

On the externalities of news platformization. An assessment of scientific literature*

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The aim of the article is to assess the debate about news platformizations, by means of a wide-scale bibliographical review. Scientific literature has been organized along two axes: the marked or unmarked definition of news platformization; and the strong or weak understanding of its externalities. By weak definition, we mean all cases in which *platform* and *platformization* are used as being synonyms of other categories: namely, social media, websites, digital services; or digitization, remediation, and mediatization. By strong definition, we rather refer to the analyses premised on the specialist literature about platformization, and making space for more peculiar concepts such as, for instance, externalities or multi-sided markets.

Externalities can be defined as weak or strong, then, based on whether or not the effects of the process seriously modify the economic, social, political or cultural assets of the information society. For the sake of simplicity, we will group the scientific clusters in the following order: weak definition and weak externalities effects; weak definition and strong externalities effects; strong definition and weak externalities effects; strong definition and strong externalities effects. The positive/negative effects dyad will be considered too: though it has not been used as a pivotal variable for the drawing of the quadrants, as most cases would fall in the middle of the continuum, and several authors take an uncertain position.

Keywords: news platformization; platform studies; digital journalism; networked journalism

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About news platformization

The technological transformation of news ecosystem has been widely investigated in the last decades and interpreted, as is often the case, along a series of buzzwords. In the 1990s we used to talk about on-line journalism, as the interpenetration between the old and the new media: digital news-making was merely about transferring existing contents into new formats, and the web spaces, conversely, provided a first remediation of the graphic design specific to printed press (Bolter & Grusin 1999, p. 69). After the Nasdaq crisis and the following recovery, the rhetoric about the so-called Web 2.0 made it popular the idea of citizen or participatory journalism. A diverse interpretation came from Castells, who put forward the concept of “networked journalism”, thus shifting the core from the replacement of professional reporting to the overall restructuring of the system, resulting in a public arena in which journalists are no longer the sole players (van der Haak, Parks & Castells, 2012).

In the last fifteen years, the popularization of advanced technologies also put to the foreground the notion of cross-media journalism. By and large, the focus is on all practices allowed by new devices – shooting, recording, remixing – able to cross the boundaries between previously separated fields, and between amateur and professional standards. The limit of this theoretical strand was the misunderstood idea of such practices, *per se*, empowering people’s agency and fostering participation - as in Jenkins’ (2008) convergence culture - which is still to be proved. To put it in one sentence, such idea goes that “cross-media functionality” allows people to publish “news across multiple media platforms”, thus bearing with it “an interactive relationship with audiences” and a “lowered threshold for citizens to enter the public sphere” (Deuze, Burns & Neuberger, 2007, p. 323; for a synopsis, see table 3).

News *platformization* is but the last of a series of buzzwords: which nonetheless offers two advantages. Firstly, by *platforms* we can refer to the setting of closed systems, in discontinuity with the first and second-generation web services (Helmond, 2015). Even though the centralization tendency was implied by the evolution of the web hypertext as such, and it has been measured since the late 1990s (Faloutsos, Faloutsos & Faloutsos, 1999; Barabási, 2001), we can now observe this process at its overt and final stage. Secondly, and as a direct consequence, the spatial implication of the concept makes it clear its impact in terms of *sovereignty* (see Bratton, 2016): the rise of mega-structures, able to challenge the institutions in their field.

The proposed review can not be exhaustive, by definition, while being expected to isolate the main findings and the most problematic knots. In order to define a simple framework, the literature has been organized along two axes: the strong or weak definition of news platformization; and the strong or weak understanding of its externalities. By weak definition, we mean all cases in which *platform* and *platformization* are used as being synonyms of other categories: namely, social media, websites, digital services; or digitization, remediation, and mediatization. By strong definition, we rather refer to the analyses premised on the specialist literature about platformization, and making space for more peculiar concepts such as, for instance, externalities or multi-sided markets. By borrowing

an expression already used for describing cultural transnationalism (Hjort, 2010), this is the case of a *marked*, rather than *unmarked* connotation of the keyword.

Externalities can be defined as weak or strong, then, based on whether or not the effects of the process seriously modify the economic, social, political or cultural assets of the information society. For the sake of simplicity, we will group the scientific clusters in the following order: weak definition and weak externalities effects; weak definition and strong externalities effects; strong definition and weak externalities effects; strong definition and strong externalities effects. The positive/negative effects dyad will be considered too: though it has not been used as a pivotal variable for the drawing of the quadrants, as most cases would fall in the middle of the continuum, and several authors take an uncertain position.

We will propose some considerations about the four clusters, and the empirical indications thereof, in the final section of this article. Given the wide-scale nature of this bibliographical research, we adopted a practical criteria for selecting the works to be reviewed. More specifically, we used two major repositories, Google Scholar and JSTOR, searching for the first 50 articles or books related to the keyword “news platformization”. The full list of the hundred works we selected, after the double cases have been eliminated, is included in the bibliographical references below.

In methodological terms, the four quadrants have been identified based on two specific, though basic questions: the definition of platforms put forward; and the magnitude of the effects generated by the news platformization process. In this respect we opted for a “specific”, rather than “broad” research question, as there lies a main distinction between what we can define a *narrative* and a *systematic* literature review (see Cook, Mulrow & Haynes, 1997). As to the two aforementioned research questions, they derive from different sources. The definition of platform, as *strong* or *weak*, is analyzed based on the traditional media theory; and it is ultimately premised in Marshall McLuhan’s radical understanding of the medium itself, or what we might define his *strong program* for communication studies (see McLuhan, 1964). The second dimension – the weak/strong impact of news platformization - is rather grounded in some recent findings in platform economics, as “strong network externality” and “weak network externality” are supposed to be responsible for two very different aftermaths: respectively, a high-price and static market; and a low-price and more dynamic market (see He, Li & Zheng, 2023). To some extent, the news ecosystem is operating under the same splitting conditions, moving in the continuum between two poles: a for-pay market for a selected few and for the qualified users; and a poorly funded but totally new environment, open to endless possibilities.

First cluster: weak definition and weak externalities effects

A first case is that of the Pew Research Center, whose reports use *platform* in the vague sense of *medium* – for instance, it is stated that “the internet has surpassed newspapers and radio in popularity as a news platform on a typical day and now ranks just behind TV”

(Purcell, Rainie, Mitchell, Rosenstiel & Olmstead, 2010, p. 3). This is arguably due to its methods dating back to the 1990s-2000s period, when the keyword *platform* was still far from its hype – hence the dichotomy between bad and good “media performance”, in place of the current concept of externalities. The main features of on-line news consumption are therefore framed in the same dimension of *openness* which was largely accepted at the time, and in terms of “portable, personalized and participatory” media diet (ibidem, p. 6). No relevant changes could be observed in recent years, as no distinction is drawn between platforms and social media: to the point that the very keyword *platform* only appears one time in their last released report (Walker & Matsa, 2021, p. 3). With this respect, the insistence on a traditional terminology leads to a latent definition of platformization, and to a weak interpretation of its effects.

Weak definition and low effects can be detected in Ju, Jeong and Chyi’s paper (2014), who equal platforms to social media: a problem which is largely present in literature, apparently starting with Gillespie (2017, p. 255), who even excludes from the category such services as Uber and AirBnb, due to their business model (2018, p. 41-43). “Digital platforms alias social media”, one can read in Trappel and Tomaz’s operationalization of the media democracy indicators (2021, pp. 28-29). As to Ju, Jeong and Chyi, the effects of platformization are limited as - on the audience side of the discourse - no correlation pops out between online news consumption and political participation. On the offer side, they measure the use of social networks on the part of classical media outlets, simply stating that “distribution of newspaper content through SNSs has become a common practice” (2014, p. 8).

