high level of protection of human rights. Article 10 ECHR has always held a prominent position in this regard. In today's regulatory and policy debate on data analytics and automation, the Council of Europe's rich experience with Article 10 ECHR is necessary to broaden a debate that so far has strongly focused on data protection law. In this report, we argue that the human rights to privacy and data protection have an undeniably important role in defining the conditions for the use of AI-driven tools, but so does Article 10 ECHR—an argument that we will unfold throughout the report.

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1 Barthold v. Germany, 1985, para. 59.
2 Társaság a Szabadságjogokért v. Hungary, 2009, para. 27. See also Council of Europe 4th European Ministerial Conference on Mass Media Policy, Resolution No. 1 on The Future of Public Service Broadcasting, 1994.
3 Barthold v. Germany, 1985, para. 59; Lingens v. Austria, 1986, para. 44.

This report is structured in the following way: after a brief description of the way in which AI-driven tools impact newsrooms and the work of editors and journalists, we will highlight some implications for news users and society. This empirical part is followed by an exploration of AI-driven tools from the perspective of Article 10 ECHR, and a critical analysis of the extent to which the existing standard setting instruments of the Council already deal with AI, or could have a role in addressing some of the issues raised in this report. The report concludes with observations and suggestions for areas of future attention and intervention. The report is the result of an interdisciplinary cooperation between scholars from journalism studies (Dr. Mariella Bastian), communications science (Dr. Judith Moeller) and law (Sarah Eskens, Max van Drunen, Natali Helberger), all members of the ERC PersoNews team (under the lead of Natali Helberger).[4]

## 2 Journalism, democracy and freedom of the media

Journalism holds a special role for the state of democracy, from both a theoretical and an empirical perspective. The main arguments behind the relationship between journalism and democracy are that journalism provides citizens with information they need to make voting decisions (information function), and that journalists and the media can monitor power actors, thus taking the role of a watchdog or so-called 'Fourth Estate' (McNair, 2009).

From a normative point of view, journalism serves three kinds of tasks in a democracy:

1. "*Observing and informing*, primarily as a service to the public;
2. *Participating* in public life as an independent actor by way of critical comment, advice, advocacy and expression of opinion;
3. *Providing* a channel, forum, or platform for extramedia voices or sources to reach a self-chosen public" (Christians et al. 2009, p. 116; italics in original).

However, the media has specific prerequisites to be able to fulfil its democratic functions. These prerequisites are provided by the state (democratic governance), the market (sufficient resources for quality journalism), and the public (participation in open debates, trusting the media) (Voltmer, 2013; Christians et al., 2009), as well as by journalistic institutions themselves (establishing the necessary structures for information collection and distribution, including a variety of sources and perspectives, "active use of press freedom in the context of a healthy public sphere") (Christians et al., 2009, p. 117).

With regard to these prerequisites, media freedom and freedom of expression play a central role, also because they determine the ways in which journalistic actors and the public interact with each other and the ways in which information can be circulated and finally reaches the audience. Specifically, Deutsch Karlekar and Becker (2014) empirically showed press freedom to be a "key component of the general level of democracy in a country. Most often, changes in the state of media freedom have happened in tandem with changes in broader freedoms, therefore making it a sensitive indicator of the overall health of a democracy" (p. 32). They find

[4] We would like to thank Charlotte Altenhoener-Dion for her extremely insightful and expert feedback. We would like also to thank Wolfgang Schulz, Damian Tambini, Francesca Montagna, Urska Umek and Silvia Grundmann for their excellent comments. This research was made in parts possible with a funding by the European Research Council (grant no. 638514).

a “strong correlation between changes in general levels of democracy and of media freedom, implying a symbiotic relationship between the two” (p. 33). The impacts of digital technologies on the media therefore serve as a good indicator for the impacts of such tools on democractic societies generally.

## 2.1 Introduction of AI-driven tools in the newsroom

Recently, we have witnessed a growing number of experiences with artificial intelligence in newsrooms (Reuters Institute, 2018). Although Lemelshtrich Latar and Nordfors already pointed to the growing influence of AI-driven tools on the journalistic profession in 2009, today there are still huge differences of opinion between countries and single media organisations about who already introduced – or is currently planning to do so – AI-driven tools into their journalistic practices and products, and also about the approach they take, specifically regarding the algorithmic design (for an overview of the implementation of algorithmic designs see Bodó, 2018; Van den Bulck & Moe, 2017).However, there are reasonable grounds to expect that, in the future, this development will further unfold in journalism parallel to other fields of life and work (Newman, 2018). Following Loosen (2018), who maps “journalism’s transformation towards a datafied journalism – within a datafied media environment – within a datafied society” (p. 4), we recognise that “algorithms do not exist in a vacuum” (p. 5), and that datafication is part of a “larger societal transformation process” (p. 9).

Research on the role of AI-driven tools in journalism, however, is still limited, and a broader overview is still lacking. Studies typically include single case studies, very specific fields of application, or rather broad issues in which the impact of AI on the journalistic profession is one subordinate theme.

Broadly speaking, AI-driven tools can be used on different levels by news media and journalists. These levels include content production, distribution channels and logics, and the object of reporting. Examples of using AI-driven tools in media organisations can be found across countries and media types, including public service and private media, news agencies, print and online media, and the broadcasting sector. Illustrating this broad range concretely, use of AI-driven tools can translate into three main domains:

1. **Support in research and content production: smart tools to assist journalists in producing their stories**. In general, data-driven journalistic practices, specifically parts of what is known as computer-assisted reporting (CAR), data journalism, or computational journalism (Coddington, 2015), relate in many cases back to the use of algorithms. Although all of these concepts are based on the quantitative examination of big data in the realm of journalism through computational methods, they differ with regard to their proximity to journalistic norms: unlike data journalism and computational journalism, “CAR is a form of data processing that is subordinated almost completely under the principles of professional journalism.” (Coddington, 2015, p. 338).

   Besides these data-driven journalistic practices, AI-driven tools can be used to reduce concrete routine work for journalists, ranging from fact-checking tools to translating texts or transcribing videos (George, 2018; Newman, 2018).

2. **Content production: fully automated creation of news** (often referred to as software-generated news, automated journalism or robot journalism). Automated journalism is a

growing phenomenon, though in an early stage, especially for specific thematic areas which are traditionally based on a rather high amount of data or facts, such as economic or sports news (George, 2018; Carlson, 2015). Automated news writing is especially relevant for outlets which focus primarily on factual reports, and for which speed and volume are important indicators, as it is the case for news agencies (see for example the advanced use of robot journalism at the Associated Press; Meedia, 2019; Linden, 2017).

Similar to AI-driven assistance tools for journalists, one possible advantage of combining automated news with pieces written by journalists can be the reduction of routine work: "it allows them [the journalists] to focus on more complex tasks, in light of the financial difficulties these organisations are experiencing" (Montal & Reich, 2017, p. 829). Thus, automatically created news increase the speed and amount of news available, and is also used for economic reasons (Graefe et al., 2016; van Dalen, 2012; Thurman, Dörr & Kuhnert, 2017). There are already examples of the automation of news production on a large scale with financial success in terms of an increase in subscriptions: the 'Homeowners Bot' launched by the Swedish media house MittMedia automatically creates articles about the real estate market based on local property data (Jacobsen, 2019). According to the company, in only four months, the bot produced 10,000 articles and more than 300 users subscribed through an article created by the bot (Govik, 2018).

3. **Content distribution: data-driven recommendation systems that make automated selections.** AI-driven tools can be used to change the ways in which media organisations distribute their content; instead of – or nowadays rather in addition to – delivering the same stories to every single person, more and more media organisations offer a set of stories which is individually tailored for every single user. In this way, they can make use of "the hidden richness and diversity of content" (Bodó, 2018, p. 14) by featuring stories from the long tail.

These three fields do not necessarily stand alone; for example, automatically generated news or journalistic pieces which have been created with the support of AI-driven tools can be distributed in a personalised way.

