



universität
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MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

“Transparency and Accountability of AI Usage in News Media: Stakeholders’ Discourse Analysis on the Regulation of Artificial Intelligence Usage in News Media”

verfasst von / submitted by

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angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of
Master of Science (MSc)

Wien, 2022/ Vienna, 2022

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on
the student record sheet:

UA 066 550

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Communication Science

Betreut von / Supervisor:

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Abstract

The wide range and ever-evolving AI technologies are increasingly staking out a significant role in communication processes. Fundamental changes in media and communication are continuously taking place (Guzman, 2018). Besides changes in the practical news-making processes, media research and conventional perceptions of ontological roles and the epistemological nature of communication are being challenged (Guzman, 2018; Lewis & Westlund, 2015; Primo & Zago, 2015). While the complexity of AI usage is progressively higher, the approach of stakeholders' discourse on the comprehensive regulation of AI usage in news media remains unknown. With European Union as the main geopolitical arena, this study aims to analyze such debate apart from academic literature. A stakeholders' discourse analysis of $n = 57$ grey documents for the time frame of the last five years - specifically bringing insights on this topic - is carried out. The research reveals that the debate seems more reactive rather than active, given the pace of development and usage of AI technologies in news media and beyond. The majority of the analyzed stakeholders from journalistic field and international organizations specifically emphasize the importance of transparency and accountability while using AI in news media. Also, they highlight the lack of reference to AI-driven tools in existing self-regulatory codes and the importance of their revision alongside the development and application of AI technologies in news media. Institutional support of the media regarding funding to facilitate education on the use of AI-driven tools for news production and dissemination is emphasized as well. They also stress the importance of continuous research on novel news media business models.

Keywords: AI in News Media, AI Regulation in News Media, Transparency and Accountability of AI in News Media

Introduction

Every day, more and more, society is exposed to an exponential growth and application of omnibus AI technologies. Foundational changes in communication - by profoundly transforming everything - are taking place (Guzman & Lewis, 2019; Lewis & Westlund, 2015). Daily live aspects continuously and progressively depend on digital activities, which are mediated, extended, produced, and regulated by digital devices and networked systems enabled by software (Kitchin & Dodge, 2011). Although they are facilitators in many aspects of human lives, AI technologies remain under the shadow of potential drawbacks - regardless of the domain of their application. Among other things, Zuboff (2019) argues that an *epistemological mayhem* is enabled by them.

As a fertile business ground, the digital environment continuously expands for new business models despite the variety of sectors with complex societal implications (see Gawer, 2021). As Gawer (2021) argues, compared to the industrial revolution, which happened 150 years ago and which enabled massive economies of scale and scope, the digital revolution has tremendously decreased the costs of fast scaling at the global level.

Parallel to that – despite the sectors - an increasingly unclear division between responsible and irresponsible activities within the global digital ecosystem is taking place. The digital platforms – topped by Google and Facebook - grow up and take advantage of an ongoing and extensive process of data acquisition, data generation, and data processing (see Gawer, 2021; Lanier, 2018; Zuboff, 2019). Business models hinging on such mechanisms undermine human dignity and jeopardise freedom, democracy, and privacy (Zuboff, 2019).

Seen on the horizon as prominent shapers of the way we live and also with an unprecedented and exponential pace of growth and application, omnibus AI technologies have proven, at the same time, to have a great potential of being used properly and improperly, in multidimensional ways. Apart from the enthusiasm and transformable assertions expressed initially, Ekbja (2008) compares AI with the "social anarchism of late-nineteenth- and early-twentieth-century Europe" (p. 3-4).

Putting efforts into bringing regulating solutions at a broader level seems to be the only way ahead. In this regard, as traditionally happens within democratic societies, the role of professional news media appears to be crucial (see Leyva, 2020). However, today's news media are dealing with the same issue. Accordingly, AI regulation, transparency, and accountability of newsrooms seem to be essential and discussible in the meantime. Nevertheless, a sustained attention to an inclusive regulation of AI usage in news media is important for protection of professional journalism itself and its mission by holding humans at its center. Furthermore, such attention pave the way for a clearer distinctiveness between professional journalism platforms and platforms that spread massive fraudulent content circulating today within virtual reality under the journalistic cloak at a global level. However, little is known about the way AI regulation in news media is debated so far. Hence, this exploratory study strives to analyse how the regulation of AI usage in news media, in terms of transparency and accountability, takes place in the current stakeholders' debate on the regulation of AI usage in general.

Literature Review

Artificial Intelligence (AI) and Algorithms

Generally speaking, artificial intelligence (AI) is considered a debatable denominator with multiple related meanings (see, e.g., Broussard et al., 2019; Hanesn et al., 2017). Despite being considered as a concept without a concrete definition, AI has been discussed for more than 70 years and is associated with many future hyperbolic expectations (Ekbia, 2008). Accordingly, this contributes to a more vague understanding and fewer rational approaches towards it. As Guzman (2019) argues, this ends up with multiple and frequently competing connotations of AI between academics and the broad public. Broussard et al. (2019) state that AI is a branch of computer science that aims to simulate human intelligence, which is in the latest time notably engaged in the subdomain "of machine learning: the training of machine to learn from data, recognise patterns, and make subsequent judgments, with little to no human intervention" (p. 673). However, although not rarely has different meanings for different individuals, in a nutshell, AI is defined as machines that can perform tasks that typically need human intelligence (Hansen et al., 2017).

Nevertheless, considering AI's ambiguity, vagueness, and hype regarding its exact meaning, it is not always used as a term in academic literature. The term algorithm(s) is used instead to avoid such misunderstandings. The author of the book: *Automating the News: How Algorithms are Rewriting the Media*, Nicholas Diakopoulos, is an example of that. Diakopoulos distances himself from AI as a term. Instead, he "prefers a more precise approach, [to] deconstructing the parts of technical and human systems" (Lindén, 2020).

As Kossow et al. (2021) argue, "...algorithms or algorithmic decision systems are components of technologies that are considered to be, or contain, artificial intelligence (AI)" (p.5). In general, omnibus AI technologies are provided by algorithms. However, it seems that when the complexity of such technological systems is higher, they are more likely to be called AI rather than algorithmic systems. In other words, "all forms of AI use algorithms, but not all algorithms are forms of AI" (Cochran, 2018, para. 1).

Meanwhile, an algorithm is defined as " ... step-by-step set of operations that computers and other 'smart' devices carry out to perform calculation, data processing, and automated reasoning tasks" (The Association for Computing Machinery of US Public Policy Council, 2017, p. 1). Mainly two categories of algorithmic systems can be identified: rule-based and learning systems. "Rule-based algorithms follow a simple "if → then" logic, which limits their application as every instruction must be predefined... Learning systems, also called machine learning systems, are systems that improve through experience." (Kossow et al., 2021, p.5). In other words, "machine learning systems can either be supervised - the computer is presented with example inputs and desired outputs - or unsupervised - the computer is not given any labels and is left to discover patterns in the data it is given on its own" (p.5).

As this study aims to provide a broader picture regarding the regulation of the use of such technologies in the news media, both terms have been considered within the research.

