EUMEPLAT
European Media Platforms:
assessing positive and negative
externalities for European culture

Deliverable 2.3
Positive and Negative Externalities of
News Platformization

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Document information

Grant Agreement #:	**101004488**
Project Title:	**EUROPEAN MEDIA PLATFORMS: ASSESSING POSITIVE AND NEGATIVE EXTERNALITIES FOR EUROPEAN CULTURE**
Project Acronym:	**EUMEPLAT**
Project Start Date:	**01/03/2021**
Related work package:	WP2 – Fake News: Platformization of Journalism
Related task(s):	T2.3 – Positive and negative externalities of news platformization
Lead Organisation:	P1 – IULM
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Status	Final
Submission date:	23/11/2022
Dissemination Level:	Public

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1   Rationale

This deliverable is divided into three main parts. Section 2 introduces the externalities of news platformization by means of a bibliographical review. The aim of the section is to account for the main tendencies according to the scientific understanding of the process, and to identify the most relevant effects – both positive and negative – brought about by it.

The second segment [section 3] is in its turn grounded in bibliographical review, and it takes into exam some advanced solutions for countering the negative effects of platformization. These proposals will be listed out in this deliverable, while also being expected to provide a basis for future elaborations - and particularly for what concerns the WP5 research tasks.

The last part [section 4] will address a similar issue – that of positive and negative externalities – from an empirical perspective, by considering best practices and main flaws as detected by the partners in the ten countries, and extracted from the dataset related to the our three-month observation.

2   On the concept of news platformization

The transformation of news ecosystem due to technological innovation has been widely investigated in the last decades: and it has been framed and interpreted, as is often the case, along a series of buzzwords. In the 1990s, to start with, we used to talk about on-line journalism, for reflecting on the first interpenetration between the old and the new media. At that time, 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: 69]. After the 2000-2001 Nasdaq crisis and the following recovery, the rhetoric about the so-called Web 2.0 made it popular the idea of citizen journalism, or participatory journalism. A more complex interpretation came from Manuel Castells, who – against the backdrop of the network society theory – put forward the concept of "networked journalism", thus shifting the core from the replacement of professional reporting (*citizen* journalism) 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: 2927-2928].

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, and the more – able to cross the boundaries between previously separated expressive fields, and between amateur and professional standards. The main 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] famous theory of 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: 323]. In any case, the category has been almost universally adopted. When we realized 24 qualitative interviews with key-informants in both Europe and the Southern Shore of the Mediterranean, in the context of a previous European project, the answers were all about cross-media and citizen journalism, whereas the platformization process was rarely mentioned [see Di Donato & Stefanelli 2019].

News *platformization*, therefore, is but the last of a series of buzzwords: which nonetheless offers two main advantages, at the analytical level. Firstly, by *platforms* we can refer to the setting of closed systems, in discontinuity with the first and second-generation web services [see Helmond 2015]. Even though the centralization tendency was actually implied by the evolution of the world wide web hypertext as such, and it has been measured since the late 1990s in terms of power-law [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: in particular 97-101, 111-114, and 144-146]: the rise of mega-structures, able to challenge the institutions in their field, and whose understanding and regulation is a vital objective for the European Union.

For the above reasons, we started the bibliographical review by running elementary keywords – news platforms, news platformization, and their externalities – in the most common on-line repositories: Google Books, Google Scholar, Academia, and JSTOR. This review can not be exhaustive, by definition, but it is expected to isolate the main findings and the most problematic knots in scientific literature, to be used for both knowledge advancement and the drawing of operational indicators for policy-makers. In order to define a simple framework, the literature we passed in review has been organized along three axes: the strong

or weak definition of news platformization; the strong or weak understanding of its externalities; and finally, the focus on positive or negative effects brought about by the process.

By weak definition, we mean all cases in which – and it is quite frequent – *platform* and *platformization* are used as being plain synonyms of other common categories: namely, social media, websites, digital media or services; or digitization, remediation, and mediatization. By strong definition, on the other hand, we 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 that we have already used, this is the case - so to speak - of a *marked*, rather than *unmarked* connotation of the keyword [Hjort 2015: 210-211]: therefore, we can talk about marked and unmarked *platformization*, parallel to the marked an unmarked *Europeanization* we have discussed in WP1 [see D1.6- *Europeanization: Operational Definition*].

Externalities can be defined as weak or strong, then, based on whether or not the alleged effects of the process seriously modify the economic, social, political, cultural, or professional assets of the information society. The insistence on positive or negative externalities will be eventually considered, with the third section of this deliverable focusing on the possible remedies and counter-measures for the latter.

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 effects; strong definition and weak effects; strong definition and strong effects. The positive/negative effects dyad 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.

2.1 First cluster: weak definition and weak effects

A first relevant case is that of the Pew Internet Research Center, whose reports basically 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: 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 probably the dichotomy between bad and good "media performance", in place of the most 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 – more precisely, in terms of "portable, personalized and

participatory" media diet [ibidem: 6]. No relevant changes could be observed in recent years, as no clear 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: 3]. With this respect, the insistence on a traditional terminology leads to the overlooking of the transition from the open to the closed stage in the evolution of the web [Helmond 2015]: and the latent, or even *absent* definition of platformization to a weak understanding of its effects.

Weak definition and low effects in terms of externalities can be also detected in other papers. Ju, Jeong and Chyi [2014] take into account the effects of social media on "conventional news platforms", while actually equaling platforms to social media: a problem which is largely present in scientific literature, apparently starting with Tarlton Gillespie [2017: 255], who even excludes from the category such digital services as Uber and AirBnb, due to their business model [2018: 41-43]. "Digital platforms alias social media", one can even read in Trappel and Tomaz's [2021: 28-29] operationalization of the media democracy indicators; which is due to the scope and purpose of the research (as any definition is limited, in this sense). As to Ju, Jeong and Chyi, the above-mentioned effects 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, as simple as that, the study measures the use of social network sites on the part of classical media outlets:

> This study shows that all of the U.S. newspapers with weekday circulation of more than 100,000 are using SNSs to deliver content, suggesting that distribution of newspaper content through SNSs has become a common practice [Ju, Jeong & Chyi 2014: 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: 999 and 1000]. When it comes to the assembling of media repertoires, which is the main research question behind the paper, it is clear that 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: 1004-1005]. More recently, Guo and Sun analyzed 4,151 contents posted by an American local broadcaster on Facebook – with no distinction allowed between *social media* and *platforms*, once again. 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 images and visual contents for capturing people's attention [Guo & Sun 2020: 751]. Users' engagement lies at the

heart of their work as well, highlighting such usual effects as autonomy, freedom of choice and purposiveness [2020: 746-749]. In this case, in particular, the authors do not consider the rise of *closed* ecosystems or walled gardens, so that the alleged externalities of the web recall such traditional concept as "networked individualism" [Wellman, Hampton, Isla de Diaz & Miyata 2003], or "new social operating system" [Rainie & Wellman 2012]. Mellado, Humanes, Scherman and Ovando, in their turn, assume a basic definition of media platforms, with the concept of affordance being cited without a thick theoretical articulation [2018: 361], as it often happens in the Internet Studies [for a textbook case, see Boyd 2014: 10-14]. Their work on 1,591 news published by off line and on-line Chilean press, in a consistent way, detected a few differences between the two sectors: differences that can be explained upon journalistic professional routines, with a limited impact associated to the platformization process itself.

