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Policy changes to strengthen the protection of media
freedom and media pluralism in the EU

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The aim of the EUI Centre for Media Pluralism and Media Freedom is to enhance the awareness of the importance of freedom and pluralism of the media, to contribute to its protection and promotion and to develop new ideas among academics, policy makers, regulators, market stakeholders, journalists, and all other directly involved professionals who take part in the public debate.

Abstract

Access to news and information has undergone profound changes in connection with the digitization and platformization of the economy. Diverse policy concerns emerge both from the supply-side of news production and distribution and from the demand-side of news consumption. The apparent richness of information sources conceals serious threats to the quality and diversity of online news, available on global platforms devoid of editorial responsibility and interested solely in maximizing advertising revenue. In this paper, after pinning down what we believe to be the most salient market and system failures in this regard, we summarize the range of policy proposals advanced to address the crisis of traditional media outlets and the unaccountability of platforms. Our own conclusion suggests three preferred lines of possible intervention in defense of media pluralism: regulated transparency, a novel form of EU-level direct financing and enhanced market power oversight.

Keywords

Media pluralism; quality of information; digital platforms; competition; public policy.

1. Introduction

Access to a wide and diverse range of information sources has long been considered a worthwhile policy objective both for strictly economic reasons, i.e. as a source of value for consumers through increased variety, and as a tool to protect citizens' fundamental rights. In fact, media freedom and media pluralism are conceived of as an indispensable premise to the exercise of the certain fundamental individual rights like freedom of expression or right to information, since they are considered key to informed judgement and independence of opinion (Council of Europe, 2018). The latter, in turn, in addition to being valuable per se, are also essential to the functioning of democratic societies, because they influence political behaviour and contribute to holding power to account. Media policies, in Europe and elsewhere, enshrine these policy goals.

A range of public policies has been traditionally put in place to protect media pluralism from the threats deriving from market failures in the media market as well as from economically and politically powerful "visible hands" capable of influencing the nature of content accessible on media outlets. In particular, traditional policy tools seek to address two main problems, both from the perspective of the supply-side of the market: ensuring access to a wide plurality of information sources and guaranteeing the diversity of the content available for consumption.

For example, traditional limits on market shares of media outlets, special limits to ownership concentration and to cross-media ownership, as well as advertising caps, seek to avoid excessive concentration of economic and political power, ensuring that consumers/citizens are exposed to a sufficiently broad range of perspectives and particular interested viewpoints do not receive undue space. Direct financial support to news outlets, especially concentrated toward public broadcasting, aims at broadening the scope of valuable content available to the public, often seeking to promote content varieties that would be underprovided by the market (e.g. cultural events, news on less represented groups, national/local contents). Rules ensuring balanced coverage of political parties' positions, especially during elections, seek to guarantee that bundles of content provided by any given media outlet are sufficiently broad. Ex ante "must carry" regulations as well as some ex post forms of intervention through competition policy traditionally aim at removing possible distortions in access to content due to the vertically integrated nature of media outlets.

The phenomena of digitization and platformization of the economy have greatly changed the nature of the policy challenges associated to the pursuit of the policy goals of plurality of sources and diversity of content. Consumers have access to an unprecedented quantity of content, even if the number of independent traditional media outlets has substantially decreased due to the disruption of existing business models. Citizens' exercise of fundamental rights, at least in western democracies, has never faced a similar breadth of opportunities. The availability of a plurality of sources of information - a matter of quantity - does no longer appear to be a problem per se. There are reasons to believe that also supply of information, if not its diversity, has increased.

At the same time, however, technological evolution has created new sources of concerns, making most traditional policy tools substantially ineffective. While the range of disruptions associated to the shift to digital is much broader, the key concerns with respect to media pluralism can be summarized along three lines: (1) a *concern for the quality of available information*, in spite of diversity (fake news at one extreme, but also an overall reduction of the quality of news production); (2) the possibility that the *digital environment may be magnifying cognitive biases* that endanger pluralism from the demand-side, as consumers/citizens appear to be highly selective in their consumption of very limited range of contents when it comes to news and information; and (3) a concern for the *opaqueness of many aspects of the distribution of news* and information through platforms, which suggests that there is much more scope for manipulation of citizens' exercise of fundamental rights than in the pre-digitization era.

The policy discourse on media freedom and media pluralism is currently mingled with broader concerns over the digital transformation of the economy and the increasingly pervasive and “systemic” role few major platforms play in consumers’ and citizens’ lives. However, it shouldn’t be taken for granted either that protection of pluralism will necessarily follow from the adoption of related digital policies devised in the pursuit of other objectives or that no conflict may arise. Thus, a focused reflection on the policies that may be devised to strengthen media pluralism in the digital era is in order.

In this paper, we provide an overview of the main policy concerns raised by the digital transformation with specific regard to the domain of media pluralism and take stock of the range of different solutions so far proposed. We conclude by extrapolating three broad questions underlying the policy discourse: whether self-regulation should be given the prominence it currently appears to have; what role should the crisis of the traditional advertising-based business model play in policy design and, finally, whether market power issues in content distribution can be addressed through the usual market-failure-based view of antitrust intervention. In answering to these questions, we advance three proposals to be considered at the European level.

2. Policy concerns

2.1 Supply-side concerns

Digitalization has significantly reshaped the market for news and information, bringing about widely contrasting forces. There is no doubt that, in the digital environment, *the costs of producing and distributing information have greatly decreased*, leading to easier market entry by professional news producers as well as new players such as blogs, vlogs, podcasts and the like. Indeed, transaction costs in the news and information markets have dropped even more radically than in other markets (Smyrnaio, 2018). This, of course, tends to increase the number and diversity of information sources, possibly allowing for greater availability of contents for niche audiences, including consumers of more extreme views and opinions (Mullainathan & Schleifer, 2005; Gentzkow et al, 2016).

On the other hand, perhaps an even more apparent counterforce to this phenomenon has been the disruption of traditional media’s business model and the associated *reduction in the number of traditional news outlets*. As illustrative figures of the effects of this disruption, it can be noted that the number of daily newspapers in the United States has dropped by more than 25%, from 1.748 to 1.286, between 1970 and 2016, and that the paid circulation of daily newspapers has dropped by 50% over the shorter timeframe 1985-2017 (Statista, 2019).