AI Implications and Usage in News Media

Technological developments throughout history have continuously impacted journalism regarding journalists' role and working approaches, news contents, newsrooms' organisational patterns, and the relations between news organisations, journalists, and audiences (Pavlik, 2000;

Lewis & Usher, 2013; Diakopoulos & Koliska, 2017). Also, journalism has continuously struggled to keep the velocity of technological developments (Stein, 2019). However, many argue that transformation made by novel AI technologies and the actual digital environment is unexampled concerning the fast pace changes in different aspects of human lives (see Gawer, 2021; Kitchin, 2017; Ouchchy et al., 2020).

In many ways, the application and usage of various algorithmic systems are considered to be a facilitating factor of journalistic work, such as time reducing, flexibility, and analysing a significant amount of data at a fast pace (see Diakopoulos & Koliska, 2017; Hansen et al., 2017). Such utilization consequently enables a potential decrease of journalists' workload (Hansen et al., 2017).

Nevertheless, the role of AI should not be hyperbolised in terms of its potential of seeing it as a choice for everything, what Broussard names as *technochauvinism* (Broussard et al., 2019). Many aspects of AI usage in journalism seem to have the potential of being harmful to journalism's identity. Too much automation, too much personalisation, and errors while using complex systems are counted as some of them (Hansen et al., 2017). As Lewis et al. (2019) argue, tens of thousands of stories are produced by algorithms nowadays. Most of them are said to be in sports and financial reporting - on topics which contain well-structured datasets (Graefe, 2016; Marconi et al., 2017). Automation might be considered reasonable in financial and sports stories (see Graefe, 2016; Marconi et al., 2017). However, using automation exclusively for more complex stories, such as investigative stories, might be perceived differently and taken with much reservation (see Hansen et al., 2017).

The personalisation of feeds and articles is enabled by automation by framing stories based on each reader's interests and concerns; hence too much personalisation might risk the journalistic nature of the contents and transform them into marketing (see Hansen et al., 2017).

Furthermore, while using complex AI systems, errors with severe consequences can happen (see Diakopoulos & Koliska, 2017; Hansen et al., 2017). By holding humans in the loop, strict checking is deemed as an act of responsibility (see Hansen et al., 2017). Moreover, the so-called black box algorithms - the inexplicable ones as input transformation into output is somewhat opaque – are pretty challenging for journalism as well (see Hansen et al., 2017; Lewis et al., 2019; Primo & Zago, 2015). Hansen et al. (2017) emphasise the importance of involving journalists in the making process of AI tools for the needs of journalism and not just being AI tools users.

In addition, digital ecosystem developments for a while are challenging traditional organisational roles in journalism (Lewis & Westlund, 2015; Primo & Zago, 2015). Theories and methods of news media research (Broussard et al., 2019; Loosen & Schmidt, 2012; Primo & Zago, 2015) and also the prevailing humanistic ontology of news media research are deemed not to be compatible with today's news media reality (Primo & Zago, 2015). Lewis and Westlund (2015) argue that current digital circumstances have caused a lack of adequate theorising on actors, actants, audiences, and activities. Even so, it is contended that AI will continuously change journalism in a complementary way but, on a minor scale, will substitute journalists' and editors' work (Broussard et al., 2019). According to Diakopoulos (see Broussard et al., 2019), AI is not capable of substituting essential journalistic tasks such as responding, listening, and discussing with sources and cannot replace human creativity and reporting as well. However,

more academic efforts on theorising compatibly with digital reality are needed (see Guzman, 2019).

Moreover, the role news media used to have regarding news content approaches towards audiences, including gatekeeping, agenda-setting, and framing, are not exclusively under the news media's control (see Hayes et al., 2007). Gawer (2021) argues that publishers' primacy role in these aspects, especially regarding the gatekeeping function, is removed in today's digital environment. News article dissemination is continuously interdependent by major digital platforms – such as Google and Facebook - (see Gawer 2021; Hansen et al., 2017), where news publishers can address the concentrated audiences. In addition, technology companies such as Facebook, Twitter, Amazon, and more significantly Google are involved in journalism by providing funding for news media (Fanta, 2018). Such interference is incompatible with journalism's role and tends to relativise the potential voice of criticism from the media towards technology giants, Fanta argues (2018).

In the current digital circumstances when the boundaries between reliable information and disinformation seem to be progressively unclear and incomparable to previous technological development epochs, ethical use of algorithms in journalism seems to be vital for journalism itself. Based on Dörr and Hollnbuchner's (2017) theoretical research concerning the ethics of algorithmic journalism, Diakopulos and Koliska (2017) separate in their study diverse aspects of how algorithms are used by news media. These aspects include (1) *automatically generated news content* - which “...dealt largely with the use of automatic writing software...to produce news texts from structured data” (p. 814); (2) *algorithmically enhanced curation* - “...focused on the use of algorithms to select, curate, recommend and personalise content streams like the Facebook newsfeed, including algorithmically generated news homepages, and the use of algorithms to

rank and curate social media comments on news sites" (p. 814); and also, (3) *simulation, prediction and modelling storytelling* – "...focused on the use of simulation and modeling in news stories, including examples such as political prediction models or models presented as interactive data visualisations" (p. 815).

Transparency and Accountability of AI Usage in News Media

As Diakopoulos and Koliska (2017) argue, algorithms are becoming more embedded in news media's daily working routine and increasingly are controlling "the backbone of media and information systems" (McKelvey, 2014, p. 1). Countless ways of algorithmic approaches to news content prove how algorithms are infusing news media (Diakopoulos & Kotliska, 2017). The immense application of algorithms, despite the domains, has created an inevitable need for algorithmic transparency and algorithmic accountability which are compatible with primary democratic principles (Hirsh, 2016).

Transparency, in general, is considered an instrument to understand the truth and the motives of people's actions (Balkin, 1999) and to provide social accountability and trust (Breton, 2007). Meanwhile, transparency in the news media context includes the "ways in which people both inside and external to journalism are given a chance to monitor, check, criticise, and even intervene in the journalistic process" (Deuze, 2005, p. 455). Whiles algorithmic transparency, according to Diakopoulos and Koliska (2017), is "... the disclosure of information about algorithms to enable monitoring, checking, criticism, or intervention by interested parties" (p. 811). On the other hand ACM (2017) defines algorithmic accountability as the responsibility that the institutions should hold "...for decisions made by the algorithms that they use, even if it is not feasible to explain in detail how the algorithms produce their results" (p.2). Dörr and

Hollnbuchner (2017) argue that transparency is an approach to the ethics and accountability of algorithms.

Raising transparency as a new central standard in journalism has increased the belief that it could elevate news media's diminished credibility and trust (Hayes et al., 2007). In addition, Karlsson (2011) considers transparency as a possibility to demonstrate that professional journalistic content is more advanced than non-professional content. However, Diakopoulos and Koliska (2017) assert that the increasing involvement of algorithms in news media makes the principle of transparency more complex, which is also considered a key source of journalism ethics.

In the present digital circumstances, journalism, among other things, is striving to be distinguished for its credibility and quality information, which is compatible with its conventional mission by holding humans at the centre of it (see Broussard et al., 2019; Hansen et al., 2017). Despite providing many opportunities for a more feasible process of gathering, producing, and sharing news, the digital environment, simultaneously, has proven to be a prolific area of fast – pace spreading of the so-called fake news content. Moreover, it is becoming more evident that digital platforms' algorithms enable the creation of emotional and instinctive content (see Gawer, 2021). Circumstances like these have increased the already well-known crisis of news media legitimacy.