> Furthermore, our results indicated that the differences between print and digital journalism could not be explained exclusively by the media platform, thereby implying that changes in news production logics might be associated with content homogeneity across both types of media platform. In this regard, our data suggested that differences in news content were a complex phenomenon that could not be ascribed to affordances and/or technological characteristics alone, but to the nature of news production, where newsgathering routines and organizational factors play an important role [Mellado, Humaes, Scherman & Ovando 2018: 372].

On the consumption side, Segesten, Bossetta, Holmberg & Nihorster make a short reference to platforms being a "third space" [2022: 1116], while providing an experimental verification of an already known phenomenon: disagreement and conflictual posts capturing people's attention [Ibidem: 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: 2207-2208]. By virtue of 26 semi-structured interviews with representative of 19 media outlets in USA, UK and Germany, they present quite predictable findings, with entrepreneurial plans being increasingly focused on video production [2018: 2214-2216]. Lamot also considers social media and digital platforms as being the same [2022: 522], in her analysis of 10,579 posts released by leading on-line news outlets in Belgium. 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 [2022: 529- 530]. The conclusion, therefore, is that those "consuming news exclusively through social media are thus at risk of not being informed sufficiently

enough". Continuity between old and new information regime is assessed by Allern and Pollack [2019] in their reflection on the Scandinavian model of journalism as public good, hardly challenged by the rise of the platform economy. Here platformization is actually 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 and communication" [Allern & Pollack 2019: 1431]. By measuring the use of social media 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]. Ezra Klein's well-known 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 platformizatiom per se [2020: 150-158]. What is more, according to Klein "negative partisanship" can be codified as a socio-anthropological constant [2020: 60-65], or explained upon the ethnic composition of American society, rather than upon the technological affordances of the platforms [2020: 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: 766]. The research is in line with recent trends in political sciences and Internet Studies, which are prioritizing the possibility of unexpected encounters and incidental exposure, over the well-known ideas of bubbles and confirmation bias. Without being focused on journalism, Vaccari and Valeriani's comparative research provides the most significant insights, showing how in all countries – organized according to Hallin and Mancini's model [2004] - social media use allows people to randomly access various news sources, resulting in a positive correlation with engagement and political participation [Vaccari & Valeriani 2021: in particular 86-110, 197-205, and 210-211]. With their definition of platforms being based on that of social media, in any case, Goyanes and Demeter [2022: 761-762] fall short in finding concrete evidence, and the supposed positive externalities of news platformization are quite modest: as confirmed by the fact that unforeseen information "has no impact on participants' ability to make sense of current events and politics" [2022: 770], and by people usually reading it in a superficial way. Positive externalities, premised in a weak definition of platforms, are also addressed by Swart [2021], which studied the behavior of 22 young Dutch (aged 16-26), and eventually 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 positive perspective, Mutsvairo

and Salgado draw on a traditional idea of "diasporic online platforms" [2022: 358] and "online environments allow[ing] for some freedom, which otherwise is not available offline" [2002: 364]. Starting with this background, which reminds us of some naïve interpretations of "Twitter revolutions" across the world, it is no surprise that the expected positive effects of citizen journalism in the considered countries – Mozambique and Zimbabwe – are eventually not confirmed by the observation.

Thorson shares an unmarked conception of platformization, while looking for some effects in terms of incidental exposure and 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 [Thorson 2020: 1071]. What is more, due to companies' restrictions to "individual level data", there is little observational evidence of the phenomenon [Ibidem: 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: 187]. To this the authors dedicated a survey on 327 undergraduate students, showing a correlation between the "algorithmically inferred political interest categories", and the "political content exposure on Facebook" [Ibidem: 192]. As individual choices contribute to the shaping of the algorithm itself, though, the authors conclude that the level of human choice is not jeopardized, effects of platformization are moderate, and free will is still with us [Ibidem: 193].

Schlesinger and Doyle frame the platformization tendency in the light of the creative destruction category, thus prioritizing the role of media corporations and management over the logic of the process itself: as a result, its externalities can merely be intended in terms of "cheap" increasing of digital subscribers and "low marginal costs" [2015: 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 channels" [2021: 410]. In order to examine the correlation between access to platforms and civic awareness and 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 finally, a more various and rich media diet [2021: 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: 417], for some reason. Erdal's 2009 article is inevitably based on classical concepts – cross-media journalism, in particular – and the considered effects of new platforms can therefore be reduced to the likewise classical ideas of spreadability and contents repurposing [2009: 192].

2.2 Second cluster: Weak definition and strong 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 paradoxically being the real blind-spot in communication studies [see Spangenberg 2002; 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 and intermediaries – so to speak, on their *function*, rather on their structure and form. In other words, no clear definition of platforms is provided, which could (and perhaps *should*) account for the technical differences when compared to such other categories as on-line newspapers, news digital services, social network sites, social media, media outlets, and the more. On the other hand, though, the platforms – no matter how the notion is operationalized - are vested with all functions, powers and roles of mediation agencies, therefore taking the center of the stage and acting as main players in the new information environment. This imbalance between *form* and *function* - to bring in the key-concepts of any evolutionary model – is in all likelihood the main shortcoming of media studies, and nowadays of the platform society theory: the missing link between society and technology. This is the case of Wallace, who adds the platforms and their algorithms to the list of players carrying on a filtering function [2018: 280]; and that of Hermida, stating, in a similar way, that "digital gatekeeping takes place against a backdrop of algorithmically driven digital platforms, such as Apple, Google, Facebook, Twitter, and YouTube" [2020: 473]. Coexistence between human and algorithmic gatekeeping has been described also by Napoli, who nonetheless hardly distinguishes between social media, platforms, and news platforms [2015: 757]. Schrape puts an emphasis on *platformization*, without providing a detailed description of the process [2021: 19], and therefore assuming that the new mediators are plainly the main powers in the domain of public communication and public sphere. 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: 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. The ranking, placement and notification of news on social media and search is now central to the likelihood of news exposure and sharing in an era when the majority of news users globally, particularly the under 35, now prefer to access news through search engines and social media [Martin 2021: 1192].

Iosifidis and Nicoli follow the very same path, with major disinformation consequences being produced by platforms acting as the new "internet mediators", without any further investigation [2020: 3-5]. As a consequence of this lack of problematization, the proposed strategies for tackling misinformation are quite conventional, ranging from fact-checking to the role of task forces [2020: 50-65]. In a similar vein, Cetina Pensuel and Martínez Sierra's paper points to news platforms as contemporary regulators, which constantly look for a compromise between the freedom of speech principles and their own business goals [2019: 262]. Molyneux and McGregor push forward the same argument, while adding a new dimension: namely, 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: 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 basically the same as social media: when compared to the previous analyses, though, they focus on the mutual reinforcement and on the win-win relationship between newspapers and Facebook [2021: 374-377]. The research team at the Columbia Journalism School moves from an alike statement: "platform" is meant to refer 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: 18 – basically, such definition would encompass *all* online services]. More technically, the authors combined a secondary analysis of quantitative data with first-hand interviews to media 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 may have to do with the impressive frequency of *failed* attempts in the platformization of newsrooms: which, nonetheless, has never impacted the industrial strategies, nor it has reduced the financial investment of media companies [Ibidem: 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: 1018]. This being said, her research turns upside down the previous findings, showing a very positive externality: the strengthening of people's agency in terms of "personal news curation", which enables users – especially young users – to counter-balance the power of algorithmic

mediators, by means of blocking, friending, changes of settings, and the more [2021: 1026, 1032-1033].