This can be attributed to a number of reasons that make the historical model of financing the traditional media, based on the joint sale of news and other information products and advertising, less and less viable. Increased substitutability of news from alternative providers, together with the separation of information from physical media, has deepened competition for direct sources of funding, given consumers’ reluctance to pay for digital contents. A new economic model for the media that is based on producing and selling quality news has not materialized on any significant scale (except for very specific products, e.g., *The Economist*, or for very few unusually large and strong news outlets that have resisted thanks to their international reach such as *The New York Times* or *The Guardian*).

The traditional sources of revenue from the advertising side of the market have been jeopardized by the surge in the growth of online advertising, and especially of ad-smart advertising. Indeed, while traditional media sales of advertising space only allowed for a weak alignment between media audiences and advertising targets, algorithm-based online advertising allows for much more accurate targeting up to the extreme of full personalization.

The global advertising data confirm this trend. Online advertising has surpassed TV advertising in 2014 in the European Union and in 2016 at the global level (PwC, 2018), mostly driven by access to

mobile devices, in the context of a constantly increasing global advertising spend. In particular, in Europe, advertising expenditures on the Internet tripled in the period 2009-2017, while expenditure on television advertising remained more or less stable, and newspapers' and magazine advertising expenditure declined strongly.

The net effect of the reduction of barriers to entry in news production and reduced profitability of the traditional media business model appears to be heavily tilted in the direction of market exit rather than market entry (Anderson & Waldfogel, 2016). However, the main supply-side policy concern with media pluralism is certainly not a matter of quantity of news sources, but rather of overall quality of news supply. The weakening of the traditional media business models could be thought of as yet another inexorable instance of structural adjustment to technological change. But this overlooks the fact that, if the very existence of the journalistic profession is jeopardized, it may be the case that no substitute supply of quality news will spontaneously emerge in other forms in the economy.

Journalists play a decisive middleman role in bridging supply and demand of news: they allow news consumers to save on the costs of gathering and processing information by filtering original events (Gentzkow et al., 2016) and, to the extent they seek to perform a neutral role, they preserve quality, especially by keeping a distance between immediate and partisan interests and the news (Parcu, 2019).

This role is now at risk both directly, because the number of professional journalists is shrinking in some countries due to the difficulties of finding alternatives to the traditional means of media financing, and indirectly because the presence of economic difficulties raises the likelihood that employed journalists enjoy less freedom within their media outlets than it was previously the case.

Detailed evidence exists for the US that newsroom employment has experienced a remarkable drop in the past 20-25 years (Pew Research Center, 2016). Similar evidence of a downward trend in the overall number of employed in journalism-related professions and especially of print journalists over the past five to ten years is available for Australia (ACCC, 2019). In Europe, the available data are not particularly fine-grained, as Eurostat provides time series on personnel employed in publishing activities such as the publication of newspapers, magazines and journals (NACE code rev. 2 J58), and only less frequent data specifically on newsroom employees. Overall, the more general data available for Europe-27 does not point to the same drop in employment in the journalistic profession, with a slight overall increase over the period 2010-2019. The aggregate number, however, hides a very diverse situation across member states, with some (e.g., the Netherlands, Hungary, Slovakia, Belgium and Italy) experiencing significant drops in employment and others (particularly Germany, Austria and Ireland) a trend in the opposite direction.

A less direct, albeit not less relevant, threat to the role of the journalistic profession may come from the possibility that the push towards increased media concentration due to exit from the market of a large number of media providers may bring about increased asymmetries in bargaining power in the journalism labour market. This is an aspect that, to our knowledge, has so far attracted scarce attention in the debate on the effects of digitalization on pluralism, and which is therefore particularly hard to pin down in empirical terms, but that nonetheless deserves attention. Stiglitz' seminal work on labour contracts (Shapiro and Stiglitz, 1984) has long ago highlighted that high unemployment acts as a disciplining device that is able to better align workers' choices to the interests of employers. Economic theory therefore suggests that the increased unbalance in bargaining power of owners/editors vis-à-vis journalists due to stronger concentration in media markets and high employment rents for journalists may lead to stronger control of media owners on media content production. Moreover, and relatedly, heightened competition for advertising revenues may make media outlets more prone to accommodate the interests of direct and indirect providers of funding. Thus, digital disruptions may exacerbate old conflict of interest issues in the media industry, by strengthening the "visible hands", under the semblance of commercial interests, that has often threatened pluralism. By way of example, some empirical evidence available for Italy seems to confirm this conclusion, by highlighting that greater

reliance on bank financing by newspapers has been associated to a more favourable bias towards banks (Zingales, 2016).

So far we have only indirectly touched on the most far-reaching supply-side market development: the shift in distribution from the centrally edited and vertically integrated model of traditional media, to the platform-based model of search engines, apps, news aggregators and social media. It is a fact that the role of editors as intermediaries and guarantors of accuracy, reliability and overall quality of information has been bypassed to a large extent by forms of distribution in which content is freely unbundled by consumers, who choose atomized news through one or more platforms that act as “irresponsible” gatekeepers of access to the user (Helberger et al., 2015). Indeed, a global survey recently has confirmed that, considerable variation by country aside, a striking majority of news consumers (about two thirds) does not access news through traditional publishers’ websites, but rather through a platform (Reuters, 2017).

In certain cases, this may help support pluralism because it lowers the cost of access to information by consumers (see below) and may contribute to channel some direct financial resources towards publishers, as recently shown by the drop in traffic on newspapers’ websites in Spain and Germany after attempts to bypass platforms (Calzada and Gil, 2017).

Nonetheless, platform intermediation in content distribution is a source of many concerns. The general unease with the pervasiveness of the presence in the economy and in consumers/citizens’ lives of giant platforms (popularly called GAFAM - Google, Amazon, Facebook, Apple and Microsoft) has been documented by several scholars (Smyrniotis, 2018; Galloway, 2017; Barwise & Watkins, 2018; Moore & Tambini, 2018). The concentration of economic power associated to these platforms, as well as their scale, reach and dimension clearly appear of an unusual magnitude, although accurate company data are not always easily accessible (Moore, 2016).