The increasing applications of algorithmic technologies in news media seem to blur the line between the process of writing a scientific article and a journalistic article in terms of the need to provide transparency regarding the use of such technologies. Therefore, disclosing the multilayered interfering aspects of the final news output and the process of communicating news

is considered the right thing to do, to fulfil the criteria of transparency- similarly to the scientific articles (Hansen et al., 2017).

According to Diakopoulos and Koliska's (2017) research, the opportunities to apply transparency lie in four key areas: *data, model, inference, and interface*.

- *Data*: Algorithmic systems are incontestably dependent on data, which stimulates applications such as "...machine learning, personalisation, simulation, and automatically written stories" (Diakopoulos & Koliska, 2017, p. 818). Diakopoulos and Koliska (201) argue that disclosed information should be done through a textual description and the data.
- *Model*: According to Diakopoulos and Koliska's (2017) study, another essential aspect of the algorithmic system is the model, including the modelling process and the methodology. "A key aspect that may be disclosed is the input scheme – the features or variables used by the algorithm" (p. 818).
- *Inference*: An algorithmic process producing output inferences, including numerical prediction, classification, or recommendations, raises questions about error rates, uncertainty, and accuracy. The study suggests that "... transparency around inferences should include not only accuracy but also what types of inferences are being made in general (p. 819).
- *Interface*: Diakopoulos and Koliska's (2017) study suggests integrating information about the algorithm directly in the user interface by " providing cues for clicking into the FAQs to examine issues surrounding data, model, and inferences."..."Any transparency information

revealed about an algorithm must ultimately take some "tangible or visual" form to be presented to the end-user" (p. 820).

As Diakopoulos and Koliska (2017) claimed, transparency information should appear understandable for a general public audience or be disposable on demand to those technical readers who express interest in basic details (Diakopoulos & Koliska, 2017).

The Reinvention of News Media Ethics

As novel technologies shape collective reality in multiple dimensions, a gradual delegation of (moral) agency towards artificial intelligence is taking place (Just & Latzer, 2017). The digital ecosystem and an ever-increasing algorithmic usage- especially in content creation - raise many ethical challenges to professional journalism (Dörr & Hollnbuchner, 2017; Ward, 2014). Despite the existence of ethical codes in journalism, their relevance and normative capacity are highly debatable in the digital era (see Fidalgo et al., 2022). In their systematic analysis of 99 ethical codes from around the world, Díaz-Campo and Segado-Boj (2015) found that only 9 of those analyzed codes incorporate references to the Internet or Information and Communication Technologies. The existing codes are suited to the models of conventional new media with significant predominance of press, while audiovisual media are not addressed in the same way (Fidalgo et al., 2022). Fidalgo et al., 2022, argue the same for online media as well, and according to them only few countries to online media in their codes.

There is an increasing need for ongoing debates on AI usage regulation in newsrooms. In general, digital platforms seem to avoid regulation concerning public safety, as the most troubling issue is a privacy risk due to the growing collection and analysis of quantified data (Gawer, 2021). McKelvey (2014) argues that algorithmic governance in general, needs a

democratic approach and response, and no sustainable solutions can be reached without an inclusive collective debate. Exchanging thoughts on issues such as the nature of potential standards when using AI systems; whether algorithms should be tested previously before being utilised; how can be determined fairness when using algorithms; how can be addressed responsibility (Hansen et al., 2017) seem to be crucial on addressing ethical challenges of AI usage in professional journalism. Furthermore, promoting transparency and accountability of different use of AI in professional journalism is compatible with journalism's nature and mission.

Broussard et al. (2019) say that a proactive approach to regulation, transparency, and accountability of data and different AI usage is necessary. Diakopoulos and Koliska (2017) argue that transparency requires the perspectives of multiple stakeholders. According to Ward and Wasserman (2015), news media ethics discourse is becoming a worldwide debate, despite potential differences such as media cultures. They also argue that this should be seen as an initiative, a work-in-progress, and a developing field that involves academics and media makers. "It is a loosely connected set of activities and studies united by the belief that ethics must "go global"" (Ward & Wasserman, 2015, p.836). Furthermore, Ward (2014) argues that "merely patching up the holes is not the choice" and "journalism ethics has to be re-invented for a global, digital media" (p. 455). More complex ethics with more extensive meaning for reliable communication is needed (see Ward, 2014). Ward and Wasserman (2015) argue that one of the approaches deemed to be suitable approaches to establishing global media ethics is listening, as an approach towards "... open and dialogic ethics... that attempts to cross borders" (p. 834). Instead of seeing it as a consensus, it should be seen more as a way of understanding others' perspectives, argue Ward and Wasserman (2015).

Nevertheless, despite potential current debates regarding AI usage regulation in general and on the regulation of AI usage in news media in particular, little is known about the way and extent of such discussion until now. Hence this study explores the discourse of AI usage regulation in news media within the broader stakeholders' debate on AI regulation in general. It includes a wide range of relevant stakeholders, and the focal arena of the study is European Union. Consequently, the central question of this research is as follows:

RQ 1: *How the regulation of AI usage in news media, in terms of transparency and accountability, takes place in the current stakeholders' discourse on the regulation of AI usage, in general?*

An additional question is also raised:

RQ 1.2: *What are the dynamics of stakeholders' debate regarding AI regulation, transparency and accountability in general as opposed to the debate of AI regulation in news media?*

Methodology

Method, Procedure, and Sample

To explore the research questions of the study, qualitative discourse analysis is applied as a method, aiming to understand more comprehensively the approach stakeholders debate the regulation of AI usage in news media within the actual debate of general AI regulation. Also, the purpose of the study is to investigate such discussion, apart from academic literature. Hence, the units of analysis are non-academic grey documents of different stakeholders. They include intergovernmental organisations, non-governmental organisations and opinionists, non-profit journalistic organisations, news media, journalists, and relevant field opinionists. Nonetheless,

the focal point of the study is European Union's approach toward AI usage regulation in news media while observing its discourse on general AI regulation. The language of the scrutinised documents is English, which is the dominator of crucial stakeholders' discussion regarding the AI regulation. Given that over time the debate on AI regulation has been more intense and at a more advanced level, the time frame for the sample of analysis includes five last consecutive years, from 2017 to 2022.

Besides academic articles and books, the study does not include videos, audio/podcasts, and images regarding this study's topic. Consequently, the sample of the analysing documents is purposive. It is compiled through mapping the current debate, reflecting stakeholders' stances towards AI regulation in general and in news media. Relying on the Google search engine, the study considers documents referring to: AI or Algorithmic regulation; AI/algorithmic regulation and journalism; AI/ Algorithms and news media; AI/Algorithmic transparency and accountability in news media; AI principles in news media; News media ethics and/ or related to AI/Algorithms or digital age, either explicitly in their title or within their depiction. Nonetheless, official websites, including the European Union's website, and those of other international organizations such as Council of Europe, OSCE, UN, and UNESCO, were visited and researched directly for potential documents concerning the research topic.