In all cases, the lack of a proper definition of *what platforms are* makes it difficult a connection between technical configurations and social effects. To some extent, the main assumption has to do with the rise of *invisible* mediators, such as algorithms, 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. Here and elsewhere, we may notice one more time, the category of *affordance* is used in a quite descriptive way, without its major implications being taken for seriously. Franklin 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: 77] – and the weak definition of the same process by which it is inspired. Cass Sunstein's influential work on disinformation as a main effect of digital platforms 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: 131]. This being said, Sunstein does not provide a real theoretical account of the nature of platforms, and also for this reason, he often indulges in political rather than scientific evaluations (hence, for instance, his insistence on Donald Trump being a liar, as if Democrats were not). Shiva Vaidhyanathan pushes this idea to its very limits, by linking the devastating effects of disinformation to the major social media platform – Facebook - in a simplistic and apodictic way [2018: 175-186]. Even Jaron Lanier, despite his former and more advanced work on the concept of *lock-in* [2010], limits himself to state that social media are "undermining the truth", while discussing the effects of platformization on the specific field of information and public knowledge [2018: 53-61]. The same can be told about the paper released by Bell, Owen, Brown, Hauka and Rashidan at Columbia, in which the on-going platformization process is hardly defined, and the focus is on the overall role of "search engines and social media" [2017: 13-14], that are actually very different from each other. In their turn, in any case, the authors agree on platforms totally replacing traditional media outlets, as it would be testified by the rising advertising expenditure in the digital sector. Pickard shows a similar understanding of the process, with a weak definition of platforms being paralleled by destabilizing effects on the information arena, also due to Facebook's enormous lobbying power [2022: 24].

In a few cases, the unproblematized definition of platformization does not prevent authors from identifying more precise research strands related to its externalities. Johnson and St. John III, for instance, do not distinguish between platforms and social media or even

websites, while focusing on a specific consequence: the difficulty of users to tell apart reliable and unreliable sources on Facebook [2020: 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: 124; they also expect the gap to be filled in the medium-long time, which is hardly credible, based on the lessons learnt in the last decades]. A similar perspective is adopted by Sang, Lee, Park, Fischer and Fuller [2020], in their evaluation of the new 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 very 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: 23-26]. Needless to say, misinformation is commonly considered the main negative externality of platformization, as in Osatuyi and Hughes' paper. While not aptly defining the platformization process itself, the authors bring in a more particular facet of its effects: all differences in *tones* and required *cognitive* efforts, between fake and reliable news [Osatuy & Hughes 2018: 3988-3990]. With no theoretical definition of platforms, and by taking a more empirical stance, Levy tried to assess the relation between misinformation and radicalization, with the aid of an experiment on more than 1,700 users: as a result, "affective polarization" appears to be the main externality put in motion by platformization [2021: 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: 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 in all cases reflect on the opacity of contemporary news-making, and on its dramatic impact on the overall state of media *trust* (a dimension that we are considering also for the purposes of WP2 and WP5). In all the above cases, once again, no clear definition of platformization is provided, with the same discourse

apparently applying to digitization at large. This constant lack of contextualization in the theoretical framework of the platform society probably explains why all effects are analyzed against the backdrop of quite classical themes: for instance, the second-generation digital divide [Di Maggio & Hargittati 2001; 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 reflections on the role of digital intermediaries.

Some authors sketch a more peculiar, and perhaps interesting research perspective, despite the lack of a contextualization we were mentioning. Dvir-Gvirsman and Tsuriel 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, thus showing how platformization – no matter how it is defined, for the moment – bears not only external but also *internal* effects in terms of competition and restructuring of professional routines [2022: 11-14]. Even though Hanusch's definition of platform is quite rudimental – "the platforms on which journalists work"; "journalism has become a multi-platform environment" [2017: 1574] – his work adds a technical layer to the previous investigation, by individuating the web analytics as the main factor impacting content creation, distribution techniques, and even the hierarchies within the newsroom [2017: 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: 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: 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, whereas the personal computer leads the daily one, and the mobile phone is rather used for sociality purposes [2012: 439]. With all doubts in mind, the idea of breaking down the category of cross-media into more granular and observable patterns might eventually prove to be productive.

Nelson and Lei [2018] make a simplified 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. In short, they propose a distinction between two

categories of users, respectively getting news through mobile browsers or 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: 629].

Given the insistence on the functions of platforms and their gatekeeping power, and the lack of a close analysis of their features, it is no surprise that the papers belonging to this cluster mostly imagine *negative* externalities and social effects – basically, platforms replacing newsrooms, and algorithms taking over from humans. This notwithstanding, a few authors tried to combine a weak definition of platforms with remarkable positive impacts on the media system, or on society at large. Strauss, Huber and de Zúñiga [2020: 1182], for instance, 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: 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: 2451]. By studying users of the three services 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: 2461]. That incidental exposure is more frequent in the case of people with low interest in news and political communication 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: 45; emphasis mine; Vaccari & Valeriani 2021: 162-163]. Bachman and de Zúñiga unfortunately 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: 498-499]. The results of their survey basically 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: 506], with regression analysis indicating a more relevant

correlation in the case of digital news [2013: 505] – though the alleged affordance of the platforms for political engagement is still at the level of a general statement, if not that of wishful thinking.

2.3 Third cluster: Strong definition and weak effects

When Marshall McLuhan came out with his most famous statement – "the medium is the message" [1964: 7] – 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: 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. As a result of the focus groups they conducted, it appears how the use of WhatsApp for getting news is only partially determined by its technical affordances, while also being affected by people's variable level of trust [2021: 1067], and by the informal rules embedded in their everyday life [2021: 1078]. *Affordance* is a keyword they chose, based on the definition of WhatsApp as a walled garden, embedding social practices and, more concretely, news sharing and circulation. 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 seem to perceive it as "a noise", and are very rarely engaged [2021: 1075-1076].

