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**Secrétariat général
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Réf. : SGAE/MINUM/2023/359

Paris, le 15 juin 2023

Objet : Note des autorités françaises relative à la consultation de la Commission concernant la mise en œuvre de l'article 40 (Accès aux données et contrôle des données) du règlement (UE) 2022/2065 relatif à un marché unique des services numériques.

French authorities are responding to the European Commission's call for evidence on its Delegated Regulation on data access provided in the Digital Services Act, based on the technical and research experience of PEReN¹, their Center of Expertise for Digital Platform Regulation. PEReN provides support to French state administrations, who require technical guidance and tools to address issues related to the regulation of digital platforms. PEReN is also a public research center, where exploratory and scientific studies are conducted in order to contribute to the state of the art on open questions related to digital platforms. For the legal framework, please refer to the texts of law on our website <https://www.peren.gouv.fr/en/> and to the French national directory of research organizations <https://appliweb.dgri.education.fr/rnsr/> compiled by the French Ministry of Higher Education, Research and Innovation.

Data access is a core element to reach meaningful transparency of Very Large Online Platforms and Very Large Online Search Engines (hereafter VLOPs/VLOSEs). The successful implementation of the requirements of the Digital Services Act (hereafter DSA) is contingent on finding an efficient mechanism for data access, inclusive of the diverse types of pertinent data, information, related documentation and the heterogeneity of concerned actors in terms of methodology and fields of study.

This feedback on data access will mainly draw upon PEReN's past and current exploratory projects on algorithmic systems and expertise in deep learning models. We make in what follows a series of recommendations that we explain further in the document.

1 Pôle d'Expertise de la Régulation Numérique

Recommendation #1: Data access should be defined in light of three broad categories of data (1) publicly detectable data, which in principle could be scraped from a given online platform, (2) non-detectable data, which refers to intermediate or internal data, only available to platforms and (3) metadata, which refers to description or information about the data. For an effective analysis of the impact of the many algorithmic models very likely used by online platforms (e.g. recommender systems, algorithmic content moderation systems and online advertising systems, etc) and their associated systemic risks, all categories of data should be made available through standardized and stable APIs.

Recommendation #2: For a comprehensive study of potential systemic risks, it should be possible to study every model (or system of models) currently deployed by the VLOPs/VLOSEs that has any interaction with users, or whose output has any impact on users or the content posted by users. This process should be possible in a timely matter and platforms should make available one model-API, standardized and stable, per deployed model or system of models.

Recommendation #3: Ensuring a simplified and objective Data Access Application and Procedure is essential for an effective implementation of the provisions of Article 40. The procedure, by design, should alleviate the drawbacks of already existing data access applications to have access to official VLOPs/VLOSEs' APIs. Access should be cost free, should not be granted selectively and should not unfairly exclude any actors.

Recommendation #4: An independent advisory mechanism could help in overcoming unfair and selective procedures and facilitate the flow of publicly available data access applications.

Recommendation #5: VLOPs/VLOSEs must clearly list the different types of data that researchers may have access to and provide well-documented APIs to facilitate data access.

Recommendation #6: Promote the use of existing open-sourced tools developed by the research community and other public entities (e.g. PEReN² in France) as off-the-shelf solutions to analyze the collected data.

1. Data Access Needs

Data access should be defined in light of three broad categories of data:

1. Publicly detectable data, which in principle could be scraped from a given online platform;
2. Non-detectable data, which refers to intermediate or internal data, only available to platforms;
3. Metadata, which describes and gives information about other data.

For example, any posted content that is publicly visible belongs to category (1) data, whether the content is being down-ranked or not is a boolean variable which belongs to category (2) data. Publicly detectable data is both the uppermost of numerous layers composing VLOPs/VLOSEs. These data are also the result of a wide range of algorithmic decisions that shape user-platform interactions and most of these decisions are very likely to be the output of deep learning models or systems of models. Hence, for an effective analysis of

2 See for instance our open-sourced projects online: <https://code.peren.fr/peren/>

the impact of the many algorithmic models all three categories of data are required.

We will outline in what follows, what we believe should be the data needed in order to investigate platforms' algorithmic systems.

Category 1: Publicly detectable data (e.g. a post or a video)

This category of data corresponds to publicly visible content. In principle it could be scraped, but legal considerations and technical obstacles both limit researchers' ability to retrieve and analyze these data. Hence, these data should be available through (publicly available content) APIs created and maintained by each platform. They should be free and not limited in number of requests under the limit of 10% of the total publication flux. As example, we can refer to the Twitter (publicly available content) API that gives access to the tweets being published in real time.