Afterwards, a wide range of documents with the potential to address the topic of the study has undergone through a screening and review process. Initially, 76 documents were collected. After examining them regarding the compatibility with the assigned criteria of the study, the sample finally contained 57 documents. As a result, the sample included a range of official records of the European Union regarding AI regulation, reports of non-governmental organisations, non-profit journalistic organisations, official news media, journalists, and other relevant opinionists'

stances. After that, based on their authorship, they were classified into stakeholders' categories. Before running the coding, a codebook was created. The coding was systematically performed into the following overarching themes:

- *General recommended AI policies and regulations*: text that mentioned any recommendations regarding general AI, policies, and regulations (e.g., policies towards AI which strengthen human autonomy, democracy, and human rights).
- *General AI principles*: principles of AI usage explicitly mentioned within the documents (e.g., Robustness, Security, Transparency, and Accountability).
- *Transparency and accountability*: specific text which mentions and elaborates the principles of transparency and accountability of AI usage in general (e.g., "Accountability: AI actors should be accountable for the proper functioning of AI systems and the respect of the above principles, based on their roles, the context, and consistent with the state of art" (OECD, 2019)).
- *Transparency and accountability in news media*: specific text which mentions and elaborates principles of transparency and accountability in news media (e.g., "Professional algorithmic ethics... Editorial responsibility and oversight for automated journalistic processes" (Institute for Information Law, 2019).
- *Others*: significant emphasis within the document that cannot be classified within the other coding themes (e.g., "The New Deal for Journalism needs leadership. It must have an international scope and must be implemented at all levels, global as well as local." (Forum on Information and Democracy, 2021)

The raw chunks of text were initially derived from the documents. Subsequently, the results were extracted after committing the coding and systematically categorizing units of analysis within the themes, which are summed up in the following section.

Results

Overall, the distribution of the sampled documents for the timeframe 2017 to 2022, over the years was increasingly higher, especially in the last three years including 2017 ($n = 3$ or 5%), 2018 ($n = 7$ or 12%), 2019 ($n = 11$ or 19%), 2020 ($n = 15$ or 26%), 2021 ($n = 13$ or 22%), and the first half of 2022 ($n = 7$ or 12%). Although the sampled documents have been previously screened, they did not always contain relevant content for all the coded themes. They were coded at least for one of the relevant coded themes. Regarding the stakeholders' category, 32% of the documents belonged to the EU and other relevant international organisations, 19% belonged to relevant non-governmental organisations and opinionists, 21% were from non-profit journalistic organisations and 28% to news media and journalists and/or field opinionists. As the EU is the focal political area of this study, the analysed documents of the European Union regarding Artificial Intelligence and its regulation comprised the greatest number of the sampled documents compared to other stakeholders (16 %).

The level of debate on the regulation of AI in general - given the degree of development and application of AI technologies - is generally more reactive rather than active. More is still needed to raise awareness in this area. Nevertheless, compared to the level of the debate on the regulation of AI in news media, in particular, it is incomparably higher. Also, the discussion on AI regulation in the news media can be considered reactive.

Stakeholders' Debate Regarding AI Regulation, Transparency, and Accountability in General

Recommended Policies and Regulation for AI in General

EU and Other Relevant International Organizations

The European Commission's proposed risk-based framework for the regulation of Artificial Intelligence, officially launched in April 2021, is the latest EU draft document, a derivation of many stakeholders' considerations and previous EU institutions' official documents regarding AI regulation. It suggests core horizontal rules which apply to all industries for the development, legitimization, and use of AI-based products, services, and systems for the area of the European Union. Nonetheless, the document is not related to any proposed regulation for the potential use of AI in news media. As such is compatible with the calls of stakeholders from the journalistic field that political institutions should find ways to help news media regarding AI application in journalism but at no condition to regulate it (e.g. European Federation of Journalists, 2021). EU Commission's AI draft act proposes the legal intervention based on the risk level of AI systems as follows: (a) complete prohibition: for AI systems containing unacceptable risk; (b) high-risk AI systems regulation: for high-risk AI systems; (c) transparency: for AI systems with limited risk; and, (d) no obligations for low or minimal risk AI systems (EU Commission, 2021).

General requirements that are considered strictly necessary to minimise risks towards fundamental rights and safety - and, according to the draft document, are not repeatable and do not lie in the existing legislation – include: (a) high-quality data, (b) documentation, (c) traceability, (c) transparency, (d) human oversight, (e) accuracy, and (f) robustness (EU Commission, 2021). Regarding recommended policies and regulation of AI in general, within the group of relevant international (political) organisations, there are more frequent recommendations than regarding specific policies and regulations in news media. For example, European Parliamentary Research Service (2019) has proposed a set of policy options by

addressing different aspects of algorithmic transparency and accountability, including “1. Awareness-raising [including]: education, watchdogs, and whistleblowers; 2. Accountability in public-sector use of algorithmic decision-making; 3. Regulatory oversight and legal liability; and 4. Global coordination for algorithmic governance.” (p. 69).

Moreover, since unfairness might stem from different sources, multiple solutions are required. According to European Parliamentary Research Service (2019) such multiplicity generates challenges for ethicists and regulators, since "...there is no 'one size fits all' remedy and instead each type of unfairness invites different regulatory responses from industry, academia, and policymakers" (EPRS 2019, p.23). Consequently, two sorts of regulation are proposed: (a) regulation of accountability and transparency of the algorithmic system component; and (b) regulation of accountability and transparency of the complete system.

Meanwhile, as governance framework options, EPRS (2019) enumerates: (1) Demand-side market solutions – “...market self-regulation through changes in consumer behavior” (p.39); (2) Supply-side market solutions – which “refers to product/service innovations that aim to capture market share by providing solutions or improvements to shortcomings of existing products/services” (p. 40); (3) Companies; self-regulation – Branches self-regulation including codes of conduct, organisational and technical industry standards, quality seals and certification bodies, ombudsmen and arbitration/mediation boards and ethic committees/commissions; (4) Co-regulation – between government and industry; (5) State intervention, including “information measures to promote people’s awareness and knowledge about the risks, and to support appropriate behavior; incentives by subsidies/funding...” (p. 45).

Furthermore, EPRS (2019) proposes a set of requirements for the public procurement authority of algorithmic systems, including requirements for vendors to provide explaining

materials and technical manuals, such as user, design, and code documentation to all stakeholders. In addition, EPRS (2019) also raises the importance of adding human rights as the basis for algorithmic governance when developing industry standards for algorithmic decision-making systems. Meanwhile, the European Commission's efforts to bring solutions and provide appropriate policies and regulations for AI date some years ago. The EU Commission's (2018) *Artificial Intelligence for Europe* emphasises the importance of ensuring an appropriate ethical and legal framework and the importance of stakeholders' engagement: setting up a European AI Alliance, monitoring AI development and uptake, and its international outreach. Council of Europe (2020), in its official document: *Towards Regulation of AI Systems* as critical components for a potential AI legal framework, emphasises: from a bottom-up perspective: "key values, rights, and principles from sectorial approaches and ethical guidelines...from sectorial approaches and ethical guidelines; in a top-down perspective - from human rights, democracy and the rule of law requirements;...Role and responsibilities of member States and private actors in developing applications that align with such requirements...Liability for damage caused by artificial intelligence" (p. 15).