The rhetoric of the early days of digitalization that stated that, on the internet, “*competition is only a click away*” appears to have been largely superseded by acknowledgement of the fact that the tech giants seem extremely unlikely to lose dominance in their core market(s) any time soon (Galloway, 2017; Barwise & Watkins, 2018). This is because the direct and indirect network effects at the core of platforms’ business model ignite self-reinforcing feedback loops that tend to consolidate dominance favouring “*winner takes all*” or “*winner takes most*” dynamics (Gawer, 2014). For example, in digital advertising, Google and Facebook have established a relatively recent, but now massive, dominance. In 2017 their duopoly share accounted for more than 60% of the rapidly rising global online ad revenues and was even higher in some European countries (in the U.K., in 2016, for example, these companies attracted over 70% of all digital advertising spending according to *The Guardian*).

While market power issues and the appropriate antitrust response to platforms’ business models are widely debated, the concerns over the concentration of power associated to the rise of giant platforms go well beyond traditional notions of market failure. Platforms’ reach on the processes governing the formation and exchange of opinions and the establishment of reputation and popularity is worrisome *per se* (Moore 2016). Platforms act as gatekeepers of access to information and do so in a rather opaque way, through algorithms that pervade any aspect of the relationship between information and consumer/citizens’ choice, to the point of being in principle able to jeopardize the fairness and transparency of elections (Alcott and Gentzkow, 2017; Tambini, 2018).

Thus, another main concern with platforms relates to the way in which they affect the demand-side of the news industry, and it is to this that we now turn.

2.2 Demand-side concerns

As mentioned, platforms’ business model is based on direct and indirect network effects, or demand-side economies of scale. Platforms act as managers of network effects, by internalizing externalities that different market sides would not be able to internalize on their own (see, e.g., Belleflamme and Peitz,

2016). This holds for the relationships among different users (e.g., in the context of news consumption, when users derive utility from consuming information that is popular) as well as for the relationships between information users and other players, particularly advertisers. This defining feature of platforms profoundly affects the way in which platforms perform their crucial role of intermediaries between news production and news consumption.

The link between advertising and consumption, which is not a novelty in the news industry, is now much more complex and far-reaching than it used to be. The selection of the information consumers are exposed to is influenced by the platform's objective of maximizing network effects and, through them, advertising revenues. This further weakens the market forces that would normally contribute to preserve quality, because the main driver of content distribution is user engagement rather than any news quality criterion. Platforms' intermediation of access to information thus tends to emphasize diffusion of emotional content, extreme views, news that catches users' attention independently of its accuracy and, at the extreme, fake news. Reputation considerations that had a weight in controlling quality in traditional media for digital platforms are essentially irrelevant.

Moreover, platforms affect news consumption also by enabling active delivery of content to target audiences in a way similar to what happens with online advertising. Social media and search engine algorithms can offer users a personalized experience of news consumption on the basis of detailed analysis of his/her data, including location, past click-behaviour and search history. This can be an extremely effective vehicle of disinformation. In particular, social bots, i.e. computer algorithms that automatically produce content and that interact with the social media's human users may be specifically designed to exploit and manipulate social media discourse with rumours, spam, malware, misinformation, slander, or even just noise. For instance, a recent study (Shao et al., 2018), by analysing Twitter news stories during and following the 2016 US Presidential Elections, finds a critical role of bots in driving the viral spread of misinformation by exposing humans to low-credibility content and inducing them to share it.

Besides the challenge to establish the veracity of the information being disseminated, social bots have brought a novel challenge, since they can give the false impression that some piece of information, regardless of its accuracy, is highly popular and is endorsed by many, exerting an influence against which we haven't yet developed effective social antibodies (Ferrara et al., 2016). This sort of digital misinformation and manipulation efforts is often dubbed "*Computational propaganda*", and refers to the use of algorithms, automation and human curation to manipulate public opinion across a diverse range of platforms and device networks (Wooley & Howard, 2016).

Another widely debated effect of algorithmic personalization of news consumption is the possible segmentation of the public sphere into 'echo chambers' and 'filter bubbles'. Empirical evidence is mixed in this regard, with some finding evidence for greater polarization in news consumption and others for increased exposure to varied content (e.g., Mukerjee et al., 2018). Inconclusiveness of empirical evidence is not surprising, not only because most of the relevant data is proprietary and therefore inaccessible to researchers, but also because two opposing phenomena are at play: on the one side, platforms' business models tend to leverage on consumer biases that lead to a reduced consumption of variety and, on the other side, it has become easier for consumers to multi-home and thus access to a higher variety of news and information.

Consumers' bias towards content and sources of information that are most aligned to existing consumers' knowledge and beliefs is exacerbated on platforms: this holds for the circumstance that human beings tend to favour relationships with people who share similar viewpoints (Granovetter, 1973); that people are much more likely to trust a message coming from someone known, even if s/he suspects it to be false, or that information seekers are biased towards information sources that share and confirm their views (according to the theory of 'selective exposure', see Sullivan, 2009). Evidence exists that confirmation bias is at play in online news consumption (Gentzkow & Shapiro, 2010; Flaxman et al., 2016) and that attempts to mitigate these biases by providing accurate information can be ineffective

(Barrera et al, 2018; Flynn et al, 2017; Guess et al, 2018). This not only entails that less variety tends to be consumed, but also suggests, again, that a quality-enhancing push in the news market is unlikely to come from the demand-side.

In presence of biases of this sort, multi-homing may actually decrease the variety of contents consumers are exposed to with respect to traditional media because, while in the offline world a variety of contents was consumed as a consequence of the fact that editorial choices tended to cater for different audiences, online consumption of media is considerably less passive: the ability to switch across different sources of information enables consumers to bypass editorial choices.

Overall, it is difficult to draw from the limited empirical evidence available firm conclusions on the real severity of the “information disorder” (Wardle and Derakhshan, 2017). However, the brief overview of the main pluralism-related concerns provided in this paragraph suggests that, while the nature of the key issues has changed significantly, the protection of media pluralism deserves no less attention than before. Moreover, it is unlikely that spontaneous market forces will emerge as an effective antidote.

3. An overview of current pluralism-related policy proposals

The concerns reviewed in the previous paragraphs underlie a number of policy proposals and preliminary interventions, both at the European level and within specific Member States and in other countries.