Along a similar line, Yuan studied the use of news platforms as made by Chinese people living in three major cities, without questioning the nature of the concept itself – not accidentally, in two passages the notion of *platform* is premised in such a traditional work as De Sola Pool’s (Yuan, 2011, pp. 999 and 1000). When it comes to media repertoires, which is the main research question, people are familiar with a synergic use of a plurality of platforms for getting news, with no differences whatsoever between traditional and on-line services (Yuan, 2011, pp. 1004-1005). Guo and Sun analyzed 4,151 contents posted by an American local broadcaster on Facebook, with no distinction allowed between *social media* and *platforms*. The rules of engagement they come out with, not surprisingly, are not specific to platforms while being similar to those of traditional media, starting with the importance of visual contents (Guo & Sun, 2020, p. 751). As the authors do not consider the rise of *closed* ecosystems, the externalities of the web - autonomy, freedom of choice and purposiveness (2020, p. 746-749) - recall such concepts as “networked individualism” (Wellman, Hampton, Isla de Diaz & Miyata, p. 2003), or “new social operating system” (Rainie & Wellman, p. 2012). Mellado, Humanes, Scherman and Ovando assume a basic definition of media platforms as well, with the concept of affordance being cited without a thick theoretical articulation (2018, p. 361), as it often happens in the Internet Studies (for a textbook case, see Boyd, 2014, pp. 10-14). Their assessment of 1,591 news published by off line and on-line Chilean press, in a consistent way, detected a few differences between the two sectors, that can be explained upon professional routines, with a limited impact associated to the

platformization process itself – so that none of those differences “can be ascribed to affordances and/or technological characteristics alone” (2018, p. 372).

On the consumption side, Segesten, Bossetta, Holmberg & Nihorster make a reference to platforms being a “third space” (2022, p. 1116), while providing an experimental verification of an already known phenomenon: disagreement and conflictual posts capturing people’s attention (Ibidem, p. 1129). Kalogeropoulos and Nielsen calibrate the definition of platforms based on their interest, so that the “second wave of digital disruption” is characterized by “the rise of smartphones, social media platforms, and a video-enabled internet” (2018, p. 2207-2208). By virtue of 26 semi-structured interviews with representative of 19 media outlets in USA, UK and Germany, they present classical findings, with entrepreneurial plans being increasingly focused on video production (2018, p. 2214-2216). Lamot also considers social media and digital platforms as being the same (2022, p. 522), in her analysis of 10,579 posts released by leading Belgian on-line media. The main effect of the feedback provided by audience’s metrics, which is a typical feature of the platforms, is the softening of the contents produced for social media, when compared to those published in the official websites: so that those “consuming news exclusively through social media are thus at risk of not being informed sufficiently enough” (2022, p. 529-530). Continuity between old and new media is assessed by Allern and Pollack (2019) in their reflection on the Scandinavian model of journalism as public good, hardly challenged by the platform economy. Here platformization is one with the overall *digitization* process: so that “the Internet and the emergence of social media platforms have given political parties, lobbyists, interest groups and other actors – even legacy media organizations – new channels and platforms for dissemination” (Allern & Pollack, 2019, p. 1431). By measuring the use of platforms – one more time, equaled to social media – on the part of 15 European governments, Bonsón, Royo and Ratkai provide a conventional picture too, with administrations of Southern countries less active in digital space, and platformization engendering moderate consequences, as proved by people’s participation being everywhere reduced to the minimum, and namely to liking rather than commenting or posting (2014: 58). Klein’s book about polarization can be included in this cluster as well, as the idea of audience-driven media fostering identity politics and radicalization is not specific to platformization per se (2020, pp. 150-158). What is more, according to Klein “negative partisanship” can be codified as a socio-anthropological constant (2020, pp. 60-65), or explained upon the ethnic composition of American society, rather than upon platforms’ affordances (2020, pp. 111-112).

Goyanes and Demeter’s paper is more ambitious, as it aims at illustrating the “thematic patterns of incidental news”, by means of 50 in-depth interviews with Spanish readers (2022, pp. 766). The research is in line with recent academic trends, which are prioritizing the possibility of incidental exposure, over the much talked-about bubbles and confirmation bias (table 2). Vaccari and Valeriani’s comparative study provides significant insights, showing how social media use allows people to randomly access various news sources, resulting in a positive correlation with political participation (2021, pp. 86-110, 197-205, 210-211). With their definition of platforms being based on that of social media, in any case, Goyanes and

Demeter (2022, pp. 761-762) fall short in finding concrete evidence, and the positive externalities of news platformization are modest: as confirmed by the fact that unforeseen information “has no impact on participants’ ability to make sense of current events and politics” (2022, p. 770), and by people superficially reading it. Positive externalities, premised in a weak definition of platforms, are also addressed by Swart (2021), who studied the behavior of 22 Dutch aged 16-26, and observed a middle-ground situation, with respondents being aware of some aspects of the algorithmic mediation, and totally unaware of some others. In a similar perspective, Mutsvairo and Salgado draw on a traditional idea of “diasporic online platforms” (2022, p. 358) and “online environments allow(ing) for some freedom, which otherwise is not available offline” (2002, p. 364). Starting with this background, which reminds us of some interpretations of “Twitter revolutions”, it is no surprise that the expected positive effects of citizen journalism in the considered countries – Mozambique and Zimbabwe – are not confirmed by the observation.

Thorson shares an unmarked conception of platformization, while looking for some effects in terms of people’s engagement. She is probably right in stating that the distinction between incidental and intentional exposure is far from being clear, as the two practices are intertwined in the same information loop (2020, p. 1071). What is more, due to companies’ restrictions to “individual level data”, there is little observational evidence of the phenomenon (Ibidem, p. 1070). At the empirical level, what can rather be assessed is the process of algorithmic inference, based on the well-known pillars of selective exposition, homophily, and customization (Thorson, Cotter, Medeiros & Park, 2021, p. 187). The authors made a survey on 327 undergraduate students, revealing a correlation between the “algorithmically inferred political interest categories” and the “political content exposure on Facebook” (Ibidem, p. 192). As individual choices contribute to the shaping of the algorithm itself, though, the authors conclude that the effects of platformization are moderate, and free will is still with us (Ibidem, p. 193).

Schlesinger and Doyle frame the platformization tendency in the light of the creative destruction category, thus prioritizing the role of media management over the logic of the process itself: as a result, externalities can be intended in terms of “cheap” increasing of digital subscribers and “low marginal costs” (2015, p. 311). Van Erkel and Van Aelst’s work is grounded in a similarly simplified notion of platformization: namely, that “recent years have seen the rise of new media platforms and social network sites (SNSs) such as Facebook and Twitter increasingly complement or even replace traditional news media” (2021, p. 410). In order to examine the correlation between access to platforms and civic participation, they realized a survey on 2,179 users, belonging to such different clusters as “low news diet”; “traditional news diet”; “Facebook reliant” diet; and a more various and rich media diet (2021, pp. 413-414). The association between exposure and awareness is not statistically proved, as it appears “clear that news on Facebook does not provide more knowledge”, while it can be “even related to slightly less knowledge” (2021, p. 417). Erdal’s article is based on classical concepts – cross-media journalism – and the effects of new platforms can be reduced to the likewise classical ideas of spreadability and contents repurposing (2009, p. 192).