Furthermore, the Council of Europe (2020) stresses the importance of some adapted or new human rights, including: "A right to human autonomy, agency, and oversight over AI; A right to transparency/explainability of AI outcomes...A separate right to physical, psychological, and moral Integrity in light of AI-profiling, affect recognition...A strengthened right to privacy to protect against AI-driven mass surveillance...Adapting the right to data privacy to protect against indiscriminate, society-wide online tracking of individuals, using personal and non-personal..." (p. 36). UNESCO's (2021), *Recommendations of Ethics of Artificial Intelligence* record, among others, aims "to provide a universal framework of values, principles and actions to

guide States in the formulation of their legislation, policies or other instruments regarding AI, consistent with international law” (p.5). Meanwhile, key focus policy areas include: (a) Ethical impact assessment; (b) Ethical governance and stewardship ;(c) Data policy; (d) Development and international cooperation; (e) Gender; (f) Culture; (g) Education and research; (h) Communication and information; (i) Economy and labor; (j) Health and social well-being (UNESCO, 2021).

Furthermore, the EU's Fundamental Rights Agency (2021) emphasises respecting the full spectrum of fundamental rights regarding policies and adopting new legislation regarding AI. It also stresses the importance of ensuring adequate accountability systems to observe and address any potential negative impact of AI systems regarding fundamental human rights and to consider the revision of AI-related terms regularly. OSCE (2020) emphasizes the importance of evidence-based AI-related policies and regulatory measures and ensuring that they do not potentially harm the freedom of media. It also points out companies' responsibilities towards human rights, the importance of private initiatives on AI ethics, and their role in corporate social responsibility. OSCE (2020) also highlights states' role in providing a competitive AI market and the importance of joint initiatives and efforts to ensure a global solution. In its policy manual *Spotlight on Artificial Intelligence and Freedom of Expression*, OSCE (2021), - among others - as critical recommendations for participating countries enumerates 1. Protect and promote freedom of expression and other human rights...; 2. Preserve and foster the internet as a space for democratic participation, representation, and media pluralism; 3. Develop evidence-based policies built on inclusive processes...6. Enforce clarity, explainability, and accessibility on the use of AI for content moderation, content curation, and targeted advertising; 7. Ensure that human rights protections are not fully outsourced or automated, and provide transparency about

any public-private partnership” (p.10). Meanwhile, five key recommendations that the Organization for Economic Cooperation and Development – OECD (2019) enumerates for policymakers on artificial intelligence are: (a) Investing in AI research and development; (b) Fostering a digital ecosystem for AI; (c) Shaping an enabling policy environment for AI; (d) Building human capacity and preparing for labour market transformation, and international cooperation for trustworthy AI.

Non-Governmental Organisations and Opinionists

Although the focus of this research is the European Union, the relevant non-governmental organisations and opinion leaders, which when talking about the regulation of the AI include the EU as well, are not limited by the location of their activity. From the sample of analysis, 19% of the sampled documents belong to relevant non-governmental organisations and opinionists.

Within this stakeholders' category, there is a joint evaluation that Europe should embrace the potential of AI technologies but critically, with the condition of using them in compliance with human rights, standards of fairness, and regulatory conditions from which can profit citizens of Europe. Egmond Institute (2019) argues that the EU should strengthen the agenda-setting power between member states and the wider world. Moreover, having an increasingly higher need for appropriate policies on the AI usage regulation has resulted in plenty of initiatives. Center for European Studies (2019) argues that there is already a great mass of "guidelines, manifestos, statements, and lists of principles" (p.45). Nonetheless, separated and uncoordinated domestic initiatives are considered to have the potential to lead to inefficiencies and international tensions (Erdeley, 2019). Furthermore, Erdeley (2019) argues that it is necessary to strengthen collaboration - by including all stakeholders- at an international level. She argues that there is a need to move from the actual model of state over-regulation toward deconcentrated and global

inclusive policies. Consequently, policies that derive from a common framework- beyond the European Union - should be implemented by the countries separately.

On the other hand, Nemitz (2022) argues that technologies must be developed and used according to democratic rules. At the same time, Ramos (2022) stresses the need for more intensive collaboration between private companies and international organisations. According to Ramos (2022), private companies' favoured self-regulation seems insufficient in defending human rights, democracy, and the rule of law. Also, regulators' special attention is required to internet platforms that massively moderate user-generated content (Stewart et al., 2021).

Journalistic Organisations

Journalistic organisations are not concerned with the issue of making recommendations for AI regulation in general. However, as expected, they provide concrete recommendations that should be considered when considering general regulation of AI, which are related to and impact journalism and news media in particular. For instance, European Broadcasting Union (2020) has explicitly required to European Commission to facilitate Public Service Media (PSM) to provide "access to data generated by audiences when they consume PSM on large platforms" (p. 3). In this way, they aim to play a critical role in controlling recommender systems, which, in particular, impact media pluralism and cultural diversity (EBU, 2020). Moreover, EBU (2020) raises the issue of unfair and incontestable competition within the media market, which beyond affecting the media industry, most importantly, affects opinions' pluralism, cultural diversity, and access to information. Therefore, the EBU (2020) advises European Commission to "closely monitor the implementation of the EU Regulation on promoting fairness and transparency in platform-to-business (P2B)" (p.4). Furthermore, EBU stresses the importance of (a) possessing the means to hire, train and preserve professional staff on AI within the PSM; (b) drawing up AI

regulation that complies with other EU legal frameworks, and (c) ensuring that AI technologies neither impact audiences negatively nor limits access to information.

News Media and Journalists and/or Field Opinionists

Likewise, journalistic organisations, news media, journalists, and other field opinionists, seem to be more concerned about the AI implications, specifically in journalism, rather than with general AI usage and its regulation. However, the BBC's written commitment on AI to the House of Lord Committee (2017) makes an exception, as it elaborates more on its official view on the complexity of AI regulation in general. While arguing that the challenging issue of AI regulation cannot be solely solved by technological innovation, BBC (2017) stresses that as with any other market regulation, it is important to "...consider the appropriate approach to regulation, data access, employment, and the engagement of society at large" (p.3).

General AI Principles

EU and Other Relevant International Organizations

EU Commission (2021), in its AI Act as main required principles for high-risk AI systems, enumerates "high-quality data, documentation and traceability, transparency, human oversight, accuracy, and robustness ..." (p. 7). High-Level Expert Group on Artificial Intelligence (2019) in their *Ethics Guideline For Trustworthy AI* counts three main components that AI systems should contain throughout their entire using cycle such as: being *lawful* – in terms of being compatible with applicable legislation and regulation; being *ethical* – in terms of pursuance of ethics and values; and *robust* related to technical and social perspectives. Also, EU Commission (2020) on its *Digital Service Act* and *The Digital Market Act* stresses the importance of principles of transparency and accountability of online intermediaries, respectively online gatekeepers, and the importance of providing regulation that is in adherence with current EU law. Meanwhile, the

Council of Europe (2020) as some of the most frequent tenets of the existing legal framework which potentially might foster further AI regulation enumerates: "non-discrimination...; diversity, inclusion, and pluralism..., privacy and data protection..., transparency..., equality..., access to justice..., fair trial..., human control..., impartiality..., access to information..., security..." (p.69). In its comprehensive document on recommendations on ethics of artificial intelligence, UNESCO (2021) enumerate the following principles which all actors of AI systems should respect: (a) proportionality and do no harm; (b) safety and security; (c) fairness and non-discrimination; (d) sustainability; right to privacy, and data protection; (e) human oversight and determination; (f) transparency and explainability; (g) responsibility and accountability; (h) awareness and literacy; (i) multi-stakeholder and adaptive governance and collaboration. Fundamental Rights Agency (2021) considers making mandatory assessments of AI regarding human rights and providing effective accountability systems for AI. OECD's (2019) fundamental principles on AI include: (a) inclusive growth, sustainable development, and well-being; (b) human-centered values and fairness; (c) transparency and explainability; (d) robustness, security, and safety; and, (e) accountability.

