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The European AI Act and How It Matters for Research into AI in Media and Journalism

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The protection of fundamental rights, and the human-centric, ethical and responsible use of Artificial Intelligence (AI) technologies in general is a central ambition of the European AI strategy, with no lesser goal than “spearhead[ing] the development of new ambitious global norms” (European Commission 2021). Like the General Data Protection Regulation before it, the draft AI Act can be expected to set a new tone for the debate around ‘responsible AI’ both within and beyond Europe. It is one of the first attempts worldwide to cut through an increasingly opaque jungle of private and public ethical guidelines in order to formulate binding regulatory standards for what exactly responsible and human-centric AI must mean.

The draft AI Act is relevant not only to potential producers and users of AI, but also to a growing community of scholars that is interested in the normative implications of AI and wants to find ways to make the notion of ‘responsible use’ of AI meaningful. Scholars have an important role to play in informing the emerging policies around AI with their insights, as well as studying the consequences once policies are adopted. As such, the primary goal of this commentary is to explore the relevancy of the draft AI Act for media and journalism, as well as to stimulate the community of media scholars to engage further with the potential implications of the regulation.

The Proposed European AI Act

In April 2021, the European Commission announced “the first ever legal framework on AI, which addresses the risks of AI and positions Europe to play a leading role globally.”¹ The recently proposed AI Act is part of the European AI Strategy, that was launched in 2018 and concretised in 2021 (European Commission 2018; 2021), and in which the European Commission, as the executive arm of the European Union, defined the cornerstones for the European approach to AI for the years to come. The European AI strategy must prepare Europe and Europeans for the socio-economic changes that AI will bring, and boost AI uptake. At the heart of the European AI Strategy is an ambitious research & innovation agenda and an even more ambitious regulatory agenda. One central goal of the regulatory strategy is the creation of a European “Digital Single Market” that is competitive, innovation-friendly and not

dominated by a small handful of (non-European) big tech companies. The second central goal is to foster legal certainty and provide safeguards for human-centric technologies that internalise European values, as enshrined in the European Charter of Fundamental Rights, the European Convention of Human Rights, and also the European AI Ethics Guidelines.² As such, the AI Act must be seen in the broader context of the recent European proposals to control the power of very large online platforms in the Digital Services Act and the Digital Market Act,³ and the plans to create a European Data Space that promotes access to, and sharing of the data that is so essential for AI deployment.⁴ Finally, it is important to highlight the efforts of the Commission to make the European digital transformation not only an economic success but to also strengthen European and national democracies, acknowledging the critical role of journalism and the media in this context.⁵

The proposed AI Act takes the form of a regulation. This means that once adopted the rules and provisions in the act are directly applicable within all 27 European Member States. This way the European Commission hopes to diminish (as much as possible) the differences between national rules and create one common regulatory framework for the entire European Union.

In order to prevent circumvention,⁶ the proposed act will have extra-territorial effect, meaning that its obligations can also apply to providers and professional users of AI systems that are established in a third country, provided their systems are placed on the market or used in the EU, or their output—including recommendations, predictions, or content—is used in the EU.⁷ Very concretely this means that providers of, for example, recommendation or algorithmic content moderation systems that are located outside the EU and offer their products to media organisations within the EU will have to observe the requirements of the AI Act. Maybe even more remarkable is it that the same will be true for a news website outside the EU that interacts with consumers in the EU e.g. via a chatbot or presents readers with automated content. In practice, the geographical scope of the provision could be very broad.