Diehl, Barnidge and de Zúñiga refer to the literature related to the platform society, while proposing a Multi-Platform News Index, expected to measure people's level of agency and political participation [2019: 441]. By means of a second-hand elaboration on Nielsen data, though, they observe a very limited and nuanced effect of news platformization [2019: 443-444]. Peruško's case is quite different, as she takes into account the role of the Big Five and that of mega-platforms in Eastern Europe, by drawing on both Chadwick's concept of *hybridity* [2013] and Van Dijck's categorization of platforms. At this macro-social and systemic level of investigation, in any case, no clear correlations can emerge, for what concerns positive or negative externalities of the process [Peruško' 2021: 44-47]. Diakopoulos [2016] rather 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 some strategies - "community development, cross-industry non-content production, and cultural re-orientation". Myllylahti brings in the concept of *attention*, which in platform economy is relevant for a few reasons: as a scarce commodity; as a unit of measurement; and finally, as a "source of monetization" [2020: 569-572]. The externalities of an attention-driven system are not defined at all, for the moment, as the author basically declares the "urgency to explore attentional reader revenue models" [2020: 573], and such exploration is still to come. Zhang and Pérez Tornero explicitly 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' continuous reference to network topology and to the architecture of platforms [2021: 182], the externalities – or, to put it simply, the *concrete effects* of the process - are far from clear, and framed in such generic concepts as "responsiveness" and "flexibility" [2021: 183].

An unclear relationship between the relevance of the platform as a theoretical notion and its effects, finally, can probably 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 and fine-tuning of common concepts in the Internet Studies, starting with the taxonomy of various types of social media – namely, social network; user-generated contents; trading; and gaming [2013: 8]. In a similar way, the distinction between infrastructural and sectorial platforms shed some light on the new digital ecosystem [van Dijck, Poell & de Waal 2018: 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: 37-46]. The same can be told about the process of news platformization – one of van Dijck, Poell and de Waal's case-studies, along with urban transports, health and education – which would result in a totally new information ecosystem, based on data-driven production and distribution, networking practices and content curation [ibidem: 56-71]. Here and elsewhere, though, the problem with the platform society paradigm is the unstable relation between structure and agency: on the one hand, platforms are supposed to take on a sort of infrastructural sovereignty over the world, somehow replacing the network power defined by Manuel Castells [see Castells 2011]. On the other hand, van Dijck oddly prioritizes agency over structure: hence a main 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: 116-118]. A discrepancy between the alleged 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, Poeel & de Waal 2018: 71].

2.4 Fourth cluster: Strong definition and strong effects

Nieborg and Poell [2018] tried to apply the above-cited framework of the platform society to news production, by taking into exam BuzzFeed, the Huffington Post and Upworthy. In general terms, a theoretical imbalance still stands, between the multi-sided market concept and that of commodification; even so, the authors aim at deriving strong externality effects 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: 4277]. More technically speaking, news is taking the shape of "contingent commodities", as it has moved from following a "linear production process" to being "modularized, constantly altered, and optimized for platform monetization" [2018: 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 the respective audiences [2022: 62]. As a result, and as also confirmed by the examination of first-hand documents, media agencies reveal to be increasingly engaged in monitoring and tracking their public and readers, so that

commodification may well be considered as the main effect engendered by platformization [2022: 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: 15-16]. Effects of the process are strong in their turn, as the considered externalities encompass the information overload; the logic of advertising-driven contents looping back into the print media sector [2018: 42]; and the market failure of spillovers – which are expected to be the main positive externalities of a network economy – due to information monopolies. Along the same line, Hurcombe, Burgess and Harrington take an intermediate position, as they consider two features of social media – shareability and sociability [2021: 383-384] – to the detriment of others, which might be more typical of the platformization stage. The main effect of the process, nonetheless, is told to be the rise of a new cultural form: the "social news", able to combine the quality of traditional journalism and the informal and non-neutral language of daily life [2021: 389-390]. Strong definition and strong effects of platformization also coexist in Siapera's article, who proposes the concept of "infomediation", based on three main features. While one of them is hardly credible – that of new information ecosystems "liquidating meaning" – the others provide very advanced insights into the organization of news platforms. Firstly, Siapera states, platforms do not simply distribute contents, while they also distribute *roles*, putting people into different categories [2013: 1]; secondly, and as a consequence, 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: 2-3]. The main effect of platformization is therefore the displacement of job market – the "de-industrialization" and de-professionalization of journalism [2013: 7-9] - with unpaid labor becoming a main source of value [2013: 16]: a concept that is largely accepted in critical internet studies, while being oddly 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, covering all the continents. When it gets to the concept of affordance, the authors give up some complexity too, in order to break it down into material indicators: in the case of Facebook, for instance, such features as number of followers, length of texts, format of posts, and regularity of updating [2019: 399]. In terms of externalities, the statistical 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 eventually be an indicator of people's agency [2019: 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: 2369]; and the new version of the NewsFeed in 2018, which gave new centrality to contents posted by one's social circle [2020: 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 Poeel – and therefore putting in place their strategies for negotiating with the digital majors. Jääskeläinen, Yanatma and Ritala face a similar research question, by investigating the effects of platformization on the Austrian News Agency (APA). Their definition of platforms is largely based on the multi-sided market 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: 2063]. By means of an in-depth, multi-step data collection [2021: 2066] Jääskeläinen, Yanatma and Ritala describe the transformation of the APA agency into a platform organization, based on a three-way market idea, in response to the new challenges brough about by the infrastructural platforms [2021: 2069-2070].

Shin, Zaid, Biocca and Rasul start with a quite general statement:

> The integration of algorithmic platforms and news services has created the phenomenon of the platformization of news. Platformized news refers to the process whereby the various operations of news editors, news publishers, and digital platforms have become intertwined [Shin, Zaid, Biocca & Rasul 2022: 4].

Moving from this premise, they consider "algorithmic datafication" as the paramount feature of news platforms: the real "black box" of the system, characterized by a dramatic lack of transparency. With a radical idea come radical consequences, as users are daily challenged by something that they can not understand, in force of their heuristics and cognitive abilities. This being said, as people are not "passive recipient", they will collect and process the information "via a trust mechanism, resulting in evaluating privacy risks" [2021: 16]. Evaluations about trust and privacy are therefore key to people's use and understanding of platforms contents – and once again, the dimension of *trust* appears to be decisive.

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 itself as being "biased towards personal preferences" [2019: 12]. By setting up an experimental group and a control group, they measured the differences in terms of impact between human contents curation and automated recommendations and filtering, also with the operational purpose of identifying the right "mixed strategy", and "investigating which tasks might be suitable for automation and where humans would still hold an edge in the foreseeable future" [2019: 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 being often proposed as a counter-measure. In a totally theoretical vein, apparently noy dissimilar from Morozov's [2011], they suggest a relation between news platformization and the crisis of participation, or what they define "the dark side of participation", the dysfunctional effects brough about by the process [2018: 6-7]. Lee, Nanz and Heiss share a strong understanding of platforms, to the point that the affordances specific to each of them are told to engender different effects in terms of political participation [2022: 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: 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 political knowledge in the case of YouTube [2022: 6]. What is relevant, their study would be part of an emerging scientific strand, dedicated to the reshaping of the information arena due to platformization, which can no longer be reduced to the plain existence of the bubbles. The impossibility of unexpected encounters, due to algorithmic filters and confirmation bias, in fact, has been repeatedly stated without being empirically confirmed [see Sunstein 2021]; and Eli Pariser's seminal book on Google customization [2011], in all likelihood, has been taken too *literally* - as the assessment of a final outcome, rather than as the indicator of a process.