The most recent set of pluralism-related initiatives in the European context stems from the European Commission (2018b) Communication on Tackling Online Disinformation, which has proposed four pillars/objectives for a common approach at EU level. They can be summarized as follows: *transparency* regarding the way information is produced, sponsored and distributed; *diversity* of information through support to high quality journalism and the rebalancing of the relation between information creators and distributors; *credibility* of information, through trust-enhancing measures; and, finally, *inclusiveness of solutions*, meaning broad engagement of all stakeholders.

In the context of this approach, the Commission consulted Member States and stakeholders, set up a High Level Expert Group and launched a public consultation complemented with a Eurobarometer public opinion survey. The suggested strategy of the High-level Group on fake news includes the following lines of intervention¹:

- Enhancing the transparency of online news, involving an adequate and privacy-compliant sharing of data about the systems that enable their circulation online;
- Promoting media and information literacy, in order to counter disinformation and to help users navigate the digital media environment;
- Developing tools to empower users and journalists to tackle disinformation and to foster a positive engagement with fast-evolving information technologies;
- Safeguarding the diversity and sustainability of the European news media ecosystem; and,
- Promoting continued research on the impact of disinformation in Europe in order to evaluate the measures taken by different actors, and to constantly adjust the necessary responses.

In terms of specific tools, the Commission has so far chosen to rely primarily on a co-regulatory instrument: the adoption of a Code of Practice aimed at addressing the spread of online disinformation and fake news, in agreement with some major internet players, online platforms, leading social networks, and the advertising industry².

¹ <https://ec.europa.eu/digital-single-market/en/news/final-report-high-level-expert-group-fake-news-and-online-disinformation>

² <https://ec.europa.eu/digital-single-market/en/news/code-practice-disinformation>

The broader debate on the opportunity of more pervasive forms of ex ante regulation is still ongoing. The 2016 Communication on Online Platforms identified key areas of interests and laid the foundation for the current effort by the Commission to frame the responsibilities of digital services in protecting user rights and to address issues related to platforms' role as gatekeepers in the context of the Digital Services Act Package³. Concerns for pluralism feature as part of this effort, although they do not appear so far to have a prominent role.

In addition, the 2019 Directive on Copyright in the Digital Single Market includes measures that may contribute, through legislative intervention, to redress the current imbalances in bargaining power and value allocation across the news and information value chain⁴. As part of the Directive, new related or "neighbouring" right for press publishers have been created, new transparency rules have been put in place to improve the possibility of remuneration of authors and performers, and right holders' position in negotiations for the online exploitation of their content of video-sharing platforms have been strengthened.

Germany has been particularly active in this policy domain through ex ante regulation. In 2017, the so-called NetzDG was passed: the German Act to Improve the Enforcement of the Law in Social Networks. The Act forces online platforms to implement procedures that allow users to report content that is illegal based on the provisions of the German Criminal Code, and to immediately remove illegal content, and it imposes significant fines for non-compliance. In 2018, a further ambitious attempt at regulating platforms' filtering and content moderation role has been undertaken by the German Broadcasting Authority (*Rundfunkkommission*), who has proposed to enforce binding diversity and non-discrimination obligations on social media platforms' ranking and sorting algorithms⁵.

The UK is also debating "a new settlement for the internet. Not merely a set of new standards but an institutional framework that involves a combination of ethical self-restraint on the part of the major platforms, improved competencies and self-regulation by users, and a legal framework which incentivises harm reduction and verification" and, in the end, the creation of a "social media regulator"⁶. In the context of this discussion, a proposal has been advanced to extend platforms' liability beyond an obligation to remove illegal content by imposing a "duty of care" for managing content in the public's interest (UK Secretary of State for Digital, Culture, Media & Sport, 2019).

In Australia, the Digital Platforms Inquiry of the Australian Competition and Consumers Commission (ACCC, 2019) has explicitly considered the challenges facing journalism and the news industry within a broader effort to review rules for the digital environment. The measures more strictly focused on addressing pluralism issues relate to: the financing of news production through funding for the public broadcasters, grants for local journalism and tax settings to encourage philanthropic support for journalism; the empowerment of the demand-side of the market through digital media literacy programs in school and the community, and through monitoring efforts of digital platforms to implement credibility signalling; and the adoption of a Digital Platforms Code to counter disinformation along the lines of the European Code of Practice. In terms of regulation, at present the ACCC has proposed to tackle through ex ante measures mostly imbalances created by ex ante regulation itself, so as to restore a level playing field, something considered particularly important for competition in advertising between the digital platforms and the heavily regulated media businesses. Self-regulation, and particularly the provision of a code of conduct, is the solution indicated by the ACCC to discipline the largest platforms' behaviors towards media businesses. In this, the ACCC follows the suggestion first laid out in the UK

³ <https://ec.europa.eu/digital-single-market/en/digital-services-act-package>

⁴ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2019.130.01.0092.01.ENG

⁵ https://www.rlp.de/fileadmin/rlp-stk/pdf-Dateien/Medienpolitik/04_MStV_Online_2018_Fristverlaengerung.pdf

⁶ Damian Tambini: <https://inforrm.org/2018/09/22/long-read-what-would-a-social-media-regulator-actually-do-damian-tambini/>

by the 2019 independent Cairncross Report (Cairncross, 2019). The ACCC has also proposed to strengthen copyright enforcement on digital platforms through a mandatory take-down code.

Finally, in the US, the recent Report of the Stigler Committee on Digital Platforms contains an extended analysis of the policy interventions needed in the news industry (Stigler Committee, 2019). The Report explicitly rules out the possibility of direct ex ante measures to curb or manage platforms' exercise of gatekeeping power over information, by highlighting that regulation may turn out to be counterproductive, as it may actually enhance platforms' scope for control. The tension between requiring to platforms editorial responsibility respect to content they distribute and the fear of practically enshrining a censorship power to private companies remains essentially unresolved and discourage a suggestion of regulatory activism. Rather, the Report emphasizes the opportunity to favour the emergence of new business models in the news industry, less reliant on advertising and more on paid subscriptions and public funding. It proposes four main forms of intervention: public funding of journalism, through media vouchers allocated directly to the citizens and directed particularly to local journalism; to subject to a news plurality review, in addition to the standard antitrust review, all mergers and acquisitions involving news companies; to decrease the opaqueness of algorithmic filtering through transparency-enhancing rules, source-based reputational mechanisms and the creation of a new oversight body; and, finally, to link platforms' exemption from any liability for the online content they intermediate to prioritization of content according to criteria other than the maximization of ad revenue. An interesting aspect of the Stigler Committee's recommendations is that the proposed transparency rules governing the relationship between platforms and media outlets are conceived to particularly apply to access to data on news consumption, underlined as key to enable media outlets to be more responsive to demand from subscribers, something that should improve publishers' ability to profit from direct subscriptions.