Second cluster: Weak definition and strong externalities effects

The discrepancy between a low-profile definition of platformization and a strong impact of the process might require some clarifications. By and large, the academic idea goes that the digital platforms have been replacing traditional agencies, thus replicating a traditional theoretical paradox: working on media without providing an explanation of *what a medium is*, with this concept being the blind-spot in communication studies (Miconi & Serra, 2019). For the most part, and in a similar vein, scientific papers included in this cluster insist on platforms as the new gatekeepers (table 1). In other words, no clear definition of platforms is provided, which could account for the technical differences when compared to such other categories as news digital services, social network sites, social media, and the more. On the other hand, though, the platforms – no matter how the notion is operationalized - are vested with all functions and powers of mediation agencies, therefore taking the center of the stage and acting as main players in the information environment. This imbalance between *form* and *function* - to bring in the key-concepts of the evolutionary theory – is in all likelihood the main shortcoming of media studies, and nowadays of the platform society theory. This is the case of Wallace, who adds the platforms and their algorithms to the list of players carrying on a filtering function (2018, p. 280); and that of Hermida, stating that “digital gatekeeping takes place against a backdrop of algorithmically driven digital platforms, such as Apple, Google, Facebook, Twitter, and YouTube” (2020, p. 473). Coexistence between human and algorithmic gatekeeping has been described also by Napoli, who hardly distinguishes between social media, platforms, and news platforms (2015, p. 757). Schrape puts an emphasis on *platformization*, without providing a detailed description of the process (2021, p. 19), and therefore assuming that the new mediators are plainly the main powers in the domain of public communication. Martin adopts this perspective in a more explicit fashion, when writing that “digital communications platforms have simply stepped into the space they created by undermining legacy mass media influence” (2021, p. 1191). As a consequence,

rather than the democratization of news, what we chart (...) is a radical transfer of communicative power to major platform companies as user preferences, platform affordances and their algorithms’ opaque operations and churn have increasingly governed news visibility to those who primarily consume news on social media (Martin, 2021, p. 1192).

Iosifidis and Nicoli follow the same path, with major disinformation consequences being produced by platforms acting as the new “internet mediators”, without any further investigation (2020, pp. 3-5). As a consequence, the proposed strategies for tackling misinformation are conventional, ranging from fact-checking to the role of task forces (2020, pp. 50-65). In a similar vein, Cetina Pensuel and Martínez Sierra’s paper points to news

platforms as contemporary regulators, which look for a compromise between the freedom of speech principles and their own business goals (2019, pp. 262). Molyneux and McGregor push forward the same argument, while adding a new dimension: the role of journalists in favoring the transfer of hegemony from traditional outlets to Twitter, and in legitimizing the central role of the platforms (2021, pp. 4-10). Chen and Pain's article follows a perspective akin to those above-mentioned, as they accept a minimalist definition of platforms, which appear to be the same as social media: when compared to the previous analysis, though, they focus on the mutual reinforcement and on the win-win relationship between newspapers and Facebook (2021, pp. 374-377; for the impact of platformization on newsrooms, see table 5). The research team at the Columbia Journalism School moves from an alike statement, as "platform" refers "to technology companies which maintain consumption, distribution, and monetization infrastructure for digital media — though each is distinct in its architecture and business model" (Nushin Rashidian, Brown, Hansen, Bell & Hartstone, 2018, p. 18). More technically, the authors combine a second-hand analysis of quantitative data with first-hand interviews to professionals employed in "platform-related" roles (Ibidem, 2019), and they describe current innovation in terms of a typical disruption effect. Beyond their own recognition, the most significant finding has to do with the impressive frequency of *failed* attempts in the platformization of newsrooms: which, nonetheless, has neither impacted the industrial strategies or reduced the financial investment of media companies (Ibidem, pp. 57-62). Merten endorses a comparable approach to "social media platforms such as Facebook, Twitter, and Instagram", that "have become an integral part of online news distribution and consumption" (2021, p. 1018). This being said, her research turns upside down the previous findings, showing the strengthening of people's agency in terms of "personal news curation", which enables users – especially young – to counter-balance the power of algorithmic mediators, by virtue of blocking, friending, or changes of settings (2021, pp. 1026, 1032-1033).

In all cases, the lack of a detailed definition of *what platforms are* makes it difficult a connection between technical configurations and social effects. The main assumption has to do with the rise of *invisible* mediators, such as affordances, news feed, or the platform itself: new agents taking on traditional functions, in a way that we can hardly understand, unlike in the case of human gatekeeping. Foer's critical book belongs to the same tendency, given the imbalance between the magnitude of the changes engendered by platformization – with journalism being destroyed by the algorithm, and Big Tech appropriating the whole sector (2017, p. 77) – and the weak definition of the same process by which it is inspired. Sunstein's influential work on disinformation does provide some interesting insights: for instance, that the circulation of fake news might be only indirectly due to them being fake, while resulting from them *being always new* and therefore more attractive (2021, p. 131). This being said, Sunstein does not provide a real account of the nature of platforms, and also for this reason, he often indulges in political rather than scientific evaluations. Vaidyanathan pushes this idea to its very limits, by linking the devastating effects of disinformation to the major social platform – Facebook - in an apodictic way (2018, p. 175-186); and even Lanier, despite his former work on the concept of *lock-in* (2010), limits himself to state that social media are "undermining the truth" (2018, pp. 53-61). The same

can be told about the paper released by Bell, Owen, Brown, Hauka and Rashidan, in which the platformization process is hardly defined, and the focus is on the overall role of “search engines and social media” (2017, pp. 13-14), that are actually very different from each other. In any case, the authors agree on platforms replacing traditional media, as it would be testified by the rising advertising expenditure in the digital sector. Pickard shows a similar understanding, with a weak definition of platforms paralleled by destabilizing effects on the information arena, due to Facebook’s enormous lobbying power (2022, p. 24).

In a few cases, the unproblematized definition of platformization does not prevent authors from sketching peculiar research designs. Johnson and St. John III, for instance, do not distinguish between platforms and social media or even websites, while focusing on the difficulty of users to tell apart reliable and unreliable sources on Facebook (2020, pp. 762-763). By way of a study on 3,000 Swedish citizens, Bergström and Wadbring hypothesize in this sense a new generational divide, due to youth and elders being diversely affected by the process, as the “establishment of news media, channels or platforms is a slow and time-consuming process”, since it is “rooted in everyday life, and “different generations, growing up in different media structures, do have different pre-understandings of and interest in media use” (2012, p. 124). A similar perspective is adopted by Sang, Lee, Park, Fischer and Fuller (2020), in their evaluation of the stratification due to access and use of news platforms; and by Bachman, Kaufhold, Lewis and de Zúñiga (2010), for whom the main consequence of news platformization is triggering political participation of the young adults, with marginal effects on the remaining population. Guess, Aslett, Bonneau, Nagler and Tucker studied the impact of Facebook RSS feed in the USA, with analogous conclusions: youth prove to be more able to make its way, whereas old people – and also conservative people, at that – are more easily attracted by fake news (2021, pp. 23-26).