AI-driven tools used by *other* actors than traditional media, such as social media platforms, challenge traditional business models of the news sector, and force media organisations to adapt their concepts and routines to changing news consumption patterns of their audience by considering if and in which ways to distribute their own content through these additional channels. Besides news distribution, a second way in which algorithmic filtering on social media, especially on Twitter, impacts journalism relates to journalistic working routines: increasingly, journalists find their sources on social media (Bell and Owen, 2017; von Nordheim, Boczek & Kopper, 2018). Thirdly, journalists find a place there to engage (differently) with parts of their audience, with other journalists, and with stakeholders such as politicians (Molyneux & Mourão, 2019; Lewis, Holton & Coddington, 2016).

Thus, the introduction of AI-driven tools and digital technologies has an impact on working routines and journalistic output, but also on other dynamics affecting the newsroom, which includes the creation of new roles and positions in media organisations. Such changes also lead to new requirements for journalists' training.

## 2.2 Responsibility and the relationship human judgement-automation

Though the actual impact of AI-powered technologies on the work of journalists, and specifically on journalistic quality, values and standards, is still hard to assess on a large scale across Europe beyond single cases, it is definitely of crucial importance to determine the amount of human intervention in such developments. AI-driven tools can both be used as a helpful tool inside the newsroom, but also potentially disrupt journalistic routines and practices in a harmful way. One example are situations where as a result of automation, editorial independence and journalistic professionalism is at stake, for example through an irresponsible algorithm design that replaces human processes of weighing up effects, which is a core task of journalists: "The nuances of journalism require editorial judgment" (Bell and Owen, 2017,). The missing human factor in the algorithm design can potentially also have worrying effects in case news algorithms are designed with the intention to serve specific (political or harmful) motives or to spread propaganda or misinformation.

What seems to be a question of debate inside media organisations, is which actors and/or departments are responsible for the design, development or deployment of AI-driven tools, and consequently if and how the 'journalistic authority' (Carlson, 2015) is questioned and changing. Partly, this debate is triggered by the emergence of new roles and positions inside media organisations. From ongoing research we see that, for example, many different parties, such as department heads (e.g., Head of Digital), data scientists, product managers or audience researchers (sometimes, but by no means always with a journalistic background) are involved in the development and implementation processes of AI-driven tools such as algorithmic news recommenders (see also Bodó 2018). It is not always equally clear who is ultimately responsible for the consequences stemming from the use of AI-driven tools.

Regarding the question of who is ultimately responsible for the design and deployment of AI-driven tools, the balance between and human judgements and automation as well as the impact of the latter on human decision-making is a central factor. Hence, the "distinctiveness of professional journalistic judgement and algorithmic decision-making" (Carlson 2018, p. 1768) is at the core of the potential relationship between human journalists and AI.

Probably the most striking example of human judgement in the news production process is the decision about newsworthiness – that is to say editors deciding which topics are to be covered and published. Empirical evidence shows that new technologies such as web analytics and audience metrics have an effect on the assessment of news value,[5] thus impacting editorial decisions about which stories to pick up and how to prioritise them (see amongst others, Tandoc & Ferrucci, 2017; Lee et al., 2014). Although news selection processes follow specific patterns which are mirrored in journalistic training, newsroom-internal practices, and a huge strand of scholarly literature, two editors would probably seldom take exactly the same decisions regarding topic selection and the prioritisation of stories. Translating these news values into algorithmic news recommender systems, combining them with and weighing them up against further determinants (specific to the single user), is a huge challenge for media organisations.

[5] It is important to distinguish between news values and journalistic values; whereas the first (e.g., actuality, frequency, negativity) term refers to criteria that determine whether it's more likely or not that a story is published, the second term concerns underlying principles of journalistic work (such as objectivity or truthfulness, to mention two widely acknowledged ones).

The importance of identifying all actors – not only journalists – who are potentially to be held accountable for (the output of) AI-driven tools in journalism becomes obvious when having in mind that the automated creation of journalistic pieces is characterised by "limited to no human intervention beyond the initial programming choices" (Carlson, 2015, p. 416). Although intervention is limited from a certain point on, the relationship between algorithmic and human judgement still influences the publication phase and the actual product, namely regarding the question of authorship (Montal & Reich, 2017). The question of authorship of automated news is closely connected to demands for (algorithmic) transparency (Diakopoulos, 2014) and of special importance, because "authorship indicates deep sociocultural perceptions of algorithms and their potential and actual roles in journalism" (Montal & Reich, 2017, p. 830-831).

Evidence from different parts of the world shows that the relationship between journalists and automation can differ greatly, and that the socio-cultural context as well as contextual factors such as the media and political system should be taken into account. For example, Kim & Kim (2018) found different attitudes amongst South Korean journalists towards automated journalism: whereas one group of journalists is not preoccupied because they see crucial limitations regarding the tasks 'robots' are actually able to perform, a second group sees 'robots' producing journalistic pieces as "potential rivals" (Kim & Kim, 2018, p. 354), and a third group values possible positive scenarios for the use of automated journalism. However, they also find that "journalists have the negative feeling that robots are likely to damage journalism's value" (Kim & Kim, 2018, p. 354).

In an interview study with journalists from BBC, CNN, and Thomson Reuters, Thurman et al. (2018) found that journalists themselves identify several limitations of automated journalism, which include, amongst other factors, the "lack of human angles in the texts generated", and the "difficulty of working creatively with the data in the templating process." (p. 1254) But journalists do not exclusively see potential downsides of the implementation of automated journalism, but also identify potential positive outcomes such as the reduction of bias and inaccuracy, and more "depth, breadth, specificity, accessibility, and immediacy" (Thurman et al., 2018, p. 1255). As a consequence of these two perspectives, "automation may actually increase the need for the very human skills that good journalists embody – news judgement, curiosity, and scepticism – in order that we can all continue to be informed, succinctly, comprehensively, and accurately, about the world around us." (Thurman et al., 2018, p. 1255)

In this vein, we argue that it is beneficial to take the role of journalists seriously in the process of introducing AI-driven tools in the newsroom , because "algorithms should be understood as material as well as social *processes,* as their calculations may be based on direct articulations from the programmer, or data generated from calculations in previous steps." (Klinger & Svensson 2018, p. 4655). In turn, the programmer should at best have been in touch with journalists/editors to get an encompassing overview of how editorial decisions are manually taken, because: "Being designed and programmed by humans working in and for organisations, algorithms embody social values and business models. They are encoded with human and institutional intentions (that may or may not be fulfilled)." (Klinger & Svensson 2018, p. 4658). Besides this, we call for a greater awareness of (unforeseen) consequences of the interaction of AI-driven tools created by news organisations with other systems such as social media platforms.

## 2.3 AI-driven tools & values

Little empirical evidence exists so far about the actual impact of AI-driven tools on journalistic values and standards, but our ongoing research already points to the importance of transparency in order to strengthen trust and safeguard credibility. Our research further shows that news organisations rethink their relationship with their audience also with regard to their AI-related practices. As the traditional agenda-setting and gatekeeper roles of the media change, the question of how much user agency is desirable and feasible from the media's perspective remains in debate, also inside the newsrooms.

Public service media might hold a special position in the context of value-sensitive algorithm design. They are obliged to adhere to specific values which might stand in potential conflict to the introduction of specific AI-driven tools, as Van den Bulck and Moe (2017) show exemplarily for the dilemma in guaranteeing universality in news personalisation.

A journalistic value that is at the core of debates about AI-driven tools is objectivity – one of the most traditional ones. With the rise of algorithms in journalism, objectivity regains some of its importance in the larger debate about information quality: what Gillespie (2014) has called algorithmic objectivity relies, in contrast to the journalistic value of objectivity, "much less on institutional norms and trained expertise, and more on a technologically-inflected promise of mechanical neutrality." The value of objectivity has become a key point in the debate about the roles of journalists and algorithms in news making: "Both algorithms and [journalistic] professionalism support their claims to authority through the language of rationality and objectivity" (Carlson, 2018, p. 1763).

Similar to objectivity, diversity is a prominent journalistic value which is not easy to define – especially in a digitalized media environment. It is a concept with manyfold facets (Van Cuilenburg, 2000), and can be applied to categories as different as topics, sources, genres, political attitudes, opinions, cultural aspects etc., to name just a few ways in which content can be diversified. However, news organisations face difficulties in conceptualising diversity beyond topic diversity and the quantification and translation of diversity into AI-driven tools is a huge challenge. Personalized news feeds serve as an example for this challenge, as media organizations strive for the production of diverse content, and also need to make sure that the audience actually gets to see a diverse selection of news items ("exposure diversity", Helberger, 2011).