4. Taking stock of the debate on pluralism in the digital environment: three questions and three proposals

In this section, we take stock of the different elements of the current debate briefly reviewed in the previous sections, in order to outline some policy changes that we believe may strengthen media freedom and media pluralism. We organize the discussion around three relevant questions, and identify associated policy suggestions. The first question stems from acknowledgement of the fact that self-regulation features prominently as one of the policy solutions most widely agreed upon at the international level, along the lines of the Code of Practice introduced in the EU just before the 2019 European elections. It is therefore worth asking whether self-regulation is the best option in the regulatory toolbox. Second, the forms of intervention described in the previous paragraph differ with respect to the source of funding they prioritize in order to address problems of under-provision of quality information. Some measures aim at reversing the declining trend in advertising revenues by rebalancing the relationship between media producers and platforms as media distributors. Other measures place greater emphasis on alternative sources of financing. The question therefore arises as to the role that the standard advertising-based business model should play in policy design. Third, and finally, given the concentration trends observed both at the level of production, primarily as a defense against shirking revenues, and at the level of information distribution, as a characteristic of the winner takes all markets dominated by platforms, an important dimension of the policy response regards the issue whether, in addressing market power issues in media markets, we should go beyond traditional market failure considerations and include wider societal concerns in the analysis. We tackle these three issues in order.

4.1 Is self-regulation the best option in the regulatory toolbox? No, more ex-ante regulation is a necessity

The emphasis so far placed on self-regulation is strictly linked to the fact that the asymmetries of information that normally plague any form of regulation are particularly acute in the case of platforms.

This, in turn, suggests that platforms are best placed to implement solutions based on the most relevant and accurate information available. In addition, there is no doubt that self-regulation is an intrinsic feature of platforms, and can even be described as its defining feature, to the extent that they create (and monetize) value through management of network effects, which requires, among other things, policing behaviour of the different participants to the platform.

Yet, the evidence so far available on the way platforms have exercised their self-regulatory powers, in search contexts different from information intermediation, points to the fact that platforms maximize their own value, driving a wedge with that of supply-side providers and of consumers (Ursu, 2015 for Expedia; Chen et al, 2015 for Uber; Fradkin, 2014 for AirBnB). Since online behaviours that damage pluralism may be a source of network effects and therefore of value for platforms, incentives for the latter to adopt effective pluralism-enhancing measures immediately appear rather weak. Moreover, it is unclear whether consumers' valuation for the platform would increase in presence of pluralism-preserving measures, which reinforces the view that self-regulation may encounter some important structural limits in terms of incentives.

Indeed, according to the first Report monitoring its implementation⁷, the platforms adopting the European Code of Practice have so far failed to identify specific benchmarks that would enable the tracking and measurement of progress in the EU, something that supports the skepticism here expressed.

The alternative of a more pervasive form of regulation of platforms' role as media distributors has its own problems. While the demise of news publishers' reputation-based editorial role has left a void of reliable filtering and selection of content, any attempt to substitute this role with a more direct action by public bodies or the platforms themselves risks jeopardizing the very objectives of media pluralism. Indeed, one of the most valuable effects of pluralism and good quality information is to hold public and private powers to account. To let instances of these public and private powers decide on the nature and scope of the content that can be legitimately distributed online may set in motion an undesirable short circuit.

This concern no doubt extends also to the apparently more innocuous attempts at regulation, such as the proposals aiming at inducing platforms to prioritize socially valuable content - defined, for instance, as content given prominence following criteria other than the maximization of ad revenue by the Stigler Committee, or as "content in the public's interest" by the UK Secretary of State for Digital, Culture, Media & Sport.

Prioritization by news publishers has traditionally occurred in a decentralized fashion, and through a market-based process that balanced editors' interests and objectives with consumers' preferences and value. Plurality of news sources, in a context of vertically integrated distribution of content, provided both the incentives to compete needed for the effective functioning of this process and choice of a variety of points of view for consumers. Prioritization through quasi-monopolistic platform regulation is structurally very different. It is heavily centralized, which entails that its effective implementation would allow for a much more direct and effective homogenization of the content distributed online. Moreover, and precisely because of its centralized nature, it is much more exposed to the possibility of manipulation, both in the setting of rules and targets by public bodies (especially in countries where the sharing of information has played so far a more important role in sustaining the democratic process) and in their application by platforms. Crowdsourcing of news quality indicators and criteria may mitigate, but not solve, these problems.

There is, nonetheless, an aspect of platform distribution of information content whereby we believe regulation may play a decisive and sharp role: not with respect to selection or filtering of content, but with respect to the identification and communication to the public of its origin. In particular, platforms could be required to adopt effective measures to curb the spread of content distributed or prioritized

⁷ http://europa.eu/rapid/press-release_STATEMENT-19-1379_en.htm

through non-human means, such as bots and cyborgs and, more generally, to *signal the non-human provenance of content to users*. What appears solely as a transparency measure may have a substantial effect in limiting the spread of online disinformation. One could invoke a rational and expect an effect similar to regulations imposing recognizability of advertising in traditional media, but with a reach and a purpose that goes beyond the protection of consumers to the protection of citizens.

Lazar et al. (2018) in their multidisciplinary proposal to address fake news on *Science* call attention on the possibility that platforms adopt measures along these lines, without however going as far as to suggest the opportunity to impose them through ex ante regulation. There are, however, at least two reasons why ex ante regulation in this particular area is warranted. First, to be effective, intervention needs, at a minimum, to have the breadth and enforcement associated to ex ante regulation. As noted by Lazar et al. (2018), bot producers are likely to swiftly adopt technological countermeasures to any of the actions platforms will put in place, so that effectiveness is constantly at risk of being undermined. However, we think this is a reason to adopt a stronger regulatory stance, rather than to rely on platforms' autonomous initiatives, possibly complemented by academic peer review as suggested by Lazar et al. (2018). Second, this is an area where the criterion for selection/flagging of content (human/non-human) is sufficiently unambiguous to leave relatively little room for manipulation and therefore for the kind of problems highlighted above with respect to the introduction of forms of content moderation according to some socially desirable criterion.