Dvir-Gvirsman and Tsurriel interviewed 18 social media editors and 24 journalists, narrowing down the discourse to a more subtle problem: with anyone cultivating “semi-autonomous relationship with audience members”, new tensions are introduced in the newsroom, showing how platformization – no matter how it is defined – bears not only external but also *internal* effects in terms of competition and restructuring of professional routines (2022, pp. 11-14). Even though Hanusch’s definition of platform is basic – “the platforms on which journalists work”; “journalism has become a multi-platform environment” (2017, p. 1574) – his work adds a layer to the previous investigation, by individuating the web analytics as the main factor impacting content creation and distribution, and even the hierarchies within the newsroom (2017, pp. 1579-1581). Chyi and Chadha (2012) worked on “multi-platform consumption”, though they basically equal platforms to media – “digitization of news content and processes have led to easy flow and facilitation of data files across various platforms such as print, radio and television” (2012, pp. 432) - while also using, as it was common at the time, the buzzword of *convergence*. This notwithstanding, they come out with a promising concept of “newsfulness”, by which they refer to the “likelihood that a device or gadget is used for news” (2012, p. 434), which happens to be different from medium to medium, and calls for a close analysis of the specific affordances of each platform. For sure, the *newsfulness* index proper to any single device may largely depend on both the considered period and the observed US context: where, for instance,

the iPad is topping the weekly statistics, the laptop leads the daily one, and the mobile phone is rather used for sociality purposes (2012, p. 439).

Nelson and Lei (2018) make the same use of the category, mainly referring to “digital platforms”, “news platforms” and “cross-platform”, while they do introduce interesting elements at the stage of the analysis. They propose a distinction between two categories of users, respectively getting news through mobile browsers and through app ecosystems. Though they do not put it explicitly, this second audience cluster has properly to do with the aftermath of a platformization process:

This devoted news app audience suggests that a transition from an ad-supported revenue model that privileges measures of audience size to one that prioritizes other traits like loyalty and attention could very well be a beneficial one for commercial news publishers to make (Nelson & Lei 2018, p. 629).

Given the insistence on gatekeeping power, it is no surprise that the papers belonging to this cluster mostly imagine *negative* social effects – platforms replacing newsrooms, and algorithms taking over from humans. This notwithstanding, a few authors combine a weak definition of platforms with remarkable positive impacts on the media system, or society at large. Strauss, Huber and de Zúñiga (2020, p. 1182) grasp the broadest possible meaning of platform, while talking about “news consumption on various platforms (either traditional, online, or social media)”. Their wide-scale survey on 18 countries, in any case, does produce relevant findings, and underpins the idea of digital consumption favoring accidental exposure to news sources, which in its turn is linked to increasing rates of political interest and participation (2020, pp. 1195-1197). The very same results can be found in Fletcher and Nielsen’s paper, based on a likewise simplified definition of “social media platforms like Facebook, Twitter and YouTube” (2018, p. 2451). By studying users in Italy, Australia, UK and USA, they show how on-line news consumption is correlated with “incidental exposure”, which seems to be “stronger for young people and those with low interest in news”, and “for users of YouTube and Twitter than for users of Facebook” (2018, p. 2461). That incidental exposure is more frequent in the case of people with low interest in news is a common finding, which nonetheless has a downside: as it has been noticed, the “impact that passive exposure has on individuals who are, otherwise, no greatly interested in searching for political news” (Mukerjee, Majó-Vázquez & González-Bailón 2018, p. 45). Bachman and de Zúñiga do not follow their own intuition of considering media use as a *predictor* of political ideas – also due to platforms being reduced to such basic features as interactivity and simultaneity (2013, pp. 498-499). The results of their survey confirm that “those who consume more news online and offline will tend to participate more than those who pay less attention to public affairs” (2013, p. 506), with regression analysis indicating a more relevant correlation in the case of digital news (2013, p. 505) – though the affordance of the platforms for political engagement is still at the level of a general statement.

Regardless of the definition of news platforms and its complexity, there is no doubt that disinformation is considered as their main negative externality (table 6): especially because – well beyond the contingent content of any *single* fake news – it has a tremendous impact on media trust, and on the overall credibility of institutions (Anstead, 2021, pp. 50-51). Once

again, the review of scientific literature can not be complete, while it helps individuating some relevant tendencies.

While not aptly defining the platformization process, Osatuy and Hughes (2018, pp. 3988-3990) bring in a particular facet: all differences in *tones* and *cognitive* efforts, between fake and reliable news. With no theoretical definition of platforms, and by taking a more empirical stance, Levy assessed the relation between misinformation, with the aid of an experiment on 1,700 users: as a result, “affective polarization” appears the main externality put in motion by platformization (2021, p. 867). Though they refer to “platformization of Arab news” in the very title of their article, Zaid, Ibahrine and Fedtke frame their work in terms of information disorder: which is not specific to the concept of platform, and may easily fit the case of digitization at large. In any case, their study of news websites in Jordan, Morocco, Egypt and Tunisia highlights a strong negative effect in terms of disinformation, with 79% of news not complying with “the imperative of truth”, to put it in their words, and 22% of it being totally fabricated (2022, pp. 14, 10). Disinformation also lies at the heart of the works released by Tunstall (2009) and by Bhuiyan, Whitley, Horning, Lee and Mitra (2021), which both reflect on the opacity of contemporary news-making, and on its dramatic impact on the overall state of media *trust*. This lack of contextualization in the framework of the platform society probably explains why all effects are analyzed against the backdrop of classical themes: for instance, the second-generation digital divide (Hargittai 2002), on which the idea of social stratification is probably premised; and the network gatekeeping theory (Barzilai-Nahon, 2008), which paved the way to many works on digital intermediaries.

When it comes to the *remedies* to the proliferation of fake news, there is no agreement in scientific literature. The most complete aggregated analysis is that realized by Pavleska, Školkay, Zankova, Ribeiro and Bechmann (2018) in the context of an EU-funded project. The idea was to collect data from 50 debunking agencies in 27 European countries, though only 15 of them did release some information (Ibidem, p. 15). As a result, major shortcomings emerge, which have to do with limited cooperation, self-referentiality, and some “lack of clarity” about the real political goals of the organizations (2018, p. 22). What is more, a real evaluation of fact checking activities is hardly possible, as the majority of those organizations is not used to self-assessment of any sort, and none of them has laid out well-defined parameters or key-performance indicators (2018, pp. 18-19).

Chung Ng, Tang and Lee analyzed the effect of a common commercial strategy, the flagging of fake news, in their big data analysis of the contents posted on Sina Weibo from June 2012 to May 2014 - more precisely, on 1,514 allegedly fake news, and on the related comments produced by 409,020 users (Chung Ng, Tang & Lee, 2021, p. 909). What is interesting, the authors apply a basic sociological framework – the weak/strong tie dyad – in order to analyze the spreading pattern of fake news, before and after the flagging. The main result is that flagging leads the “dissemination network to be more centralized through direct forwards”, rather than “dispersed through indirect forwards”. In other words, the flagging changes the *qualitative* topology of network diffusion, rather the *quantitative* impact of the disinformation cascade – how the message reaches the people, but not how many people would be eventually reached by that message (Ibidem, p. 920). Their explanation has to do with the role of major influencers: once the news is flagged as being false, “users

with a large number of followers” will be “expected to behave more cautiously”, and therefore embrace the discussion, for the purpose of debunking the unreliable information (Ibidem, pp. 920-921).

