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The Curators Model: Squaring the Circle of User-Agency and Rule of Law

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Abstract

Proposals to give users a choice of 'content middleware', meaning third-party services that rank, filter and/or moderate the content of the large platforms, promise to return agency to users without breaking up the companies that host online speech. This paper argues that current solutions oscillate between public oversight, such as the case of the Digital Services Act, and decentralised solutions based on open-protocols, such as W or the Fediverse apps. The paper proposes a new model which strikes a balance between centralized public oversight and decentralized market choice solutions, called the Certified Curators Model (CCM). In this model, online platforms maintain their role as infrastructures of speech, including holding data and authentication layers, but are asked to open their content to independent curators on fair, reasonable and non-discriminatory terms. This new competitive layer of Curators then competes for users and takes over content moderation and curation. An EU agency certifies and supervises these new curators, in the way conformity assessment works under EU product-safety law and the AI Act. The paper examines the model's business, interoperability and data-protection challenges and sets out how each layer would work, suggesting a practical prototype.

Keywords: middleware; content moderation; Digital Services Act; interoperability; platform regulation; online speech; certification

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> *[...] the creation of a vibrant and competitive middleware sector will depend on government regulation, both to establish rules for the application programming interfaces (APIs) by which such companies would plug into the platforms, and to set revenue-sharing mandates that will ensure a viable business model for middleware purveyors.*
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> Francis Fukuyama, Olivier Nomellini Senior Fellow at Stanford University[2]

1) Francis Fukuyama and the 'Middleware' Model

In 2021, Francis Fukuyama wrote an essay defending a solution for the conundrum of online speech regulation.[3] According to the author, all solutions advanced to implement a new healthy equilibrium had their pitfalls, namely i) using competition policy to force more pluralism; ii) having governments regulating content in a top-down approach; iii) data portability or empowering users to move their data between platforms, including interoperable standards; and iv) using data protection legislation to limit how the online platforms[4] use users' data.[5] Each of those solutions was mined by problems.

For example, using classic competition enforcement tools, following Neobrandeisian ideas of 'break them up'[6] is indeed not sure to work. First, because it is unclear whether these companies fit classic models of abusive conduct or even whether their market power can be described as of a monopolistic nature.[7] Although many defend this, focusing mainly on a re-interpretation of Justice Brandeis's doctrine[8] on large industries from the past in the U.S. (e.g., railroads or heavy industry),[9] many others reject this. Nicolas Petit,[10] for example, has qualified online platforms as moligopolies, calling for an innovation-based analysis of how these companies behave in the long run. Later events, from the launch of Threads to the generative AI race between Google, Meta, OpenAI and Anthropic, seem to prove him right.[11] There is simply no agreed position, even among economists, on whether such competition remedies would succeed in proving a healthier economic equilibrium.

Moreover, assuming those desired objectives would be achieved, such procedures would likely drag on for many years. This is mostly because the classic antitrust remedies available to courts were not initially thought to solve risks of online speech but of market power. This

[2] Fukuyama, 'Making the Internet Safe for Democracy', 32 *Journal of Democracy* (2021) 37, p. 43.
[3] *Ibid.*
[4] We will continue to refer to the online platforms in this last section of the paper. However, in the Middleware hypothesis, this makes considerably less sense. It is precisely the gatekeeping activity that the Middleware hypothesis proposes to decentralize, rendering these platforms *quasi*-neutral places of speech. In any event, for the sake of clarity and conceptual continuity, we will continue to speak of these very large online platforms as online platforms.
[5] *Francis Fukuyama: Middleware Could Give Consumers Choices Over What They See Online* (2021), available at https://www.youtube.com/watch?v=zrfIRfJxwQM (last visited 3 November 2022].
[6] *The Curse of Bigness by Timothy Wu — Why Size Matters | Financial Times*, available at https://www.ft.com/content/3c99583e-e27b-11e8-a6e5-792428919cee (last visited 25 October 2019]; Hughes, 'Opinion | It's Time to Break Up Meta', *The New York Times* (2019] , available at https://www.nytimes.com/2019/05/09/opinion/sunday/chris-hughes-Meta-zuckerberg.html (last visited 4 November 2019); Khan, 'The Separation of Platforms and Commerce', 119 *Columbia Law Review* (2019) 973; Thompson, 'Tim Wu Explains Why He Thinks Meta Should Be Broken Up', *Wired* , available at https://www.wired.com/story/tim-wu-explains-why-Meta-broken-up/ (last visited 6 February 2023]; T. Wu, The Curse of Bigness: Antitrust in the New Gilded Age (2018).
[7] N. Petit and T. Schrepel, 'Complexity-Minded Antitrust', 33 Journal of Evolutionary Economics (2023) 541.
[8] A good example of this school of thought – often called Neobrandeisians – is the work of Lina Khan. See, for example, Khan, 'Amazon's Antitrust Paradox', 126 *Yale Law Journal* (2017) , available at https://www.yalelawjournal.org/note/amazons-antitrust-paradox (last visited 25 September 2023].
[9] Wu, *supra* note 6.
[10] Petit, *'The "Moligopoly" Hypothesis', in Big Tech and the Digital Economy (2020) 29*.
[11] T. Schrepel and A. Pentland, Competition between AI Foundation Models: Dynamics and Policy Recommendations, 28 June 2023.

means that institutional remedies such as forced separation of services or merger control are not sure to deliver a better online speech environment *per se* unless carefully designed. While simplistic ideas of 'break them up' align with the idea of a marketplace of ideas, bad experiences on the Fediverse point otherwise[12]. The existence of many online speech communities as a silver bullet to safeguard healthy speech is not sure to work. Moreover, there is a high probability that these 'broken' companies would slowly re-concentrate into bigger entities, resetting the same cycle of (alleged) anti-competitive behavior. Furthermore, most users are happy with the infrastructure they get from these online platforms; they just want to be part of the content moderation process somehow.

Secondly, Francis Fukuyama discusses top-down regulation, meaning public power regulation. While the reality in the U.S. is admittedly more difficult due to First Amendment constraints, the EU has put forth this solution in many pieces of legislation during the times of what I called Disequilibrium (2016–?), a period of intense regulatory activity on digital affairs, marked by an equally intense use of regulations and 114.º TFEU as the legal basis of choice. The challenges with this top-down approach are of a different nature. Due to the nature of online speech, public power will always struggle to create and enforce efficient regulation without the help of online platforms. The consequential privatization of public power - by which online platforms incorporate traditional transparency and accountability mechanisms typical of public law - then attributes an excessive amount of power and responsibility to those corporate players, which have not proven to be able to exercise it following public power's original intentions.[13] In practice, enforcing procedural duties on these companies via a publicization of their internal content moderation structures will not suffice, as it will place the entire emphasis on a case-to-case analysis and the will and capacity of individuals to enforce norms[14]. Moreover, the legitimacy of these decisions will continue to be questioned by individuals, even as they obtain further *ex-post* control of online platforms' decisions. This is because, as online speech is highly contextual and users are never heard at the definitional moment of rule-making, the legitimacy of individual content moderation decisions will always be questioned. Users will never feel as if they contributed to shaping the rules of that community and will continue to voice their concerns to both public and corporate power, disturbing the equilibrium achieved between those two powers. In the long run, the absence of user-agency in the definition of the rules that affect them will always undermine long-term stability. They will always feel like clients, not citizens.

Apart from those two options, Francis Fukuyama also discusses the idea of data portability[15] and the debate between data as property or control.[16] In theory, this could allow users to

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[12] When the far-right network Gab moved onto Mastodon's software in 2019, most of the Fediverse defederated from it, leaving Gab's users in a network of their own rather than removing them. The consequences of the lack of content moderation, due to the technological nature of instances on the Fediverse, made clear to many the limits of such a solution. See Gehl and Zulli, 'The Digital Covenant: Non-centralized Platform Governance on the Mastodon Social Network', 26 Information, Communication & Society (2023) 3275; R. W. Gehl, *Move Slowly and Build Bridges: Mastodon, the Fediverse, and the Struggle for Democratic Social Media* (Oxford University Press); and, on the effects of defederation, Colglazier, TeBlunthuis and Shaw, 'The Effects of Group Sanctions on Participation and Toxicity: Quasi-experimental Evidence from the Fediverse', arXiv:2404.02109 (2024).

[13] On how rules that rely on platforms to police misinformation end up amplifying their opinion power, see Helberger, 'The Political Power of Platforms: How Current Attempts to Regulate Misinformation Amplify Opinion Power', 8 *Digital Journalism* (2020) 842.

[14] On why a model built on individual, case-by-case review of content moderation decisions cannot work at the scale of online platforms, see Douek, 'Content Moderation as Systems Thinking', 136 Harvard Law Review (2022) 526.

[15] Graef, Husovec and Purtova, *'Data Portability and Data Control: Lessons for an Emerging Concept in EU Law', 19 German Law Journal (2018) 1359*. With a nuanced position on its effects on market competition see Engels, 'Data Portability among Online Platforms', 5 *Internet Policy Review* (2016) , available at https://policyreview.info/articles/analysis/data-portability-among-online-platforms (last visited 30 January 2023].

[16] Favoring a model of control as the best aligned with the E.C. Digital Single Market Strategy see Thouvenin and Tamò-Larrieux, 'Data Ownership and Data Access Rights: Meaningful Tools for Promoting the European Digital Single Market', in M. Burri (ed.), *Big Data and Global Trade Law* 1 (2021).

jump from app to app, seeking different speech communities. This is, however, technically very challenging. Although some open protocols do integrate every single detail, allowing apps to share identification and content (the AT Protocol, which underlies Bluesky, keeps a user's identity and posts in a portable repository that can move between servers), most leading standards like ActivityPub do not. Data is stored in a specific instance, and while one can follow and even transit altogether to a different instance, taking one's followers along, his/her content and identity will not follow. To craft such a solution would require an industry-wide agreement on the adherence to one of those open protocols, which would likely completely undermine the data-led business of current online platforms. It is not impossible, and the recent success of European online platform W, using the same protocol, or Eurosky, can prove us wrong.

Fourth, Fukuyama questions the use of data protection laws to force online platforms to change their approach to content moderation and motivate a better online speech environment. This has been discussed with a wave of new data protection cases targeting notorious online platforms. Notably, in March 2022, the Irish data protection authority imposed a 17 million euro fine on Meta due to alleged breaches of articles 5 (2) and 24 (1) of the GDPR[17] and later that year, in November, applied a 265 million euro fine related to unlawful data scraping. Most importantly, in early 2023, the same Irish DPA would issue a groundbreaking decision related to digital advertising. Following three binding decisions by the EDPB[18] (under article 65 GDPR), the Irish DPA fined Meta, Instagram, and WhatsApp for their basis for data processing related to behavioral advertising practices. The supervisory authority ultimately concluded[19] that Meta Ireland (the owner of all three services) could not rely on 'contract' as a lawful basis for data processing in that context. Meta's answer, a 'pay or consent' model, met the same resistance: in April 2024, the EDPB found that large online platforms offering users only that binary choice will in most cases fail to obtain valid consent (Opinion 08/2024), and in April 2025, the Commission fined Meta €200 million for the same model under Article 5(2) DMA. The Court of Justice has since narrowed the ground further: in Meta Platforms v Bundeskartellamt, it held that personalised advertising is not necessary for the performance of a social network's contract and cannot, as such, rest on the platform's legitimate interests; in Schrems v Meta, it held that the principle of data minimisation prevents a platform from using all the personal data it holds for targeted advertising, without limits in time or by type of data. In October 2024, the Irish DPA also fined LinkedIn €310 million for processing its users' data for behavioural analysis and targeted advertising without a valid legal basis.[20] While these cases highlight a potential new path for data protection as a regulatory instrument, they are once again not tailor-made for online speech. This is mainly because the gatekeeping dangers for online speech are not merely a matter of

[17] Data Protection Commission, *Data Protection Commission Announces Decision in Meta (Meta) Inquiry*, 15 March 2022, available at https://www.dataprotection.ie/news-media/press-releases/data-protection-commission-announces-decision-meta-Meta-inquiry (last visited 25 September 2023].