Non-Governmental Organisations and Opinionists

When it comes to the general principles of AI, non-governmental organisations and opinionists do not change that much regarding their recommendations. Institute for Information Law (2019) considers professional algorithmic ethics and value-centric design crucial. Generally, the analysed stakeholders consider transparency, fairness, assessment, accountability, accuracy, reliability, data quality, data protection, and privacy the most promoted principles that should be bolded within the potential regulation of AI technologies for their entire life cycle. Furthermore, they also emphasise human dignity, the right to human determination, autonomy, justice, equity

and solidarity, and bodily and mental health. Centric et al. (2022), in its framework blueprint on accountability principles for AI in the internal security domain, emphasise the following principles: legality, pluralism, transparency, independence, commitment to robust evidence, enforceability, and redress, comparability, explainability, constructiveness, conduct and learning organisation.

Journalistic Organisations

Similarly, as with recommended policies and general AI regulation, journalistic organisations are not concerned with the issue of suggesting any kind of principles regarding general AI regulation.

News Media and Journalists and/or Field Opinionists

Within the framework of the debate on AI regulation, news media, journalists, and opinionists from the journalistic field, are also more focused on the regulation of AI in the news media domain. Even so, BBC makes an exception at this point as well. The key principles that BBC suggests include the suitability of particular regulations for AI within the affected industries, the possibility of evolvement compatible with developments; providing ownership and authority towards individuals over any kind of data collected from them, and providing transparency towards individuals by allowing them to know the way AI impact them. Also, BBC emphasises the importance of intensive collaboration and an open debate -by engaging all stakeholders -and leadership to defend the public interest.

Transparency and Accountability as Particular Principles

EU and Other Relevant International Organisations

Within the debate regarding general AI regulation, transparency and accountability are the most common principles, which are emphasised as significant ones. However, most of the time,

these two tenets are broad and too general without giving more specific alternatives for implementing them in practice. Nonetheless, reflecting on European Union's debate in general towards AI or algorithmic regulation, this seems different as they tend to be more concrete regarding how these two fundamental tenets in practice can be implemented. For example, the EU Commission's (2021) AI act specifies to which systems transparency will apply, including systems that " (i) interact with humans, (ii) are used to detect emotions or determine association with (social) categories based on biometric data, or (iii) generate or manipulate content ('deep fakes')" (p.14).

Moreover, regarding accountability, it is specified through which mechanisms the actors must be held accountable, such as Accountability *AI-Board*, which will act to facilitate and monitor AI regulation. EU Commission's AI High-Level Experts Group (2019) gives more specific meaning to transparency which, according to them, includes: traceability, explainability, and communication, while accountability implies auditability, minimisation, and reporting of negative impact, trade-offs, and redress. In the EU Commission's (2020) *White Paper on Artificial Intelligence*, transparency is considered the appropriate information that should be provided proactively regarding high-risk AI systems. Meanwhile, in the Digital Service Act and Digital Market Act, European Commission (2020) stresses the importance of increasing fairness, transparency, and accountability towards digital services, respectively increasing transparency towards online gatekeepers.

European Parliamentary Research Service (2019) considers transparency as a precondition for accountability, which is related "... to the data, algorithms, goals, outcomes, compliance, influence and/or usage of automated decision-making systems (i.e. algorithmic systems)..." (p.5). Whereas, as crucial aspects of Machine Learning Systems about which transparency might

be required, EPRS (2019) enumerates: data, algorithms, goals, outcomes, compliance, influence, and usage. Apart from that, EPRS stresses potential technical challenges such as complexity, relationships among decisions, and technical solutions for reducing opacity. Furthermore, EU Commission (2018) on its *Artificial Intelligence for Europe* stresses the importance of increasing the research regarding explainability, which will help to raise the level of transparency and reduce the risk of bias or error.

The Council of Europe (2020) also considers the tenet of transparency crucial to implementing compliance, accountability, and redress measures. Furthermore, UNESCO (2021), in its comprehensive paper regarding recommendations on ethics of artificial intelligence, considers transparency and accountability as essential principles to protect and promote ethical principles, fundamental human rights, and freedoms. Hence, according to UNESCO, transparency protocols should be mandatory. It also stresses the need for governments to play a proactive role in the adoption of regulatory frameworks which establish concrete procedures, especially towards public authorities.

Also, the Fundamental Rights Agency (2021) sees transparency and accountability as intertwined, where accountability is dependent on transparency. According to FRA, people ought to know when the AI is used and how they can potentially complain about it; meanwhile, the EU and the Member States should provide efficient accountability systems. Whiles, OSCE (2021) stresses the importance of applying transparency through mandatory inclusive reports regarding detailed information on AI usage. Moreover, it emphasises the need to pressure internet intermediaries by states to provide transparency for the tools used for content moderation. According to OECD (2019), the main functions of transparency as well as explainability are: to stimulate general understanding of AI systems; to raise awareness towards stakeholders when

they interact with AI systems; to allow those affected by AI to understand the outcome and to allow those who potentially are adversely affected by AI systems challenge their outcomes. Meanwhile, accountability's primary function is to keep AI actors accountable to foster the proper functionality of AI systems (OECD, 2019).

Non-Governmental Organisations and Opinionists

The principle of transparency is generally related to openness regarding the components of an AI system and how it can impact users. Such explanations include data transparency, clarification that a user interface is not a human, the system's trainers identity, and basic information regarding the way how the system is trained (Center for European Policy Studies, 2019), including access to the factors, the logic, and techniques used to produce a certain outcome (The Public Voice, 2018). Meanwhile, accountability is explained as understanding who is responsible for how AI systems work and is considered critical (HDSR, 2019) for knowing the interconnectedness and interoperability of AI tools. Furthermore, Centric et al. (2022), in terms of the internal security domain, see transparency as the concise and significant information about all AI processes, from which can be assessed and enforced accountability. Besides, the Center for AI and Digital Policies (2022) argues that national policies implemented by countries should - among others - incorporate democratic values, must guarantee fairness, accountability, and transparency in all AI systems, and ensure public participation in AI policy-making.

Journalistic Organisations

Mainly within the journalistic non-profit organisations' discourse on AI, transparency and accountability are not considered in the context of general AI regulation. Instead, they examine these principles more within the journalistic domain. Even so, European Broadcasting Union

(2020) emphasises their importance by recommending their implementation firmly to decrease the potential adverse effects of AI technologies and enabling individuals to know and challenge verdicts made by AI.