Existing self-regulatory codes frequently lack a reference to AI-driven tools. This can be observed for both codes on an organisational level and for of codes published by international organisations such as the IFJ. Some media organisations deal in their own initiative with the question of which normative conditions their algorithmic designs should fulfil, detached from self-regulatory codes or manuals.

Summarizing, news media and journalists use AI-driven tools in various ways, including for content production (in the form of tools to support journalists, and as automated journalism), distribution channels and logics, and as the object of reporting. Alongside the development of new roles, positions, and competences inside newsrooms, a frequent uncertainty can be observed regarding the question of who is responsible for the consequences of the use of AI-driven tools. In line with this, concerns arise around the safeguarding of editorial independence and journalistic values and professionalism.

## 3 AI-driven tools, the media and users

AI-driven tools can potentially offer manifold advantages to the way news users find information and news. AI-driven filter and recommendation systems can identify the most relevant stories for a user, taking into account the context of news use. For example, a user may want to read a different article while commuting to work than on a Sunday morning. Personalised news can also cater to different reading habits related to our different social roles, as employees, family members and citizens. New AI-driven tools can even adapt the content of news articles to users and the context of use, and thereby increase the chance that the news users come across can be processed and is useful.

However, there are also a number of caveats that go hand in hand with these advantages. Some of the most important challenges are the potential of artificial intelligence to create bias in the news that users are exposed to, the necessity to collect and store extensive data on all users, the risks of targeted manipulation , and the limited agency users experience while interacting with AI-driven tools. We discuss these points in more detail in the next paragraphs.

The most prominent concern in the public discourse about AI-driven tools and news use, is the potential emergence of filter bubbles (Pariser, 2011). A filter bubble is a "personal ecosystem of information that's been catered by these algorithms to who they think you are,"[6] meaning AI-driven filter systems detect what we think and henceforth deliver us with a perpetual echo of our thoughts. Unnoted by us, we are no longer confronted with information that challenges our belief systems and fosters tolerance in society.

While empirical evidence of these bubbles is scarce (for an overview see Fletcher & Nielsen, 2017) , a number of experimental studies (e.g., Dylko et al., 2017, Quattrociocchi et al., 2016) have provided evidence that filter bubbles can exist under laboratory conditions. In addition, studies into algorithmic bias clearly show that AI-driven tools pick up on and amplify existing human biases, (e.g. Noble, 2018). Taken together this raises new questions about the impact of AI-driven tools on users, and in the aggregate also on public opinion formation. First, we need to assess the possibilities of minority groups to find a platform for their ideas in algorithmic systems that are biased against them. Second, we need to take into account that while AI-driven filtering may not have an effect on everybody, there are certain groups that lack both the skills and the interest to adjust their settings to deliver them a diverse news diet (Bodó et al., 2019). We recently found, for example, that those with low levels of political interest are far less likely to receive news on social media or information searches on search engines (Moeller et al., in press).

This is particularly important, as AI-driven recommendation technology can create considerable gatekeeping power regarding the information diets of news users. According to recent findings from the Reuters Institute for 2018, "two-thirds of online news users surveyed across 37 different markets worldwide identified distributed forms of discovery as their main way of accessing and finding news online", with search and social media being by far the most influential factors (Newman, 2018), followed by aggregators, email and mobile alerts . By determining which stories users receive at what point in time, AI-driven tools can set the

[6] Eli Pariser in an Interview with *the Atlantic*: Parramore, (2010 October 10) The Filter Bubble. Retrieved from: https://www.theatlantic.com/daily-dish/archive/2010/10/the-filter-bubble/181427/

personal agenda of users. This means that there is also increased risks of manipulation, for example through priming. A political party could pay to prioritise information about a specific topic, thereby creating a false sense of urgency about this issue (Wojcieszak & Garrett, 2018). This can be advantageous, because placing selective emphasis on those issues voters trust are best handled by a specific political party (issue ownership), influences the frame of reference in which electoral decisions are taken (Kleinnijenhuis, 1998). When these messages are also crafted to address the specific vulnerabilities and preferences of users, for example by including emotional or rational arguments, matching actors with a similar demographic profile as the user, or matching personality traits like extraversion (Matz et al., 2017), they can be even more effective.

Moreover, the gatekeeping power of platforms such as Google and Facebook exceed the ability to define the priorities of feeds. These platforms also increasingly use AI-driven tools to filter and block specific types of content such as different forms of hate speech, mis- and disinformation and terrorist content, if they are not in accordance with their terms of service. While many researchers agree that AI-driven tools are part of the long-term solution to monitoring online content (Wright 2017), the standards and ways in which content is filtered or prevented from being uploaded, can determine whether the freedom of expression is realised or threatened, and thus shape the kind of political discourse that can take place and the process in which opinions are formed. In this case, AI-driven tools have an impact not just on freedom of expression in the media, but on freedom of expression in society in a more general way.

Another important point to consider is that AI-driven recommendations and filtering systems are often accompanied by, and based on large scale monitoring of users' reading behaviour. The vast amount of data on engagement with political information affects news usage beyond the implications for privacy. It could also lead to *chilling effects*, meaning news users choose not to interact with political information out of concern that this will lead to negative consequences (Schauer, 1978; Stoycheff 2016; Townend, 2017; Penney 2016, 2017). While there is no strong empirical proof of these effects yet, we should keep in mind that these effects are bound to be stronger in political systems characterised by a lack of political freedom.

Furthermore, for users, it matters whether news is made or curated by humans or by machines. For example, we find in our research that users' attitudes towards AI-driven selection depends on, among others, the diversity of the output (Bodó et al., 2019). And while most users have no principal reservations against news being distributed through AI-driven tools (Thurman et al., 2018), it affects users' perception of the selection if the curation took place automatically. Automatic selection implies less influence from human editors and even governmental influence to most users, yet it also creates concerns about being wrongly profiled, as well as privacy concerns (Monzer et al., 2018). This argument is even more relevant when it comes to automatically created news stories. Knowing that a story has been automatically generated and has not been validated by a professional journalist affects the level of trust in the story (Jung et al., 2017). Graefe et al. (2016) found in an experiment that users tended to perceive automatically produced articles as more credible than human-written ones, whereas the latter were more enjoyable to read. However, the measured differences are small, which indicates that more research with different research designs are needed to further test these results across different topics, countries, and user groups. However, the relationship between trust and credibility on the one hand, and automated news production on the other hand has potential implications for the exercise of users' rights to freedom of expression under Article 10 ECHR.

Finally, the use of AI-driven tools fundamentally alters the agency of users regarding the news they consume. AI-driven tools have introduced observable measurements of user interaction allowing detailed insights into audience preferences that are impossible to obtain in non-digital media. Even more so, AI-driven recommendation and content creation systems are designed to optimise audience engagement, moving the user into the centre. However, this increase in user agency is unidimensional as it is solely focused on observable engagement like clicks or time-spent. In many systems, the only way in which users can influence which content is selected and created especially for them is through their choices *within* the system, expressed through feeding the system with their preferences (where possible), or through clicks and other forms of observable engagement with the algorithm. This has two important consequences. First, users do not know what information they are automatically excluded from. Second, they cannot exercise control over the kinds of information that is used within the system. Research elsewhere indicates that users are expecting to play a more active role in the interaction with AI-driven tools (Monzer at al., 2018). This requires an understanding of how AI-driven tools select and create news, and also opportunities to adjust the algorithm if it does not reflect the content a user wants to see. Proving this point, we also find that users experience the lack of control in their interaction with AI-driven systems as problematic.

In conclusion, AI-driven tools shape the way users receive and process news. While there is limited empirical evidence that this has led to filter bubbles and a lack of diversity among the population as a whole, segments of the population are at risk of being structurally treated differently than others. Other potential effects are news avoidance out of privacy considerations and the lack of user agency.