Lazer & others (2018) point to “direct government regulation” carrying several risks, “constitutional and otherwise” (2018, p. 1096), and therefore call for a market-driven solution, based on two symmetrical interventions. On the one hand, digital platforms should make themselves available for a cooperation with other institutions. In the other way, individuals need to be empowered, with the goal of taking some power out of fact-checking organizations, whose reports can even happen to be “counterproductive” (Ibidem, p. 1095). Italian data scientists Fabiana Zollo and Walter Quattrociocchi have been applying a “early-warning” approach, due to the ineffectiveness of ex-post interventions, such as debunking or flagging. The goal is that of timely identifying the discussion sub-topics and the digital spaces which, in their combination, are more likely to trigger polarization – a point after which, according to the authors, information cascades and fake news can easily spread (Cinelli & others, 2020; Del Vicario, Quattrociocchi, Scala & Zollo, 2019; Peruzzi, Zollo, Scala, Schmidt, & Quattrociocchi, 2019).

Cooperation between platforms and news organizations is advocated by Ananny in his paper for Columbia. Ananny analyzed the partnership among Facebook, media outlets – Associated Press and ABC News – and fact-checking organizations active in the United States: Politi-Fact, FactCheck.org, and Snopes (2018, p. 23). By virtue of interviews, material reviews and direct observation, he individuates the “infrastructure” of the cooperation, to be intended as both a social and a technical space. The main principles behind the initiative are: transparency, translated into a common accessible dashboard; feedback from any participant; availability of the same technological means for all members; and definition of a common lexicon. Despite the good intentions, serious problems are still in place: the disagreement among partners, and the different scale at which they are used to work. The main criticality is the power imbalance between Facebook and its counter-parts: at that, Facebook even proposed a payment to the partners, which was mostly rejected (Ibidem: 35).

The use of blockchain lies at the heart of the work of Gowri Ramachandran, Neville, Zhelezov, Yalçın, Fohrmann and Krishnamachari, bases on a “decentralized and community-driven platform for fake news detection” (2020). *Whistleblower*, how the platform is called, allows each user to circulate information to be checked, and send it to a set of “verifier nodes” (2020, p. 161). The “smart contracts” protocols randomly forward the information to one of these nodes – at least in the current prototype, though the authors touch on a new version, implementing a non-random selection (2020, p. 160). After the verifier sends back the result to the task owner, the system comes out with a “genuineness score”, which can be challenged by each of the nodes. In this sense, two participatory mechanisms are built into the platform: the possibility to “check the algorithm used to compute the score”; and, in case of contested outputs, the option of putting them to the vote (2020, p. 160). As fascinating as the solution might be, it is evident how the system requires active and skilled participants, even able to “reliably curate the algorithms” (2020, p. 8), and can not be scaled up to a wide social application.

The crowdsourcing of fact checking by means of the blockchain has been also proposed by Shae and Tsai, though based on a basic explanation of the confirmation bias (2019, p. 1610). What is relevant, their goal of rebuilding trust through a decentralized system is hardly compatible with the backdrop a “factual dataset”: which, once again, would rely on the power of self-affirmed fact checking authorities, such as NewsGuard, OpenSources and MediaCloud (2019, p. 1613). Dhall, Dhar Dwivedi, Pal and Srivastava widen the discourse from the disinformation field to the whole catalogue of “vicious” contents, such as, for instance, those related to drug use – an aspect that they fall short in problematizing, for what concerns the social side of the argument (2021, p. 3). The idea is still that of enabling each node to exercise some control over the information stream: for this to be done, though, their prototypical platform needs to separate two different transactions, the “original messages” and the “forwarded messages” (2021, pp. 22-23). In order to prevent the spread of what they label as vicious contents, “private posts will not be given options to be forwarded by the receiver of such post” (2021, p. 21), and therefore limiting “mass spread” would come at the price of an authoritarian imposition. The same paradox of a radically decentralized idea turning into a control apparatus is present in Christodolou and Christodolou, who expressly refer to a blockchain maneuvered by the governments (2020, p. 138).

Based on scientific literature, the use of blockchain for the outsourcing of fact checking is a popular idea. Similar attempts have been made, with no significant differences in inspiration, by Jing & Murugesan (2018); Erkkilä & Yle (2019); Paul & others (2019); Saad, Ahsar & Mohaisen (2019); Torky, Nabil & Said (2019); Shahbazi & Byun (2021); Waghmare & Patnaik (2021). Fraga-Lamas and Fernández-Caramés support the use of blockchain also for fighting the deepfakes, though their guidelines are not specific to the technical affordances of videos, and focus on conventional parameters: namely, decentralized content moderation and rewards for fact checkers (2020, pp. 55-56).

Third cluster: Strong definition and weak externalities effects

When McLuhan came out with his most famous statement – “the medium is the message” – it was his intention to define a sort of *strong program* in communication studies: the more radical the definition of the media, the more violent their effects on human society, if not on the whole history of civilization (1964, p. 25). As a matter of fact, though, a strong definition of platforms – able to identify their specificities – is not always accompanied by a strong understanding of their externalities.

Masip, Suau, Ruiz-Caballero, Capilla and Zilles properly consider platforms as closed and proprietary systems, in discontinuity with first-generation web services. More precisely, the authors realized six focus groups, with a total of 48 participants, for discussing the effects of WhatsApp affordances, and they came out with conventional findings. Basically, confirmation bias and ideological segregation appear the main effects of news exposure on WhatsApp, due to small groups usually being more uniform: when it gets to bigger groups

and less biased information, in fact, people perceive it as “a noise”, and are rarely engaged (2021, pp.1075-1076).

Diehl, Barnidge and de Zúñiga refer to the literature related to the platform society, while proposing a Multi-Platform News Index, for measuring people’s level of agency (2019, p. 441). By means of a second-hand elaboration on Nielsen data, though, they observe a limited and nuanced effect of news platformization (2019, pp. 443-444). Diakopoulos (2016) draws on Gillespie’s contribution, with the goal of both refining the concept of platform – which is way too “vague” – and applying it to the case of news production, or what he calls “computational journalism”. Starting with such premise, it remains unclear how the effects of platformization may be countered by means of “community development, cross-industry non-content production, and cultural re-orientation”. Myllylahti brings in the concept of *attention*, which is relevant for a few reasons: as a scarce commodity; as a unit of measurement; and as a “source of monetization” (2020, pp. 569-572). The externalities of an attention-driven system are not defined, as the author declares the “urgency to explore attentional reader revenue models” (2020, p. 573), and such exploration is still to come. Zhang and Pérez Tornero reflect on the “inner logic” of platformization, by trying to combine Van Dijck’s idea of platform society, Couldry and Hepp’s mediatization theory (2017), and the contingent role taken on by digital services during the Covid-19 crisis. Despite the authors’ reference to the architecture of platforms (2021, p. 182), the externalities are far from clear, and framed in such generic concepts as “responsiveness” and “flexibility” (2021, p. 183).