News Media, Journalists, and Other Field Opinionists

The same can be said for news media, journalists, and/or journalistic field opinionists. Except for the BBC (2017), which emphasises the importance of ensuring transparency and accountability to allow people to understand the impact of AI on them, others generally do not scrutinise this issue within their discourse.

Stakeholders' Discourse on the Regulation of AI Usage in News Media in Terms of Transparency and Accountability

Transparency and Accountability in News Media

EU and Other Relevant International Organisations

Generally, European Union and other relevant international organisations do not raise the issue of AI or algorithmic transparency and accountability in news media. For example, although European Commission (2020) stresses the importance of transparency of news media and their compatibility with professional standards to maintain public trust, they do not mention such importance specifically regarding artificial intelligence usage in media. Nevertheless, the Council of Europe, through a recommendation document, has paid particular attention to quality journalism in the digital age. The Council of Europe (2019) highlights the importance of operating as transparently as possible by media organisations, online platforms, and other relevant internet intermediaries. Furthermore, the Council of Europe (2019) stresses the significance of collaboration between the online platforms, research community, and journalists, which would be relevant for the transparency and accountability to the broad public. OSCE

(2020), on the other hand, raises the issue of the potentially harmful effects that news media can have from the outside actors through AI tools, such as tracking, censoring, and oppressing news media. Therefore it emphasises the importance of transparency and accountability to assess and address the general AI impact.

Regarding the need for news media regulation in the digital environment, the Council of Europe (2020) argues that media reforms and regulation processes are challenging specifically toward media freedom and potentially undermine the established standards. Moreover, it argues that the Council of Europe should play a proactive role in ensuring potential self-regulation and co-regulation frameworks bolster human rights and democracy in a way that addresses contemporary challenges. Further, the Council of Europe argues that; “At present, new media exist outside the established framework for media and journalism ethics and news accountability, and are based on a business model that rewards engagement and noise, rather than deliberation and truth” (Council of Europe, 2020, p. 6). According to the Council of Europe, the debate on news media regulation as a response to the public sphere and information distortion due to digitalisation is focused on: (a) Concerns about media independence and accountability to the public; (b) The state of media pluralism; (c) Implication of consuming news content on social media; and (d) Challenges of information disorder. Meanwhile, responses of media industries include: “self-regulation, fact-checking, moderation and trust signaling” (Council of Europe, 2020, p. 18).

Furthermore, the Council of Europe (2019) emphasises that news media operations within the current digital environment should comply with legal and ethical norms. Parallel to that, CoE (2019) stresses the importance of media and information literacy, research towards new business

models –essential for the future of quality journalism, and stakeholders' support regarding funding, ethics, and education.

Non-Governmental Organisations

In general, transparency and accountability tenets, specifically for news media, are not that much part of the discourse of non-governmental organisations and general opinion leaders concerned with AI regulation. However, the Institute for Information Law (2019), while scrutinising the topic of AI-driven tools and news media as the main things to fulfil, it recommends: investing in AI-driven tools and newsroom innovation; professional algorithmic ethics; editorial responsibility, and oversight for automated journalistic processes; concretising the role and mission of the public service media in the digital environment.

Moreover, the Institute for Information Law (2019) stresses the importance of providing exceptional support by states to local media in terms of education, access to innovation, digital skills, and training data in the use of AI-driven tools for news production and dissemination. It also emphasises that currently, both at the news organisation-level and international news media organisations, "existing self-regulatory codes frequently lack a reference to AI-driven tools." (Institute for Information Law, 2019, p. 11). Furthermore, according to the Center for European Policy Studies (2019), the issue of education and digital literacies within the education and research domain, in general, must have more special attention.

Non-Profit Journalistic Organisations

Even though non-profit journalistic organisations are concerned with news media regulation in the digital age in general, in their discourse, there is no significant mention of transparency and accountability as fundamental principles for news media. However, Journalism Trust Initiative (2019) clearly emphasises that: transparency, responsibility, and accountability are

fundamentally interconnected with trust in news media. It also stresses that transparency can further facilitate accountability and responsibility towards the public. Moreover, JTI advocates for the self-regulation of journalism based on agreed norms and standards which stipulate best practices of the journalism profession. Also, Presscouncils.eu (2021) emphasises the importance of transparency - by explaining how decisions are taken - to prove the independence of news media.

News Media and Journalists and/or Field Opinionists

News media, journalists, and field opinionists pay significantly more attention to the tenets of transparency and accountability in news media than other analysed stakeholders of this study. The BBC (2017) emphasises that the principles based on which it performs the mission of information as a public media considers equally important when using AI tools during its service and for editorial policies when reporting on AI in general. Accountability is one of these critical tenets ranked by BBC while emphasising that: “With decision-making buried deep within the AI process, it is even more important to ensure that providers of AI services remain accountable to their users in a meaningful way” (p.5). The other BBC tenets include *independence*: in terms of assuring editorial independence from groups of interest; *impartiality*: in terms of putting efforts to minimise bias; *universality*: in terms of inclusiveness and avoiding biased data access or exclusiveness towards them. The Guardian’s ex-editor Paul Chadwick (2018) points out that journalists' code of ethics must evolve parallel to technological developments. He explicitly raises the importance of transparency – providing information regarding the methods of AI usage and its specific role in the story - and authentic accountability to maintain trust, which is vital for professional journalism. Moreover, Chadwick (2020), on the occasion of leaving the position of reader's editor, while he writes about editorial standards for the digital age, emphasises the

importance of accuracy, fairness, and accountability, mainly when conditions do not allow a promise to be kept. Chadwick (2020) also advises: "Work against harmful discrimination. Privacy is, like freedom of expression, a human right. Weigh them with care...." (para. 10).

Journalist Laruence Dierickx (2021), while arguing about the importance of transparency of AI usage in news media, stresses the need to offer transparency in non-technical terms and in a very concise and understandable manner. On the other hand, Koponen (2018) highlights the importance of the data extraction from stories and materials already published and their transparency towards the whole newsroom to reflect on them, decrease bias and increase professionalism. He also stresses: "In a world where it's increasingly hard to distinguish a real thing from fake, building trust through self-reflection and transparency becomes more important than ever." (para. 31). Besides, journalist Ronderos (2018) sees transparency as a must for journalism in the era of artificial intelligence. Ronderos (2018) also emphasises that:

"Without journalistic clarity, all this technology will not lead to a well-informed society. Without ethics, intelligent technology could herald journalism's demise. Without clear purposes, transparent processes, and the public interest as a compass, journalism will lose the credibility of people, no matter how many charts, bots and whistles you adorn it with" (para. 13).

Journalist Nausicca Renner also sees the issue of transparency as critical when using AI in newsrooms. She stresses:

"The biggest stumbling block for the entrance of AI into newsrooms is transparency. Transparency, a basic journalistic value, is often at odds with Artificial Intelligence, which usually works behind the scenes" (OSF Journalism, 2017, para. 10).

Journalist James Ball (2018) argues for the importance of efforts to regulate the use of AI in journalism despite the high level of complexity of these technologies. He stresses that:

“Working out the regulatory, legal and ethical codes for such diverse algorithms with such diverse purposes is — by this reasoning — an effort of staggering complexity” (para. 15).