## 4 The societal dimension of AI-driven tools in the media

Gatekeeping through AI-driven tools can affect individual users and the structure of the public sphere as a whole. If algorithmic personalisation is taken to the extreme, combining algorithmic gatekeeping with AI-driven content production, every news article might one day reach an audience of exactly one person. This has implications for all collective processes that form the pillars of modern democracies. For example, how will we negotiate and create a shared understanding of which issues are most important and how they should be solved? It should be noted that at present, AI-driven tools have not contributed to a fragmented public sphere in a statistically significant way (Geisset al., 2018, Moeller et al., 2016). However, the same studies also show that these systems also do not *create* such a common meeting ground, while traditional news media, specifically newspapers and TV news clearly do create a common communication space where public agendas are formed. Having said that, AI-driven tools, if used in the right way, can also make an important contribution to the democratic role of the media to better inform, provide diverse information, and to help enhance the public sphere by diversifying the range of topics that are debated and providing relevant information to those who need it.

Digitisation and datafication also affect the overall structure and diversity of the media landscape. On the one hand, there are new players such as social media platforms arriving at the scene and affecting the process of producing, imparting and receiving information. An immediate side-effect on the role of the media in society is the disaggregation and unbundling of news products, but also the amplification of mis- and disinformation and the potential for

malicious manipulations of the public sphere. The reliance on big data also creates a new economy of scale, in which those players with the most access to data are better able to provide personalised news to the users (Stone, 2014). This has consequences for the market structure as it places smaller newsrooms at a disadvantage and favours the dominance of new data-rich players, such as search engines and social media platforms. Approaches like the 'public money, public code'[7] that promote open source code for publically funded software can mitigate this effect to some extent, since all code developed for public service media becomes openly accessible. This can help smaller media outlets to use technology to broaden their audience and adds transparency to the way public service media deploy digital technologies.

It is also important to note that many of the effects described at the level of the user scale with disproportionate societal effects. For example, the collection of data on news consumption habits may produce only a small harm to an individual user. However, if data is collected on all members of society, this data can be used to compare profiles and extrapolate information using machine learning algorithms. Those with insight into what the vast majority of the population knows about the world, hold a considerable amount of power, which creates – if unchecked - risks of abuse. The discussion about how American voters were influenced by foreign actors illustrates clearly that there are unanticipated options of using AI-driven tools for strategic purposes that are not in line with democratic principles (Kim et al., 2018).

It can be expected that all of the developments described above will be once again accelerated and altered by the arrival of more intimate forms of AI-driven tools such as virtual assistants (Lee, 2018; Londen, 2018; Owen, 2018). As AI development moves unobtrusively into the backdrop of our daily lives, it enables an even richer collection of digital data. We can also expect that the informal relationship users are building with assistants through voice will affect the levels of trust in the information delivered to them.

Gatekeeping through AI-driven tools can affect individual users and the structure of the public sphere as a whole, by affecting the shared public agenda and the market structure for news services.

## 5 AI-driven tools and freedom of expression

Article 10 ECHR protects the right to freedom of expression and therefore demands a generally enabling environment for freedom of expression. In this section, we discuss what negative and positive obligations member States have to ensure that the protection of Article 10 ECHR remains effective in the face of AI-driven tools. Our analysis includes a discussion of positive obligations for member States in the sphere of relations between individuals,[8] such as the protection of news users against human rights violations by private media companies.

The Council of Europe has already produced a number of guidelines and recommendations that explore the responsibilities of member States and private parties with regard to AI-driven tools

[7] Free Software Foundation Europe (2019), retrieved from: https://publiccode.eu/.

[8] See e.g. Fuentes Bobo v. Spain, 2000, para. 38; Özgür Gündem v. Turkey, 2000, para. 42–46; Appleby and Others v. the United Kingdom, 2003, para. 39; Khurshid Mustafa and Tarzibachi v. Sweden, 2008, para. 32; Verein gegen Tierfabriken Schweiz v. Switzerland (No. 2) [GC], 2009, paras. 79-80; Dink v. Turkey, 2010, para. 106; Centro Europa 7 S.r.l. and Di Stefano v. Italy [GC], 2012, para. 134.

and big data.[9] The guidance in earlier recommendations on media and freedom of expression also remains relevant with regard to AI-driven tools. We will point to the guidance the Council of Europe already offers in specific areas, after which we explore in our concluding section what additional measures are needed.

## 5.1 Obligations from the perspective of newsrooms

Article 10 ECHR obliges member States to refrain from acts that unjustifiably interfere with the right to freedom of expression of journalists and editors. The ECtHR has established that Article 10 ECHR "protects not only the substance of the ideas and information expressed, but also the form in which they are conveyed."[10] The ECtHR also found that Article 10 ECHR applies to the means of dissemination, "since any restriction imposed on the means necessarily interferes with the right to receive and impart information."[11] Therefore, neither national nor supranational courts or regulatory authorities may tell the press what techniques of reporting should be adopted by journalists.[12] Journalists, news media, social network sites, and search engines are thus free to use AI-driven tools for the production and distribution of content.

### 5.1.1 Freedom of expression and robot journalism

As mentioned in section 2, AI-driven tools can also be used to generate news content ('robot journalism'). A novel question is to what extent 'expression' by fully autonomous AI-driven tools is protected by the right to freedom of expression (Massaro, Norton and Kaminski, 2016; Collins and Skover, 2018). This question matters, because governments might try to censor unwanted content produced by AI-driven tools, including 'deep fakes' and other kind of false audio-visual content that can be automatically generated (Chesney and Citron, 2017; Borel, 2018). We argue that the use of AI-driven tools is indirectly protected by the freedom of the media to employ AI-driven tools and the freedom of the public to receive such information, but we do not make the argument that robot journalists themselves have freedom of expression rights and duties. This latter argument is problematic because it assumes that AI-driven tools have legal personhood and can be holders of rights or bearers of duties. There is an ongoing discussion on legal personhood and liability of automated systems and the answer has not been settled yet (Committee of experts on internet intermediaries, 2017, p. 35; Montal and Reich, 2016). Conversely, recommendations of the Council of Europe suggest that editorial control can be automated, but that the use of automated tools might create specific risks and trigger specific responsibilities, as will be explored in section 5.1.3.[13]

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[9] Guidelines to Convention 108 on Artificial Intelligence and data protection, 2019, T-PD(2019)01 (AI guidelines to Convention 108); Guidelines to Convention 108 on the protection of individuals with regard to the processing of personal data in a world of Big Data, 2017, T-PD(2017)01(Big Data guidelines to Convention 108); Recommendation of the Committee of Ministers to member States on Big Data for culture, literacy and democracy, 2017, CM/Rec(2017)8 (recommendation on cultural big data). Declaration by the Committee of Ministers on the manipulative capabilities of algorithmic processes, 2019, Decl(13/02/2019)1 (declaration on manipulative capabilities); Draft Recommendation of the Committee of Ministers to member States on human rights impacts of algorithmic systems, 2018, MSI-AUT(2018)06 (draft recommendation on algorithmic systems).

[10] Oberschlick v. Austria, 1991, para. 57.

[11] Öztürk v. Turkey, 1999, para. 49. See also Autronic AG v. Switzerland, 1990, para. 47.

[12] Schweizerische Radio- und Fernsehgesellschaft SRG v. Switzerland, 2012, para. 64.