The definition of AI systems in the Act is extensive, including a wide range of systems, from automated content moderation and recommendation systems, to the automated production of content, predictive systems to target users, editorial decision making systems, chatbots, and so on.⁸ Central to the AI Act is its risk-based approach, distinguishing between unacceptable applications of AI (e.g. social risk scoring and subliminal manipulation), high risk AI, manageable risks that can be addressed through transparency, and low risk applications for which the regulation encourages self-regulation.⁹ Providers of high-risk AI systems must anticipate risks and identify and realise the appropriate risk management measures through design, the implementation of control measures and human interfaces, and repeated testing, as well as clear instructions for (professional) users of such systems. It is worth noting that providers' responsibility does not stop at designing and selling an AI system, but they are obliged to design systems in a way to maximise chances that their systems are used "in the right way" (meaning: in compliance with the legal requirements and standards of human-centric AI that respects fundamental rights and European values), for example through the adequate design of human interfaces. This creates a welcome transparency demand on system designers to guide users towards appropriate

interpretation, although “correct” interpretation may always be frustrated by uncertainty or unexpected consequences not anticipated or knowable at design time, as well as the lack of skills, procedures and organisational safeguards on the side of the professional user. In this light it is somewhat surprising that the primary obligations of (professional) users of AI systems are to make sure they use the systems in accordance with the instructions of use, and to monitor the operation of the system.¹⁰ Consumers are almost absent from the regulation, an approach that is strongly contrasted by other regulatory initiatives at the EU level but also initiatives from some of the major technology players to shift more control (and responsibility) to the end user (Clegg 2021).

High-Risk AI in the Media

It is up to the European Commission to classify the risk level of a particular AI system. How they will do so, and do so accountably, is still a pressing open question. However, under the current proposal most applications of AI in media and journalism would not be subject to the regulation once it has been adopted. This is not to say that in the future certain applications of AI could not be added to the list of high-risk AI. Relevant criteria to identify whether AI applications are high risk include the potential adverse impact on fundamental rights, the relevance of the system for an inclusive society as well as the existence of power imbalances between the providers and users of AI systems.¹¹

The question of whether AI in the media should be labelled high-risk and be subject to the most stringent aspects of the regulation very much intersects with contemporary discussions about the role and impact of algorithmically driven platforms, and more generally the impact of the use of AI in the media on the exercise of fundamental rights, such as freedom of expression and the right to privacy. In recent years, scholars have provided growing evidence that access to media content and digital communication infrastructure in the form of social media platforms and search engines has become a precondition for digital citizens to participate and function in the Algorithmic Society. As the historian and author on the digital transformation Timothy Garton Ash writes, “[w]hen it comes to enabling or restricting global freedom of expression, some corporations have more power than most states” (Garton Ash 2016). A growing number of scholars point to the risks of AI in the media, such as through the proliferation of disinformation, digital exclusion, foreign interference with democratic processes, and polarisation in society (Napoli 2019; Appelman et al. 2019; Colomina et al. 2021; Balkin 2017). Indeed, the draft Digital Services Act acknowledges that the use of automated content moderation and recommender systems can be the source of systemic risks for fundamental rights that are serious enough to warrant regulation, at least when in the hands of very large online platforms.¹²

While in the current academic and policy discourse there is a strong focus on the risks stemming from the use of AI-driven tools by social media platforms, it is important to remember the critical role that the legacy media play in the realisation of fundamental freedoms and a functioning democracy. As we argued elsewhere, the introduction of AI-driven tools in the media leads not only to new forms of media

power but also to a deeper structural transformation of the digital public sphere, which again raises new questions about digital citizenship and inclusion in democratic participation, as well as agency and responsibility, bias and discrimination, privacy and data protection, and user autonomy and editorial freedom from manipulation (Helberger et al. 2020). Moreover, the notion of risk from the use of AI in the media is subject to the slow accretion of media effects that may nudge individuals, or shape culture over timeframes that are not currently the focus of such regulation (Shehata et al. 2021). Emerging research into the potential implications for the issue of bias and discrimination (Beckett 2019; Thurman, Dörr, and Kunert 2017; Ali and Hassoun 2019), freedom of expression (Eskens, Helberger, and Moeller 2017), privacy and data protection (Erdos 2016); professional rules and journalistic values (Pocino 2021; Diakopoulos, 2019; Lewis, Guzman, and Schmidt 2019; Bastian, Helberger, and Makhortykh 2021; Lu, Dumitrache, and Graus 2020), user autonomy and freedom from manipulation (Susser, Roessler, and Nissenbaum 2019; Møller 2022) and editorial freedom (Drunen 2021; Møller 2022) underlines the importance of better understanding the potential risks, and opportunities from AI-driven applications also more generally in the media.