Discussion and Conclusion

Given that the topic of AI regulation in general, and in the news media in particular, is relatively new, how this topic is debated beyond academic circles has not been explored. As already stated, the primary purpose of this study is to better understand how the regulation of AI usage in news media is debated within the stakeholder' discourse on the regulation of AI usage in general. Although the European Union is the focus of this study as a geopolitical arena, the other stakeholders, whose activity involves the EU and beyond, such as relevant international organisations, relevant general non-governmental organisations, journalistic organisations, news media, journalists, and other journalism field opinionists which are concerned with AI regulation in general and/or in news media in particular, are included within the study, for the established time frame.

The findings indicate that the debate level is increasingly higher over time. For instance, in 2017 – based on the followed research criteria - there were identified and analysed only three documents from the non-academic domain concerning this study's topic. Nonetheless, the level of debate has been significantly higher in the last three years, 2020, 2021, and 2022. However, compared to the degree of development and the use of AI technologies, the level of such debate can be considered relatively scarce, globally. Moreover, the current efforts seem more reactive rather than active. The news media remain crucial in maintaining and preserving democratic

values within societies. Therefore, the debate should - in particular - be oriented and developed in finding alternatives for implementing transparency and accountability when using AI in news media as critical factors in preserving journalism.

As for the argumentation by Ward and Wasserman (2015) regarding the need for a comprehensive debate concerning media ethics at the global level, although there is a tendency toward it, there is still a need for more extensive and intense discussion. In general, the European Union is interested in financially supporting the media sector leaving the regulation part to the news media themselves, as emphasised and requested by the European Federation of Journalists (2021). Moreover, The Institute for Information Law (2019) raises the issue of state support towards small and local media regarding the implementation and impact of novel AI technologies.

Furthermore, transparency and accountability are emphasised and required when using any kind of AI. The same is observed in other international organisations such as UNESCO, FRA, OSCE, and OECD. However, unlike the others, the Council of Europe (2019) is more specific regarding AI transparency and accountability in the news media. Also, it emphasises the importance of cooperation between news media, online platforms, and other internet intermediaries to achieve these two principles.

Likewise, non-governmental organisations and relevant opinionists concerned with the regulation of the use of AI consider transparency and accountability as essential principles in general. The same is observed in the discourse of journalistic organisations. Meanwhile, in the discourse of news media, journalists, and/or field opinionists, there is a concrete emphasis on transparency and accountability as crucial principles for genuine journalism in the complex digital age. However, there is a need for more discussion on how transparency and accountability

can be implemented, as for instance, Diakopoulos and Koliska (2017) elaborate through data, model, inference, and interface.

Moreover, the research is exposed to several limitations. First of all, the study focuses only on the written debate, including grey documents of the relevant organisations and the written debate of news media, journalists, and other relevant opinionists, without considering audios/podcasts, videos, and images concerning AI regulation. Consequently, although the reliability level can be considered as high, one cannot consider that the findings are generalisable.

The sample of the analysed documents is purposive due to the selection procedure of documents and exclusion of the others based on the settled criteria for the study. Also, the language of the selected documents is English only. Future studies can provide a broader picture of such debate by including other relevant languages when considering materials of analysis. Furthermore, since the focus of the research is on the European Union as a geopolitical area, future researchers should focus on a wider - possibly global – scope of AI regulation discourse analysis in the news media.

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Abstract

The wide range and ever-evolving AI technologies are increasingly staking out a significant role in communication processes. Fundamental changes in media and communication are continuously taking place (Guzman, 2018). Besides changes in the practical news-making processes, media research and conventional perceptions of ontological roles and the epistemological nature of communication are being challenged (Guzman, 2018; Lewis & Westlund, 2015; Primo & Zago, 2015). While the complexity of AI usage is progressively higher, the approach of stakeholders' discourse on the comprehensive regulation of AI usage in news media remains unknown. With European Union as the main geopolitical arena, this study aims to analyze such debate apart from academic literature. A stakeholders' discourse analysis of $n = 57$ grey documents for the time frame of the last five years - specifically bringing insights on this topic - is carried out. The research reveals that the debate seems more reactive rather than active, given the pace of development and usage of AI technologies in news media and beyond. The majority of the analyzed stakeholders from journalistic field and international organizations specifically emphasize the importance of transparency and accountability while using AI in news media. Also, they highlight the lack of reference to AI-driven tools in existing self-regulatory codes and the importance of their revision alongside the development and application of AI technologies in news media. Institutional support of the media regarding funding to facilitate education on the use of AI-driven tools for news production and dissemination is emphasized as well. They also stress the importance of continuous research on novel news media business models.

Keywords: AI in News Media, AI Regulation in News Media, Transparency and Accountability of AI in News Media

Abstrakt

Die vielfältigen und sich ständig weiterentwickelnden KI-Technologien spielen zunehmend eine bedeutende Rolle in Kommunikationsprozessen. Es finden laufend grundlegende Veränderungen in Medien und Kommunikation statt (Guzman, 2018). Neben Veränderungen in den praktischen Nachrichtenproduktionsprozessen werden Medienforschung und herkömmliche Wahrnehmungen ontologischer Rollen und der erkenntnistheoretischen Natur von Kommunikation in Frage gestellt (Guzman, 2018; Lewis & Westlund, 2015; Primo & Zago, 2015). Während die Komplexität der KI-Nutzung immer höher wird, bleibt der Ansatz des Stakeholder-Diskurs zur umfassenden Regulierung der KI-Nutzung in Nachrichtenmedien unbekannt. Mit der Europäischen Union als wichtigster geopolitischer Arena, zielt diese Studie darauf ab, eine solche Debatte abseits der wissenschaftlichen Literatur zu analysieren. Es wird eine Stakeholder-Diskursanalyse von n = 57 grauen Dokumenten für den Zeitraum der letzten fünf Jahre durchgeführt, die speziell Erkenntnisse zu diesem Thema bringt. Die Untersuchung zeigt, dass die Debatte angesichts des Tempos der Entwicklung und Nutzung von KI-Technologien in den Nachrichtenmedien und darüber hinaus eher reaktiv als aktiv erscheint. Die Mehrheit der analysierten Stakeholder aus dem journalistischen Bereich und internationalen Organisationen betonen ausdrücklich die Bedeutung von Transparenz und Rechenschaftspflicht beim Einsatz von KI in den Nachrichtenmedien. Sie heben auch den fehlenden Bezug auf KI-gesteuerte Tools in bestehenden Selbstregulierungskodizes und die Bedeutung ihrer Überarbeitung neben der Entwicklung und Anwendung von KI-Technologien in Nachrichtenmedien hervor. Die institutionelle Unterstützung der Medien in Bezug auf die Finanzierung zur Erleichterung der Aufklärung über die Verwendung von KI-gesteuerten Tools für die Nachrichtenproduktion und -

verbreitung wird ebenfalls betont. Sie betonen auch die Bedeutung kontinuierlicher Forschung zu neuartigen Geschäftsmodellen für Nachrichtenmedien.

Schlüsselwörter: KI in Nachrichtenmedien, KI-Regulierung in Nachrichtenmedien, Transparenz und Rechenschaftspflicht von KI in Nachrichtenmedien