[13] Recommendation of the Committee of Ministers to member States on media pluralism and transparency of media ownership, 2018, CM/Rec(2018)1 (recommendation on pluralism), para. 2.5

### 5.1.2 Creating a favourable environment

In addition to prohibiting member States from unlawfully interfering with freedom of expression rights, Article 10 ECHR contains positive obligations for member States. In *Dink*, as recently confirmed in the case of *Khadija Ismayilova*, the ECtHR determined that member States have a positive obligation "to create a favorable environment for participation in public debate by all the persons concerned."[14] In *Dink*, the creation of a favourable environment meant that the State was obliged to protect a journalist against attacks by people who felt insulted by his publications. In *Khadija Ismayilova*, the State had been under a positive obligation to more effectively investigate intrusions into the private life of a journalist that were linked to her journalistic work. The Council of Europe has taken up the task to further elaborate in its various recommendations and publications on the nature of such a favourable environment. It includes, among others, the need to provide the media with both financial and non-financial support and to protect them from (digital) threats.[15]

The introduction of AI-driven tools poses challenges for the creation and maintenance of a diverse media landscape. Unequal access of small versus large media organisations to AI-driven tools and data could lead to a less favourable environment for some media organisations (see section 4), and in the worst case affect their economic viability. Large media organisations, including social media platforms and search engines, have access to better tools and more (training) data, which enables them to more easily find and reach out to audiences and provide users with relevant recommendations—eventually to the detriment of smaller or local news organisations that operate in line with the strict responsibilities stemming from media law and self-regulatory mechanisms.[16]

News media have freedom of expression rights, but they also have a societal role in contributing to a favourable environment for public debate, among others by providing a platform where citizens and politicians can voice their opinions and ideas. In principle, news organisations are free to use AI-driven tools to fulfil their societal role. However, AI-driven tools could threaten the favourable environment when media organisations and internet intermediaries use such tools to moderate user-generated content or content uploaded by other media organisations (Klonick, 2018; Committee of experts on internet intermediaries, 2017, p. 18-19). When online intermediaries use AI-driven tools to restrict unlawful content such as hate speech, terrorist content, and child sexual abuse material, there is a risk that the tools take down legitimate content because the tools are not (yet) able to detect the contextual nuances that distinguish lawful from unlawful content (Committee of experts on internet intermediaries, 2017, p. 21;

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[14] Dink v. Turkey, 2010; Khadija Ismayilova v. Azerbaijan, 2019, para. 158. Note that both in the case of *Dink* and *Khadija Ismayilova*, journalists were physically threatened or harassed. The 'favourable environment' that the ECtHR talks about does not necessarily include an environment in which news users or media organizations are protected against deleterious effects of AI-driven tools on freedom of expression (unless AI-driven tools would threaten the life or personal dignity of journalists, news media, and other participants to public debate).

[15] Declaration on the financial sustainability of quality journalism in the digital age, 2019, DECL(13/02/2019)2 (declaration on the financial sustainability of quality journalism); draft recommendation on algorithmic systems, 2018, para. 7.1; recommendation on pluralism, 2018, para. 2.11; Recommendation of the Committee of Ministers to member States on the protection of journalism and safety of journalists and other media actors, 2016, CM/Rec(2016)4 (recommendation on the safety of journalists,), para. 18, 38.

[16] See in this context also the Recommendation of the Committee of Ministers to member States on the roles and responsibilities of internet intermediaries, 2018, CM/Rec(2018)2 (recommendation on intermediaries), para. 7;

Kaye, 2018, para. 29).[17] In addition, when online intermediaries deploy AI-driven tools to take down content that is lawful but nevertheless violates the terms and conditions of the platform, the freedom of expression rights of the people involved are often limited.[18]

The automated ranking and selection of news stories by internet intermediaries could effectively remove low-ranked content from public view. This is unfavourable for public debate as moderation and ranking might disadvantage smaller media, including alternative and community media, who rely on social media platforms for their the dissemination of their content (Newman, 2018, p. 12). The Council of Europe recognises that intermediaries exercise control that is similar to that of the media when moderating or ranking content, and emphasises that their duties and responsibilities should match their editorial role.[19]

### 5.1.3 Duties and responsibilities

Although Article 10 ECHR provides a particularly high level of protection for media freedom in light of the essential role of the press in democratic society,[20] the exercise of this freedom carries with it 'duties and responsibilities' (Article 10 ECHR, para. 2). The scope of someone's duties and responsibilities depends on the situation and the technologies used for communication.[21] The ECtHR assumes duties and responsibilities for journalists as well as for other actors that contribute to public debate, including owners or publishers of news outlets[22] and online news portals.[23]

For journalists and other media actors, having duties and responsibilities means that Article 10 ECHR protects their right to produce and publish stories on issues of public interest, "provided that they are acting in good faith and on an accurate factual basis and provide "reliable and precise" information in accordance with the ethics of journalism."[24] Journalists and media actors that produce or publish content which violates the ethics of journalism might thus not be protected by freedom of expression, depening on the context and the public interest value of the story.

The use of AI-driven tools to deliver personalised news could come with specific duties and responsibilities. To determine the duties and responsibilities of news media, the potential

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[17] See especially the recommendation on intermediaries, 2018, paras. 1.3.2, 1.3.8, 2.3.5, which also points out that some content, such as child sexual abuse content, is illegal irrespective of context; recommendation of the Committee of Ministers to member States on the protection of human rights with regard to search engines, 2012, CM/Rec(2012)3, (recommendation on search engines), para. III.12;

[18] The Council of Europe emphasises that States should ensure that effective remedies for all violations of human rights by intermediaries be put in place (recommendation on intermediaries, 2018, para. 1.5.2).

[19] Recommendation on intermediaries, 2018, paras. 5 and 1.3.9; recommendation of the Committee of Ministers to member States on a new notion of media, 2011, CM/Rec(2011)7 (new notion of media, 2011); see on responsibilities with regard to exposure diversity in automated news distribution systems the recommendation on pluralism, 2018, para. 2.5.

[20] Lindon, Otchakovsky-Laurens and July, 2007, para. 62; Centro Europa 7 SRL and Di Stefano [GC], 2012, para. 131; Animal Defenders International, 2013, para. 102; De Haes and Gijsels v. Belgium, 1997, para. 37.

[21] Handyside v. the United Kingdom, 1976, para. 49.

[22] Sürek v. Turkey (No. 1), 1999, para. 63; Sürek v. Turkey (No. 3), 1999, para. 41; Öztürk v. Turkey, 1999 para. 49; Chauvy and Others, 2004, para. 79; Editions Plon, 2004, para. 50.

[23] Magyar Tartalomszolgáltatók Egyesülete and Index.hu Zrt v. Hungary, 2016, para. 62. Although the legal responsibilities of 'traditional print and audiovisual media on the one hand and Internet-based media operations on the other' may differ, seeing the fundamental differences between a website operator and a traditional publisher; see Delfi AS v. Estonia [GC], 2015, para. 113.

[24] Fressoz and Roire [GC], 1999, para. 54. See also, among others, Bladet Tromsø and Stensaas [GC], 1999, para. 65.

impact of the medium is an important factor to take into account.[25] Following earlier case law of the ECtHR, the Council of Europe prescribes a differentiated and graduated approach to the legal principles applicable to different media actors.[26] The ECtHR further developed this approach in *Delfi AS*, where it held that the legal responsibilities of print and audiovisual media may differ from the responsibilities of online media, seeing the fundamental differences between traditional publishers and website operators.[27] As we argued in section 3, under certain conditions, targeted information offers can have a more immediate and persuasive impact than traditional media offers, which could trigger heavier duties and responsibilities for those providing targeted news with the use of AI-driven tools.[28]

The automation of news and the introduction of AI-driven tools to newsrooms also raises questions regarding the scope of the duties and responsibilities in the newsroom. Tasks that were previously performed by human journalists and editors are delegated to machines (Bodó, 2018). As mentioned in section 2, most forms of media engagement with AI-driven tools are not addressed by self-regulatory codes and journalistic routines. How to hold media actors accountable—as part of their duties and responsibilities—for the use of AI-driven tools if self-regulatory codes do not cover that topic? Furthermore, who is responsible to ensure that robot journalism adheres to journalistic duties and responsibilities (Broy and others, 2017, p. 106)?

To the extent that existing journalistic codes do not refer to the use of AI-driven tools, the media has a duty to develop journalistic ethics for the use of such tools (Helberger and Bastian, 2019). Furthermore, it follows from Article 10 ECHR that media actors have a responsibility to develop professional rules regarding the risks of AI-driven tools for bias and media diversity. If journalists start using AI-driven tools without sufficiently interrogating the tools they use and without sufficient awareness of problems that may stem from the use of AI-driven tools, including issues such as incomplete data, biased data, and faulty models, there is a risk of journalistic malpractices (Hansen and others, 2017, p. 8).