An unclear relationship between the relevance of the platform as a theoretical notion and its effects, finally, can be traced back to José van Dijck’s analyses, and therefore to the very macro-text of the platform society. There is no doubt that van Dijck has worked to the articulation of common concepts in the Internet Studies, starting with the taxonomy of various types of social media (2013, p. 8). In a similar way, the distinction between infrastructural and sectorial platforms does shade some light on the new ecosystem (van Dijck, Poell & de Waal, 2018, pp. 12-22). With this respect, van Dijck’s definition of platform is *marked*, as it relies on a series of specific characteristics: commodification, selection, personalization, attention capturing, content moderation, and datafication (ibidem, pp. 37-46). The same applies to news platformization – one of van Dijck, Poell and de Waal’s case-studies, along with transports, health and education – which would result in a totally new information ecosystem, based on data-driven production and distribution, and content curation (ibidem, pp. 56-71). A problem with the platform society paradigm, here, is the unstable relation between structure and agency. This is an aspect of the major shortcoming of the theory, which on the one hand supposes platforms to take on a sort of infrastructural sovereignty over the world, somehow replacing the network power defined by Castells (2011). On the other hand, van Dijck prioritizes agency over structure: hence a contradiction between the concept of commodification – which, unlike the generic *commoditization*, is key to Marxist exploitation theory – and the idea of platforms as multi-sided markets, where offer and demand would meet on a free will basis, and balances and counter-balances would be in place (Miconi, 2022). A discrepancy between the structural importance of platforms and the uncertain relevance of their effects is also detectable in the case of news production. As

impactful as the rise of platforms might be, the future is still open, and the new configuration of information systems would depend on what players will do – which is totally acceptable *per se*, while being hardly compatible with the alleged “infrastructural” power of platforms. As an example:

policymakers, non-governmental organizations, and media and communication scholars concerned with the realization of key journalistic values need to squarely focus on the interplay between the different actors on the contemporary news process (van Dijck, Poel & de Waal, 2018, p. 71).

Fourth cluster: Strong definition and strong externalities effects

Nieborg and Poell (2018) applied the framework of the platform society to news production, by studying BuzzFeed, Huffington Post and Upworthy, and deriving strong externalities from their marked definition of platformization. News production, the idea goes, “has historically been platform independent”, while it has become “progressively dependent on the tools, advertising revenue, and data and governance standards of the GAFAM” (2018, p. 4277). More technically, news is taking the shape of “contingent commodities”, as it has moved from following a “linear production process” to being “constantly altered, and optimized for platform monetization” (2018, p. 4282). The ambiguity intrinsic to the platform society model is somehow resolved by Willig, who draws on van Dijck, Poell and de Waal’s definition, while eventually prioritizing the concept of commodification over the multi-sided angle of the discourse. In order to assess the externalities of the process, Willig realized semi-structured interviews with news media employees and managers, about their strategies, their services, and their understanding of their audiences (2022, p. 62). As a result, and as also confirmed by the examination of first-hand documents, media agencies reveal to be increasingly engaged in tracking their readers, so that commodification may well be considered as the main effect of platformization (2022, pp. 66-67).

In their report for the European Commission, Martens, Aguiar, Gomez-Herrera and Müller-Langer draw on the same backdrop, by adopting the category of multi-sided market (2018, pp. 15-16). Effects of the process are strong in their turn, as externalities encompass information overload; the logic of advertising-driven contents looping back into the print media sector (2018, p. 42); and the market failure of spillovers due to information monopolies (for the economic effects of news platformization, see table 4). Along the same line, Hurcombe, Burgess and Harrington take an intermediate position, as they consider two features of social media – shareability and sociability (2021, pp. 383-384) – to the detriment of others, which might be more typical of the platformization stage. The main effect of the process is the rise of a new cultural form: the “social news”, able to combine the quality of traditional journalism and the informal language of daily life (2021, pp. 389-390). Strong definition and strong effects of platformization coexist in Siapera’s article, who proposes the concept of “infomediation”, based on three features. While one of them is hardly credible – that of new information ecosystems “liquidating meaning” – the others provide advanced

insights into the organization of news platforms. Firstly, platforms do not simply distribute contents, while they also distribute *roles*, putting people into different categories (2013, p. 1); secondly, new gaps are introduced “in the recently blurred division between producers and consumers”, with new intermediaries imposing their own criteria, extraneous to the logic of news production itself (2013, pp. 2-3). The effect of platformization is the displacement of job market – the “de-industrialization” and de-professionalization of journalism (2013, pp. 7-9) - with unpaid labor becoming a main source of value (2013, p. 16): a concept that is largely accepted in critical internet studies, while being absent in the reflection on news platforms.

An effort of operationalizing the *strong* theory of affordances in terms of concrete externalities has been proposed by dos Santos Jr, Lycarião and de Aquino, in their study of 823,184 contents posted on Facebook by 99 media outlets in thirteen countries. When it gets to the concept of affordance, the authors give up some complexity, in order to break it down into material indicators: in the case of Facebook, for instance, such features as length of texts, format of posts, and regularity of updating (2019, p. 399). In terms of externalities, the causality tests allow the authors to state a positive impact and a “virtuous circle” between the above-defined affordances, the compliance of the posts to those affordances, and the sharing practices on the part of users, which might be an indicator of people’s agency (2019, pp. 413-414). Meese and Hurcombe made a similar exercise, working on some granular aspects of Facebook’s affordances: precisely, the launch of Facebook live statistics; the updating of the algorithm in 2013, which enabled the platform “to boost the posts of news publishers”, and therefore attracting their attention and investments (2020, p. 2369); and the new version of the NewsFeed in 2018, giving new centrality to contents posted by one’s social circle (2020, p. 2370). In their interviews with representatives of fifteen Australian media outlets, the authors observe the impact of these changes, with news media becoming platform-dependent – as in Nieborg and Poel – and putting in place their strategies for negotiating with the majors. Jääskeläinen, Yanatma and Ritala face a similar question, by investigating the effects of platformization on the Austrian News Agency (APA). Their definition of platforms is based on the multi-sided model, and therefore assumes them providing “services to two or more sides of the market, using different pricing strategies on different sides”; and, what is telling of a *strong* understanding of their nature, creating “cross-side network effects” (2021, p. 2063). By means of a multi-step data collection (2021, p. 2066), the authors describe the transformation of the APA agency into a “platform organization”, based on a three-way market idea and connected to infrastructural platforms (2021, pp. 2069-2070).

Shin, Zaid, Biocca and Rasul define “platformization of news” as the process “whereby the various operations of news editors, news publishers, and digital platforms have become intertwined” (2022, p. 4). Moving from that, they consider “algorithmic datafication” as the paramount feature of platforms: the real “black box” of the system, characterized by a lack of transparency. With a radical idea come radical consequences, as users are challenged by something that they can not understand, in force of their heuristics and cognitive abilities. As people are not “passive recipient”, nonetheless, they collect and process the information “via a trust mechanism, resulting in evaluating privacy risks” (2021, p. 16).

Claussen, Peukert and Sen (2019) realized an experiment on the externalities of algorithmic news recommendations, based on a strong understanding of both the news as “different from a standard product”, and the algorithm as being “biased towards personal preferences” (2019, p. 12). By setting up an experimental and a control group, they measured the differences between human contents curation and automated recommendations, also with the purpose of identifying the right “mixed strategy”, and “investigating which tasks might be suitable for automation” and “where humans would still” be needed (2019, p. 4). As a result, human editing would outperform the algorithm in case of relatively small amount of information, with the automated solutions being more effective at the big data level of scale.

Westlund and Ekström (2018) adopt a marked notion of news platforms, based on their proprietary nature – with non-proprietary spaces often proposed as a counter-measure. Not dissimilarly from Morozov (2011), they suggest a relation between news platformization and the crisis of participation: or “the dark side of participation”, the dysfunctional effects brought by the process (2018, pp. 6-7). Lee, Nanz and Heiss share a strong understanding of platforms, to the point that the affordances specific to each of them may engender different effects (2022, p. 2). At the empirical level, they assess the impact of incidental news exposure on a sample of the US population, during the 2020 presidential campaign (2022, p. 5). As to the findings, incidental exposure is not a strong predictor of political knowledge and participation in the case of Twitter and Facebook, thus not confirming the results of previous research; and it is even a predictor of decreasing knowledge in the case of YouTube (2022, p. 6). Their study is part of an emerging scientific strand, taking distance from the much talked-about theory of *bubbles*, which have been repeatedly stated without being empirically confirmed (so that Pariser’s seminal book on Google customization (2011) has been probably taken too *literally*).