4.2 Is standard advertising-based business model the only possibility? No, direct financing of professional journalism is a concrete tool for policy design

The various policy proposals reviewed in section 3 differ in the extent to which they suggest the opportunity to support information production in general, and particularly through sources of funding alternative to advertising. As mentioned, the Stigler Report has called attention on the fact that the current time of disruption of the traditional business model for the news industry may offer an opportunity to attenuate the advertising-information production link that has always been problematic. Attempts to rebalance the bargaining power of media producers with respect to platforms go more in the direction of reviving the advertising source of funding.

We share with the Stigler Report the conclusion that policies should be designed with a view at increasing reliance on sources of funding alternative to advertising. In particular, we posit that there is certainly scope for greater public funding of information production. Of course, public funding involves the usual risks of capture and limitation of editorial independence and, more generally, of a lenient attitude of media towards governments-funders, a risk well-documented for traditional media. The Stigler Report suggests to address these issues through the implementation of a system of media vouchers that would delegate to citizens the choice of the media outlet to be financed under a range of detailed rules aimed at ensuring that financing will not be excessively concentrated.

There is, however, a risk that the media voucher system would turn out to be scarcely cost-effective, given the significant administrative costs involved in its implementation and given the fact that it is a system that relies on the active participation of citizens that currently show a lack of trust and interest in media. In addition, such a complex system may not be needed in Europe, where the multi-level nature of government creates an excellent opportunity to separate the policy level administering funds from the government level that is most directly affected by the content of the subsidized news. More specifically, we propose to *create a new European Fund for the financing of investigative and local journalism*, to supplement (eventual) national financing, along the lines of the system of financing that has been in place for more than two decades for European movies and audiovisual contents.

European funding would be able to preserve editorial and journalistic independence, by driving a wedge between the source of financing (European) and the level of government that news production may contribute to hold to account (national or local). This holds for investigative journalism and, even more so, for local journalism. The Fund could also be used to coordinate the use of existing sources of

financing from NGOs, national foundations, individual donors and philanthropists, so as to mitigate the scope for undue influence that is sometimes perceived to characterize their activity.

The details of implementation need to be carefully pinned down - something that is beyond the scope of this work. However, some elements can already be indicated. Any EU-level funding initiative should be designed in a way that is different from what occurs for cinema productions, given the very different nature of the two creative undertakings. Funding of news production needs to be designed so as to be stable and reliable over a meaningful time horizon, in order to favour the emergence of effective “new entrants” in news production as well as to be a predictable source of income to stimulate the growth of selected existing media outlets. Thus, the modality of funding should be different from existing journalistic prizes, and perhaps more similar to the seed or start-up funding of innovative technological ventures. Moreover, an attempt can be made to find synergies with current experiments with journalistic crowdfunding, whereby users play an active role in the identification of areas to be investigated, without however a direct link between any single donor’s interests and the selection of the object of investigation. This would have the further advantage and purpose of increasing user engagement with the new media sources, although of course the share of media consumers effectively involved in this way is destined to be rather limited.

More generally, engagement can be pursued through initiatives aimed at fostering media literacy, and especially digital media literacy, as a fundamental precondition for a critical approach to online content. Based on the results of the MPM 2020⁸, more than two thirds of the examined EU Member States (22 out of 28) either have underdeveloped media literacy policies, or no media literacy policy at all - and no significant progress has occurred with respect to this pluralism indicator. More investment in education on the use of the online media for populations of different ages is clearly needed, but this necessary process has not even begun in most countries.

Another specific focus of intervention, which is somehow related to digital media literacy, consists of favouring the technical empowerment of the journalistic profession. Offering journalists specific competencies to contrast disinformation *et similia*, and to improve the quality of information online, through fact checking tools and the automation of the news rooms, may become a long-term public policy goal.

Both media literacy and technical empowerment of the journalistic profession have been identified by the European Commission as worthwhile policy goals. However, we would like to stress that more incisive forms of intervention such as the one proposed in this section are surely needed to address the under-financing of investigative journalism and local journalism and ensure availability of this type of costlier, and riskier, production of quality information.

Finally, by the same token, it should be noted that this reasoning also implies that public broadcasting, sometimes questioned as redundant in a world of widely abundant digitized information, finds a new rationale for its existence. In spite of the obvious difficulties in ensuring editorial independence, the continued support to public broadcasting and its expansion to the digital world constitutes an autonomous source of information whose quality can be subject to at least a weak check, which may contribute to preserve pluralism together with the other measures here proposed.

4.3 Is business as usual antitrust sufficient in addressing media market issues? No, we need a direct contrast of market power

The trends towards industry concentration both in the production and in the distribution of information content described in section 2 raise the question whether market power issues deserve specific attention in connection with media pluralism. When using standard antitrust categories to answer this question, it

⁸ Available at: <http://cmpf.eui.eu/media-pluralism-monitor/>

immediately appears that the basis for policy intervention is rather weak and the tools available very limited.

Martens et al. (2018) summarize this conclusion for the production side of news content by making reference to the empirical analysis of Kennedy and Prat (2018), who calculate the reach, attention share, and media power index for the top 15 media organizations in 18 countries, showing that “*concentration of news consumption may be high but falls far short of the EU dominance threshold level of 40% of the market*” (Martens et al. 2018, p.44)⁹. As for the advertising side of the market, they interpret the duopoly nature of this market, characterized by the joint presence of Facebook and Google, as a reason for caution against any rush intervention, in light of the fact that, unless collusion among the two giant players can be proven, duopoly is likely to bring forth intense competition.

We believe the limitations of the tools currently available to address market power issues, and the very limitations in the notion of what constitutes market failure in this context should not be taken as a reason to forgo policy intervention. The sheer size and global reach of platforms suggests that the platformization of the economy in general, and of the distribution of information content in particular, are macro problems that require a broader basis for intervention than it is currently available. Antitrust is a typical quintessential micro instrument, operating on a case-by-case basis, and it is therefore neither conceived nor apt to address macro problems of this sort (Parcu et al., 2020).

One possible solution is to foresee that, in the EU legal framework, when market power endangers fundamental values, dominance, and not its abuse, should be forbidden (Parcu, 2019). For the reasons explained in section 2, media distribution can be identified as a typical case where fundamental values are at stake and the importance of the value to be preserved is so high that exceptional measures may be justified.