[18] European Data Protection Board, Binding Decision 4/2022 on the Dispute Submitted by the Irish SA on Meta Platforms Ireland Limited and Its Instagram Service (Art. 65 GDPR), Decision 4/2022. and European Data Protection Board, Binding Decision 5/2022 on the Dispute Submitted by the Irish SA Regarding WhatsApp Ireland Limited (Art. 65 GDPR), Decision 5/2022.

[19] Data Protection Commission, *Data Protection Commission Announces Conclusion of Two Inquiries into Meta Ireland*, January 2023, Data Protection Commission, available at https://www.dataprotection.ie/news-media/data-protection-commission-announces-conclusion-two-inquiries-meta-ireland (last visited 1 February 2023].

[20] Court of Justice of the European Union, *Meta Platforms Inc. and Others v Bundeskartellamt*, C-252/21, 4 July 2023, EU:C:2023:537; Court of Justice of the European Union, *Maximilian Schrems v Meta Platforms Ireland Ltd*, C-446/21, 4 October 2024, EU:C:2024:834; Data Protection Commission, Irish Data Protection Commission fines LinkedIn Ireland €310 million, October 2024, available at https://www.dataprotection.ie/en/news-media/press-releases/irish-data-protection-commission-fines-linkedin-ireland-eu 310-million.

data privacy or even the business model. The problem is more profound, and it resides in creating a healthy digital public sphere in which users can exchange information and contrast ideas, akin to the Fediverse's long-lasting dream of agonistic democracy.[21] While data protection laws can protect users from data exploitation, they are not suitable to bring speech pluralism into these platforms.

Francis Fukuyama is, in my view, right in his assessment. However, he is missing a piece of the puzzle. There is a common element in all of the solutions above that might reveal why they fail in the first place. It is that they all begin at the 'who' of regulation, in the binary public or corporate, never the individuals' point of view. In all solutions, users retain little to no say on how the rules are crafted or enforced. Even the interoperability solution – in which, in theory, users could jump around different applications and would have a choice – is highly dependent on how the online platforms shape those standards and the freedom they provide to users. Moreover, it creates not sustainable market incentives on platforms to jump the wagon, and forcing those would perhaps disproportionately infringe on these companies rights (even in the EU). In any case, more choice, we now know, will not automatically grant a more diverse speech environment. A balance between self-regulation and top-down regulation must be found, one in which users are represented, but public power is not completely absent.

This is where the Middleware Model comes into play.

a) The Idea

The 'middleware idea' – a concept initially adapted by Stanford's Working Group on Platform Scale[22] and continued in a conference at Columbia Law School in 2022[23] – proposes a novel solution for this conundrum. The Group's main concern and motivation to develop this idea were the online platforms' impact on democracy and online speech. Their premise was that 'pressuring the platforms to curate political content in the manner of a media company is not a long-term solution to the problem they pose for democracy'.[24] The idea has since gained ground in scholarship[25] and in policy. In 2026, the Council of Europe asked States to explore opening platforms of significant influence to third-party tools that users choose to organize, curate and moderate lawful content, adding that such tools may be subject to certification. It also wants platform design to let users act on third-party labels of lawful content, hiding or prioritizing what those labels mark.[26]

This Middleware Model as an idea can be summarized in simple terms. It suggests creating a new commercial layer for content moderation/curation — standing between the platform and the user — in which a new set of companies (which I call the Curators) would now provide different algorithmic choices. Platform users would continue to populate the online

[21] On the transformation of the public sphere by platforms, see J. Habermas, *A New Structural Transformation of the Public Sphere and Deliberative Politics* (2023).
[22] Fukuyama et al., 'Report of the Working Group on Platform Scale', (2020) , available at https://cyber.fsi.stanford.edu/publication/report-working-group-platform-scale (last visited 30 January 2023].
[23] 'Regulating the Online Public Sphere: From Decentralized Networks to Public Regulation - Global Freedom of Expression', (2022).
[24] Fukuyama et al., *supra* note 22. p. 5.
[25] See, e.g., F. Scott Morton, *It's Time for the European Union to Rethink Personal Social Networking*, Bruegel Policy Brief 34/2024 (2024); L. Hogg and R. DiResta (eds.), *Shaping the Future of Social Media with Middleware* (Foundation for American Innovation and Georgetown University McCourt School of Public Policy, 2024). Husovec reads middleware as a form of vertical interoperability: Husovec, 'The Missing Link: How New Institutions Could Improve What We Read Online', 46 *Oxford Journal of Legal Studies* (2026) 624, at 645.
[26] Council of Europe, Recommendation CM/Rec(2026)4 of the Committee of Ministers to member States on online safety and empowerment of users and content creators (8 April 2026), Appendix, paras 72–73. Husovec builds his proposal of trusted content creators on the same third-party labeling: Husovec, 'The Missing Link: How New Institutions Could Improve What We Read Online', 46 *Oxford Journal of Legal Studies* (2026) 624, at 646–648.

platforms, just as before, but would now have algorithmic choice as to how content is organized in their respective feeds.[27]

Instead of centralizing online speech gatekeeping on the online platforms, this new commercial layer would take that task, connecting to the online platforms via Application Programming Interfaces (APIs). In this sense, the Middleware Model promises a balance between centralization in the infrastructure (one single platform) and decentralization in content curation (different available choices). This middleware layer would intermediate between the online platform and the final user without ever collecting data, as shown below:

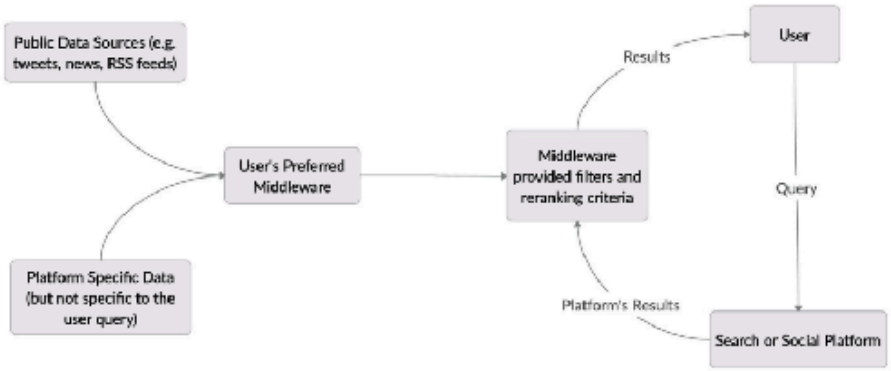


Figure 1 — Fukuyama et al., 'Report of the Working Group on Platform Scale', (2020)

Once established, this commercial layer could deliver different types of services.

For example, fact-checkers could develop Curator Apps that would label disinformation (e.g., EDMOs offering a tag/label system that ranks news as trustworthy or untrustworthy). Companies could offer new ranking algorithms according to the topic (e.g., sports) or institution (European Union-related tweets). A Curator could also establish different rankings for search engines such as Google or Bing, allowing search results based on news-authenticity user-safety (for example, children). Depending on the specific middleware provider adopted, the user would have a tailor-made experience in a given existing online platform. Market choice would replace the opacity by which traditional online platforms gatekeep speech and serve as a strong incentive for commercial companies to develop privacy-oriented middleware solutions. These solutions could also be easily migrated from one company to another, with the possibility of entering X, YouTube, or Meta and having the same ability to filter using curator app Y.

Unlike the Fediverse model of decentralised, federated networks such as Mastodon, this solution does not entirely kill the online platforms' business model. On the contrary, it can

[27] 'By "middleware," we refer to software products that can be appended to the major internet platforms. These products would interconnect with Meta, Amazon, Apple, Twitter, and Google APIs and allow consumers to shape their feeds and influence the algorithms that those dominant platforms currently employ. Middleware would not necessarily disintermediate services between the consumer and the internet platform; rather, as a third-party service chosen by the consumer, it would make editorial judgments that are currently provided (usually without transparency) by the platform.' p. 31.

open potentially exciting avenues for revenue-sharing, as we will see. Likewise, it can easily overcome the lack of control of public power over the numerous communities of the Fediverse model, gifting the State/EU with a very precise regulatory target. This is because public power could now easily pass regulations to target how content moderation was exercised by the Curators' middleware layer, including demanding substantial transparency obligations or imposing red lines on speech. Rather than targeting the online platforms, the EU would have a new, much better-defined target to continue its regulatory action.

First and foremost, this solution could redefine the power imbalance between users and online platforms, empowering the first with market choice. Here is how.

b) How to make it work: Protocols, not Platforms

In order to be operational, this model requires a profound change in the way we look at the bargaining game between public institutions, corporations and users.[28] Our already-known idea of open protocols and APIs is the key aspect to building such an intermediary commercial layer. This idea is often articulated using the catchphrase 'Protocols, not Platforms'.

In the piece of the same name, Mike Masnick suggests shifting content moderation and content curation away from the centralized platforms back to Internet protocols.[29] This idea draws heavily on the early days of the Internet, in which users would interact using applications built on open standards like SMTP (Simple Mail Transfer Protocol, the open standard to exchange emails) or HTTP (the core protocol for websites) to build the entire Internet's infrastructure. The rise and fall of Usenet also showed how the early social media network could be based on another distributed protocol called the Network News Transfer Protocol. The same could be said of ActivityPub or AT Protocol and the Fediverse. These are neutral 'languages' in which any application can be built and information can be exchanged. Applied to online platforms, this would mean agreeing on a standard that lets moderation/curation companies access platforms' data to filter and organize it using their own AI-powered solutions. The online platforms would no longer be walled gardens but open parks where different companies could create activities and offer users different solutions.

An example illustrates this point.

