Platform Regulation and Recommender Systems: From Algorithmic Transparency to Algorithmic Choice?

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Recommender systems constitute an essential element of the architecture of digital platforms. They determine which information is displayed on social media platforms and which products are bought on online marketplaces. In this sense, recommender systems are a key source of platform power and a tool for private ordering by platform operators.[1] Recently, in a wave of regulatory initiatives for the platform economy, legislators at EU level and member state level have started to introduce new regulatory requirements for algorithmic rankings and recommendations on digital platforms. Against this background, this paper analyzes the emerging regulatory framework for recommender systems from a comparative perspective and explores possible alternatives to the current regulatory model.

The first part of the paper maps out the emerging EU regulatory framework for recommender systems and algorithmic rankings in the platform economy. In doing so, we focus in particular on the Platform-to-Business Regulation, the Unfair Commercial Practices Directive, the Consumer Rights Directive and the Proposal for a Digital Services Act.[2] These partially overlapping regulatory instruments mainly require platform operators of different categories to disclose the "main parameters" used for recommender systems and rankings. The regulatory landscape becomes even more crowded if one takes into account also national transparency rules such as the recently adopted German State Media Treaty, which formulates additional requirements for the transparency of search engine rankings.[3]

Based on the comparative legal analysis, the second part of the paper highlights several limitations of the emerging EU regulatory framework for recommender systems. First, the current EU policy focuses mainly on user-facing transparency requirements and sets a rather low bar for recommendation transparency. Second, the recent proliferation of transparency requirements across various EU Directives and Regulations leads to overlaps, gaps and inconsistencies.[4] Third, the transparency-based approach obfuscates the implicit regulatory assumptions about substantive fairness requirements for

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[1] See e.g. Paddy Leerssen, The soapbox as a blackbox: Regulating transparency in social media recommender systems, 11(2) European Journal of Law and Technology, http://www.ejlt.org/index.php/ejlt/article/view/786; Jennifer Cobbe and Jatinder Singh, Regulating Recommending: Motivations, Considerations, and Principles, 10(3) European Journal of Law and Technology, http://www.ejlt.org/index.php/ejlt/article/view/686.

[2] See Art. 5 P2B Regulation (EU) 2019/1150; Art. 7(4a) Unfair Commercial Practices Directive 2005/29/EU; Art. 6a(1) Consumer Rights Directive 2011/83/EU; Art. 29 Proposal for a Digital Services Act, COM(2020) 825 final.

[3] See Sec. 93(1) German State Media Treaty (2020).

[4] Christoph Busch and Vanessa Mak, Putting the Digital Services Act in Context: Bridging the Gap Between EU Consumer Law and Platform Regulation, 10 Journal of European Consumer and Market Law 109 (2021) at 114.

recommender systems and other relevant aspects, e.g. the stability of the ranking methodology.[5]

The third part of the paper explores possible alternatives to the current transparency-based approach to the regulation of recommender systems. In particular, we consider recent proposals that emphasize "algorithmic choice" instead of "algorithmic transparency". In this sense, platform operators could be compelled to allow users to choose third-party recommender systems that interconnect with the platform via application programming interfaces (APIs).[6] Adding such an editorial layer between platforms and users would unbundle content curation from hosting and give users more control and choice over which information and products they see on a platform. As a result, this approach could foster innovation and diversity in the field of algorithmic recommendations by creating a market for recommender systems on top of the current platform ecosystems.

However, as attractive as this may sound from a policy perspective, such a model raises a number of questions regarding technical feasibility, economic viability, and data protection, which will be further discussed in the paper.[7] For assessing the possible positive and negative effects of such a market-based model, a comparison is drawn with the EU rules on "open banking", which could serve as a regulatory model for introducing platform interfaces that facilitate "open recommendation" via third-party content curation algorithms.[8]

In summary, the paper makes three contributions: First, it maps out the emerging regulatory framework for recommender systems in the EU. Second, it identifies the limitations of the current regulatory approach based on "algorithmic transparency". Finally, it discusses possible alternative policy models which emphasize "algorithmic choice" and identifies areas for further research.

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[5] See e.g. Ke Yang et al., A Nutritional Label for Rankings, Proceedings of the 2018 International Conference on Management of Data, 2018, 1773-1776; Carlos Castillo, Fairness and Transparency in Ranking, ACM SIGIR Forum, 2019, 64-71.

[6] See e.g. Francis Fukuyama et al., Middleware for Dominant Digital Platforms: A Technological Solution to A Threat to Democracy, Stanford Cyber Policy Center, 2021, https://cyber.fsi.stanford.edu/content/biden-recommendations-cyber-policy-center; see also Ryoma Sato, Private Recommender System: How Can Users Build Their Own Fair Recommender Systems without Log Data?, arXiv preprint, arXiv:2105.12353, 2021.

[7] See Daphne Keller, Making Middleware Work, 32 Jounal of Democracy 168 (2021).

[8] See e.g. Markos Zachariadis and Pinar Ozcan, The API Economy and Digital Transformation in Financial Services: The Case of Open Banking (June 15, 2017), SWIFT Institute Working Paper No. 2016-001, https://ssrn.com/abstract=2975199.