There is accordingly a clear role for the academic community to better understand under which conditions the use of AI (not only on social media platforms but also in the media) is high risk for a democratic society and its values as well as how and under which conditions AI can contribute to the functioning of the media in a democracy. Researchers and collaborations between researchers and national regulatory authorities could potentially also play an important role in the so-called ‘regulatory sandboxes’ that the regulation introduces –controlled environments for testing new AI-driven applications against the legal and ethical implications it introduces.¹³

Transparency Obligations for AI Systems

The most relevant implication of the proposed act for AI in the media concerns the use of systems intended to interact with natural persons. Users should know whether they interact with a human, or an AI.¹⁴ Unfortunately the regulation has little to say in terms of how “interaction” should be defined, but a colloquial understanding would imply a range of online media products which leverage AI and that directly interface with end-users would be subject to the rule, from chatbots and newsbots, to recommender, personalization, or optimization systems in use for news distribution, automated writing systems and even things like interactive statistical prediction models.

Concretely this means that if a media organisation uses a chatbot, virtual agent or a news recommender to interact with readers, that system would need to be designed in a way to inform readers about the fact that it is an AI, not a human they interact with, even if many AI systems in media are implemented as sociotechnical human-in-the-loop systems (Diakopoulos, 2019). Whether in the context of media systems or more broadly for AI deployed in other contexts there is an enormous opportunity for media scholars in this community to study various communication mechanisms to effectively convey AI transparency, labelling, and user understanding, such that the requirements of the AI Act would be met.

Another important question for the scholarly community in the years to come will be whether transparency obligations are indeed sufficient to address the risks to consumers' interests and fundamental rights. Informing consumers that a selection of news contents is recommended through an AI system, rather than by a human editor, says in itself very little about the quality of the recommendation and whether the system has been designed with professional editorial values in mind, or the extent to which the outputs of the AI have been checked for biases, prioritise the users' interests, are impartial, and are secured against hacking and other forms of malicious manipulation.

Similar concerns apply to the 'deepfake' provision in Art. 52 (3) of the draft AI Act which stipulates that users of synthetic media generation systems shall disclose the fact that the content has been artificially generated or manipulated. Such synthetic media can be generated by particular AI models that have been trained to output images, videos, voice, or text that reflect the persona or style of the data they were trained on. So, for instance, when Schibsted uses synthetic voice generation to mimic the voice of its main podcast anchor and provide a spoken version of any article, this would need to be clearly labelled.¹⁵ The same would go for the use of the technology to produce video of a news anchor synthesized to read off the day's headlines.¹⁶ But, while labelling such uses of synthetic media by responsible media publishers may help users understand any discrepancies or inaccuracies introduced by the AI system, it is unclear how transparency alone can help to protect consumers from the considerable potential psychological, financial and societal harms that deepfakes can cause when employed by irresponsible parties (Van Huijstee et al. 2021; Diakopoulos and Johnson 2021). The most problematic instances of deepfakes are from users who have strong motives not to disclose the fact that they have produced a deepfake and who may themselves be anonymous or outside the jurisdiction of EU legal proceedings. Using AI to detect deepfakes is thus potentially yet another major research challenge but, rather ironically, deepfake detection technology does fall under the far stricter provisions of high-risk AI.¹⁷

Setting New Standards for Responsible AI

For AI systems that fall under the regulation, the regulation will have an important function in setting standards of responsible AI, providing legal certainty and exonerating AI providers and users from responsibility as long as they comply with its rules and industry standards. And yet, even for systems that do not face direct obligations, the regulation can be expected to concretise and set new societal expectations and standards of good professional practice of responsible use of AI. Seeing the increasingly confusing number of all kinds of ethical guidelines and standards (Hagendorff 2020), the act could contribute to a welcome process of standard setting. The European Commission explicitly encourages for all providers of unregulated AI systems the drawing up of codes of conduct and voluntary commitments along the requirements set out by the proposed act.¹⁸