## 5.2 Obligations of States vis-à-vis individuals

This section considers the obligations of member States from the perspective of individual news users, for whom Article 10 ECHR protects the right to receive information (Eskens, Helberger, and Moeller, 2017) and the right to hold opinions. Over and over again, the ECtHR affirmed that the public has a right to receive the information and ideas imparted by the media.[29] Article 10 ECHR thus "guarantees not only the freedom of the press to inform the public but also the right of the public to be properly informed."[30] The Court recognises that the internet "plays an important role in enhancing the public's access to news and facilitating the dissemination of information in general."[31] The Court noted that restrictions on internet use are significant since

[25] Jersild, 1994, para. 31; Radio France and Others v. France, 2004, para. 39.
[26] New notion of media, 2011. In the context of AI, particular attention is often paid to the need for due diligence and the potential for discrimination. Recommendation on intermediaries, 2018; AI guidelines to Convention 108, 2019;
[27] Delfi AS v. Estonia [GC], 2015, para. 113.
[28] See also the declaration on manipulative capabilities, 2019.
[29] Sunday Times v. the United Kingdom (No. 1), 1979, para. 65.
[30] Sunday Times v. the United Kingdom (No. 1), 1979, para. 66.
[31] Times Newspapers Ltd v. the United Kingdom (Nos. 1 and 2), 2009, para. 27.

"the internet has now become one of the principal means by which individuals exercise their right to freedom of expression and information."[32]

From the perspective of the right to receive information, the introduction of AI-driven tools may change the quality and type of news that users receive. Journalism scholars have noted how social network sites and search engines, powered among others by AI-driven tools, have formed a news system that disadvantages quality journalism (Bell and Owen, 2017). The optimisation of AI-driven tools for short-term goals (e.g. clicks and time spent on the platform) could, in a worst case scenario, lead to news users having less access to the type of journalism that forms the core of the public watchdog function of the media, such as stories that uncover misbehaviour of politicians and corporations, or stories that reach and give voice to minorities.[33] If, in turn, AI-driven tools are optimised towards the achievement of public policy informed values, the use of AI-driven tools could positively change the quality and type of news that users encounter. The ECtHR has held that member States are obliged to ensure that citizens are able to receive balanced and diverse news.[34] Arguably, the positive obligations of member States also extend to the quality of the news that news users receive via AI-driven recommender systems.

As a result of their positive obligation vis-à-vis relations between individuals, member States might have to ensure that news organisations, including social media and search engines, do not limit news users' right to be informed or to hold an opinion by using AI-driven tools. Council of Europe recommendations emphasise that individuals should be informed about algorithmic decision-making that concerns them, have meaningful control over these processes, and have access to effective remedies for violations of human rights by private actors that design, develop or deploy algorithmic systems (including apology, rectification, and damages).[35]

The right to receive information is intrinsically connected with the rights to privacy and data protection. News users who are aware of the use of AI-driven tools by news media and know that they involve personal data collection, may fear the consequences of such personal data processing. In response, news users may hesitate to consult online news and recommended content. Similarly, state surveillance of internet use, including the monitoring of what information users search for and consume online, could chill news users in the exercise of their expression and information rights. This connection between freedom of expression and privacy rights has been called 'intellectual privacy' (Richards, 2015; Cohen, 1997). The possibility of state access to data on individual reading patterns, collected by newsrooms and internet intermediaries to create or improve AI-driven tools, also poses a more general, latent threat to democracy.

A rather underdeveloped element of Article 10 ECHR, in terms of jurisprudence, is the right to hold opinions.[36] The right to hold opinions is absolute (Council of Europe, 1968, p. 4), which means that member States may not interfere with it, not even when they comply with the

[32] Ahmet Yıldırım v. Turkey, 2012, para. 54.
[33] Declaration on the financial sustainability of quality journalism, 2019, paras. 7 and 9 on the pressure on journalists to produce sensationalist content; recommendation on intermediaries, 2018, para. 2.5.
[34] Manole and Others v. Moldova, 2010, para. 101.
[35] Recommendation on intermediaries, 2018; AI guidelines to Convention 108, 2019; draft recommendation on algorithmic systems, 2018, para. 5.1.
[36] There is some jurisprudence on Article 19 ICCPR, which also protects the right to hold opinions; see Kaye (2018).

conditions of Article 10 ECHR, para. 2. Member States should also protect news users from violations of their right to hold opinions by other private actors. When news media present users with certain content, they could do so with the intention to influence the opinion forming process of news users. However, trying to influence the opinion of others is not necessarily problematic in itself. Partisan press and op-eds legitimately try to influence the opinion and views of news users. A difference between influencing opinions through op-eds or personalised news, is that op-eds do not use knowledge about each individual user to trigger fears or sensitivities related to certain topics with the aim of manipulating her. Furthermore, in the case of personalised news, it is harder for news users to know whether someone tries to illegitimately influence their opinion. Respect for the right to hold opinions thus requires transparency regarding the use of AI-driven tools for persuasion and influencing opinions.[37]

## 5.3 Obligations of States vis-à-vis society

As has been detailed in section 2, the introduction of AI-driven tools in the news industry has brought structural changes to the way news is produced, distributed, sold, and consumed. The news media landscape has seen new media players, such as internet intermediaries and app developers, and is driven by new market dynamics. Furthermore, news users find and read the news in novel ways. They find news via social media and read it on their mobile phones throughout the day, instead of at set time points, such as in the morning during breakfast or in the evening during dinner.

On a societal level, one question is if new media players that use AI-driven tools to produce or distribute news should be regulated. In connection to that, an open question is to what extent member States have obligations following from Article 10 ECHR towards new media players. Internet intermediaries argue they are technology companies rather than media companies,[38] to avoid media regulation and editorial responsibilities (Napoli and Caplan, 2017). The consequence of this position is that internet intermediaries are neither protected by media freedom for the selection and ranking of news (although they do have the freedom to conduct a business and their users have a right to receive information through these platforms), and that the aforementioned negative and positive obligations of member States following from Article 10 ECHR do not hold against these 'technology companies'. In turn, if law- and policy makers want to impose media-like duties and responsibilities on internet intermediaries, these platforms should also be able to invoke media-like freedom of expression rights.

Another question is how the overall competitiveness of old versus new players, and small (including local and community media) versus large players, can be maintained. This also relates to the question of media pluralism, which depends on a variety of news outlets that represent different speakers and ideas on the market. The ECtHR has affirmed that the State is "the ultimate guarantor of pluralism."[39] In that respect, member States can have positive obligations under Article 10 ECHR to ensure that the public has access through the media to

[37] The declaration on manipulative capabilities, 2019, para. 9, differentiates persuasion from unacceptable manipulation by noting that '[t]he latter may take the form of influence that is subliminal, exploits existing vulnerabilities or cognitive biases, and/or encroaches on the independence and authenticity of individual decision-making.'

[38] Castillo, M. (2018, April 11). Mark Zuckerberg: Facebook is a technology company, not media company. *CNBC*. Retrieved from https://www.cnbc.com/2018/04/11/mark-zuckerberg-facebook-is-a-technology-company-not-media-company.html.

[39] Informationsverein Lentia and Others v. Austria, 1993, para. 38.

"impartial and accurate information" and "a range of opinion and comment."[40] An important way to guarantee pluralism is to ensure that free and independent media, including public service media, can continue to fulfil their function in the new media landscape.[41]

To ensure true pluralism, it is not sufficient for member States to just provide for the existence of public service media or several media outlets. Member States should allow various media organisations effective, not just theoretical, access to the market,[42] Effective market access includes the ability of news media to compete in the marketplace of ideas, to use innovative technology, and to develop sustainable business models. Furthermore, to ensure pluralism member States should create, where necessary, favourable conditions for the audience to be exposed to this variety of media sources and content (exposure diversity). Member States cannot mandate news users to expose themselves to diverse content. Still, member States might have an obligation to remove obstacles for, or promote exposure diversity, for example by highlighting the importance of diversity in the design of recommender algorithms. In its recommendation on media pluralism, the Council of Europe makes clear that the automation of editorial processes influences the visibility, findability, accessibility, and promotion of media content. The Council of Europe therefore recommended that member States should encourage initiatives by social media, media actors, civil society, academia and other relevant stakeholders to promote effective exposure of users to "the broadest possible diversity of media content online."[43]

## 6 Conclusions and recommendations

This report has described some of the key implications of AI-driven tools for the media, for users and for society, and viewed these developments from the perspective of Article 10 ECHR and the norms and rules of the Council of Europe. The Council of Europe has a long tradition of setting standards, defining norms, and providing guidance on how the European human rights framework should inform the activities of the media, of media markets, of regulators and policy makers, and of citizens. In the following, we draw a number of conclusions from the preceding analysis for the (negative and positive) obligations for member States and the media to realise the opportunities, and diminish possible negative consequences of the use of AI-driven tools for the exercise of freedom of expression.