Let us imagine a situation where Meta agrees to such an open protocol for Instagram. A user enters the platform and has a series of boxes he can tick: one called New York Times Curator, the other called Basketball Fans Curator, and yet another called EDMO Curator. The user clicks the NYT box, and suddenly, his feed is populated with literature and the most important posts related to NYT best-selling authors. His previously social-oriented feed is now fully oriented towards literature. The user then presses another button and sees numerous discussions on the latest Boston Celtics Game, NBA, and commercials for basketball sneakers. Likewise, by pressing another button, the user can now have labels developed by a fact-checking NGO next to each post posted by news agencies. Finally, the

[28] Douek, *'Content Moderation as Systems Thinking', 136 Harvard Law Review (2022) 526*. Douek briefly touches on the topic, highlighting how the middleware hypothesis is one among many ways to cut with the binary model of content moderation governor – governed. See pp. 26-27.
[29] M. Masnick, *Protocols, Not Platforms: A Technological Approach to Free Speech*, August 2019, Knight First Amendment Institute at Columbia University, available at http://knightcolumbia.org/content/protocols-not-platforms-a-technological-approach-to-free-speech (last visited 28 October 2022].

user decides to turn off recommendations based on ad-generated data altogether, seeing a chronological and continuous feed of whoever posts.[30]

In order for this situation to technically occur, the online platforms' applications would have to be able to communicate with this new Curator layer. This would require what content moderation expert and Stanford Professor Daphne Keller calls 'Magic APIs'.[31] Technologically speaking, an API allows different applications to 'talk' and exchange information. An example might be to connect a cloud service in which a video is stored (e.g., an MP4 file in Gdrive) to a video-sharing platform like Vimeo or YouTube. Instead of downloading the video from the cloud service and then re-uploading it to the video-sharing app, the API establishes a 'tunnel' in which the second app retrieves the video from the cloud service. In theory, such APIs could be established to connect the first data-gathering layer (the online platform) to the 'curator filtering app'. As Keller exemplifies, 'this would mean that Google or Meta opens up access to the "uncurated" version of its service, including all legal user-generated content, as the foundation for competing for user-facing services. Competitors would then offer users some or all of the same content via a new user interface with their own new content ranking and removal policies. Users might choose a G-rated version of Twitter from Disney or an explicitly partisan version of YouTube from a political group, for example.'[32] Instead of doing the content moderation and curation themselves, the online platforms would drop the gatekeeping function and serve instead as a neutral hub of speech. Within this uncurated hub, this other layer would function via API, providing different choices for users to curate their content.

The adjective 'magic' in magic APIs is not innocent. Keller recognizes the many obstacles that such technology could bring about in terms of business models, interoperability, and privacy.[33] Let us examine each of them and see how the EU might be able to overcome them.

2) Challenges of the Middleware Model: Difficult but not Impossible

a) Monetization and business models

This reliance on open protocols introduces us to the first challenge of the Middleware model. If the Internet was initially based on such protocols, it is fair to ask why it progressively abandoned some of them. Usenet is a prime example. Usenet relied precisely on this approach – an open protocol to exchange messages in a forum style – in which different providers shaped access to that protocol.[34] So why did it fail to scale? The main reason was monetization.

At the time, it wasn't clear how this open-protocol market would survive. People didn't pay to use Usenet, and the protocol itself was open to any new application that wanted to join.

[30] Daphne Keller provides another example, of a Disney-rated Twitter feed, in which all content is tailor-made to children – 'Users might choose a G-rated version of Twitter from Disney or an explicitly partisan version of YouTube from a political group, for example'. Keller, *'The Future of Platform Power: Making Middleware Work', 32 Journal of Democracy (2021) 168*. p. 26. I have built an interactive example on this available on our Alternative Infrastructures Lab website.
[31] *Ibid.*
[32] *Ibid.* p. 26.
[33] 'The technology required to make it work would be difficult, perhaps impossible, to build well; that's the "magic" part'. *Ibid.* p. 27.
[34] Masnick, *supra* note 29.

Without our modern understanding of data and informational capitalism[35], companies in those days had no obvious way to make a profit. That was not even their objective in the first place. The consequence of this lack of monetization was the rise of Internet walled gardens like AOL or CompuServe, which started offering tailor-made access to the Internet. Unlike Usenet, these services could use advertising models and subscriptions to survive. Simultaneously, the advantages for users were apparent: they no longer needed to go through the painstaking process of establishing their own server or finding a newsreader app, nor going through the difficult adaptation to Usenet rules and *social norms.* Everything was there in AOL's (more or less) easy and comfortable interface.

The parallel with the Fediverse model is already evident. Just like Mastodon cannot easily create a sound business model without jeopardizing the principles of Federation and Subsidiarity, the Middleware model's reliance on the same open protocols poses the same difficulties. In order to be a feasible option for the New Digital Equilibrium, the Middleware model must add something to the Fediverse model. It needs to prove financially sound at two levels: *i)* for the online platforms that would suddenly partly lose control over the moderation and curation of their platform content and *ii)* for the curating apps themselves, now responsible for a difficult task that must be rewarded.

i) For Online Platforms

In what concerns the online platforms, it is undeniable that those companies are spending large amounts of human[36] and material resources on online content moderation. The reputational costs of such activity are also constant, a game which some have considered 'quicksand . . . an utterly losing proposition'.[37] In theory, having a new commercial layer responsible for this could free important resources for other key aspects of the online platforms' businesses, especially ducoyotring a time in which lay-offs seem unavoidable.[38] This would mean that Curators would do both content curation *and content moderation.* It is easier to sell this solution to companies if opening up their data also means offloading part of the costly clean-up. However, as we know from informational capitalism models, the case is different when we speak of content curation, like ranking content. Such content curation is essential to the online platforms' business models. If the middleware model were to consume this task completely, then it would likely be doomed to fail in the first place. Which incumbent online platform would be willing to submit to such radical change, risking its profitability?

The middleware model offers a satisfactory answer to this, I believe. In order to be financially sustainable, the curator apps could do two things.

First, they could offer to outsource both content curation *and* content moderation. This would remove an important hurdle and a money-intensive task for online platforms. It would also allow these platforms to delegate responsibilities in a way that they cannot do today: they are both infrastructure and controllers, and public power/individuals go to them when

[35] J. E. Cohen, *Between Truth and Power: The Legal Constructions of Informational Capitalism* (2019).
[36] The psychological costs of human content moderation are increasingly clear S. T. Roberts, *Behind the Screen: Content Moderation in the Shadows of Social Media* (2019), available at https://www.jstor.org/stable/j.ctvhrcz0v (last visited 30 January 2023]. See also Chen, 'The Laborers Who Keep Dick Pics and Beheadings Out of Your Meta Feed', *Wired* , available at https://www.wired.com/2014/10/content-moderation/ (last visited 30 January 2023].
[37] H. Mance, *Shoshana Zuboff: 'Privacy Has Been Extinguished. It Is Now a Zombie'*, 30 January 2023, available at https://www.ft.com/content/0cca6054-6fc9-4a94-b2e2-890c50d956d5 (last visited 30 January 2023].
[38] B. Marr, *The Real Reasons For Big Tech Layoffs At Google, Microsoft, Meta, And Amazon*, Forbes, available at https://www.forbes.com/sites/bernardmarr/2023/01/30/the-real-reasons-for-big-tech-layoffs-at-google-microsoft-meta-and-amazon/ (last visited 30 January 2023].

things go wrong (e.g., antisemitic content). Now, with curators, that 'blame' could be directed at a new set of companies responsible for their own failures at properly moderating content. In terms of a regulatory equilibrium, understood as a series of complex bargaining games, this could reduce pressure on online platforms to 'get it right'. From the curator's side, this could actually prove beneficial. While the online platforms have thousands of content moderators, a network of curators could increase that number and speed of content moderation, all while sharing the financial burden. For example, a Curator app X, upon detecting a piece of terrorist content, could label it as such and inform the rest of the Curators' network. The incentive would be to decentralize content moderation while doing it jointly in a spirit of cooperation. The question of why competitors would cooperate on this has a simple answer: curators compete on curation, not moderation. Every app would be incentivized to do well by the community, expecting others to do the same in other moments.

Second, even on content curation, it is not impossible to imagine revenue-sharing schemes to benefit both parties. Curators could enter into revenue-sharing agreements with online platforms to offset potential profit losses. The amounts could be proportional to the market position of the curator. For example, if content curation is done by ranking content for advertisement purposes, and it is very popular at doing so, with a large portion of users using it, then the share to be given to the host (the online platform) should be large, but not too large. Clearly, that curator's work is bringing about a better experience to the platform, hence bringing more users on board, while at the same time contributing to the content moderation joint-layer.

On the other hand, the curator app may be run by an NGO or non-profit fact-checker that does not depend on advertising revenue and even helps the online platform attract more traffic. In such cases, it is only fair that the online platform shares part of the advertisement-based profit to subsidize the important task that the fact-checker is conducting, inverting the methodology (as we will see, the platforms should also be able to have their own self-curators). This would allow the curators' layer to have different types of services, a truly new ecosystem of content moderation and curation for profit and/or for good.

This idea of revenue-sharing is common practice in non-speech contexts, such as transport,[39] as we will see in my proposed solution. It is not unheard of among online platforms, albeit with a different motivation, namely revenue-sharing with online creators (see, for example, YouTube[40] and now X).[41] Some have also proposed it for the delicate matter of generative AI and copyright.[42] Martin Husovec has an ingenious proposal for online platforms based precisely on this, which he calls trusted content creators[43]. Nonetheless, some have argued that, in case these revenue-sharing agreements are not sufficiently attractive to the online platforms, they should be proposed under the threat of top-down regulation or as an alternative to other more onerous scenarios.[44] If, in the U.S., this could be

[39] *11th Florence Intermodal Forum: Aviation and Multimodal Digital Mobility Services in the EU*, Florence School of Regulation, available at https://fsr.eui.eu/event/11th-florence-intermodal-forum-aviation-and-multimodal-digital-mobility-services-in-the-eu/ (last visited 13 February 2023].

[40] YouTube, *How YouTube Creators Earn Money - How YouTube Works*, How YouTube Creators Earn Money - How YouTube Works, available at https://www.youtube.com/howyoutubeworks/product-features/monetization/ (last visited 25 September 2023].

[41] Elon Musk [@elonmusk], Starting Today, Twitter Will Share Ad Revenue with Creators for Ads That Appear in Their Reply Threads, Twitter, 3 February 2023.

[42] N. Lucchi, ChatGPT: A Case Study on Copyright Challenges for Generative AI Systems, 4483390, 12 June 2023.

[43] Husovec, 'The Missing Link: How New Institutions Could Improve What We Read Online', 46 Oxford Journal of Legal Studies (2026) 624, https://doi.org/10.1093/ojls/gqag013.

[44] Fukuyama et al., *'Middleware for Dominant Digital Platforms: A Technological Solution to a Threat to Democracy'*. p.8.

potentially groundbreaking, although arguably constitutional (since it targets business models and not content moderation, meaning speech), in the EU it would be nothing new. They could be imposed through top-down regulatory intervention, which adds a significant advantage to the Middleware model over the Fediverse solution, which would easily escape regulatory intervention. To be honest, I believe no legislative intervention would even be required, just a different type of enforcement.

ii) For Curators

What about the curators? Would they be satisfied with these monetization schemes?

The financial sustainability of this commercial layer is not a given. In the early 2000s, in the U.S., a similar attempt was made with the Internet Content Rating Association, which would also depend on a commercial layer of curators to 'clean-up' essential parts of the early Internet. Its rise and fall are well-documented and can be attributed to the inexistence of an actual business model for these curators, which was never fully developed.[45] However, there are multiple ways to reward these services in today's developed Internet ecosystems.