The regulation can therefore have an important role in advancing the debate about responsible use of AI also for media and journalism. For example, the critical relevance

of responsible data governance for successful incorporation of AI systems is also increasingly being acknowledged in the context of journalistic routines (Pocino 2021; EBU 2019; NPO 2021). Also, there is growing recognition of the importance of user interfaces that allow users to exercise meaningful control, which is critical for enabling journalists to operate these systems and monitor whether they operate according to journalistic values and the requirements of professional responsibility (Diakopoulos, 2019). Biases in data is another problem the journalism sector struggles with (Beckett 2019), highlighting the importance of effective data and risk management also for this sector. This is not to say that the solutions that the proposed act offers are the most optimal, effective or even adequate; for a critical review see (Veale and Zuiderveen Borgesius 2021; Spindler 2021). The point is that the regulation comes at a time when many organisations are considering or already implement AI for real, and with the publication of the draft the European Commission has set the tone and agenda for the policy but also academic debate. Future research from this community might, for instance, examine to what extent that agenda is reflected in industry implementation, whether the solutions suggested are effective and adequate, and more generally under which conditions the use of AI in media is high-risk or not, even if those risks may be long-term and slow-acting.

With its strong focus on the providers of AI systems, the proposed act runs the risk of creating the misleading illusion that many of the societal problems around the use and implementation of AI can be solved with the proper design of AI systems. This is problematic. Responsible use of AI is as much a matter of those deciding to implement AI, those using and interacting with the systems and the organisation of day-to-day routines as it is a question of design (Kulynych et al. 2020; Selbst et al. 2019). Here lies another research challenge: awareness of the institutional, organisational and societal context in which AI-systems are expected to function is crucial for appropriately assigning responsibility.

The lack of attention for the broader organisational and societal context in which these systems will operate is reflected in the limited role that the proposed act has foreseen for professional users of AI systems (whose main responsibility it is to follow the instructions of the provider) and the almost complete absence of rights, affordances but also responsibilities for those who are ultimately affected by the decisions of these systems, namely consumers. Future iterations of the regulation may need to more closely consider how to assign responsibility to stakeholders based on their degree of control of the system whereby designers obviously have a large degree of control, but end-users may also share enough responsibility to warrant obligations for responsible use.

The techno-centric approach of the regulation also risks reinforcing a worrying dependency, both technically and intellectually, on the providers of these systems, often large tech companies that produce generic systems for a range of sectors. If the main responsibility of a professional user of an AI system is to follow the instructions of the provider this disincentives critical thinking and the careful adaptation of the system to the specific context and requirements of an organisation. And yet, for many media organisations relying on third party systems can be very critical to be able to adapt systems so they can reflect the outlets' professional values and protect their editorial independence. Under the current draft, if media organisations do indeed adapt

a system to their own needs and requirements, they will automatically also qualify as 'providers' with all the legal responsibilities that come with this. This will almost surely privilege large media organisations and create additional challenges to the deployment and adaptation of AI technologies by smaller or local newsrooms. And, given the broader tension with the right to free expression in the media domain, an important line of inquiry will be to closely examine the assignment of responsibility between provider, operator, professional users, and consumer but also the impact on editorial independence and the realisation of professional values.

If the AI Act is to set the tone about future debates on responsible AI, there is a clear danger that the risk-based approach of viewing AI technology as a public values hazard will divert attention from the equally important but also far more complicated question of how to build systems that are optimised for positively advancing public values. This second, value-based perspective, is for instance emphasised by the Council of Europe, reminding member states of the importance of also 'amplifying positive effects' of AI technology.¹⁹ Here, too, lies an important task for the academic community in developing methods for value sensitive design (Friedman and Hendry 2019) that align the production processes and outcomes of AI-driven media with journalistic ethics and norms. The risk with a risk-based approach is its agenda-setting function and that it diverts attention from the many opportunities that new technologies also create - to discover new stories, create new forms of content, be more responsive to the interests of a heterogenous audience, and find new ways to inform and engage. Researcher can have an important role in helping to unlock the potential of AI for the media, helping to design and evaluate AI opportunities (Diakopoulos 2019), such as personalization for user engagement or localization and data mining for the discovery of original stories. Through their collaborations with journalists and media professionals this can add to the transfer of critical skills (Wilczek et al., 2021). This brings us to a last, final point, the role of digital journalism research and researchers.