The concrete implications of this stance needs to be carefully explored, what is beyond the scope of this paper, and may range from the extreme of requiring the break up of dominant positions to imposing an obligation to finance entry into the market by new competitors. The latter measure, in particular, may be relevant in connection with initiatives to identify new sources of funding for news production.

In any case, an enhanced attention to the direct contrast of market power in media would have several concrete consequences. First, the present trend toward concentration in news production, as a defensive response to the fall in revenue of traditional media, would be subject to a stricter double standard of scrutiny based on antitrust and public interest. This would at the very least slow down a possible merger wave in media that may further reduce diversity of original news content creation. Second, the dominance of gateways platform in news distribution would be put under an immediate regulatory pressure. This may lead to a mix of must carry obligations, control of bargaining power, transparency duties, designing a framework of remedies suggestive to that historically imposed to essential infrastructures in electronic communications or energy. While this may still be insufficient to face all the concerns listed in the previous sections a round of implementation of first remedies would favor experimentation and search for long term solutions.

5. Conclusions

Powerful economic forces are in the process of reshaping media pluralism and media freedom in ways that suggest reasons for concern more than relief for the increased availability of information. The breakup of the vertically integrated structure of information distribution and the rise of platform-based intermediation have amplified patterns and biases in news consumption that threaten the viability of

⁹ It should be noted, however, that Kennedy and Prat (2018)’s analysis considers a fully converged market in which broadcasting, newspaper production and pure internet distribution of news are jointly measured. This empirical investigation can hardly be considered an adequate basis to evaluate market power in specific relevant (media) markets, whose definition for antitrust purposes requires case-by-case analysis.

traditional business models and may jeopardize availability of quality information. Entry in the market of new sources of news that have no concern for quality, or even base their business model on the spread of outright fake news, contributes to this trend.

The ensuing threats to fundamental values like freedom of expression and right to information, key to citizens' informed judgement and to hold power to account, calls for timely and far-reaching policy interventions.

In this paper, we have sketched few proposals that we believe may adequately balance the numerous trade-offs that emerge when attempting to fix these policy concerns. First, we have held that self-regulation of platform distribution of content, which still today appears to be a preferred means of intervention, has strong limitations. Some forms of ex ante regulation, centered on transparency - clear flagging to users non-human content and possibly reducing its diffusion - are therefore well-justified.

Second, we have proposed the institution of a European Fund to support investigative and local journalism, so as to favour the emergence of forms of news production less reliant on the advertising-based business model. The European multi-level governance environment offers an opportunity for public support of the plurality of news sources that escapes the risks of media capture normally at play when governments directly fund the journalistic profession.

Finally, we have called attention on the fact that the limits of the current antitrust tools should not be taken as a reason to forgo policy intervention aimed at addressing growing market power issues in the media context. The market power issues raised by the operation of platforms are macro problems that existing antitrust, being quintessentially a micro tool, is not well-suited to deal with and that require exceptional measures of direct contrast. Operationalization of any of these proposals is certainly complex and may lead towards unexplored territory. However, we believe, neither the novelty nor the complexity of the policy challenge should justify a timid response to these fundamental issues.

References

- Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, 31(2), 211-36.
- Anderson, S and J Waldfogel (2016) Preference externalities in media markets, in "Handbook of media economics", Volume 1A, Anderson, Stromberg, Waldfogel, editors.
- Australian Competition and Consumer Commission (2019). Digital Platform Enquiry Final Report, Canberra, ISBN 9781920702052.
- Barrera Rodriguez, Oscar, Guriev, Sergei M., Henry, Emeric and Zhuravskaya, Ekaterina (2018), Facts, Alternative Facts, and Fact Checking in Times of Post-Truth Politics. Available at SSRN: <https://ssrn.com/abstract=3004631> or <http://dx.doi.org/10.2139/ssrn.3004631>.
- Barwise, P., & Watkins, L. (2018). The Evolution of Digital Dominance. In M. Moore and D. Tambini (Eds), *Digital Dominance: The Power of Google, Amazon, Facebook, and Apple* (pp. 21-49), Oxford University Press, New York, NY.
- Belleflamme, Paul and Martin Peitz, (2016) Platforms and network effects. In *Handbook of Game Theory and Industrial Organization*, Vol. II, Luis Corchon and Marco Marini (eds), Edward Elgar.
- Cairncross, F. 2019. "The Cairncross Review: A sustainable future for journalism." https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779882/021919_DCMS_Cairncross_Review_.pdf.
- Calzada, Joan, and Ricard Gil. 2016. "What Do News Aggregators Do? Evidence from Google News in Spain and Germany." SSRN, September 13. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2837553. Ursu R, (2015) The Power of Rankings: Quantifying the Effect of Rankings on Online Consumer Search and Purchase Decisions (presented at Searle Conference on Internet Search and Innovation 2015).
- Centre for Media Pluralism and Media Freedom (2020). *Monitoring Media Pluralism in the Digital Era: Application of the Media Pluralism Monitor in the European Union, Albania and Turkey in the years 2018-2019*. Retrieved from <http://cmpf.eui.eu/media-pluralism-monitor/>
- Chen M, Sheldon, MI (2015) Uber surge pricing Dynamic Pricing in a Labor Market: Surge Pricing and Flexible Work on the Uber Platform, December 11, 2015.
- Council of Europe (2018). Appendix to Recommendation CM/Rec (2018)1, Guidelines on media pluralism and transparency of media ownership.
- European Audiovisual Observatory (Council of Europe) (2017). The EU online advertising market. Update 2017. Retrieved from: <https://rm.coe.int/the-eu-online-advertising-market-update-2017/168078f2b>
- European Commission (2018). A multi-dimensional approach to disinformation, Report of the Independent High Level Group on Fake News and Disinformation, DG Connect; available at: <https://ec.europa.eu/digital-single-market/en/news/final-report-high-level-expert-group-fake-news-and-online-disinformation>
- European Commission (2018b) Communication on Tackling Online Disinformation.
- Ferrara E., Varol O., Davis C., Menczer F. & Flammini A. (2016). The Rise of Social Bots, *Communications of the ACM*, July 2016, 59(7), 96-104.
- Flaxman, Seth, Sharad Goel, and Justin M. Rao. "Filter bubbles, echo chambers, and online news consumption." *Public opinion quarterly* 80.S1 (2016): 298-320.