Smyrnaios and Rebillard put this problem in a longitudinal perspective, by collecting 51 interviews with media managers and journalists, realized in France between 2013 and 2016. Their definition of platformization is by all means strong, as they try to combine platform theory with the classical critical notion of cultural industries, and with the idea of "infomediation" [2019: 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 technical standards imposed by the GAFAM; the necessity of keeping people on the website as long as possible; the inevitable interference of the platforms on content production; and finally the material traces of what we know as "dual logic of platforms", the seeming decentralization accompanied by their establishing as main hubs [2019: 42-43].

3   Measures for countering the negative externalities

Needless to say, the review of counter-measures is inevitably incomplete, and it will only include the proposals related to news platforms. For the sake of simplicity, we sorted them out by main domain considered. With this respect, we can easily distinguish between market-driven solutions; political regulations; and technical counter-measures. All in all, these three groups reflect Lawrence Lessig's paramount lesson, which, contesting the commonplace that the "cyberspace can not be regulated", discriminates among three ways of doing that. *Law*, to start with, is the basic form of regulation, obtained by virtue of highly formalized rules and sanctions. *Economy* may well shape people's behavior, for instance with the lowering of decreasing of prices, affecting the access to a given commodity of service. *Architecture*, finally, is the subtle form of regulation embedded in the affordance of any material assemblage: and to Lessig this is by far the most powerful solution in digital spaces, where "code is law" [2006: 122-123].

By *market-driven* solutions, we will refer to the expectation that the platform economy will eventually produce, on its own, a solution to its problems and a more balanced setting: either or both due to people's agency and to entrepreneurial initiatives. As it is obvious, *political regulations* have rather to do with possible policies and public interventions, expected to limit or to mitigate the negative externalities of news platformization. In the case of *technical counter-measures*, finally, we will collect advanced informatic models or prototypes, which have been presented with the purpose of correcting some dysfunctional effects of the news platforms ecology.

3.1 Market-driven solutions

The fake news problem will inevitably require a specific investigation[1]: here, we can limit ourselves to discuss a few possible remedies, which, to a different extent, all rely on some kind of market self-regulation. The most complete aggregated analysis, to start with, 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: 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: 22]. What is more important, 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: 18-19]. One may argue that fact checking is all about the institution of a *new form of power*, while having little to do with the declared objectives of improving the information system – something that we will happen to discuss again in the near future.

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: 909]. What is interesting, the authors apply a basic sociological framework – the weak/strong tie dyad – in order to better analyze the specific 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 here 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: 920]. The explanation they provide 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 will embrace

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[1] The same topic will be addressed in deliverable *D2.5- Anti-European Fake News and What to Do*. Here we will not discuss Fabiana Zollo's data-driven and early-warning methods, as they will be explained and applied for that research task [see Briand & others 2021; Cinelli & others 2020; Cinelli & others 2021; Del Vicario, Quattrociocchi, Scala & Zollo 2019; Peruzzi, Zollo, Scala, Schmidt, & Quattrociocchi 2019]

the discussion, for the very purpose of debunking the unreliable information [Ibidem: 920-921]. Even though the study is based on a very specific context, it is my impression that bringing in the sociological dimension of inter-personal ties can be of paramount importance, for the research on fake news (that is hegemonized by algorithmic measurements). Lazer & others [2018] point to "direct government regulation" carrying several risks, "constitutional and otherwise" [2018: 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 more continuous cooperation with the academy and other social institutions. In the other way - and this is possibly the most relevant content of the paper – 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: 1095].

Cooperation between platforms and news organization is advocated by Ananny in his paper for the Columbia Journalism School. In particular, Annany analyzed the partnership among Facebook, a few media outlets – Associated Press and ABC News – and some fact-checking organizations active in the Unites States: Politi-Fact, FactCheck.org, and Snopes [2018: 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 and understanding. Despite the good intentions, Ananny concludes, serious problems are still in place, besides the more predictable ones: such as the disagreement among partners, and the different scale at which they are used to work. The main criticality is rather the power imbalance between Facebook and its counter-parts – and at that, Facebook even proposed a payment to the partners, which was mostly rejected [Ibidem: 35]. This is even more relevant, when one considers that only Facebook is enabled to apply the shared findings to the development of its technical artifacts, which is especially troubling when it comes to algorithms implementation, the author writes, and to the replacement of human employees [Ibidem: 43-44].

On the subject of cooperation, O'Riordan, Kiely, Emerson and Feller [2019] describe the application of the Wiki principles to news production, in continuity with the Wikipedia project, and somehow aiming at filling the gap between public information and people's participation. In particular they refer to WikiTribune, an expired project whose ambitions were very high, as they included "fact-based articles"; "neutral and evidence-based" news; impactful articles; and easy to verify stories [Ibidem: 3]. WikiTribune basically tried to follow the line

traced by Wikipedia, and the project is bid in a similar way: each article has to be approved by an administrator, or a "trusted contributor" [Ibidem: 4]; and in order "to comment on an article", it is necessary to register an account [Ibidem: 6]. Not surprisingly, the final result is not dissimilar from that of the Wikipedia initiative: not only has the production plateaued after one year, but an increasing imbalance has been registered between the "number of contributions made by staff" and those made by simple volunteers [Ibidem: 8].

Andersen works on a more specific idea, that of *slow journalism*, which "can be seen as a potential solution to one of the central problems currently pertaining to journalism, news fatigue" [2022: 848]. With multitasking, attention deficit, overload and overconsumption being widely acknowledged as negative externalities of news platform, the slow journalism movement tried to update professional routines in order to find a solution. In the absence of a straightforward definition, slow journalism has in any case to do with the uncommon length of the stories, the refuse of any sensationalism, and with their slow delivery as well – by mandate, it is the opposite of the on-line infodemics [Andersen 2022: 851]. Concrete results of the initiative are more fragile, though, as assessed by a two-stage panel survey on the readers of the Danish slow outlet Zetland [Ibidem: 853]. With all its obvious limitations, the survey shows that slow journalism is rarely successful in re-engaging the audiences, as it only attracts well—educated and active readers, and what is more, it contributes to the news fatigue rather than alleviating it [Ibidem: 859-861]. With the similar intention of finding a solution *within* the journalistic field, finally, Salgado considers individualized news as the most attractive form of information, to be implemented at a wider scale [2021: 3].

Two additional remarks might be necessary, as to what we have defined *market-driven* solutions. Firstly, they are way less common, when compared to the proposals relying on public interventions or technical improvements – or at least, one may suspect, they do not rank well in the on-line repositories. The second aspect is that a very little attention is placed on labor issues. With the only exception of Siapera's paper, human work is taken out of the picture: despite critical processes - unemployment, unwaged labor and replacement or displacement of human activity - affecting the information industry as well. Once again, this might have to do with the theoretical status of the platform notion, which is imbued with the neo-liberal idea of two-sided or multi-sided market. This being said, a closer dialogue between the platform society paradigm and the internet critical theory will be a main necessity, in the years to come.

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3.2 Regulatory measures

As we know, the legal framework for regulating media platforms is a very complex issue, and so is the area of intervention of the European Union, which will not be addressed here [see deliverable D1.4, *European Media Legislation: Overview, 1990-2020*]. For the purposes of this document, we will narrow down the observation to the regulatory actions proposed for the specific field of *news* platforms.