When developing regulatory approaches to AI and digital technologies, policy makers are moving in an arena of extreme technological, economic and societal complexity, a complexity few policy makers have been prepared to deal with. Throughout the realisation of the ambitious regulatory European agenda, the important role of experts and independent researchers became very clear, as evidenced by the number of parliamentary hearings, expert workshops, consultations, research reports but also references to scholarly works in impact assessments and policy documents. Research and researchers have various roles in this process: to raise awareness to pressing issues, provide evidence for risks and challenges that regulation must address, signal new risks and opportunities, monitor compliance, serve as a sparring partner, and inform the choice of policy measures. Research can make the difference between paper tigers, i.e. legal obligations without any practical effect, and rules with teeth. Insofar, policy makers are relying or even depending more and more on the societal role of researchers "in producing independent, evidence-based and interdisciplinary research and advice for decision-makers" (Council of Europe, 2021). And with the new regulatory framework from Brussels and provisions such as Art. 31 of the Digital Services Act that must secure researchers access to data or Art. 12 of the draft Political Advertising Regulation²⁰ that demands policy makers take into account scientific evidence when

formulating policy responses, we see also a much needed debate emerging on the conditions that researchers need in order to be able to play that role.

The political debate of the proposed act is in full swing. If one thing is for certain it is that today's version of the regulation will not be the version that will be adopted in the end. This also means that now is the time to participate in the discussion of what the conditions for responsible human-centric AI systems are. This is a debate that the media sector cannot afford to miss, and where the input of media scholars is much needed.

Notes

1. Proposal for a Regulation of the European Parliament and of the Council laying down harmonised rules on Artificial Intelligence (Artificial Intelligence Act) and amending certain Union legislative acts, COM/2021/206 final. Please note: at the time of writing, the AI Act was still a first proposal. This commentary discusses the act in the version that was published by the European Commission on 21 April 2021. The substance of the regulation as well as the article numbers can change in the final version of the law.
2. Independent High-Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy AI, Brussels, 8 April 2019.
3. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/ECCOM/2020/825 final, the Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on contestable and fair markets in the digital sector (Digital Markets Act), COM/2020/842 final.
4. Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on European data governance (Data Governance Act), COM/2020/767 final, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on harmonised rules on fair access to and use of data (Data Act), Brussels, 23.2.2022, COM(2022) 68 final.
5. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS On the European democracy action plan, COM/2020/790 final; Call for Evidence for an Impact Assessment, Safeguarding media freedom and pluralism in the internal market (Media Freedom Act), Ares(2021)7899801 - 21/12/2021.
6. Recital 11 draft AI Act.
7. Art. 2 (1) draft AI Act, Recital 6.
8. Art. 3 (1) draft AI Act.
9. For excellent more comprehensive descriptions of the content of the regulation see (Veale and Zuiderveen Borgesius 2021; Spindler 2021; Floridi 2021).
10. Art. 29 draft AI Act.
11. Art. 7 (2) draft AI Act.
12. Art. 26 of the Digital Services Act.
13. Art. 53 draft AI Act.
14. Art. 52(1) draft AI Act.
15. <https://thefix.media/2021/10/12/digital-revolution-high-end-digitization-solutions-from-the-biggest-norwegian-daily/>
16. <https://www.bbc.com/news/business-56278411>
17. Point 6(c) of Annex III in conjunction with Article 6(2) of AI Act.
18. Art. 69 draft AI Act.
19. Recommendation CM/Rec(2020)1 of the Committee of Ministers to member States on the human rights impacts of algorithmic systems, Adopted by the Committee of Ministers on 8 April 2020.

20. European Commission, Proposal for a Regulation of the European Parliament and of the Council on the transparency and targeting of political advertising, Brussels, 25.11.2021, COM(2021) 731 final.