Moreover, platforms should,

- Explain and provide information about the choices made to include or exclude content from their (publicly available content) APIs: does the output correspond to the output returned to a user with an empty search history ? How are the results sampled ?
- Enrich (publicly available content) APIs with an endpoint to study personalized results (logged-in persona, specific browsing history or cookie payload).
- Enrich (publicly available content) APIs with an endpoint to retrieve random samples of publicly visible content, so that it can be used as a control when conducting statistical tests about algorithmic systems.
- Allow researchers to scrape in reasonable amounts and respectful of privacy the publicly available interface to overcome potential limitations of the existing infrastructure.

Category 2: Non-detectable data (e.g. the decision to down-rank a post or a video)

To assess potential systemic risks posed by VLOPs/VLOSEs, their actions that affect users need to be analyzed and, hence, the models behind these actions need to be studied. We suggest that platforms would allow access to their models (or systems of models) by the means of a model-API. The model-API will take the needed inputs to perform its decision and return an output. For example, a sentence would be given to the model-API and the decision of flagging it or not will be the output. This enables researchers to perform input/output testing without disclosing the full model and potentially sensitive information (personally identifying information, business, etc.).

Every model (or system of models) deployed by the VLOPs/VLOSEs that has any direct interaction with users, or whose output has any impact on users or the content posted by users, should be object of investigation and research studies via its standardized model-API. VLOPs/VLOSEs will have to commit to keeping all model-APIs up to date with their respective deployed models. A statistical comparison of the model-API's output and data present on the platform will assure statistical compatibility. The VLOPs/VLOSEs will be asked to produce enough documentation for the model-APIs to be comfortably used by regulators and

the research community. Similarly to the previously mentioned APIs (for publicly available data), upper-bound quotas of the model-APIs should be consistent with the statistical needs for reproducible research.

Given the complexity of VLOPs/VLOSEs deployed systems, a communal effort between multiple actors (regulators, researchers, civil society) is necessary to analyse the complex systems and set auditing standards. Should the use of model-APIs be possible, then a larger part of the research community, not limited to those with technical profiles, will be able to analyse VLOPs/VLOSEs. This, however, is contingent on the stability over time of the APIs endpoints as well as the use of documented open formats for data transfer (e.g. JSON, CSV, etc.).

Category 3: metadata (e.g. how many layers the classifier has)

In order to conduct independent audits and academic research about algorithmic systems, VLOPs/VLOSEs need to provide metadata, namely:

- Information on the architecture of their deployed models;
- Information on the data they used to train their deep learning models, i.e. how and when data were collected, number of features their datasets have, performance evaluation of their models with reference of what evaluation dataset they used, if their data has been acquired via public scraping, how they managed to comply their scraped data to GDPR, how often their models are retrained and the typical size of the re-trained dataset, what company did the labelling of their original datasets and eventually their updated datasets and if they respect EU working rights and UNESCO human rights, how they deal with their border line cases (i.e. non confident classification - definition of non-confidence to be made explicit by the platform), if they have a human reviewer of these cases and how many people they have per language of EU member states, and others.
- Information on content that has been taken down by the platform and accounts suspended, the specific policy violation, whether it was reported, etc.

Provided that access to data and relevant information is granted, Digital Service Coordinators, vetted researchers and researchers aimed in article 40 (12) can conduct a wide range of analyses including:

- Black box (or input/output) analyses of algorithms (recommendation, moderation, auto-completion, etc.). These analyses focus on statistical relationships between the inputs and outputs of these algorithms to identify, for instance, potential biases. This would give first leads of potential systemic risks that could then be confirmed using more detailed analyses.
- Research questions could include: How do recommender systems demote or exclude content identified as problematic or misleading in relation to issues of public interest? Are algorithms an adequate tool for content moderation across all policy areas? If so, how are false positives dealt with? How do algorithms when used for content moderation, account for the mix of types of content, such as image or video combined with text? Do advertising and recommender systems explicitly exclude categories of content, based on users' age? If so, which technology is used to identify users' age?

2. Data Access Application and Access to Publicly Available Data

Ensuring a simplified Data Access Application and Procedure is essential for an effective implementation of

the provisions of Article 40 of the DSA. The procedure, by design, should alleviate the drawbacks of already existing data access procedures for official VLOPs/VLOSEs' (publicly available content) APIs. Access should be cost free, should not be granted selectively and should not unfairly exclude any actor. An independent advisory mechanism can help in overcoming unfair and selective procedures, facilitate the flow of data access applications, and provide guidance on GDPR compliance obligations, so that the concerned actors fully and fairly enjoy the provisions of Article 40(12).