[40] Manole and Others v. Moldova, 2009, para. 107.

[41] Recommendation of the Committee of Ministers to member states on the remit of public service media in the information society, 2007, CM/Rec(2007)3 (recommendation on the remit of public service media); Recommendation of the Committee of Ministers to member States on public service media governance, 2012, CM/Rec(2012)1 (recommendation on public service media governance)

[42] Centro Europa 7 Srl and Di Stefano v. Italy [GC], 2012, para. 130.

[43] Recommendation on pluralism, 2018, para. 2.5. See also the call for exposure diversity in intermediaries' news distribution algorithms (recommendation on intermediaries, 2018, para. 2.5), and the call for public interest responsibilities for intermediaries, including the responsibility to enable the promotion of credible, diverse, and relevant news over disinformation in the declaration on the financial sustainability of quality journalism, 2019

## 6.1 AI-driven tools & news media

### 6.1.1 Investing in AI-driven tools and newsroom innovation

We identified a range of ways in which AI-driven tools can contribute to the democratic role of the media and an environment where users can exercise their right to freedom of expression, including:

- Being more responsive to the interests of a heterogeneous audience;
- Providing more relevant, more accessible information;
- Developing new means and tools of investigative (data) journalism;
- Automating journalistic or editorial processes, making them more efficient and creating extra room for high quality journalism, critical investigation, and stimulating and engaging in public debates;
- Fulfilling the news media's archival role and unlocking the wealth of information generated earlier;
- Offering additional services and unlocking new financing models.

Member States should, where possible, promote experimentation with, and investment in AI-driven tools. Experimentation and investment is important in the light of the growing competition between (traditional) news media and internet intermediaries, such as social media and search engines. Furthermore, experimentation and investment is necessary for the (traditional) media to respond to the changes in user behaviour and make optimal use of the affordances of new technologies.[44] Access to skills and technological innovation for local, smaller, community and other media is also critical in light of the importance of maintaining a flourishing and diverse European media landscape. The accessibility of freedom of expression-oriented AI-driven tools may be further increased by making AI-driven tools open source where possible, at least to the extent that they are developed with public money.[45]

### 6.1.2 Professional algorithmic ethics

While it may be attractive to use AI-driven tools, the media also carry duties and responsibilities towards users, and towards society as a whole. The media have a responsibility to use AI-driven tools in a way that is conducive to the fundamental freedoms and values that characterise European media markets and policies. As the Council of Europe rightly observed "Media (and journalists') ethics, deontology and standards are the basis of media accountability systems".[46]

To this end, the Council of Europe has an important role in stimulating and supporting the elaboration of guidelines for the responsible use of AI-driven tools in the newsroom, for example in the form of professional algorithmic ethics. Existing journalistic codes and mission statements regarding editorial responsibility are still very much focused on traditional journalistic routines.[47] The automation of journalistic functions and the disruptive structural

[44] See on the need to ensure public service media are able to adapt to the new media system and changing expectations of the audience already the recommendation on the remit of public service media, 2007; see more recently the declaration on the financial sustainability of quality journalism, 2019.
[45] Draft recommendation on algorithmic systems, 2018, para. 1.2.
[46] Recommendation on the new notion of media, 2011, para. 39
[47] Recommendation on the new notion of media, 2011, para. 39-40.; Recommendation of the Committee of Ministers to member states on self-regulation concerning cyber content, 2001, Rec(2001)8 (self-regulation and user

changes that accompany these processes raise new legal and ethical challenges that existing codes and routines do not address.

Journalistic algorithmic ethics would need to address questions such as how to deploy AI-driven tools in journalism responsibly and how to interpret traditional notions such as fairness, balance and diversity in the context of technology. Insofar, the existing guidance of the Council of Europe on the responsibilities of the media should be updated. The guidance should cover at least the responsible use of AI-driven tools *within (1) the news media themselves*, and (2) *in relation to users and (3) in relation to society*.

1. Within the news media, it is necessary to develop principles for how journalists and editors should approach AI-driven tools, how they should address the pressure of user metrics and the extent to which AI-driven tools may (not) replace human editorial judgement. The automation of journalistic and editorial processes calls for new internal procedures to define freedom of expression values and metrics that can inform the development of AI-driven tools, as well as processes that ensure that these values are taken into account during the development of AI-driven tools. Such procedures bridge the gap that often still exists between editors and journalists on the one hand, and technical staff and product owners on the other hand. Next to value-sensitive design, it is necessary to create internal checks and balances (to detect, for example, bias or lack of diversity in recommender systems), make processes transparent & controllable, and clearly assign editorial responsibility for automated recommendations and news products. This is because AI-driven tools are more than simple tools but elements of potentially far-reaching structural changes in internal routines and divisions of responsibility between humans and machines. Insofar, professional duties and responsibilities should apply to journalists and editors and also to new actors, such as those designing recommender systems or smart news apps.
2. In *relation to users*, respect for their rights to privacy, to form opinions and non-discrimination should figure prominently in journalistic algorithmic ethics. Accordingly, news media should refrain from using technology in ways that manipule, stereotype or in other forms reduce users' freedom of expression rather than increase it.[48] The Article 10 ECHR analysis above has further highlighted the need for transparency and explainability of the implications of AI-driven tools for the choice that news users get, as these automated sorting decisions affect users' right to privacy, as well as the freedom to receive information. For a similar reason, respect for users' privacy AND freedom of expression rights also necessitates confidentiality of the media vis-à-vis the growing amount of data that the media hold on users' reading choices, political preferences, etc. – information that can, depending on the political and economic climate in a country, amount to being highly sensitive if shared with third parties.
3. In *relation to society,* journalistic algorithmic ethics should make clear that AI-driven tools are to be used to promote, not hinder freedom of expression rights. This means that when using AI-driven tools, the media should look beyond short term goals such as increasing clicks and likes, and take into account the impact of these tools on

protection against illegal or harmful content on new communications and information services); Recommendation of the Parliamentary Assembly on Ethics of journalism, 1993, 1215 (1993).

[48] Declaration on manipulative capabilities, 2019.

information diversity, social cohesion and inclusion and specific information needs of users.[49]

Finally, the media have an important role in creating awareness for, and critically observing societal adoption of AI-driven tools. Media reporting can point us to threats and dangers. It remains an open question whether in order to be able to act as a public watchdog, (data)journalists should face new duties and responsibilities, and also new rights, such as access to data, or a right to an explanation as part of the right to information that is in the public interest.[50]

The Council of Europe's recommendation on the safety of journalists emphasises the need to protect whistle-blowers and to protect them against the chilling effects that may arise from the hacking of social media accounts or electronic devices and tracking of online activities of journalists.[51] These points are relevant, too, when journalists investigate the most sophisticated forms of AI, which are often employed by private organisations with access to large amounts of data, potentially including communications and locations data of journalists or their sources.

### 6.1.3 Editorial responsibility and oversight for automated journalistic processes

There is a need to stipulate clear conditions of responsibility and (editorial) oversight regarding automated processes, be that AI-driven recommender systems or robot journalism. A clear conceptualisation of editorial control in the context of AI-driven tools is necessary to identify when automated journalistic products qualify as journalism at all, and which actors should oversee and bear editorial responsibility.[52]

### 6.1.4 Concretising the role and mission of the public service media in the digital environment

The public service media has always fulfilled a special responsibility in the Council of Europe's framework by delivering a diverse, qualitative, and inclusive media offer, thereby contributing to the conditions that need to be fulfilled so that the media, citizens and the broader society optimally benefit from the freedom of expression.[53] This is more important than ever in the context of the proliferation of AI-driven tools and the accompanying concerns identified in this report about manipulation, polarisation and mis- and disinformation. In the digital environment the public mission should also include the obligation to set a high standard for the responsible use of AI-driven tools and to provide a news venue where users can remain able to inform themselves with confidence that their rights to privacy and to receive information are respected. Measures should be put in place to ensure that public service media have the necessary remit, resources, and independence to fulfil this role, and the governance structure to be accountable and responsible while doing so.

