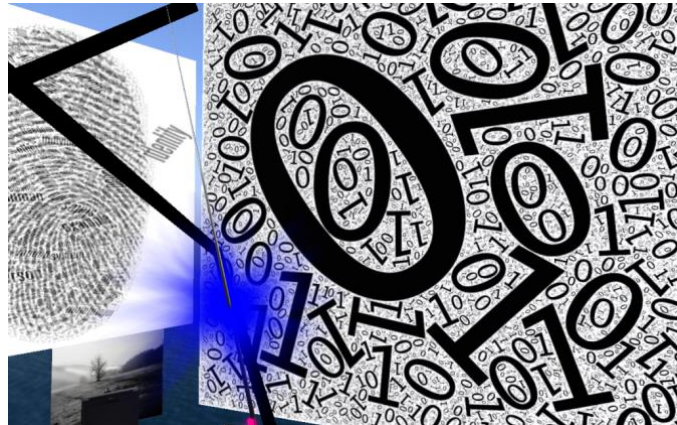# ONLINE PLATFORMS AND MEDIA REGULATION

avv. M. Luce Mariniello -

- The BEREC Report on the Data Economy BoR (19) 106 recognizes that online platforms are among "the largest players" in the data economy which play a significant role in "connecting many online markets and forming ecosystems"

- Both the BEREC Report and the AGCOM Interim Report on "Big Data" (2018) lead to the conclusion that certain multi-sided platforms are more likely to extract value from data, as big data are an intrinsic economic asset of their business model

- The AGCOM Interim Report suggests that the personal data exchange from consumers to app developers and online platforms still lacks of an holistic regulatory approach, as well as other competition and regulatory issues (e.g. use of geographical data, tariff analysis)

The allocation of *ex ante* regulation and *ex post* intervention powers addressing competition and consumer issues related to the market power of online platforms in the data-driven economy is still very fragmented in Europe

There may be risks of "regulatory gaps" which should be addressed through increased cooperation among competent authorities

How BEREC and NRAs can contribute to building and efficient institutional set-up and regulatory environment to address online platforms in the Digital Single Market?

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Know-it-First

- For the time being, cooperation is especially relevant in sharing views and knowledge-based practices on how to address the new regulatory challenges both at the national and EU-level. A better understanding of the changing landscape is essential before any legal or regulatory intervention.

- This implies that identification of regulatory and competition challenges related to the rise of online platforms should be based on tailored methodologies to foster market monitoring and analysis by means of data-oriented research and big data techniques

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The AGCOM Department of Economic and Statistics has addressed issues of online platforms in several studies based on the use of sophisticated ICT technologies and data-oriented approaches

2016 - Sector-Inquiry "Online platforms and the news media system" (309/16/CONS)

News vs Fake in the information system (December, 2018)
Annual survey on news consumption
Bi-annual Observatory on journalism

2017 - AGCOM Roundtable on Media pluralism and online platforms (423/17/CONS)

Online disinformation strategies and the fake content supply chain (November, 2018)

2017 - Joint Sector Inquiry "Big data" (217/17/CONS)

Interim Report on "Big Data" (June, 2018)

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- Lots of data is being collected and warehoused by AGCOM. Large and small datasets contribute to the creation of "data lakes"

- Diversity of sources (structured, unstructured and semi structured)
  e.g. consumer survey, economic information system of audio-visual media operators; data gathering from telecom operators; audience database …

- The approach is data aggregate oriented: aggregate views reveal patterns that enable timely issue and enable new regulatory views

  - Use of econometrics models and software

- It is helpful for AGCOM to further analyze such a theme, both to improve aspects related to consumer protection, and to obtain useful information to regulatory decisions in order to improve the functioning of the markets and to provide useful tools to policy makers.

- An approach that aims at revealing the existence of behavioral differences between different social groups, in particular according to generation.

- Topics of analysis:
  - Subscription decision (type of bundle)
    - Mobile, Fixed telephony, Video platforms, Postal Services
  - Satisfaction
    - Overall satisfaction
    - Services quality dimension
  - Churn rate
    - Determinants of churn rate

Example 1 - Research design and methodology (2/2)

- Population and sampling
  - The sample used for the interviews was designed so as to be representative of the Italian citizens
  - Sample stratification: age between 14 and 74, geographical distribution (Northwest, Northeast, Centre, South and Islands), gender, education
  - Sample size: 10.000 individuals

- Use of discrete choice models
  - Example, choose to change or not to change a electronic services provider
  - Yes or No decision (Subscribe/Not subscribe; change/not change)
  - Often the data come in binary form with a "1" representing a decision to do something and a "0" being a decision not to do something

Example 2 – Methodology in the Big Data Interim Report (1/2)

- Analysis of the Big Data Ecosystem: complexity and data characteristics have an impact on market structures at the core of the big data ecosystem

- Analysis of specific market segments:

  Fist level: operating system (OS)

  Second level: search engines and social networks

  Third level: data centres ("Production capacity")

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Example 2 – Methodology in the Big Data Interim Report (2/2)