Let us start with José van Dijck, who is credited with one the most relevant interpretations of the platform society. The main dilemma here has to do with the ambiguous essence of the platforms themselves: with their "dual nature" of public spaces and business players, or even their "Janusfaced status" [van Dijck 2021b: 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: 5]. In coherence with the areas covered by her previous case studies [see Van Dijck, Poell & de Waal 2018], van Dijck does include news, along with urban mobility and health care, among the strategic sectors to be regulated at the European level [van Dijck 2021a: 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 practices and codes, social confrontation, and public debate – among which, for instance, "accuracy and fairness in reporting" [van Dijck 2020: 3]. If anything, this confirms how complicated is to frame platforms in terms of multi-sided markets, as in van Dijck's theoretical background [see in particular Boudreau & Hagiu 2009; Evans 2011]: on the one hand, such platforms as Google News can be considered as news retailers; on the other hand, different players not starting from the same line, and to rent position and privileges inevitably taking their toll. In any case, according to van Dijck, 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: 2814]. We have to notice here that the Internet Studies mostly focus on the cultural meaning of such definitions – for instance, van Dijck's metaphor – whilst in the EU law corpus the platforms are *technically*, rather than *metaphorically* labeled as intermediaries, resulting in their current interpretation established by the Digital Services Act [see D1.4]. And again:

> similarly, if social network platforms were categorized as sectoral services, like news
> organizations, they could be held responsible for content in different ways than when they

were categorized as infrastructural services, such as telecoms. An urgent normative question arising with regard to platforms now operating at the intermediary level will be whether they are granted a separate status that comes with specific responsibilities and liabilities or whether they will have a binary choice between infrastructural and sectoral regimes [van Dijck 2021b: 2814-2815].

In a consistent perspective, Salgado indicates a solution for platforms viability and accountability in the adoption of a specific and very *European* category, that of public service media:

Provided that regulation is strictly designed to ensure that products/services are in full compliance with the legal framework and values of the societies in which they operate, I personally do not see it as a suppressor of free expression, but rather as a tool to correct imbalances and prevent problems. In this logic, both extending public service media to platform communication and integrating mechanisms to ensure the transparency of social media platforms and all news providers in general are key measures [Salgado 2021: 3-4].

Bonini Baldini 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 Baldini, Túñez-López & Barrientos Báez 2021: 51]. By shifting the attention from the contents that the media produce "to the position that media occupies in society", on the other hand, their definition would perfectly fit the case of platforms [ibidem: 52]. The differences among these platforms are probably overlooked, here, as some of them actually perform a gatekeeping function; while, on the other hand, Bonini Baldini is well aware that such transition can not be easily accomplished, to the point of proposing a sort of "agonistic framework" [Bonini Baldini & Mazzoli 2022: 929] for a new definition of the public role of platforms (with this concept apparently being 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 specifically required: their "hackability", or the possibility for users to make changes and modifications; them being based on open software; and finally, what can be defined algorithmic "conviviality", by going back to Ivan Illich, or the decentralization of primary control functions [ibidem: 931-932]. As to media regulation, in any case, we have to remark the European Union sharply distinguishes the sector of infrastructure from that of contents, with platforms being considered under the legal frame of infrastructures [see D1.4- *European Media Legislation: An Overview*].

A more traditional assessment of media policies has been realized by Mertens, Aguiar, Gomez-Herrera and Müller-Langer [2018] for the European Commission. While waiting for more credible measures proposed by market operators, the author state, regulation has been necessary in a series of fields [Ibidem: 48]:

- Enhancing transparence of online news;
- Promoting media literacy;
- Developing tools for enabling journalists to tackle disinformation;
- Safeguard diversity and pluralism;
- Funding long-term research for assessing the impact of misinformation.

They also refer to the 2018 European Commission Communication on Tackling Online Disinformation [European Commission 2018], which calls for:

- Facilitating user assessment of sources and contents, so as to take power from the hands of platforms themselves;
- Helping cooperation between independent fact checkers;
- Applying artificial intelligence to the prevention of misinformation;
- Support quality journalism by means of financial and political state aid.

One may notice that not all goals are clearly defined – or even more, that no concrete feasibility study is presented to support them. When it comes to concrete indications, in any case, the authors refer to a couple of scientific needs. Firstly, they denounce the "missing of a comprehensive picture of news market entry and exit as a result of digitization", and in particular of the economic trade-off and the competition between legacy and digital-only print, and between their peculiar business models. Secondly, the deep, cognitive and emotional mechanism of "consumer engagement with false news" is still to be unraveled, beyond the largely available measurements of the phenomenon [Ibidem: 52], which might make it necessary an in-depth qualitative investigation, in place of the usual machine learning assessments.

Renda released a similar document for the European Parliament, taking into account the legal framework behind the possible regulatory interventions for limiting the fake news phenomenon [2018: 21-22]. The paper also indulges in all implications of these policies on freedom of speech, pluralism and civil rights – an aspect that is commonly overlooked – and somehow suggests a shift from *direct* to *indirect* political measures (with the goal of finding a "balance between freedom of expression and the right to be properly informed"). Among such

measures, we can find: the promotion of responsible behavior, which is arguably a sort of nudging strategy; the promotion of pluralism, by favoring users' exposure to more diverse media contents; the empowerment of users themselves and their discouraging "from sharing non-verified content". Two limits are quite clear, in Renda's paper. On the one hand, the insistence on modifying people's behavior – "which can take the form of hypernudges", he states – is in its turn quite problematic, when one considers the basic principles of liberal democracies. On a more practical side, and as we will see in the next session, the waiting for updated, high-tech solutions – invariably, blockchain and artificial intelligence [2021: 22] – runs the risk of reproducing some traditional mistakes in the understanding of digital innovation. In any case, and in a broader sense, policy regulation of fake news is as urgent as it is problematic. There is a universal consensus on disinformation being the main negative externality of news platforms: especially because – well beyond the contingent content of any *single* fake news - they have a tremendous impact on media trust, and on the overall credibility of institutions and information systems [Anstead 2021: 50-51].

A few words about other possible measures to be held. Martin [2021: 1193] introduces the idea of a more granular intervention, with policies acting on the technical assemblage of search engines and on-line ranking, in order to guarantee the presence and visibility of public interest topics. The Harvard Institute for Quantitative Social Science advanced the proposal of a public audit with regulatory institutions and digital platforms, expected to shade light on the way algorithms work [Lazer & others 2018]. Napoli [2015: 756] seems to share the same instance, as he notices that an open discussion on the public interest nature of the algorithms is still to come, and it has become even more necessary than in the past. Petropoulos [2021] discusses the possibility of a tax on all revenues produced by the publication of fake news, in order to limit their diffusion and make the platforms accountable. Tax avoidance by platforms being a well-known political problem, Brogi and Carlini agree on the need of a robust fiscal imposition for "digital intermediaries" which deliver "news without physical and geographical borders" [2022: 128-131]. Pickard [2022: 34-36] supports the idea of taxing big platforms and redistributing wealth by financing traditional journalistic outlets, in a way that recalls Christian Fuch's manifesto for the online advertising tax, and for the funding of a public interest web [see Fuchs 2018 and 2019].