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[49] Recommendation on intermediaries, 2019.
[50] Magyar Helsinki Bizottság v. Hungary, 2016.
[51] Recommendation on the safety of journalists, 2016, para. 18, 38.
[52] See in this context the recommendation on the new notion of media, 2011, para. 3.2.
[53] Recommendation on the remit of the public service media, 2007; recommendation on public service media governance, 2012; recommendation on pluralism, 2018.

## 6.2 AI-driven tools & society

In light of the previous analysis of the potential societal implications of AI-driven tools from an Article 10 ECHR perspective, the following aspects deserve more attention and, potentially, action from member States.

### 6.2.1 Promoting diversity and innovation in media markets within and across Europe

The introduction of AI-driven tools in the process of producing and distributing media content brings with it substantial structural shifts and transformations of power in existing media markets. Access to technology, skills and training data becomes a new important competitive asset, favouring a growing influence for new players, such as social networks and search engines, but also creating potential barriers for smaller, less affluent news rooms, media in less technologically developed countries and/or local news. There is an important role for member States to ensure that access to innovative technologies, training data, digital skills and education regarding the use of new data-driven means of producing and distributing news is open also to smaller, local players.[54]

A particular point of attention, especially in the context of the Council of Europe, should be the cultural dimension. So far, the debate on AI-driven tools is dominated by some countries (and here in particular Northern European, developed digital market economies). Research and eventually law and policy making should give more attention to the question of how different cultural, economic, legal and technological conditions in the member States translate into different applications, impacts, concerns and policy implications of AI-driven tools.

### 6.2.1 Guidance for value-sensitive design

The Council of Europe has a long tradition of promoting the importance of values that flow from Article 10 ECHR, such as diversity and social cohesion, and urging member States to embed those values in national laws and policies. It used to be acceptable for the Council of Europe to operate on a certain level of abstraction, trusting that member States would have procedures in place to translate such principles into policies. Media pluralism, for example, is defined as "the diversity of media supply, reflected, for example, in the existence of a plurality if independent and autonomous media…. as well as a diversity of media types and contents made available to the public". [55] As such, media pluralism has become a central notion in national media laws and supervisory practice of national media regulators.

To determine whether the output of AI-driven recommender systems is diverse or not, common definitions of media pluralism lack specificity and attention for the audience dimension of diversity, as diverse supply does not translate automatically to diverse recommendations. In its 2018 recommendation on pluralism the Council of Europe urges member States to "encourage social media, media, search and recommendation engines and other intermediaries which use algorithms, along with media actors, regulatory authorities, civil society, academia and other relevant stakeholders to engage in open, independent, transparent and participatory initiatives that:… assess the impact of such processes on users' effective exposure to a broad diversity of media content; seek to improve these distribution processes in order to enhance users' effective

[54] The declaration on the financial sustainability of quality journalism, 2019, aims to address some of these issues, but some fall outside its scope (such as the access to training data).
[55] Recommendation on pluralism, 2018

exposure to the broadest possible diversity of media content."[56] However, the real difficulty does not lie in identifying the risk of automated information distribution processes to pluralism. Without concrete guidance of what "exposure to a broad diversity of media content" means, the goals of diversity of exposure should serve and the procedures of how to arrive at it, this obligation will be of little use with regard to the promotion of diversity-sensitive design of AI tools. There is a clear need for guidance on the parameters and indicators of diversity in AI-driven tools.

### 6.2.2 Putting a measuring framework into place

Signalling risks from AI-driven tools for the diversity and health of media markets can require putting in place appropriate measuring frameworks, and developping the necessary benchmarks and indicators that would allow assessing the risks stemming from AI-driven tools to society and important values in a democratic society, such as diversity, social cohesion, and the maintenance of a resilient public sphere. Developing and maintaining such a measurement framework by public authorities is challenging because of privacy and freedom of expression considerations. Governments and regulators, however, have an important role in stimulating and supporting the development of such frameworks, benchmarks and risk indicators. This also includes the design of a legal framework that ensures the accessibility of information and data for research purposes, often held by private actors, to assess more closely the societal impact of AI-driven tools.

## 6.3 AI-driven tools & users

### 6.3.1 Inclusivity and vulnerable groups

When measuring the impact of AI-driven tools on news markets and the public sphere, the concept of the audience needs to be reconsidered. Unlike in the traditional mass media model, which departs from the idea of a sender transmitting information to an unidentified audience, one important implication of the use of AI-driven tools in newsrooms is that news users can be targeted in terms of far more precise groups, or even on an individual level. As already hinted at in the recommendation on search engines (2011), automated filtering and sorting mechanisms can affect the exercise of an individual's right to receive information based on personal characteristics and preferences.[57] The use of AI-driven tools must not result in a situation in which certain parts of the population or users with particular characteristics are structurally excluded from accessing information, or where society experiences new digital divides. Such a situation would be incompatible with the positive obligation of member States to protect and promote the right to information stemming from Article 10 ECHR. Policy makers should identify potentially vulnerable groups, including users that are structurally excluded from receiving news, in danger of receiving a less diverse information offer, or paying an disproportionally high price (including in terms of privacy), with a view to promoting their equal enjoyment of freedom of expression.[58]

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[56] Recommendation on pluralism, 2018, para. 2.5

[57] Recommendation on search engines, 2013, paras. III.12 and III.16; see also the recommendation on intermediaries, 2018, para. 1.3.5, the recommendation on pluralism, 2018, para. 2.6; draft recommendation on algorithmic systems, 2018, para. 7.1; AI Guidelines to Convention 108, 2019.

[58] Declaration on manipulative capabilities, 2019; draft declaration on algorithmic systems, 2018, paras. A 6.1 and B 6.5.

Finally, the ability to design media products that are more interactive and more responsive to individual users' information needs and preferences can potentially open up and broaden new opportunities for users to exercise agency and their right to receive information – provided the media do offer them these opportunities. While such efforts are always strongly encouraged, they may be required in some instances to ensure that the Article 10 ECHR rights of users are adequately protected.

### 6.3.2 Rights and responsibilities, also for users

In the digital environment the audience is more than an anonymous mass of receivers. This observation cuts both ways. On the one hand, there are new opportunities to better respond to individual signals from users. On the other hand, users, too, have a greater influence over the dissemination of online information. A more active role for individual members of the audience in the process of producing and distributing news also translates into more individual responsibility.

So far, there is a tendency to outsource the task of policing the online environment to the platforms where users gather and disseminate content. Platforms then turn to AI-driven tools to help them filtering the contributions of internet users. An important challenge for the media, users and policy makers alike is to arrive at more just and better coordinated divisions of responsibility between platforms, governments, regulators, advertisers and users, and devising solutions that fully respect fundamental rights.

In relation to the audience, much focus has been on user empowerment, allowing users to protect themselves against unlawful or unethical instances of nudging or manipulation (Committee of experts on internet intermediaries, 2017, p. 36).[59] More recent recommendations of the Council already highlight the importance of transparency of automated news distribution processes, although more specific guidance regarding the actual information that users should receive so that they are able to make autonomous decisions would be required.[60] In addition Council of Europe declarations and recommendations have emphasised the importance of both 'traditional' data protection rights (e.g. access, rectification, and deletion), as well as allowing users to use AI-driven tools anonymously, to obfuscate their data, not to be subject to experimentation, or use feasible alternatives to AI[61] – which are important suggestions from a freedom of expression standpoint. As important as giving users the choice not to use AI-driven tools when consuming media content, however, is to develop solutions that give users more control over the impact of AI-driven tools on their media consumption. Examples include the ability to periodically review and adjust their profiles, to switch between different recommendation logics, and to get insights into their own media consumption behaviour. Ultimately, the goal should be to use the affordance of new technologies to create optimal conditions for users to seek and receive information on all matters of private and public importance, and for freedom of expression to flourish.

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[59] Declaration on manipulative capabilities, 2019; recommendation on pluralism, 2018, declaration on the financial sustainability of quality journalism, 2019, para. 10 on users' awareness of their responsibilities.

[60] Recommendation on pluralism, 2018, para. 2.5; recommendation on cultural big data, 2017.

[61] Recommendation on intermediaries, 2018; guidelines on AI, 2019; recommendation on cultural big data, 2017, para. 1(a); draft recommendation on algorithmic systems, paras. A 1.4 B 1.3; recommendation on search engines, 2013, para. 8.

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