The first obvious way is to maintain the same *status quo*, meaning informational capitalism. This would mean these curating apps would work on a *freemium* model: free for users, but using aggregated data to sell services to advertisers. This model has nothing inherently wrong if options exist within the curation ecosystem and transparency is provided.[46] Some people will be comfortable with curation apps that provide them with accurate rankings and recommendations on e-commerce, while advertisers will compete for the first recommendation spots. In order to avoid these same architectural decisions (prioritizing the highest bidder) being applied to delicate matters such as political speech, public regulation could be passed, preventing this business model from being used by curator apps that deal with system risks (just as the DSA demands). Part of this regulation already exists. The DSA prohibits advertising based on profiling that uses sensitive data, such as political opinions (Article 26(3)), and profiling-based advertising aimed at minors (Article 28(2)). Since October 2025, the Political Advertising Regulation (Regulation (EU) 2024/900) also allows political ads to be targeted online only with the user's explicit and separate consent. Indeed, not much would necessarily have to change: these apps could fall under the concept of hosting providers, being subject to the accountability/transparency-oriented provisions of the DSA with minor changes to the regulation's subjective scope (namely, if we wished to apply the most stringent obligations of VLOPs and VLOSEs). This means, for example, that these entities would be prohibited from ranking or prioritizing those types of speech and would need to focus on purely commercial matters.

These curators would also have an additional incentive to moderate content *well.* This is because, unlike online platforms, their activities could be subject to prior licensing and continuous monitoring, which public authorities could revoke amid widespread failure. Moreover, because this layer does not have to worry about many other parts of product development (which rest with the online platforms), curators could devote many more resources to perfecting content moderation and curation.

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[45] Lam, 'The Internet Content Rating Association: The Way to Patrol the Internet Highway Note', 24 *Hastings International and Comparative Law Review* (2000) 231; Machill, Hart and Kaltenhäuser, 'Structural Development of Internet Self- regulation: Case Study of the Internet Content Rating Association (ICRA)', 4 *Info* (2002) 39.

[46] Some doubt that curation by for-profit companies funded by advertising can ever serve the public interest: see N. Couldry, *The Space of the World: Can Human Solidarity Survive Social Media and What If It Can't?* (2024) 81, 91. The history of the press suggests otherwise: modern journalistic standards and editorial independence spread as a commercial product, because independence sold to a broader readership. See J. T. Hamilton, *All the News That's Fit to Sell: How the Market Transforms Information into News* (2004) 38ff.

A second potential financial model for this commercial layer would be subscriptions. Many digital newspapers are now moving in this direction, essentially to avoid their dependence on digital advertising. Some online platforms, such as X or Meta, have themselves launched their subscription offers. The same could easily be done for curators, which could even be an integral part of existing media outlets' packages (e.g., NYT newspaper subscription would also encompass access to NYT Curator).[47] In these cases, these companies could also share part of the subscription revenue with the online platforms, competing to become attractive models for them. A symbiotic relationship could arise between the online platforms and the curator apps, one in which users would ultimately be empowered through market choice (which subscription should I choose?).

In conclusion, market viability is not an unsurpassable obstacle, and choices do exist that would render the Middleware model a reality.

b) APIs and Open Protocols: an interoperability utopia?

The financial obstacles above are only worth discussing if this information processing is technically feasible. For the middleware model to work, online platforms would have to standardize their technical infrastructures so the curators' market could easily adapt. This is where Masnick's 'Protocols, not platforms'[48] becomes essential.

One possible way to achieve technical feasibility would be to base those APIs on the same protocol, taking advantage of its open nature. This is unlikely, as controversial discussions will arise as to which protocol to choose. What is more likely is for some selected online platforms to take the first steps in financing and supporting protocol experiences that could welcome a middleware layer, just as it is currently happening with the ActivityPub Protocol or the Model Context Protocol for AI. Computing capacity should not constitute an obstacle to this information processing by the curators: ranking every post for every user is what the platforms' own recommender systems already do at scale.

A promising example of this is the Twitter-initially funded (although independent) Bluesky project. The idea of Bluesky[49] was to develop an alternative by creating another open protocol, one that allows users to connect to different online platforms but conserve their accounts across the board. Through the Authenticated Transfer Protocol (AT Protocol), users can easily benefit from what Bluesky calls 'an open market of algorithms'.[50] User A could connect via the open protocol to various curators, which would then filter and/or curate her experience on platform X. In its infancy, the project already had a prominent supporter: Twitter founder and ex-CEO Jack Dorsey endorsed this idea publicly on Twitter. It was also part of the leaked conversations[51] between Jack Dorsey and Elon Musk soon after the latter

[47] A publisher's curator would potentially fix a current problem that platforms have largely enhanced, namely the direct link between the author of the news and its distribution. See Nielsen and Ganter, 'Dealing with Digital Intermediaries: A Case Study of the Relations Between Publishers and Platforms', 20 *New Media & Society* (2018) 1600; P. M. Napoli, *Social Media and the Public Interest: Media Regulation in the Disinformation Age* (2019).
[48] Masnick, *supra* note 29.
[49] *Bluesky*, available at https://bsky.social/ (last visited 6 October 2026).
[50] *The AT Protocol*, available at https://atproto.com/ (last visited 30 January 2023]. For technical specifications see https://atproto.com/docs .
[51] jack [@jack], @wongmjane @ruudii2 A Protocol. Def Can't Be Owned by a State, or Company. Becomes Clearer Every Day., Twitter, 25 August 2022.

took over Twitter,[52] adding to the likelihood that such a project could become a reality.[53] Along with many other projects, including the Eurosky project in Europe, mu or W platforms, the idea of a semi-decentralized approach to online speech regulation is now a reality. Dorsey left Bluesky's board in May 2024, but by then the basics of the middleware model were running on the protocol. Since 2023, users can choose among custom feeds built by third parties and since March 2024 they can subscribe to independent moderation services (the so-called 'labelers'), which anyone can run with Bluesky's open-source tool, Ozone.[54]

European apps such as W, from Sweden, and mu, run by a Dutch foundation, now build on the same protocol, although both still read their timelines through Bluesky's servers by default. Perhaps even more importantly, there is already an established API connection between the online platforms and the DSA Transparency Database, set up by the European Commission in September 2023,[55] which could serve as a nice starting point to develop these connections. The delegated act on researchers' access to platform data, adopted under Article 40 DSA in July 2025, opens a second channel of this kind.

Moreover, the fact that Meta's app Threads has chosen ActivityPub as its protocol is also a good sign for the future viability of this model.[56] Threads has since begun to let users share their posts to the fediverse, although not in Europe, and its reliance on a leading open protocol opens the doors to a new way of conceiving online speech governance. On its launch, Meta proclaimed, 'We believe this decentralized approach, similar to the protocols governing email and the web itself, will play an important role in the future of online platforms', a possible indicator of a shift in the Digital Equilibrium. Others moved in a different direction: in 2023, X put most access to its API behind paid tiers and Reddit began charging for its own.

This voluntary approach can happen among some, but perhaps not all, online platforms. In those cases, interoperability mandates could be imposed through top-down regulation, including competition law measures.[57] This is something currently being discussed in many non-speech environments, such as transport, with the creation of data spaces.[58] This discussion at that level is very important for the same interoperability goals on speech. This is also what some U.S. politicians have proposed, namely Mark Warner's Access Act,[59] which aimed at leveraging internally developed APIs within apps of the same online platform (e.g., between Meta and WhatsApp) and opening those to the general public, but it was never enacted.

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[52]NYT Journalist reported the leak on Twitter see Kate Conger [@kateconger], Read along Here: Https://T.Co/kTLj10PBkX, Twitter, 29 September 2022.

[53] However, during 2023, Elon Musk seems to have discredited the project and reduced API access (now paid-access) to third-party access to APIs. It is uncertain whether such a mentality would extend to the Curators, were they to exist. See Barnes, 'Twitter Ends Its Free API: Here's Who Will Be Affected', *Forbes* , available at https://www.forbes.com/sites/jenaebarnes/2023/02/03/twitter-ends-its-free-api-heres-who-will-be-affected/ (last visited 6 October 2023].

[54] For a description of Bluesky's custom feeds and labelers, see Balduf et al., 'Looking AT the Blue Skies of Bluesky', in *Proceedings of the 2024 ACM Internet Measurement Conference* (2024) 76. On third-party labeling as a channel through which users, rather than platforms, decide what they see, see Husovec, 'The Missing Link: How New Institutions Could Improve What We Read Online', 46 *Oxford Journal of Legal Studies* (2026) 624, at 646–648.

[55] The code behind the platform is even public, on GitHub see European Commission, *DSA Transparency Database*, 2023, available at https://transparency.dsa.ec.europa.eu/analytics (last visited 5 October 2023].

[56] R. MacManus, Threads Adopting ActivityPub Makes Sense, but Won't Be Easy, 12 July 2023, The New Stack, available at https://thenewstack.io/threads-adopting-activitypub-makes-sense-but-wont-be-easy/ (last visited 14 July 2023).

[57] See Scott Morton et al., 'Equitable Interoperability: The "Supertool" of Digital Platform Governance', 40 *Yale Journal on Regulation* (2023) 1013.

[58] I. Lapenkova and M. Finger, *Mobility Data Spaces*, Technical Report (2023), available at https://cadmus.eui.eu/handle/1814/75776 (last visited 5 October 2023].

[59] M. R. Warner [D-VA], Augmenting Compatibility and Competition by Enabling Service Switching Act of 2022 or the ACCESS Act of 2022, S.4309, 25 May 2022.

In conclusion, the technology that would allow these transfers to occur already exists, and it is expected to improve rapidly in the upcoming years. The will to use it is another matter. Since 2023, the largest online platforms have mostly closed their services to outside developers, while open protocols have grown outside them. Opening the incumbents will likely require regulation and the model that I propose has an answer to that.

c) Privacy and data protection

Another obstacle to the Middleware model is data protection rights. This is a natural consequence of the openness that the model introduces, with APIs allowing for potential data access by different players. It has been widely debated within interoperability circles under the idea of a 'Privacy Paradox'[60] and its solution is difficult to achieve.

The privacy paradox has to do with how much content is accessible by these curators when using their APIs to connect to the online platforms' databases. Paradoxically, a monopoly protects data better (or more easily) than a fully interoperable application. In the Middleware model, on the other hand, these curators have to access all the posts of user X to categorize them, rank them, label them, or moderate them. The problem is that, more often than not, users publish posts on the online platforms and choose to make these private for a limited number of users to see. This is particularly common on Meta, with private groups and posts that are limited to the comments section.

In those particular cases, the question arises whether the curators should be able to have access to that information at all.[61] While an easy answer could be – no, they should not – this would make their business considerably less attractive. Moreover, for those Curators dedicated to fact-checking and the fight against disinformation, this could mean being barred from the most important pieces of disinformation and content bubbles. It would also allow extremist groups to hide from curators, potentially enhancing the filter bubbles and creating underground non-curated communities that are far from sight.

In Europe, under GDPR, the problems are even more acute. In order for these curators to access that user data, consent necessarily had to be given, a basis for data-processing which is currently being further restricted. With the latest EDPB[62] and Irish DPA decisions on consent via contract in the Meta cases, a general contractual clause seems difficult to ascertain. Individuals could express consent through consent boxes upon the use of each service. Yet again, this would require the active collaboration of individual users, which might make the entire curators' business highly uncertain, and fact-checking uses of these tools largely miss the mark. Daphne Keller has a point when comparing this scenario with Cambridge Analytica ('should we be able to hand our friends' data over to a startup operating via a Meta API? That is, after all, exactly what happened in the 2018 Cambridge Analytica scandal').[63] Yet, I believe there are compelling reasons to think that most of these privacy concerns can be addressed without giving up the benefits for speech and democracy.