Individuals as a source of data

- Based on the idea that the very methods of economic analysis must be based on big data analytics, the study presents an analysis of the Google Play apps permissions and features regulating the personal data exchange from consumers to app developers and online platforms

- The dataset includes information on 1.135.700 GooglePlay apps, i.e. about 80% of the total number of apps available on the store. Such information has been collected on the basis of a process called "crawling". The remaining 20% is part of a residual share of applications, belonging to the "long tail", that were not frequently downloaded by users

- Methodological findings: difficult data categorization/classification

    Challenging identification of personal data among the incredible amount of complex and unstructured information gathered

    Much of the information gathered related to a person, even when it does not constitute «personal data», could turn into so much as sensitive data by using technologically advanced big data analytics methods

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Example 3 – Fake vs News Report (1/2)

- In November 2018, AGCOM published the interim results of its fact-finding inquiry into digital platforms and the news system. The inquiry was launched in June 2016 to analyse the impact of online platforms (and their recommendation algorithms) on the news-media system, their mechanisms to disseminate news and the demand of news online in relation to the protection of media pluralism.

- The report has designed the methodology of a new monitoring system of online disinformation (fake news). Here, the suggested policy approach to this phenomena is fact-based regulation and the use of quantitative analysis and data science to perform surveillance of such emerging online media companies as Facebook.

- Following the Report above, AGCOM has launched an Observatory which publishes monitoring reports on a regular basis. The reports are available in English

Online disinformation monitoring system

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Example 3 – Metodology in the online disinformation monitoring system

THE COMPOSITION OF THE DATABASE

The information reported in this document, unless otherwise specified, are the result of Agcom elaborations carried out on a database built from data extrapolated through the platform developed by Volocom Technology.

In particular, analysis is conducted on the entire textual content extrapolated from about 15+ million documents (e.g. news created in Italy in 2018 by 1,800 information sources such as national broadcatsers, newspapers, online news outlets, etc. and sources of disinformation such as websites and social pages/accounts). Online disinformation sources are classified as such based on the assessment of independent organizations that are specialized in debunking. The amount of online disinformation produced in Italy is therefore estimated using a subjective methodology, i.e. considering the total number of documents created monthly by the aforementioned sources of disinformation.

The database is composed by the entire textual content of all documents produced during a day by every information and disinformation source. With document, we mean the entire article, in the case of newspapers and information websites; the transcription of a transmission segment (service), in the case of Tv and radio: all tweets/posts in the case of online platforms.

TOPIC MODELING

Analysis of the main topics of online disinformationis carried out on the entire content disseminated by the disinformation websites, based on a methodological approach known as topic modeling. A topic model is a statistic model for the automatic individuation of topics appearing in a collection of documents. In particular, the classification of the text together to the group of fake contents in determined topics was obtained by means of the use of a LDA-model (Latent Dirichlet Allocation) - an algorithm of not-supervised automatic learning considering the frequency and the co-occurrence of the terms used in the collection of documents. The same is at the basis of LDAvis (Sievert e Shirley, 2014), the interactive visualization system that supplies an overall vision on the identified topics (and of the way in which they differ), allowing at the same time a deep analysis of the most salient terms, associated to every one of them. In detail, every topic is represented by a circle, which amplitude shows the occurrence frequency in the entire group of the examined documents. Moreover, the topics have a position in the Cartesian coordinate system, being around the horizontal and vertical axes, representing the two main dimensions that explain the variability of the data.

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The AGCOM Technical Roundtable is an unprecedented experience, in Italy and abroad, of cooperation with online platforms to fight against disinformation in the digital environment.

AGCOM has devoted the first-phase of operation the Roundtable to the adoption of the **Online platforms' guidelines on political advertising and online electoral campaign** implemented during the 2018 pre-election period in Italy.

Information requests (e.g. *Cambridge Analytica case*) which include specific questions regarding the circumstances for collecting data on the voters' sentiment by showing them to be used, ostensibly, for university research, and for introducing analytic tools allegedly used to distribute highly targeted political advertisements via social media.

On top of self-regulation, the roundtable could contribute to planning additional long term tools and some regulatory measures (e.g. **IMSyPP project**)

Fake news monitoring and detection require use of sophisticated ICT technologies and **data-oriented approaches**.

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Regulatory and supervisory actions that AGCOM has already undertaken with regard to online platforms:

Online advertising platforms

AGCOM monitors the online news-media system within the Integrated Communications System (SIC) which includes the major online platforms with significant revenue shares in the online advertising market. To this aim online platforms must provide economic data to the Economic Information System (IES).

Market analysis and dominant positions

In September 2019 – AGCOM has opened an investigation aimed at the identification of the relevant markets, as well as the establishment of dominant or which could damage pluralism concerning the online advertising market. Following such assessment, if an online platform is found to detain a dominant position, AGCOM is the competent authority responsible to adopt ex post remedies addressing competition issues and media pluralism.

Registries of personal and economic data of online platforms

Facebook, Google and Amazon are present in the AGCOM Registry of Communications Operators

Web audience & analytics platforms

 AGCOM monitors online audience measurement systems.

Secondary Ticketing Platforms

AGCOM carries out supervision and enforcement activities on online intermediaries

Thank you for your attention

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