3.3 Technical interventions

Technical interventions are ultimately based on an assumption, though usually implicit and not problematized: that a positive use of platforms' affordances is possible, for fixing the negative externalities produced *by the very same* platformization process. Not surprisingly, and due to its hype-cycle, artificial intelligence is often called to action. Preliminary to this is, needless to say, the introduction of technical solutions, such as the Natural Language Processing, able to collect information and translate it into a machine-readable code [Al-Moslmi & Gallofré Ocaña 2020]. Shin, Zaid, Biocca and Rasul describe a possible application of AI for countering a main negative effect of news platformization: the opacity of algorithmic mediation and its consequences on readers' understanding and trust. "As readers have little control over how the news they view is datafied", in short, "people start to question the validity and objectivity of the platformization of news" [2022: 2] at a broader level. As trust is key to both the audiences' exposure to contents and to their information disclosure, which in turn improves the algorithm itself, "incorporating transparent explanations" in news platforms would become necessary [2022: 3]. The South Korean Naver news recommendation platform, in this sense, does use machine learning for adding some "explanatory cues" to the information stream, thus opening up the algorithmic black box [2022: 11], and – as a confirmed by an experiment on 280 users – helping people to build back their trust [2022: 11-13]. Here technical details are not provided and, what is more relevant, no attention is paid to how these cues would be produced or selected, which – as to the transparency of the system - would bring us back to square one. Devadoss, Thirulokachander and Devadoss push the same idea to its very limits, by proposing a "news platform wherein the content is automatically generated every-day without direct human intervention" [2019: 296]. Machine learning kicks in at the early stage of analyzing trending topics on Twitter and Facebook, in order to provide people with contents in line with their local interests: so that "summarization" and "classification" are key to the operational step of generating news contents [2019: 299]. The authors repeatedly insist on the efficacy of the proposed customization, able to generate contents in line with the audience trends: experimentation, they write, "has also shown that the news content that is generated by the system is always the latest and is up-to-date with the trends of the world" [2019: 310]. Needless to say, they neglect all political, ethical and professional implications of their idea.

With this respect, Simon aptly notices that the direct use of artificial intelligence for news reporting – which might well be a marginal application - is not the only threat to the

information system. By drawing on Nechushtai's [2018] idea of "infrastructure capture", he rather states that news media are becoming "incapable of operating sustainably without the services provided by" the major platforms – a concept which is akin to van Dijck, Poell and de Waal's category of "infrastructural platforms". As a matter of fact, AI is permeating all levels of data collection and distribution, and that of the interconnection among different services: so that news media can hardly maintain their autonomy, regardless of the implementation of machine learning into the news-making practices [Simon 2022: 10]. Whilst the media had become autonomous agencies and social forces during the course of modernization, Simon observes [2022: 13], this tendency might eventually reverse the process, and make them dependent from external authorities, though of a different kind.

An alternative research strand deals with the functioning of news recommendation techniques, and their externalities. A proposal comes directly from the Microsoft Research Asia in Bejing, as a response to the limits of algorithmic recommendation and their effects on the narrowing of users' cultural experience [Qi & others 2021], which is a much talked-about externality of platforms. As we know, digital customization is based on one's individual history of consumption, with the risk of mainly exposing people to ideas and contents they already knew in advance: "personalized news recommendation technique that aims to recommend news according to user interests is widely used by these platforms". On the other hand, an algorithmic recommendation based on a large quantity of signals would respect the variety of personal interests, but only at the price of being difficult to implement [Ibidem: 5446]. The proposed solution is to organize the different interest along a hierarchical order – what they call *Hi Rec*, *Hierarchical User Interest Modeling* – so as to "capture the diverse and multi-grained user interest". This operation takes places at three different levels: the splitting of each topic into sub-topics (for instance, not all people interested in *sports* would like the *same* sport); the traditional topic level; and finally, the user-level (though it is unclear which kind of personal information the system would require). The main goal is that of preventing balkanization tendencies by using the same algorithmic solutions to which they are due: breaking down any individual preference into a larger set of indicators - as people are interested to endless things, at a variable extent. The authors state that empirical tests confirm the utility of the Hi-Rec for widening the contents to which people are exposed, and therefore "alleviate the problem of filter bubbles" [Ibidem: 5453-5454]. Another paper released by the Microsoft Asia researchers deals with the limits of current recommendation techniques [Wang, Zhang, Xie & Guo 2018]. The authors sustain that the information archive on which the algorithmic customization is based is way too narrow, and, even more, that "news

recommendation" has the peculiarity of being time-sensitive, unlike, say, the preference for Asian cuisine, or for a music genre [Ibidem: 1835]. A deep-knowledge-aware neural network (DKN) would improve the news distributions, by including a wider set of contents by means of a leveraging knowledge graph, based on the capture of individuals' "click history", its translation into a wider encyclopedia, and the inclusion of signals related to contextual information [Ibidem: 1836]. Such semantic model is expected to make it clear how, and when, a given preference of any kind may become a predictor of the interest for a specific sub-set of news [Ibidem: 1843 and 1853].

Roberts & others describe a media cloud apparatus, able to put together data from approximately one million stories per day, and collected from more than 60,000 media outlets [2021: 1035]. The research is refined through a topic-specific engine, and the prototype can provide a wide-scale aggregation of news repertoires, useful for both the media self-analysis and self-assessment and - so the authors state - for individuating fake news [2021: 1042]. A data-driven model is also proposed by Nocera, Costantinou, Tran, Kim, Kahan, and Shahabi [2021], with the specific goal of helping local, and even "hyper-local news". In this sector, the authors correctly observe, there is a scarcity of investments and therefore a lack of advanced tools [2021: 2765]: which could be solved through the implementation of the so-called Crosstown Foundry. The system is able to both collect a wide quantity of information, and deliver it by automatically generating personalized newsletters for people living in a relatively restricted area – in this case, the Los Angeles County. One may notice that the dataset is organized according to very traditional thematic areas, and namely health, traffic, and urban crime [2021: 2766]. A more interesting project about local journalism is that of Hepp and Loosen, who explicitly refer to the urgent need of addressing the "crisis of local public" [2019: 58]. In order to do that, they followed a "relational approach", by involving in the design of the platform various members of the local community: ranging from seven focus groups with citizens; to a survey on the use of local media on a representative sample; to qualitative interviews with journalists, experts and media representatives; and finally, to eight focus groups with influential members of the community, coming from sports, associations, or cultural clubs [2019: 59]. This participatory approach to "co-creation" would result in the setting up of molo.news – with *molo* standing for *moving local* – which is an app inspired by the above-cited relational principle. The app includes both professional and user-generated contents, though only the first are directly delivered through the news-feed. Editorial curation can not be assigned to an automated system, Hepp and Lonsen state, and therefore an editorial

board is established, which works at the backend of the platform. In exchange, users are given some degree of freedom, for what concerns the personalization of the newsfeed [2021: 63].