First, it is technically possible for the online platforms to limit how the API allows the curators to access their data. Indeed, no data transfer takes place between one and the other. The curator merely accesses the pool of data according to the conditions established by the API

[60] B. Cyphers and C. Doctorow, *Privacy Without Monopoly: Data Protection and Interoperability*, 12 February 2021, Electronic Frontier Foundation, available at https://www.eff.org/wp/interoperability-and-privacy (last visited 25 September 2023].
[61] Keller, *supra* note 30.
[62] European Data Protection Board, *supra* note 18.
[63] Keller, *supra* note 30. p. 172.

for the sole purpose of curation. Second, one could configure those APIs differently according to the curator in question. A distinction between for-profit and non-profit could arise, granting limited access to the first (only public information) and possibly wider access to the latter. This distinction could be enforced at the licensing moment by the certification agency at the EU level (see below). These non-profit organizations would curate for the public interest, namely on fact-checking and disinformation campaigns, and could claim more extensive access to information on that account.

Third, suppose these curators are constantly monitored by an agency whose license attribution depends on how they abide by a series of obligations (which include GDPR compliance). In that case, the risk of massive data breaches is substantially diminished. The EU could craft the curators' licensing process to require strict compliance with these privacy norms and monitor and routinely audit their systems. The risk for these businesses would be more than a simple fine written as a line on the demonstration of results. It would mean being impeded from exercising their activity altogether.

3) My Solution: Certified Curators Model

In order for the Middleware Model to become a feasible alternative in Europe, the problems analyzed above must be addressed. The solution must foster an equilibrium among competing forces, while placing citizens/users at the center of speech governance. Moreover, it must ensure that the two remaining players — public and corporate actors — are not completely absent from that new bargaining game. Only this could balance competing interests and ensure an equitable division of regulatory power among them, the secret to a healthy regulatory environment.

The figure below showcases my own proposal based on an adaptation of the Middleware Model. It builds on the proposal I have defended together elsewhere.[64] I believe this proposal could square the circle between all competing regulatory positions. I call it the Certified Curators Model (CCM).

[64] Poiares Maduro and De Abreu Duarte, 'Regulating Big Tech Will Take Pluralism and Institutions | View | Euronews', *Euronews* (2021) , available at https://www.euronews.com/2021/10/07/regulating-big-tech-will-take-pluralism-and-institutions-view. See also F. De Abreu Duarte, 'Digital Constitutionalism and Online Content Moderation: Three Models for the Future of Online Speech', in G. De Gregorio, O. Pollicino and P. Valcke (eds.), *The Oxford Handbook of Digital Constitutionalism* (online edn, 2025).

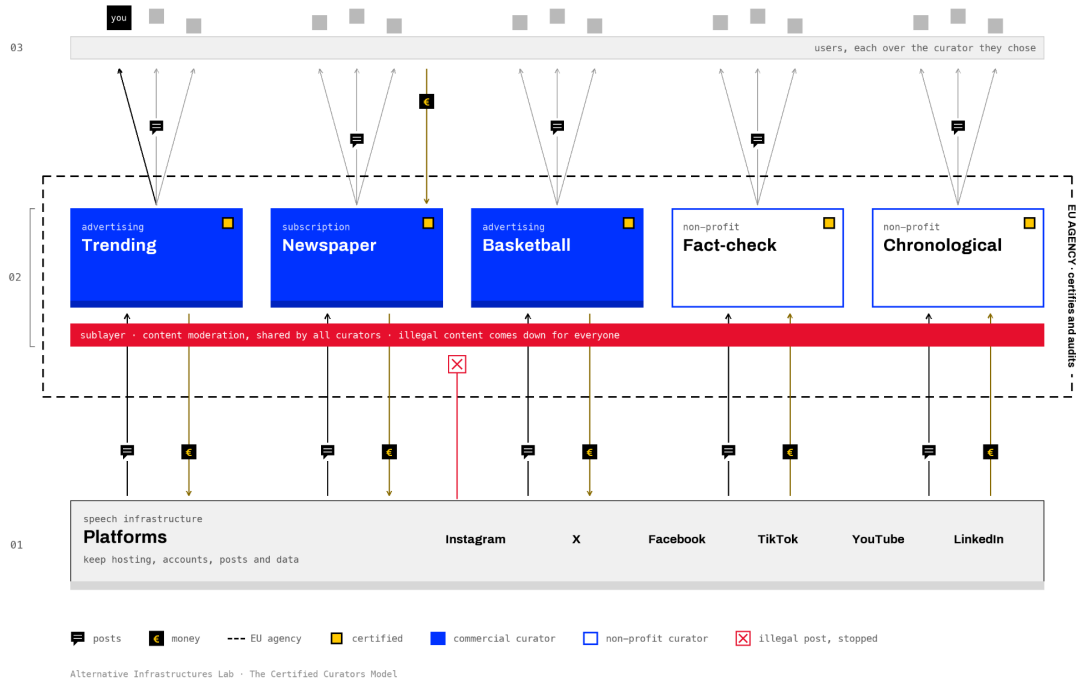


Figure 2 — The Certified Curators Model (CCM)

Some critical elements of this model stand out immediately.

First, the CCM retains the three-layered approach of the Middleware Model with i) online platforms, ii) the curators (middleware layer responsible for curating and moderating online speech), and iii) the final end-user. This means the model sides with the middleware solution and rejects full decentralization (such as the Fediverse) or full top-down regulation (e.g. sole reliance on the DSA). These three layers also mean a separation of the online platforms from their traditional moderation and curation roles, transforming them from gatekeepers to infrastructures (speech infrastructures). These two tasks are now transferred to an independent layer of content curators with a sub-layer of content moderation, shared by all, who are responsible for both moderating illegal content (content moderation) and curating users' speech experiences (content curation).[65] Finally, users remain empowered through market choice but cannot actively participate in forming the rules (as in the Fediverse). Their user agency is limited to the possibility of choosing between a wide range of curators to shape their online experiences. In these three characteristics, the CCM closely resembles the classic middleware solution.

However, the CCM introduces a substantial addition to the original Middleware Model. The most evident change I propose is adding a layer to the regulatory architecture in the form of an EU agency. Unlike existing legislation that proposes decentralized governance schemes (DSA, AI Act, Data Act), this agency would not target online platforms but would instead

[65] In my model, moderation of illegal content works as a necessary minimum, a sub-cooperative layer, meaning it applies whichever curator a user picks, with all curators running it and exchanging information on it. Above that floor, curators compete on curation and on how they treat lawful but awful content.

focus on the curators themselves. Its primary function would be to accredit and continuously monitor this curation layer, certifying these commercial entities under the criteria explained below. This agency's role would be critical in ensuring that all three players (online platforms | curators | users) possess the right amount of regulatory power to shape online speech but are never entirely responsible for its successes or failures.[66] That was always the ultimate meaning of the Digital Equilibrium (which I explore in my book) — to craft a balance between all competing regulatory objectives — and this is what, I believe, needs to be protected.

A pedagogical way to understand the details of my proposal is to look at the relative role of each of these layers and discuss the problems arising from their existence.

a) Online platforms as Infrastructures of speech – Layer 1

The CCM maintains online platforms as essential places of digital gathering. In this sense, it is closer to the centralization proposed by the DSA and Middleware Models, rejecting the full decentralization of the Fediverse. In this reading, the online platforms are separated in their hosting and moderation/curation functions. They retain their built infrastructure and are responsible for its constant improvement. Users remain on their platforms, as do the essential features that enable online speech (posting, messaging, accounts). Data collected by these platforms is also maintained on the online platforms' cloud server infrastructure, which I know to be controversial in light of new digital sovereignty concerns, now reflected in the Commission's proposal for a Cloud and AI Development Act (CADA), which seeks to reduce Europe's reliance on non-EU cloud providers[67].

Unlike the current model, in the CCM, online platforms are no longer responsible for content moderation (including taking down, downgrading, or eliminating unlawful or awful content) and content curation (ranking content according to given parameters, commercial or otherwise). In the CCM, online platforms are, above all, infrastructures,[68] but not actors of online speech. This goes beyond their physical spaces. As Kingsbury notes, 'Thinking infrastructurally typically entails understanding infrastructure not simply as a thing, but as a set of relations, processes and imaginations'.[69] This aligns with the CCM, which uses bargaining games to examine the relations, processes, and imaginations of online speech governance among users, corporations, and public actors. This infrastructure thinking comes with both advantages and disadvantages.

On the one hand, separating hosting/infrastructure from moderation relieves online platforms of an arduous and reputationally risky task. As the recent history of platform

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[66] On sharing responsibility for online content among platforms, users and public institutions, see Helberger, Pierson and Poell, 'Governing Online Platforms: From Contested to Cooperative Responsibility', 34 *The Information Society* (2018) 1.

[67] European Commission, Proposal for a Regulation of the European Parliament and of the Council establishing a framework of measures for strengthening Europe's cloud and AI ecosystem (Cloud and AI Development Act), 3 June 2026.

[68] This is in line with Kingsbury's ideas of using the concept of infrastructure to reflect a new way of addressing transnational regulatory realities. Kingsbury, 'Infrastructure and InfraReg: On Rousing the International Law 'Wizards of Is'*', 8 *Cambridge International Law Journal* (2019) 171. See also discussing the matter from a Data and AI perspective - *Thinking Infrastructurally about AI & Data Regulation* (2023), available at https://www.youtube.com/watch?v=5bXMF31xJKs (last visited 29 November 2023]. Some other authors have been advocating the idea that the online platforms should be seen as more than companies with market power or actors with an impact on online speech. Busch, for example, rejects this dualism and proposes a view that equates these as essential services such as water or electricity. According to the author — 'Unlike competition law, the regulation of network industries aims not only to ensure workable competition but also to ensure fair and universal access to essential services such as water, energy, telecommunications and postal services'. Busch, 'Digital Platforms as Infrastructure for Services of General Interest', 24 *Network Industries Quarterly* (2021). In the same line of argument see Zuckerman, 'The Case for Digital Public Infrastructure', (2020) , available at https://doi.org/10.7916/d8-chxd-jw34 (last visited 17 September 2023]. See also Krisch and Plank, 'Internet Platforms as Infrastructures of the Digital Age', 45 *Der Öffentliche Sektor* (2019) , available at http://oes.tuwien.ac.at/article/id/512/ (last visited 17 September 2023].

[69] Kingsbury, *supra* note 68. p. 179.

governance shows, moderating content is always a losing game. Making the right decision in highly contextual matters is complex and might spur outrage by specific communities or public power. If this task is transferred to the curators, this could be good for the online platforms, saving resources on many fronts. These companies could focus on creating the best user experience and redirect resources to developing new platform features. They would not need to invest as much in shaping public opinion and restoring their image after specific scandals. Content moderation (or the lack thereof) would not ultimately be their fault. Legally, however, they would not be able to step out of content moderation entirely. Under the DSA, the speech infrastructure remains the hosting service: notices of illegal content are addressed to it (Article 16), and it keeps its liability exemption only if it acts expeditiously once it knows of illegal content (Article 6).[70] In the CCM, it keeps that legal role, but it acts on the decisions taken in the common moderation floor, including by its own curator middleware, and the API infrastructure should also be used to exchange notices and takedown requests. This separation also matters for the liability exemption itself. In the 2026 *Coyote Case*, the Court of Justice of the European Union held that an operator whose algorithm determines, in its own interest or that of its service, under what conditions, how and in which order of priority stored information is broadcast exercises control over that information and will not be able to rely on the hosting exemption *even if i*t never becomes aware of that information.[71] *Prima facie,* this judgment seems to indicate that platforms whose recommender systems rank what they host in their own interest fall within that description. In the CCM, the ranking, and the control that comes with it, sits with the curators, and the infrastructure, which only stores and serves content, remains a host, which could protect them from liability in certain cases, unless they are acting as both infrastructure and curator.