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References

- Ali, Waleed, and Mohamed Hassoun. 2019. "Artificial Intelligence and Automated Journalism: Contemporary Challenges and New Opportunities." *International Journal of Media, Journalism and Mass Communications* 5 (1): 40–49.
- Appelman, Naomi, Ronan Fahy, Paddy Leerssen, Tarlach McGonagle, Nico Van Eijk, and Joris Van Hoboken. 2019. "The Legal Framework on the Dissemination of Disinformation through Internet Services and the Regulation of Political Advertising." A report for the Ministry of the Interior and Kingdom Relations. Amsterdam: Institute for Information Law.
- Balkin, Jack M. 2017. "Free Speech in the Algorithmic Society: Big Data, Private Governance, and New School Speech Regulation." *UC Davis Law Review* 51: 1149–1210.
- Bastian, Mariella, Natali Helberger, and Mykola Makhortykh. 2021. "Safeguarding the Journalistic DNA: Attitudes towards the Role of Professional Values in Algorithmic News Recommender Designs." *Digital Journalism (Abingdon, England)* 9 (6): 835–863.
- Beckett, Charlie. 2019. "New Powers, New Responsibilities. A Global Survey of Journalism and Artificial Intelligence." London: LSE. <https://www.lse.ac.uk/media-and-communications/polis/JournalismAI/The-report>.
- Clegg, Nick. 2021. "You and the Algorithm: It Takes Two to Tango." March 31, 2021. <https://nick-clegg.medium.com/you-and-the-algorithm-it-takes-two-to-tango-7722b19aa1c2>.
- Colomina, Carmen, Héctor Sánchez Margalef, Richard Youngs, and Kate Jones. 2021. "The Impact of Disinformation on Democratic Processes and Human Rights in the World." Brussels: Study for the European Parliament. [https://www.europarl.europa.eu/RegData/etudes/STUD/2021/653635/EXPO_STU\(2021\)653635_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/653635/EXPO_STU(2021)653635_EN.pdf).
- Diakopoulos, Nicholas. 2019. *Automating the News*. Cambridge: Harvard University Press.
- Diakopoulos, Nicholas. 2019. "Towards a Design Orientation on Algorithms and Automation in News Production." *Digital Journalism* 7 (8): 1180–1184.
- Diakopoulos, Nicholas, and Deborah Johnson. 2021. "Anticipating and Addressing the Ethical Implications of Deepfakes in the Context of Elections." *New Media & Society* 23 (7): 2072–2098.
- Drunen, Max van. 2021. "Editorial Independence in an Automated Media System." *Internet Policy Review* 10 (3): 1–24. <https://policyreview.info/articles/analysis/editorial-independence-automated-media-system>.
- EBU. 2019. "News Report 2019. The Next Newsroom - Unlocking the Power of AI for Public Service Journalism." Geneva. https://www.ebu.ch/publications/strategic/login_only/report/news-report-2019.
- Erdos, David. 2016. "Statutory Regulation of Professional Journalism under European Data Protection: Down but Not out?" *Journal of Media Law* 8 (2): 229–265.
- Eskens, Sarah, Natali Helberger, and Judith Moeller. 2017. "Challenged by News Personalisation: Five Perspectives on the Right to Receive Information." *Journal of Media Law* 9 (2): 259–284.
- European Commission. 2018. "Communication from the Commission, Artificial Intelligence for Europe." COM(2018)237 final. Brussels.