- Flynn, D.J., Nyhan, B. and Reifler, J. (2017), The Nature and Origins of Misperceptions: Understanding False and Unsupported Beliefs About Politics. *Advances in Political Psychology*, 38: 127–150. doi:10.1111/pops.12394.
- Fradkin, Andrey, et al. "Bias and reciprocity in online reviews: Evidence from field experiments on airbnb." *Proceedings of the Sixteenth ACM Conference on Economics and Computation*. 2015.
- Galloway, S. (2017). *The Four: The Hidden DNA of Amazon, Apple, Facebook, and Google*. Penguin.
- Gawer, A. (2014). Bridging differing perspectives on technological platforms: Toward an integrative framework. *Research Policy*, 43(7), 1239-1249.
- Gentzkow, M and J Shapiro (2010) What drives media slant? Evidence from US daily newspapers, *Econometrica*, vol 78(1).
- Gentzkow, Matthew, Jesse M. Shapiro and Daniel F. Stone (2016), Media bias in the marketplace: Theory. Chapter 14 in *Handbook of Media Economics*, Vol. 1B, editors: Simon Anderson, Joel Waldfoegel and David Stromberg.
- Granovetter, M. S. (1973). The Strength of Weak Ties, *Journal of Sociology*, 78(6), 1360-1380.
- Guess, A, B Nyhan and J Reifler (2018) Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign, European Research Council, Horizon 2020 grant agreement No. 682758.
- Guess, A, B Nyhan and J Reifler (2018) Selective Exposure to Misinformation: Evidence from the consumption of fake news during the 2016 U.S. presidential campaign, European Research Council, Horizon 2020 grant agreement No. 682758.
- Helberger, Natali and Kleinen - Von Koenigsloew, Katharina and van der Noll, Rob, *Regulating the New Information Intermediaries as Gatekeepers of Information Diversity* (June 6, 2015). *Info*, VOL. 17 NO. 6, 2015, pp. 50-71. Available at SSRN: <https://ssrn.com/abstract=2728718>.
- Kennedy P. and A. Prat (2017) Where do people get their news from, June 2017. Available on SSRN.
- Kennedy, Patrick, and Andrea Prat. Forthcoming. "Where Do People Get Their News?" *Economic Policy*.
- Lazer, D. M., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., & Schudson, M. (2018). The Science of Fake News. *Science*, 359(6380), 1094-1096.
- Martens B., Aguiar L., Gomez-Herrera E. and Mueller-Langer F. (2018). The digital transformation of news media and the rise of disinformation and fake news - An economic perspective. *Digital Economy Working Paper 2018-02*, JRC Technical Reports.
- Moore, M. (2016). *Tech Giants and Civic Power*. CMCP, Policy Institute, King's College London.
- Moore, M., and Tambini, D. (2018), Eds. *Digital dominance: the power of Google, Amazon, Facebook, and Apple*. Oxford University Press.
- Mukerjee, S, S Majó-Vázquez, S González-Bailón (2018) Networks of Audience Overlap in the Consumption of Digital News, *Journal of Communication*, 2018.
- Mullainathan S. and A. Shleifer (2005) The market for news, *American Economic Review*, September 2005, pp 1031-1053.
- Parcu, P. L. (2019). New digital threats to media pluralism in the information age. *Competition and Regulation in Network Industries*, 1783591719886101.
- Parcu, Pier Luigi, Botta, Marco and Maria Alessandra Rossi (2020). *Macro Antitrust: The Impossible Challenge*, mimeo, European University Institute.

- Pew Research Center. 2016. "State of the News Media Report 2016." June 15.
- PwC – PricewaterhouseCoopers (2018). Perspectives from the Global Entertainment & Media Outlook 2018–2022. Trending now: convergence, connections and trust. Retrieved from: <https://www.pwc.com/gx/en/entertainment-media/outlook/perspectives-from-the-global-entertainment-and-media-outlook-2018-2022.pdf>
- Reuters, Institute (2017) Digital News Report, published by the Reuters Institute and Oxford University Press.
- Shao, C., Ciampaglia, G. L., Varol, O., Yang, K., Flammini, A., & Menczer, F. (2017). The Spread of Low-Credibility Content by Social Bots. *Nature Communications*, 9 (4787).
- Shao, Chengcheng, Giovanni Luca Ciampaglia, Onur Varol, Kaicheng Yang, Alessandro Flammini, and Filippo Menczer. 2018. "The Spread of Low-Credibility Content by Social Bots." *Nature Communications* 9(1): 4787. <https://doi.org/10.1038/s41467-018-06930-7>.
- Shapiro, Carl and Stiglitz, Joseph, (1984), Equilibrium Unemployment as a Worker Discipline Device, *American Economic Review*, 74, issue 3, p. 433-44.
- Smyrnaioi, N. (2018). *Internet Oligopoly*. Emerald Publishing Limited.
- Stigler Center Committee on digital platforms (2019), Final Report, Chicago.
- Sullivan, L. E. (2009). Selective Exposure. *The SAGE Glossary of the Social and Behavioral Sciences*. SAGE Publications, 465.
- Tambini, D. (2018). Social Media Power and Election Legitimacy. In M. Moore and D. Tambini (Eds), *Digital dominance: the power of Google, Amazon, Facebook, and Apple* (pp. 265-293), Oxford University Press, New York, NY.
- UK Secretary of State for Digital, Culture, Media & Sport, *Online Harms White Paper* (April 2019).
- Ursu, Raluca M. *The Power of Rankings*. Mimeo, 2016.
- Wardle, C., & Derakhshan, H. (2017). *Information Disorder: Toward an Interdisciplinary Framework for Research and Policymaking*. Council of Europe report, DGI (2017), 9.
- Woolley, S. C., & Howard, P. N. (2016). Automation, Algorithms, and Politics| Political Communication, Computational Propaganda, and Autonomous Agents. Introduction. *International Journal of Communication*, 10, 9.
- Zingales, Luigi. 2016. "Are Newspapers Captured by Banks? Evidence From Italy." ProMarket, Stigler Center at the University of Chicago Booth School of Business, May 12. <https://promarket.org/are-newspapers-captured-by-banks/>.

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