VLOPs/VLOSEs have made available to researchers a number of APIs where a fraction of the publicly available content can be queried. However, these APIs might be subject to a high fee making them virtually unaffordable for most researchers and the access may be granted on a discretionary basis (e.g. Crowdtangle). One promising avenue to facilitate access to real-time publicly available data could be that researchers themselves provide to the platform a proof of their affiliation listed in a national directory for research organizations (e.g. *RNSR*³ for France) and show that they fill conditions (b), (c), (d), (e) in Article 40(12). Furthermore when access to (publicly available content) APIs is granted, VLOPs/VLOSEs should commit to letting researchers enjoy the access for the length of the research project, with no renewal or further application procedures. In case of dispute about conditions (b), (c), (d) or (e), either the DSC or an independent advisory mechanism can decide on data access. Alternatively, an independent advisory mechanism can be very helpful regarding the following tasks:

- Verify the compliance of researchers with the conditions (b), (c), (d) and (e) in Article 40(8).
- Provide guidance in the event of dispute between a VLOP/VLOSE and a research team about GDPR compliance. This task can be facilitated by the development of a Code of Conduct under Article 40 of the GDPR, as suggested by the EDMO working group⁴.
- Provide guidance to researchers when demonstrating their capacity of fulfilling data security and confidentiality requirements in condition (d) of Article 40(8). Namely the independent advisory mechanism can provide assistance with GDPR compliance procedures taking into account the type of data requested, their level of sensitivity and the risks involved. When relevant, this can take the format of guiding templates for conducting Data Protection Impact Assessments (under Article 35 of the GDPR). For examples see⁵ the template and the relevant documentation put together by the French National Commission on Informatics and Liberty (CNIL).
- Ensure that point (e) in Article 40(8) is not subject to interpretation by VLOPs/VLOSEs. It is challenging to assess whether the requested data is proportionate and necessary to the purposes of the research, given the inherent exploratory dimension of any research project. Hence only an independent advisory mechanism, which includes multiple actors representative of the diversity of research fields and methodologies, can conclude on this point.
- Ensure that the notion of systemic risk is not subject to interpretation by VLOPs/VLOSEs.
- Ensure that the affiliation of researchers is not subject to a compiled list by VLOPs/VLOSEs themselves, but rather publicly available directories and require that the VLOPs/VLOSEs grant data access if an organization/researcher is on the list.

³ <https://appliweb.dgri.education.fr/rnsr/>

⁴ See the Report of the European Digital Media Observatory's Working Group on Platform-to-Researcher Data Access and Annexes 1 to 4 link: <https://edmoprod.wpengine.com/wp-content/uploads/2022/02/Report-of-the-European-Digital-Media-Observatorys-Working-Group-on-Platform-to-Researcher-Data-Access-2022.pdf>.

⁵ See the documentation about Data Protection Impact assessment: https://www.cnil.fr/sites/default/files/atoms/files/infographie_aipd.pdf and <https://www.cnil.fr/fr/RGPD-analyse-impact-protection-des-donnees-aipd>.

- Centralize the data requests and specify whether the access was provided or not on a publicly available website. Today, there is no clear knowledge about which data could be requested. Hence researchers could learn about which data exists from previous requests and adapt subsequent data access requests. This publicly available website could also be enriched by displaying the research institutions for which access to (publicly available content) APIs has been granted by VLOPs/VLOSEs.

3. Data access formats and involvement of researchers

PEReN has gained expertise in building tools in relation with online platforms' regulation. Hence our team is in an ideal position to contribute to the capacity building measures, by developing new tools, tailored for the investigation of potential systemic risks. Precisely, this can be done in collaboration with researchers in order to adapt the tools to the needs in terms of research questions or disciplinary fields.

Doing so, will allow a variety of researchers from multiple fields, including non-technical ones, to enjoy the provisions of article 40 with no barriers to entry. For researchers with technical profiles, a close collaboration can push the frontier of the capacity building measures towards new models which would be beneficial to the research community.

Finally, tools developed by researchers can sometimes directly help other researchers analyze the content collected through APIs and identify systemic risks. Most notably, PEReN for instance has developed natural language processing (NLP) and computer vision toolboxes that allow real-time detection of harmful content. Some of them are already open-sourced and can be found online at <https://code.peren.fr/peren/>. The community of technical experts and researchers should aim at sharing tools and methodological approaches within a (federated) network.