- European Commission. 2021. "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Fostering a European Approach to Artificial Intelligence." COM(2021) 205 final.
- Florida, Luciano. 2021. "The European Legislation on AI: A Brief Analysis of Its Philosophical Approach." *Philosophy & Technology* 34 (2): 215–222.
- Friedman, Batya, and David G. Hendry. 2019. *Value Sensitive Design: Shaping Technology with Moral Imagination*. Cambridge, MA: MIT Press.
- Garton Ash, Timothy. 2016. *Free Speech: Ten Principles for a Connected World*. New Haven, London: Yale University Press.
- Hagendorff, Thilo. 2020. "The Ethics of AI Ethics: An Evaluation of Guidelines." *Minds and Machines* 30 (1): 99–120.
- Kulynych, Bogdan, Rebekah Overdorf, Carmela Troncoso, and Seda Gürses. 2020. "POTs: Protective Optimization Technologies." In Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency, 177–88. FAT* '20. New York, NY: Association for Computing Machinery.
- Lewis, Seth C., Andrea L. Guzman, and Thomas R. Schmidt. 2019. "Automation, Journalism, and Human–Machine Communication: Rethinking Roles and Relationships of Humans and Machines in News." *Digital Journalism* 7 (4): 409–427.
- Lu, F. A. Dumitrache, and D. Graus. 2020. "Beyond Optimizing for Clicks: Incorporating Editorial Values in News Recommendation." Proceedings of the 28th ACM Conference on User Modelling, Adaptation and Personalization New York: 145–153.
- Møller, Lyng Asbjørn. 2022. "Between Personal and Public Interest: How Algorithmic News Recommendation Reconciles with Journalism as an Ideology." *Digital Journalism* 1–19.
- Napoli, Philip. 2019. *Social Media and the Public Interest. Media Regulation in the Disinformation Age*. New York: Columbia University Press.
- NPO. 2021. "Technologische Trends in Het Mediadomein." Hilversum: NPO. <https://innovatie.npo.nl/nieuws/technologische-trends-in-het-mediadomein>.
- Pocino, Patricia Ventura. 2021. "Algorithms in the Newsrooms Challenges and Recommendations for Artificial Intelligence with the Ethical Values of Journalism." Barcelona: Catalan Press Council. https://fcic.periodistes.cat/wp-content/uploads/2022/03/venglishDIGITAL_ALGORITMES-A-LES-REDACCIONS_ENG-1.pdf.
- Selbst, Andrew D., Danah Boyd, Sorelle A. Friedler, Suresh Venkatasubramanian, and Janet Vertesi. 2019. "Fairness and Abstraction in Sociotechnical Systems." In Proceedings of the Conference on Fairness, Accountability, and Transparency, 59–68. FAT* '19. New York, NY, USA: Association for Computing Machinery.
- Shehata, Adam, Dennis Andersson, Isabella Glogger, David Nicolas Hopmann, Kim Andersen, Sanne Kruike-meier, and Johannes Johansson. 2021. "Conceptualizing Long-Term Media Effects on Societal Beliefs." *Annals of the International Communication Association* 45 (1): 75–93.
- Spindler, Gerald. 2021. "Der Vorschlag Der EU-Kommission Für Eine Verordnung Zur Regulierung Der Künstlichen Intelligenz." *CR* 37 (6): 361–374.
- Susser, Daniel, Beate Roessler, and Helen Nissenbaum. 2019. "Technology, Autonomy, and Manipulation." *Internet Policy Review* 8 (2). <https://policyreview.info/articles/analysis/technology-autonomy-and-manipulation>.
- Thurman, Neil, Konstantin Dörr, and Jessica Kunert. 2017. "When Reporters Get Hands-on with Robo-Writing." *Digital Journalism* 5 (10): 1240–1259.
- Van Huijstee, Mariëtte, Pieter Van Boheemen, Das Djurre, Linda Nierling, Jutta Jahnel, Murat Karaboga, and Martin Fatun. 2021. "Tackling Deepfakes in European Policy." Report for the European Parliamentary Research Service. Brussels: European Parliament.
- Veale, Michael, and Frederik Zuiderveen Borgesius. 2021. "Demystifying the Draft EU Artificial Intelligence Act." *Computer Law Review International* 22 (4): 97–112.
- Wilczek, Bartosz, Katarina Stanoevska-Slabeva, Kimberley Kernbach, and Miriam Meckel. 2021. "Un-Locking Strategic Lock-Ins of Local Media: An Investigation of Local Media's Preferences Towards Public Support for Strategic Innovation." *Digital Journalism* 9 (3): 276–299. doi:10.1080/21670811.2021.1878382.