On the other hand, losing content curation powers deals a strong blow to an essential part of the online platforms' business model. This is no minor obstacle, given their dependency on advertising models. This means that, in order for the CCM to be a balanced solution for the future, some sort of compensation for this separation must exist. Here, the CCM suggests revenue-sharing agreements between these online platforms and the curators as the solution. These could be voluntarily assumed or ultimately mandated by public power. Because online platforms hold a central position in online speech regulation, they will likely be unwilling to pursue such voluntary agreements without a pre-existing framework to guide negotiations with curators. This negotiation process should then abide by reasonable, non-discriminatory, and transparent rules, often called FRAND obligations.

Although no exact definition was ever settled for the term,[72] these FRAND obligations are not new. They have been widely used in many scenarios, from patents to transport to energy or

[70] The DSA keeps the liability exemptions of the eCommerce Directive and adds, on top of them, accountability for how services design and run their systems. See Husovec, 'Rising Above Liability: The Digital Services Act as a Blueprint for the Second Generation of Global Internet Rules', 38 *Berkeley Technology Law Journal* (2023) 883; M. Husovec, *Principles of the Digital Services Act* (2024).

[71] Court of Justice of the European Union, *WebGroup Czech Republic and Others and Coyote System*, C-188/24 and C-190/24, 16 June 2026, EU:C:2026:492, paras 110–113. The Court's interpretation of the eCommerce Directive is that the criteria for knowledge and control should be treated as 'alternative to and independent of each other' (para. 110): it is 'by means of the algorithm used' that the operator exercises control (para. 111), unless the algorithm goes no further than 'the mere categorisation and indexation of information for the purpose of improving its accessibility' (para. 112). The judgment interprets Article 14 of the eCommerce Directive, but I am of the opinion that such interpretation should directly apply to Article 6 DSA, as this incorporates the same definition of hosting and recital 18 DSA keeps the same two-step test: no exemption for a provider that plays 'an active role of such a kind as to give it knowledge of, or control over, that information'.

[72] Making sense of the concept and proposing some operational guidelines from jurisprudence see Layne-Farrar, Padilla and Schmalensee, 'Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of Frand Commitments', 74 *Antitrust Law Journal* (2007) 671.

telecommunications.[73] In their original context, FRAND obligations aimed to confer access to standard-essential patents to other market players[74] while preserving the rights of the original patent-holder and its due market power for having discovered the product. These FRAND obligations are also widely used as competition law remedies to restore market equilibria when a dominant player abuses its power.[75] However, they can also be voluntarily used as a market benchmark to achieve agreements between the dominant player and new entrants. For example, one could use the framework set out in *Huawei v ZTE (C-170/13, 16 July 2015)*[76] on the matter.[77] Under this jurisprudence, the online platforms and the curators could bargain by offering and counter-offering royalties until reaching a price zone of agreement for this access. They could also and ultimately ask an independent third party to assess the due share to be paid if no agreement was reached.

Using these FRAND obligations as a potential solution for the business aspect of the CCM is also in line with the EU's latest legislation on the Digital Single Market. These types of obligations constitute the backbone of the Data Act[78] (Regulation (EU) 2023/2854, Article 8(1)), as well as the DMA (Article 6(11) and (12)).[79] The DMA, for example, imposes FRAND terms when addressing general conditions of access for business users to software application stores, online search engines, or online social networking services (Article 6(12)); Article 6(11) adds FRAND access to search ranking, query, click and view data and applies the same logic to ranking and indexing (Article 6 (5)). The same rationale could be easily extended to providing access to the curators, using the same logic to reach FRAND revenue-share agreements.

However, suppose the online platforms fail to respect these FRAND obligations. In that case, the DMA itself provides for their enforcement, through specification proceedings (article 8 DMA), non-compliance decisions and fines (articles 29 and 30 DMA) and, in market investigations, binding commitments (article 25 DMA), and the Commission could ultimately assess if the agreement achieved ensured the balance between rights and obligations, namely that the speech infrastructure does not have a disproportionate advantage (article 8(8)). The same proportionality idea is present in the Data Act, 'Any compensation agreed upon between a data holder and a data recipient for making data available in business-to-business relations shall be non-discriminatory and reasonable and may include a margin' (Art. 9(1)). The framework is already in place. It could simply be leveraged for this new end.

Moreover, there is precedent for this approach in other areas of current EU policymaking. For example, in transport, data sharing structures and mandatory FRAND obligations are being

[73] Contreras, 'A Brief History of Frand: Analyzing Current Debates in Standard Setting and Antitrust Through a Historical Lens', 80 *Antitrust Law Journal* (2015) 39.
[74] Lerner and Tirole, 'Standard-Essential Patents', 123 *Journal of Political Economy* (2015) 547.
[75] Hovenkamp, 'FRAND and Antitrust', 105 *Cornell Law Review* (2020) , available at https://www.cornelllawreview.org/2020/09/15/frand-and-antitrust/ (last visited 16 July 2023].
[76] The Huawei/ZTE judgment put to rest conflicting views expressed by the Commission press release on *Samsung* (COMP/C-3/39.939) and *Motorola* and the German original concept in *Orange-Book Standard* (Az. KZR 39/06). Discussing the matter Galli, 'The FRAND Defense up to Huawei/ZTE Law and Business: Profiles of European Law', 7 *Bocconi Legal Papers* (2016) 155. For the jurisprudence/administrative action, see EU. Commission, Motorola – Enforcement of GPRS standard essential patents, 39985, 29 April 2014. EU. Commission, Samsung – Enforcement of UMTS Standard Essential Patents, 39939, 29 April 2014.
[77] Criticizing the Court for its conservative decision, see Petit, 'Huaweï v. ZTE: Judicial Conservatism at the Patent-Antitrust Intersection', 10 *CPI Antitrust Chronicles* (2015) , available at https://papers.ssrn.com/abstract=2681377 (last visited 13 February 2023].
[78] Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data (Data Act).
[79] Comparing the different EU law regimes see Habich, 'FRAND Access to Data: Perspectives from the FRAND Licensing of Standard-Essential Patents for the Data Act Proposal and the Digital Markets Act', 53 *IIC - International Review of Intellectual Property and Competition Law* (2022) 1343.

proposed to ensure equitable access to data for middleware players in transport, like content aggregators (e.g., Amadeus), online travel agencies (e.g., eDreams) or metasearch engines (e.g., Google Travel or Skyscanner).[80] The situation there is analogous to our online speech environment. Like the online platforms, the prominent transport companies in air, rail, or land have secured enormous amounts of data and are unwilling to share it lightly with middleware companies unless there is a relevant gain. In aviation, for example, a market equilibrium has been progressively achieved, in which airlines voluntarily share flight data with aggregators and online travel agencies. However, even in that situation, problems often arise regarding the terms of sharing, which data, and under which conditions.[81] In rail, the situation is worse, with interoperability and data-sharing significantly reduced, and an intermediary market for rail booking never truly took off.[82]

In these delicate cases, the exact terms of the FRAND obligations could be imposed by the EU agency responsible or directly by the European Commission under competition policy. In the Microsoft case, for example, the discussion arose as to how much Microsoft should be entitled to receive in compensation for other undertakings accessing parts of its systems' information. In *Microsoft,* the General Court (at the time First Instance Court) concluded that the interoperability conditions imposed should be reasonable and non-discriminatory but could nonetheless 'be adapted to the specific situation of each of those undertakings and vary, for example, according to the extent of the information to which they seek access or the type of products in which they intend to implement the information'.[83] This flexibility is also discussed in more traditional intellectual property cases, and some authors discuss how detailed the obligations should be. Indeed, depending on the speech infrastructure and the curator at hand, FRAND obligations could work best as a rule or a standard, and both lead to different trade-offs.[84]

Besides proportionality-based obligations (fairness) regarding the revenue-sharing agreements, mandatory FRAND obligations could also impede the online platform from prioritizing one curator over another, hence avoiding distortion of competition between curators. Their APIs with the curators would have to be neutral regarding whom the data is shared, with one exception, analyzed below (the NGO exception). Likewise, should the online platforms wish to develop their own curator offers – which should be possible in principle – prohibitions of self-preferencing[85] like article 6 (5) DMA or the provisions of the Platform-to-Business Regulation[86] would need to apply. While they could continue to offer

[80] See the original Code of Conduct for Computerised Reservation Systems, which is now under revision - Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for Computerised Reservation Systems and Repealing Council Regulation (EEC) No 2299/89 (Text with EEA Relevance), OJ L, vol. 035, 14 January 2009. See the current public consultation for a Multimodal Digital Mobility Services initiative at *European Commission - Have your say*, 2 November 2021, European Commission - Have your say, available at https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13133-Servicos-de-mobilidade-digital-multimodal_pt (last visited 13 February 2023].

[81] 11th Florence Intermodal Forum, supra note 39.

[82] J. J. Montero-Pascual, M. Finger and F. M. De Abreu Duarte, *Creating a Common European Mobility Data Space* (2023), available at https://cadmus.eui.eu/handle/1814/75349 (last visited 16 February 2023].

[83] General Court, *Microsoft Corp v Commission of the European Communities*, Case T-201/04, 17 September 2007, available at https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:62004TJ0201 (last visited 16 February 2023]. Para. 811.

[84] N. Petit and A. Leonard, Frand Royalties: Rules v Standards?, 4226927, 22 September 2022.

[85] Peitz, 'The Prohibition of Self-Preferencing in the DMA', Issue Paper *Centre on Regulation in Europe (CERRE)* (2022) , available at https://cerre.eu/wp-content/uploads/2022/11/DMA_SelfPreferencing.pdf (last visited 13 February 2023].

[86] Regulation (EU) 2019/1150 of the European Parliament and of the Council of 20 June 2019 on promoting fairness and transparency for business users of online intermediation services. A discussion would arise as to whether the Regulation's scope would capture this novel Curators' reality. I would argue that the middleware companies would fall within Article 2, (2), including 'they allow business users to offer goods or services to consumers, with a view to facilitating the initiating of direct transactions between those business users and consumers, irrespective of where those transactions are ultimately concluded'. Just as most intermediaries, these companies are dependent on the bigger platform infrastructure to achieve their economic objectives. They should be protected in the same way tourism, cultural or transport intermediaries are currently.

their own curation solutions, this would prevent X, for example, from slowing down data access to competitors while prioritizing its own curator solution. A true competitive curators' market must arise for the CCM to be viable, which cannot be conditioned by the original incumbents from the outset.

Revenue-sharing agreements between the two players could therefore be based on principles, but the specific numbers should not be regulated in detail. According to the specific players at hand, different economic equilibria will arise, and contractual bargaining flexibility should be allowed for the online platforms to achieve the best deal possible. This is the significant advantage of creating a true market for online speech curation.

b) Curators – Layer 2

The second layer of the CCM replicates the Middleware model and introduces a commercial layer of companies called the Curators. These companies interact through APIs, allowing curating applications to curate and moderate existing user-generated content. This means that content posted on Meta, X, or Instagram, as well as Google or Bing search results, could remain with their original hosts but be processed, moderated, and ranked according to the curators' software. The end-user would continue to access the platforms/search engines just as before but could now tick a box and have their feed curated according to different criteria, depending on the curator selected. Due to the nature of an API, no data transfers from the speech infrastructure to the curators' app are required — only data processing to provide content moderation and curation.