Smyrnaio and Rebillard put this problem in a longitudinal perspective, by interviewing 51 French media managers and journalists, between 2013 and 2016. Their definition of platformization is by all means strong, as they combine platform theory with the classical critical notion of cultural industries (2019, p. 35). Such radical operationalization of the category is paralleled by heavy effects of news platformization, as they emerged from the in-depth interviews: the unsurprising confirmation of the “dominance of a few players”; the willing or unwilling importation of the GAFAM technical standards; the necessity of keeping people on the website as long as possible; the inevitable interference of the platforms on content production – all in all, the confirmation of the “dual logic of platforms”, the seeming decentralization accompanied by their establishing as main hubs (2019, pp. 42-43).

A particular interpretation of this scheme leads us to the very foundation of the platform society theory, starting with José van Dijck. The main dilemma has to do with the ambiguous essence of the platforms themselves: with their “dual nature” of public spaces and business players, or their “Janusfaced status” (van Dijck, 2021b, p. 2814). When it goes down to the information sector, a question arises about the condition of “news consumers”, and whether or not they can be considered as the “same as retail consumers” (van Dijck, Nieborg & Poell, 2019, p. 5). In coherence with the areas covered by her previous case studies, van Dijck includes news, along with urban mobility and health care, among the strategic sectors to be

regulated (van Dijck, 2021a, p. 325). In particular, the problem with news platforms is that they have bypassed a fundamental stage, the negotiation of “public values”, which was traditionally rooted in professional codes and public debate – among which, for instance, “accuracy and fairness in reporting” (van Dijck, 2020, p. 3). If anything, this makes it clear that platforms can hardly be framed as multi-sided markets, as in van Dijck’s theoretical background (Boudreau & Hagiu, 2009; Evans, 2011), due to different players not starting from the same line, and to rent positions and privileges inevitably taking their toll. In any case, van Dijck states, it all depends on the metaphor we use for understanding those platforms: “if cloud services were labeled digital infrastructures they could be held up to certain standards of neutrality and openness; if they were labeled intermediary platforms, they might be subject to content liability” (2021b, pp. 2814-2915).

In a consistent perspective, Salgado links platforms accountability to the adoption of a specific *European* category, that of public service media.

In this logic, both extending public service media top platform communication and integrating mechanisms to ensure the transparency of social media platforms and all news providers in general are key measures (Salgado, 2021, pp. 3-4).

Bonini makes a similar motion, while reframing the platforms as public service media. In this sense, if “traditional media are recognized as gatekeepers of information and cultural industries in general (...), then platforms like Facebook, Instagram, WhatsApp, Netflix, and Spotify apparently cannot be considered media” (Bonini, Túnuez-López & Barrientos Báez, 2021, p. 51). By shifting the attention from the contents that the media produce “to the position that media occupies in society”, though, their definition would fit the case of platforms (ibidem, p. 52). Bonini is aware that such transition can not be easily accomplished, to the point of proposing a sort of “agonistic framework” (Bonini & Mazzoli, 2022, p. 929) for a new definition of the public role of platforms (a concept close to van Dijck’s idea of public values). In order to make the platforms a public good, inspired by a “symmetry of power”, three conditions are required: their “hackability”, or the possibility for users to make changes and modifications; them being based on open software; and what can be defined algorithmic “conviviality”, by going back to Ivan Illich, or the decentralization of control functions (ibidem, pp. 931-932).

Conclusions

In this final section, we will draw some outlines based on the literature review. We will start by reflecting on the four clusters that we have identified; and after that, we will single out three major findings, related to state of news platformization and its externalities.

As already stated, the four clusters result from the empirical organization of the collected materials, while also allowing for a broader consideration. As a main insight, we observe that there is no correspondence between the two dimensions we investigated: the strong/weak definition of news platformization; and the strong/weak understanding of its effects. In other words, the individuation of radically new features of the platforms is not necessarily coupled, as it could be expected, with their impactful externalities (and

symmetrically, the other way around). With particular frequency, such is the case of the definition of news platforms as a new intermediaries, which brings with it two implications. Firstly, it prioritizes the function of the platforms over their morphology, or set of affordances: to put it in simple way, it deals with *what platforms do*, more than with *what platforms are*. Secondly, and relatedly, a lack of problematization may be supposed, which would be in line with the latent definition of media, by which media studies have been traditionally affected (see Miconi & Serra, 2019).

When we focus on the evidence showcased by the scientific corpus we examined, three aspects deserve some attention. Firstly, we observed the frequent attention placed to the effects of the process on the newsroom and the organization of journalistic profession. In this respect, the literature we took into exam mostly belongs to a second generation of platform studies, which are characterized by a similar shift: according to which platforms have moved from impacting some aspects of the market competition, such as the pricing, to producing the overall change of the firms and leading to a new definition of their very nature (Rietvild & Schilling, 2021, pp. 1530-1532).

A significant difference between the analyzed corpus and the general platform theory rather pops out at another level of investigation. We refer here to the widely accepted idea of platform *ecosystem*, intended as a “modular and interdependent system of core and complementary components”, allowing different participants to take advantage of the cooperation, and to capitalize on “the search and coordination capabilities that enable the matching and interaction between distant and previously unconnected parties” (Kretschmer & others, 2020, pp. 418-420). Such assumption is not alien to the media studies: for instance, an alike pattern of hierarchization and meta-organization has been put forward by Van Dijck, Poell and de Waal (2018), with their distinction between infrastructural platforms, sectorial platforms, and complementors which provide some specific services. If we narrow down the discourse to *news* platformization, on the other hand, this typical network effect is hardly visible, and the cooperation between legacy media and major platforms only goes at the advantage of global players.

A final remark is possible about misinformation and disinformation, which are held – not surprisingly – as the most dangerous negative externalities of the process. Interestingly enough, the spread of fake news is only attributed to the top-down communication, as a consequence of common people speaking up on-line: to the point that a commonly proposed countermeasure, as we saw, would require the cooperation between the platforms and the professional media outlets. Such position, nonetheless, falls short in understanding the problem, for two reasons. To start with, it relies on the juxtaposition between classical news-making and citizen journalism, which appears to be outmoded, when we consider the hybrid configuration of contemporary media landscape, or what we use to define “networked journalism” (Van der Haak, Parks & Castells, 2012). Secondly, it might be questioned the idea of fake news as an *external* menace, as if the conventional media were not responsible, in their turn, for misinformation campaigns and biased coverage of the events. More concretely speaking, for instance, supposedly reliable and supposedly questionable contents follow a very similar rule, in terms of overarching narrative, spreading pattern, and re-posting metrics (see Peruzzi & others, 2020; Cinelli & others, 2020; Del Vicario & others,

2010; Peruzzi & others 2019). With this respect, an integrated approach would be recommendable, which takes into account the interactions between top-down and bottom-up information flows, and between the legacy media and the other players at stake.