Now, this last point assumes that curators are responsible for content curation *and* moderation. While the classic middleware hypothesis focuses mostly on different and competitive curation options, the CCM also delegates content moderation to these applications, which run it together as a common floor. This has clear advantages in regulatory terms.

First, by clearly identifying who is responsible for content moderation and separating it from the infrastructural parts of the platform business, public power could enforce content rules without jeopardizing the financial viability of the place of gathering. Targeting these companies' content moderation procedures will affect the curators' business. However, it will arguably not have side effects on the viability of the entire community (which depends on the speech infrastructure to gather). Because these curators' business is *solely* moderating and curating, they will be better able to adapt to regulatory dynamics and make the necessary investments in compliance. Public power could then, in this scenario, focus on standardizing rules for content moderation, setting red lines beyond the procedural solution that the DSA currently offers. This is because the balance between the sustainability of the business, fundamental rights, and freedom of expression is different, especially considering that the sole purpose of the curator's existence is to do just that.

Secondly, in this CCM model, if a particular curator fails to moderate properly, public power can easily exclude it from the market, namely by removing its certification/license as a curator (explained in detail below). As there are many competing companies in the curation market, this will again not completely disrupt online speech among speech infrastructures. Users will continue to be able to access the community and choose other curation solutions without a significant market disruption akin to 'breaking up' a major online platform.

Thirdly, because all curator apps will have a strong incentive to achieve the best content moderation possible – as it is the basis for their curation businesses – they will be keen to share information, creating a content moderation system that could save resources for all curators involved. In such a system, content moderation will no longer be centralized but instead distributed, with all curators contributing to the best possible hash database and informing one another. Specific hate speech campaigns, or even disinformation campaigns, could be identified by NGOs or public agencies and communicated directly to the curators' layer via the EU agency. This would, I argue, ensure that content moderation was effectively addressed in all nodes, regardless of the chosen curator. In this scenario, the obvious question arises as to who would abide by the due process mandates of the DSA and the general idea of the 'publicization of corporate power'. Very practically speaking, this is to ask who will engage with the user once a particular piece of content is flagged as breaching community rules. Here, the procedure should stay with the original decision maker/enforcer: the curator. The API would allow the user to continue to use the online platform's infrastructure to flag, discuss, and appeal, but the other side of the due process procedure would be the curator. Importantly, because all curators will abide by the same rules in terms of content moderation and have all the same incentives to keep illegal content at bay from the online platforms' infrastructures, one could even conceive a centralized system for content moderation procedures, which would be fed by the distributed work of all curators. This centralized 'complaints center' would be responsible for conducting all content moderation requests and appeals, regardless of the specific curator who makes the decision. One could go as far as to think of Meta's Oversight Board being extended to become an actual Supreme Court for Online Speech. Something close to this now exists.[87]

Obviously, this type of large-scale content moderation is costly, and the curators' layer's sustainability must also be ensured. Here, the CCM suggests distinguishing between two different types of curator apps: i) for-profit and ii) non-profit.

The for-profit curators will find their financial sustainability similar to the original online platforms, namely advertisement revenues or subscriptions. The existence of a competitive market for algorithms will open exciting novel avenues for advertising. Some curators could specialize in specific domains, like sports, gaming, or literature, and find their niches in terms of advertisement. Sellers will also rejoice with this, efficiently segmenting who is willing to have their feeds curated according to the specific needs they serve and being able to inject product advertisement in those specific feeds. As mentioned above, a part of this revenue would be shared with layer 1 (Speech Infrastructures), rewarding them under FRAND terms for their centralization of data and users. Nonetheless, this could become a very profitable business for any curator app. The risk is that users choose the most engaging curators and that curators then compete on profiling, rebuilding the incentives of today's platforms.[88] Certification could guard against this by favoring contextual advertising and subscriptions over advertising based on profiling.[89] Concerning data access, these for-profit curators should be able to access publicly available data only. If a certain user chooses to publish a

[87] The Oversight Board Trust set up Appeals Centre Europe, which Ireland's Coimisiún na Meán certified in 2024 as an out-of-court dispute settlement body under Article 21 DSA, and which hears users' appeals against the decisions of several platforms. Bodies of this kind could serve as the appeal tier of the common floor.

[88] Ranking by engagement responds only to what users reveal through clicks, time spent and shares, not to everything they value. See Lorenz-Spreen et al., 'How Behavioural Sciences Can Promote Truth, Autonomy and Democratic Discourse Online', 4 *Nature Human Behaviour* (2020) 1102; T. Cunningham, 'Ranking by Engagement' (8 May 2023), https://tecunningham.github.io/posts/2023-04-28-ranking-by-engagement.html.

[89] Work on ranking that does not optimize for engagement could inform these criteria: see Knight-Georgetown Institute, *Better Feeds: Algorithms That Put People First* (2025); Weyl et al., 'Community by Design' (2026), arXiv:2502.10834 (first circulated as 'Prosocial Media', 2025); People vs Big Tech and Panoptykon Foundation, *Prototyping User Empowerment: Towards DSA-Compliant Recommender Systems* (2023).

post or tweet for a restricted audience, that data should not be made available to the curating for-profit companies. Now, the problem with this decision has already been identified by Daphne Keller[90] and relates to content moderation. Much illegal or lawful but awful content (e.g., vaccine disbelief) happens in closed groups behind content moderation control. If curators cannot access that data, how are they supposed to properly content-moderate? Part of the solution may lie in the second type of curators the CCM proposes.

The non-profit curators would be primarily responsible for content moderation. While it is not obvious why this layer could not also engage in content curation (e.g., prioritizing the most reliable news, providing fact-checked reliable health information, sponsoring governmental information, etc.), its key role would be to establish a safety net for all content moderation. These NGOs could be responsible for constantly finding illegal speech campaigns or disinformation initiatives and could be funded directly by for-profit curators, speech infrastructures, or public actors. Many do that already, like Avaaz,[91] without extensive data access that would make their work much more efficient. Additionally, cooperation already formally exists under the Code of Conduct on Disinformation, part of the DSA framework since July 2025,[92] with NGOs, platforms, and public actors sharing information on disinformation campaigns. Whether these NGOs, unlike for-profit curators, should also access private data is the open question set out above. Such access would allow a widespread flagging of illegal and lawful but awful speech, which often spreads among private groups.

Whatever the answer on private data, these non-profit curators would have to be carefully accredited and monitored. An important role for the newly created agency (see the next layer) would be to ensure that all curators have advanced data protection schemes in place. These would necessarily include adopting data mitigation and compliance strategies in line with GDPR best practices. The EDPB and data protection agencies from these curators' countries of incorporation could also help the agency secure this task by enacting general guidelines. Likewise, public service media could form a distinct group of non-profit curators. Publicly funded broadcasters already select and present news under a duty of pluralism, and EU law already allows Member States to ensure the prominence of audiovisual media services of general interest (Article 7a AVMSD).[93] A curator run by a public broadcaster, offered alongside commercial ones, would give users a pluralistic option that does not depend on advertising.

The accountability that the Administration Model suggests via the DSA, for example, in terms of algorithmic transparency and ad transparency, could also play a key part in this layer. Like the obligations that targeted the online platforms, both types of curators should be subject to the DSA's most extensive transparency and due process rules (VLOPs and VLOSEs rules). This would include algorithmic transparency or clear and unambiguous terms and conditions for their content moderation/curation actions. The same APIs that were used to connect online platforms and curators could now be used for vetted researchers for research purposes, under Article 40 DSA and the delegated act on data access adopted in July 2025. All using existing rules and procedures.

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[90] Keller, *supra* note 30.
[91] *Avaaz Disinformation Hub*, Avaaz, available at https://secure.avaaz.org/campaign/en/disinfo_hub/ (last visited 26 September 2023].
[92] 2022 Strengthened Code of Practice on Disinformation, 16 June 2022.
[93] On must-carry and prominence obligations for online platforms, and on the privileges that Article 18 of the European Media Freedom Act now gives media service providers on very large online platforms, see Kuczerawy and Quintais, '"Must-Carry", Special Treatment and Freedom of Expression on Online Platforms: A European Story', 5 *European Law Open* (2026) 68.

In this manner, the DSA could be strongly reinforced, a mix between the Administration and Fediverse Models, as its enforcement would have concrete targets that would have every reason to comply with the rules under the threat of loss of accreditation.

c) The Agency – Outside Layer

The strongest innovation of the CCM is the establishment of an agency as part of the online speech regulatory architecture. This agency represents public power, but it should be independent of the legislative or executive branches. It is an important point of regulatory control over all the different actors involved in the CCM.

'Agencification' and the idea of regulating product safety is far from new in the EU. The so-called 'New Approach'[94] has existed since at least the 1980s in legislation such as the Toy Safety Directive.[95] This approach also lies today at the core[96] of the AI Act (Regulation (EU) 2024/1689)[97] and inspired the AI Liability Directive proposal, which the Commission decided to withdraw in 2025. The idea of that approach is to enable the 'free movement of goods on condition that a manufacturer guarantees that they are safe'. This type of governance mechanism also aligns with a new wave of governance structures of the most relevant pieces of online regulation, such as the GDPR, the DSA, the DMA, or the AI Act. Those pieces of legislation have complex governance architectures in which Member States nominate competent authorities, and those authorities then gather in transnational boards (e.g., GDPR's European Data Protection Board, DSA's European Board for Digital Services, or the European Artificial Intelligence Board). Those competent bodies decentralize public control and focus on subsidiarity and local enforcement, while the board ensures consistency and coherence among all Member States. The AI Act also speaks of 'national competent authorities' (article 70) but takes this governance a step further by introducing product liability reasonings.[98] According to that Act, some AI products qualified as 'high-risk' will be submitted to an *ex-ante* conformity assessment (article 43) performed by certified third parties (conformity assessment bodies) under specific criteria (article 31) and a procedure (Chapter III, Section 5). This will ultimately certify certain AI products as safe EU-wide (article 48) for a maximum of four or five years, depending on the category of system, albeit renewable (article 44). Some authors have recently applied it in the field of digital public procurement, proposing an *ex-ante* control of transparency to be exercised by an independent public body.[99]

A similar reasoning could, in my view, apply to the curators' apps. This is precisely because, under the CCM, one can focus regulation on the AI product rather than on the company or market power. What matters is *how content moderation/curation is done* more than if the company is a monopoly or not. These companies use mostly AI products, after all, to moderate and curate users' content. Before deployment, these products could be subject to a conformity assessment to ensure compliance with existing rules on transparency, data protection, and speech redlines (e.g., on terrorism, copyright, hate speech, and so on). This

[94] European Commission, Completing The Internal Market: White Paper From The Commission To The European Council, COM(85) 310, 1985.
[95] Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the Safety of Toys (Text with EEA Relevance), OJ L, vol. 170, 18 June 2009.
[96] M. Almada and N. Petit, The EU AI Act: Between Product Safety and Fundamental Rights, 20 December 2022.
[97] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules On Artificial Intelligence (Artificial Intelligence Act) And Amending Certain Union Legislative Acts, 2021.
[98] European Commission, Proposal for a Directive of the European Parliament and of the Council on Adapting Non-Contractual Civil Liability Rules to Artificial Intelligence (AI Liability Directive), 2022.
[99] A. Sanchez-Graells, *Digital Technologies and Public Procurement: Gatekeeping and Experimentation in Digital Public Governance* (Oxford University Press 2024).

conformity assessment should be conducted *ex-ante* and should look at the curators' terms and conditions[100], ensuring that the app is fit to curate online speech in the EU. At the same time, this kind of certification provides users with confidence on those products even before they try them, giving them a new layer of product safety often lacking in this kind of platforms.[101] Similar to the AI Act, this conformity assessment could be performed by certified third parties – which apply either at the national level with a competent national authority or at the EU agency level.

Due to the highly technical dimensions of some of these Curator applications — and to ensure that the process is expedited and does not introduce go-to-market distortions — my suggestion would be to decentralize and follow the AI Act for conformity assessment. This would mean curators would apply for certification directly at their Member State of incorporation and would be assessed by certified third-party bodies from each Member State, per the Member State's national authority. Such a conformity assessment should also be limited in time, with a specific expiry date that forces both curators and authorities alike to routinely check and apply for their certification. The agency should itself be accountable, following the contemporary tradition of modern administrative transparency.[102] This means this agency should observe due process requirements when dealing with prospective curators, justify its decisions when assessing applications, and provide for venues of judicial appeal in cases of disagreement.

Such *ex-ante* control would likely not be enough to protect users in the online speech environment. A curator could initially comply and slowly degrade its AI systems in a way that no longer complies with the strict requirements. It is important that continuous control is exercised and *ex-post* measures are put in place. Once again, the mechanisms for this are already in place. The DSA provides extensive control mechanisms that could be used for the curation layer. For example, curators should submit public content moderation transparency reports (articles 15 and 42 of the DSA) detailing their activities and the reasoning for their content moderation actions. Likewise, they would continue to justify individual actions according to the DSA's due process requirements. Curators should also be subject to the independent audits of Article 37 DSA at their own expense and at least once a year. These audits could ensure compliance with the DSA and that the conformity assessment criteria are maintained. The continuous certification as a Curator should depend on this.[103]

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[100] Article 14(4) DSA already requires providers to apply their terms with due regard to fundamental rights; on how far that reaches, see Quintais, Appelman and Ó Fathaigh, 'Using Terms and Conditions to Apply Fundamental Rights to Content Moderation', 24 *German Law Journal* (2023) 881.

[101] Akerlof, 'The Market for "Lemons": Quality Uncertainty and the Market Mechanism', 84 *Quarterly Journal of Economics* (1970) 488; on qualities that cannot be verified even after consumption, Darby and Karni, 'Free Competition and the Optimal Amount of Fraud', 16 *Journal of Law and Economics* (1973) 67. Husovec applies the same reasoning to the quality of online content: Husovec, 'The Missing Link: How New Institutions Could Improve What We Read Online', 46 *Oxford Journal of Legal Studies* (2026) 624, at 628.

[102] M. Bovens, D. Curtin and P. 't Hart, *The Real World of EU Accountability: What Deficit?* (2010); Curtin, 'Holding (Quasi-)Autonomous EU Administrative Actors to Public Account', 13 *European Law Journal* (2007) 523; Curtin, Hofmann and Mendes, 'Constitutionalising EU Executive Rule-Making Procedures: A Research Agenda: Constitutionalising EU Executive Rule-Making Procedures', 19 *European Law Journal* (2013) 1.

[103] There are obvious risks of a certification scheme such as the one I propose. Licensing curators before they reach the market can be framed as disproportionate encroachment on both freedom to conduct business and freedom of expression. However, it is far from new. Article 10(1) of the European Convention on Human Rights expressly allows States to require the licensing of broadcasting, television, or cinema enterprises, and curators, which select and order what users see, perform a function close to that of a broadcaster. The licensing criteria, however, should be limited to legality, transparency, and process, and should never assess the viewpoints a curator favors. The Council of Europe has long recommended that intermediaries playing a curatorial or editorial role, including through algorithms, be met with an approach that is 'graduated and differentiated': Recommendation CM/Rec(2011)7 on a new notion of media (21 September 2011), para. 7; Recommendation CM/Rec(2018)2 on the roles and responsibilities of internet intermediaries (7 March 2018), Appendix, para. 1.3.9. Its 2026 Recommendation adds that third-party tools for organizing, curating and moderating content 'may be subject to certification': Recommendation CM/Rec(2026)4 on online safety and empowerment of users and content creators (8 April 2026), Appendix, para. 73. The European Court of Human Rights has also recognized that a platform's choice of what content it is prepared to host is protected by Article 10: Google LLC and Others v Russia, App no 37027/22, 8 July 2025, paras 90–92. A lighter alternative is certification by peers rather than

This agency could, of course, be created *ex-novo*. However, I would argue for the repurposing of existing institutions, hence avoiding institutional proliferation and complexity. An obvious candidate to exercise these new duties would be the European Board for Digital Services, which could continue to centralize the different digital coordinators and simultaneously serve as the last resort competent agency for curators' certification. The digital coordinators (competent national authorities according to the DSA) should perform the duties of curator's conformity, certifying the third-party bodies responsible for issuing the conformity certificates. Another potential candidate would be a reinforced EDMO, a tailor-made body with vast experience in online speech and disinformation matters.[104] Another potential candidate would be the new European Centre for Algorithmic Transparency (ECAT), although this would grant considerably less independence to the decisions enacted.[105] A further candidate is the European Board for Media Services, established in February 2025 under the European Media Freedom Act, which brings together national media regulators and whose remit extends to online platforms.

d) Users – Layer 3

Users represent the last layer of the CCM. During the last twenty years of social web, users have been seen as clients/consumers of online speech governance, having a voice solely by either flagging individual pieces of content (content moderation) and/or abandoning the platforms (and losing their communities). Such a position, however, has proven to be weak in the face of the strong regulatory power of both corporate and public actors. In terms of the bargaining game, it is safe to say that individuals never played at the same regulatory level.

The CCM radically changes this. Users become active market players, with online curation being the commodity at stake. They will be able to select which curators to use to shape their online expression, all while continuing to benefit from the same platforms and communities they have built for over a decade. The CCM solution allows them to regain ownership over their data, not through property or possession like some other solutions advocate,[106] but through choice. In this sense, we truly see these data choices as a form of capital and its user control as a key dimension of equality.[107] This solution transforms the user-agency of the Fediverse Model into consumer-agency and market-choice. Users can decide if Curator X should use their data to continue providing a certain algorithmic service or if it is not worth their money. The best curation algorithms will likely compete over market control in existing online platforms, all while a robust array of curators will jointly work to keep a clean network. If a curator fails to provide a good product, then user-consumers will stop using it.[108] If a curator allows the spread of hateful content or is politically motivated, its certificate would be revoked, and it would no longer be able to operate in the European market.

Moreover, on a day-to-day basis, users will continue to benefit from the procedural guarantees of the DSA. The same exact transparency and accountability mechanisms would now simply point toward a different type of actor. In addition, because they cooperate in

by the State, as in Husovec's trusted content creators, whose labels would work as certification marks: Husovec, 'The Missing Link: How New Institutions Could Improve What We Read Online', 46 *Oxford Journal of Legal Studies* (2026) 624, at 648–651.

[104] *EDMO – United against Disinformation*, available at https://edmo.eu/ (last visited 17 July 2023]. Brogi and Bleyer-Simon, 'Disinformation in the Perspective of Media Pluralism in Europe – the Role of Platforms', (2021) 531.

[105] This is because the ECAT is not really an agency but rather a department hosted by the Joint Research Center, working closely with the Directorate-General for Communications Networks, Content and Technology (DG CONNECT).

[106] On data as a tool for governing others, rather than as an object of transactions, see the classic work by Pistor, 'Rule by Data: The End of Markets?', 83 *Law and Contemporary Problems* (2020) 101.

[107] Fisher and Streinz, 'Confronting Data Inequality', 60 *Columbia Journal of Transnational Law* (2022) 829.

[108] Competition has done this for traditional press, where rival outlets keep each other more accurate: Gentzkow and Shapiro, 'Competition and Truth in the Market for News', 22 *Journal of Economic Perspectives* (2008) 133.

moderating content and a centralized content moderation procedure exists (regardless of the curator at stake), there will be gains in terms of speed and redress. The quality of content moderation overall will increase with a better standardization of online speech redlines. Together with this centralization of content moderation, a centralization of dispute settlement mechanisms will likely follow. A new 'Supreme Court' for content moderation — away from any online platform or specific curator — could be created to hear users' appeals. Otherwise, a decentralized approach would likely work as well, and the out-of-court dispute settlement bodies created by the DSA (Article 21) would continue to hear users' appeals. In any event, users retain the best part of the current 'administrative' procedures of the DSA.

In fact, from the point of view of users' protection, the CCM could be the most protective of all models from a rule of law perspective. In the CCM, users become stakeholders who decide which companies thrive and which do not, all while knowing that those products might be good or bad at curating online speech, but they are all safe. This configures the ultimate change that a new regulatory equilibrium ought to bring — true user empowerment through market choice. Beyond voicing concerns, without breaking up successful online platforms, with agency and Rule of Law guarantees, the CCM crafts a delicate balance between all players of the bargaining game.

4) Conclusions

My argument is that an adaptation of the Middleware solution crafts the best possible balance for the governance of online speech, sharing the burden of content moderation and curation among many different layers of action.[109] By introducing the novel concept of certified curators, this paper ultimately concludes that a marketplace of online speech curation/moderation can constitute the best possible future for user empowerment. Instead of asking users to police networks on a case-to-case basis or develop technically complex decentralized communities, the Curators Model provides a simpler solution.

Users could and should be empowered to do what they know best: select between products they like and use market pressure to shape the best possible speech environment for their interests. While these can *prima facie* look just like the risks of the Fediverse, the injection of a public power layer (the Agency layer) ensures that such market choices are predetermined to constitute a universe of limited but safe algorithmic products. This solution aligns well with the most recent EU legislation on Data and Artificial Intelligence, precisely treating technology as a product that can be certified and regulated under strict criteria. In this regulatory equilibrium, users become true consumers, jumping from curator to curator without losing their hard-won communities in classic gatekeepers such as Facebook, X, Instagram, or YouTube. While their experiences change and shape according to the curator at hand, their infrastructural experience remains the same: same feeds, same messages, same connections, same accounts. Except, all safe.

[109] This disperses the curatorial power that platforms now concentrate, in line with Baker's democratic principle that communicative power be spread as widely as practicable: C. E. Baker, *Media Concentration and Democracy: Why Ownership Matters* (2007) 7, 16. On the strengths of governance by many centers rather than one, see the classic work by Ostrom, 'Beyond Markets and States: Polycentric Governance of Complex Economic Systems', 100 *American Economic Review* (2010) 641.

The obstacles to achieving this solution are, of course, numerous. I have acknowledged them and debated them above. They range from market viability to technical feasibility, from the players' willingness to cooperate to public power's will to change the *status quo.* However, just because they are complex, they should not stop us from discussing and proposing new alternatives. In the current moment in which so much is changing in online expression, the time has finally come to bring individual users to the forefront of online speech governance. We should urgently rethink online speech regulation and adopt a complex lens to its analysis. More than readapting existing models or administrative comparisons, we ought to think outside of the box, placing individual users at the forefront, giving them both choice and control, all without forcing them to abandon the communities they built and love.