Synopsys

Table 1. Systemic effects of news platformization

Externality	Type of externality: Negative, neutral, or positive	Sources	Notes
Rise of new intermediaries	Neutral	Bell, Owen, Brown, Hauka & Rashidan 2017; Cetina Pensuel & Martínez Sierra 2019; Diakopoulos 2016; Hermida 2020; Iosifidis & Nicoli 2020; Martin 2021; Pickard 2022; Schrape 2021; Wallace 2018.	--
	Negative	Lazer & others 2016; Napoli 2015; Shin, Zaid, Biocca & Rasul 2022.	--
Dependence of journalism on infrastructural platforms	Negative	Nechustau 2017; Nieborg & Poell 2018; Simon 2022; van Dijck, Nieborg & Poell 2019; van Dijck, Poell & de Waal 2018.	--
Bypassing of social negotiation	Negative	Bonini, Túñez-López & Barrientos Báez 2021; Bonini & Mazzoli 2022; van Dijck 2020; van Dijck 2021a; van Dijck 2021b.	--

Table 2. Effects of news platformization on political knowledge and participation

Externality	Type of externality: Negative, neutral, or positive	Sources	Notes
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Correlation between getting news on platforms and political engagement	Negative correlation: platform news do not favor political engagement	Goyanes & Demeter 2022; Klein 2020; Morozov 2011; Lee, Nanz & Heiss 2022; Westlund & Ekström 2018.	Besides the well-known theoretical interpretations, negative statistical correlation has been found by Goyanes & Demeter 2022; Mukerjee, Majó-Vázquez & González-Bailón 2018; and, in the sole case of YouTube, by Lee, Nanz & Heiss 2022.
	Neutral: no correlation is proved	Bonsón, Royo & Ratkai 2014; Diehl, Barnidge & de Zúñiga 2019; Guo & Sun 2020; Mutsvairo & Salgado 2022; Ju, Jeong & Chyi 2014; Thorson 2020; Van Erkel & Van Aelst's 2021; Yuan 2011.	--
	Positive correlation is proved	Bachman & de Zúñiga 2013; Fletcher & Nielsen 2018; Strauss, Huber & de Zúñiga 2020; Vaccari & Valeriani 2021.	For the most part, the papers focus on the positive correlation between the use of social media platforms and the probability of incidental exposure to the news.

Table 3. Effects of news platformization on audience engagement

Externality	Type of externality: Negative, neutral, or positive	Sources	Notes
Clustering, algorithmic recommendation and people's choice	Negative: algorithmic recommendation is limiting people's experience	Pariser 2011; Qi & others 2021; Wang, Zhang, Xie & Guo 2018.	--
	Positive: people's free will is still there	Diakopoulos 2016; Hurcombe, Burgess & Harrington 2021;	More specifically, Merten proposes the concept of "personal

		Merten 2021; Thorson, Cotter, Medeiros & Park 2021.	new curation”; and Hurcombe, Burgess & Harrington that of “social news”.
Audience fragmentation	Negative	Evans 2003; Messina 2011.	--
Audience responsiveness and engagement	Positive	Chiy & Chada 2012; Dos Santos Jr, Lycarião and de Aquino 2021; Erdal 2009; Guo & Sun 2020; Jenkins 2007; Purcell, Rainie, Mitchell, Rosenstiel & Olmstead 2010; Rainie & Wellman 2021; Walker & Matsa 2021; Yuan 2011; Zhang & Pérez Tornero 2021.	--
	Neutral	Swart 2021.	--
	Negative	Lamot 2022; Myllylahti 2020.	--

Table 4. Economic effects of news platformization

Externality	Type of externality: Negative, neutral, or positive	Sources	Notes
Lowering of marginal costs	Positive	Schlesinger & Doyle 2015.	--
<i>Disruption</i> of information industries	Negative	Bell, Owen, Brown, Hauka & Rashidan 2017; Foer 2017; Nushin Rashidian, Brown, Hansen, Bell & Hartstone 2018; Pickard 2022.	--
Failure of spillovers due to monopolies	Negative	Martens, Aguiar, Gomez-Herrera & Müller-Langer 2018.	--
Deindustrialization of journalism	Negative	Siapera 2013.	--
Win-win relationship between	Positive	Chen & Pain 2021.	--

Facebook and news outlets			
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Table 5. Effects of news platformization on professional routines

Externality	Type of externality: Negative, neutral, or positive	Sources	Notes
Weakening of local journalism	Negative	Hepp & Lonse 2019; Nocera, Costantinou, Tran, Kim, Kahan & Shahabi 2021.	--
Imposition of the neutral point of view	Negative	Gallofré Ocaña, Nyre, Opdahl, Tessem, Trattner & Veres 2018; Vaydianathan 2011.	--
Rivalry within the newsroom, due to personalized audiences and web analytics	Negative	Dvir-Gvirsman & Tsuriel 2022; Hanusch 2017.	--
Platformization of the newsrooms	Negative	Ananny 2018; Molyneux & McGregor 2021; Smyrnaio & Rebillard 2019.	Negative interpretations are based on different reasons: for Ananny, the cooperation with Facebook is dangerous, due to its power; Smyrnaio & Rebillard describe the importation of GAFAM standards; and Molyneux & McGregor denounce the role journalists themselves in legitimizing the rise of the platforms.
	Neutral	Allern & Pollack 2019; Bónson, Royo & Ratkai 2014; Meese & Hurcombe 2020; Mellado, Humanes, Scherman & Ovando 2018; Jääskeläinen, Yanatma & Ritala 2021.	These authors see the process as being more balanced, with nor risks for journalistic autonomy.

New standards in news production and packaging	Negative	Andersen 2022; Lamot 2022; Segesten, Bossetta, Holmberg & Nihorster 2022.	In Segesten, Bossetta, Holmberg and Nihorster, the problem is the success of conflictual posts; Andersen works on the rise and failure of slow journalism; Lamot is critical about the softening of the news in social media pages of news outlets.
	Positive	Salgado 2021.	The idea is using the technical affordances of the platforms for providing people with personalized news.
	Neutral	Fraga-Lamas & Fernández-Caramés 2020; Kalogeropoulos & Nielsen 2018.	Both papers insist on the increased relevance of visual communication.
Implementation of the algorithmic curation	Negative	Claussen, Peukert & Sen 2019; Willig 2022.	The algorithm outperforms human curation at the level of big data (Claussen, Peukert and Sen); audience tracking and commodification is increasing (Willig).

Table 6. Effects of news platformization on disinformation and radicalization

Externality	Type of externality: Negative, neutral, or positive	Sources	Notes
Spread of fake news	Negative	Anstead 2021; Christodolou & Christodolou 2020; Dhar Dwivedi, Pal & Srivastava 2021; Erkkilä & Yle 2019; Fraga-Lamas & Fernández-Caramés 2020; Gowri Ramachandran, Neville, Zhelezov, Yalçin, & Fohrmann	--

		Krishnamachari 2020; Jing & Murugesan 2018; Johnson & St. John III 2020; Kim and Yoon 2018; Lanier 2018; Osatuy & Hughes 2018; Paul & others 2019; Saad, Ahsar & Mohaisen 2019; Shae & Tsai 2019; Shahbazi & Byun 2021; Sunstein 2021; Torkey, Nabil & Said 2019; Vaidhyanathan 2018; Waghmare & Patnaik 2021; Zaid, Ibahrine & Fedtke 2022.	
Ineffectiveness of common responses to fake news	Negative	Chung Ng, Tang & Lee 2021; Zankova, Ribeiro & Bechmann 2018.	--
Ideological segregation and radicalization	Negative	Klein 2020; Levy 2021; Masip, Suau, Ruiz-Caballero, Capilla & Zilles 2021; Manjoo 2008; Osatuyi & Hughes 2018; Sunstein 2018; Sunstein 2021.	--
Impact on media trust	Negative	Bhuiyan, Whitley, Horning, Lee & Mitra (2021); Tunstall 2009.	

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