A basic application of the open graph has been proposed by Berven, Christensen, Moldeklev, Opdahl and Villanger [2020] for facilitating news-making procedures, with their so-called "News Hunter". This would be a flexible architecture, capable of collecting data from already existing sources (*harvesting*), classifying it (*labeling*), organizing it (*clustering*), and finally putting it to the test of semantic lifting, in order to build what data scientists call an ontology [2020: 3-4]. After the experimental verification, the authors found positive results of News Hunter in terms of event detection, automated identification, and retrieval by means of metadata; the respondents, on the other hand, negatively assessed the classification of contents, with categories told to be "correct, but too general" [2020: 9]. On the consumption side, finally, network analysis is also used for tracing the connection among people sharing the same news [2020: 6].

Kim and Yoon bring forward a news distribution model based on blockchain, and more precisely on the encryption currency known as CVL [2018: 4]. They list out four main goals of their initiative: offer a "personalized journalism"; detect fake news, with the help of decentralized checking; trace and prove the sharing, and therefore the value, of any single article; and use the blockchain mechanism itself for collecting people's feedback [2018: 2]. By definition, the open configuration of the blockchain would allow to involve different players, and specifically: a board of independent journalists; the "officers", or the newsroom operators; the citizens; and the fact checkers [2018: 4]. After being created, an article goes through a verification procedure, to which different players participate at a variable extent, and being vested with different powers: due to the presence of heterogenous actors, a "hybrid blockchain" would in fact be implemented, in place of the totally public one [2018: 7]. By and large, the prototype relies on the ever-lasting libertarian ideology of decentralization, in the very Californian sense of *free market:* as no one is allowed to control the whole process, content manipulation would be technically impossible, and so would be the imposition of a collective agenda over the "personalized agenda" [2018: 9]. We will get back to this crucial point at the end of this section.

The use of blockchain also lies at the heart of the work realized by Gowri Ramachandran, Neville, Zhelezov, Yalçin, Fohrmann and Krishnamachari, which propose 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 whole set of "verifier nodes" [2020: 161]. The protocols known as "smart contracts" 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 of the nodes [2020: 160]. After the verifier sends back the result to the task owner, the system comes out with a "genuineness score", which can be accepted or 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 unclear or contested outputs, the option of putting them to the vote [2020: 160]. As fascinating as the solution might be, it is devident how such a system – as the authors themselves would eventually admit – requires very active and skilled participants, even able to "reliably curate the algorithms" [2020: 8], and therefore 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, truth being told, their explanation of the confirmation bias is quite rudimental [2019: 1610]. What is more 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: 1613]. Dhall, Dhar Dwivedi, Pal and Srivastava widen the discourse from the disinformation field to the whole catalogue of dangerous messages and "vicious" contents, such as, for instance, those related to drug use and addiction – an aspect that they dramatically fall short in problematizing, for what concerns the *social*, and non-technical side of the argument [2021: 3]. By and large, 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: 22-23]. In order to prevent the spread of what they label as vicious contents, so, "private posts will not be given options to be forwarded by the receiver of such post" [2021: 21], and therefore limiting "mass spread" would come at the price of a very authoritarian imposition. The same paradox of a radically decentralized idea turning into a control apparatus is present in Christodolou and Christodulou, who expressly refer to a blockchain maneuvered by the governments [2020: 138].

Based on scientific literature, more broadly speaking, the use of blockchain for the outsourcing of fact checking and the detection of false information seems to be a popular idea. Similar attempts have been made, with no significant differences in planning and inspiration, also 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 deepfake phenomenon, though their guidelines are not specific to the technical affordances of videos, and focus on conventional parameters: namely, decentralized content moderation,

community-driven practices, and rewards for fact checkers [2020: 55-56]. Shang, Liu, Lin and Jia come up the very same blockchain mechanism, with the broader goal of making it possible the traceability of news, so that the "path of news transmission can be inquired" [2018: 379], in a way that might be productive for both false information detection and the overall understanding of the process. A more extended application of blockchain has been advanced by Voinea, which is expected to impact the journalism field at several levels: content authentication; controlling of the origin and integrity of news; and funding [2019: 249]. In particular, Voinea insists on the adoption of a "widely used cryptocurrency with low or no-cost transactions", which would make it possible to charge "very small amounts" of money for media products, with this micro-payment supposed to counter-balance the financial crisis of the information system. In all cases, the above-considered proposals seem to be typical of the hype moment of the block-chain public narrative, with technical interventions expected to fix human problems, without any reference made to the social and political aspects of the process: while actual implementations of the new technology in the journalistic field are actually problematic, and in the end all the promised "things can also be done without block-chain" [Erkkilä & Yle 2019: 5-14, 21].

A research by the University of Bergen takes into account a different, and quite advanced issue: how to implement a specific "angle" – which "is a central journalistic and editorial skill" – in a big data architecture [Gallofré Ocaña, Nyre, Opdahl, Tessem, Trattner & Veres 2018: 1]. As news-making procedures are becoming increasingly automated, in fact, new methods do not seem to "support news angles". This notwithstanding, news angles are a fundamental part of the narrative pact between journalists and audience: as they provide criteria for events to be reported; indications about additional facts to be considered; and a template for the presentations of the news [Ibidem: 3]. The series of possible angles the authors list out is limited as it is questionable, as it is based on a very limited literature review (*three* papers), and it includes:

- *Prominence*, or the importance of a story in terms of impact;
- *Disaster*, or the impact of a negative situation;
- *Incident* or "anything that goes wrong or unexpectedly", and can trigger problematic effects [Ibidem: 4].

With this in mind, the authors aim at developing new components for analyzing the input stream of data, also in terms of angles: for instance, informatic agents able of identifying all elements expected to change the tone of the news, such as "the approaching anniversaries", or the entity of a disaster, and so on [Ibidem: 12]. The authors are aware that an angle, like any

other criteria, only makes sense in relation to a specific audience: hence the idea of a newsworthiness index, based on the specific market, or even on the specific niche addressed by any media outlet [Ibidem: 6]. I will admit that the set-up of the system is hard to understand [Ibidem: 12], and therefore I will move to a broader consideration. Besides its technical aspects, which are not always easy to grasp, the paper has a significant theoretical potential, as it challenges the idea of *neutrality* as a main paradigm for contents production. As we know, the neutral point of view has been somehow institutionalized by the Wikipedia project, but something similar has been claimed by Google: something which might also explain, in a circular way, the high ranking of *all* Wikipedia pages in the most used search engine [Vaydianathan 2011: 49, 63-64]. What is more, a different form of neutrality has been also endorsed by all major platforms: as a matter of fact, the main issue in their regulation is traditionally related to whether or not they have to be held responsible for the contents they deliver, with their liability eventually defined in the Digital Single Market Directive [see D1. 4].

In a different vein, Tan and Li call for an application of the Internet of Things to news delivering, made possible by the evolution of 4G and 5G, and by the massive diffusion of digital tools and services [2021: 2]. As they state, Internet of Things can easily be installed and run on endless platforms, servers and devices [2020: 5], so as to provide information about the media diet of each user. As a result, an Internet-of-Things-based news recommendation would reach, according to their experimentation, the significant accuracy rate of 79,5% [2021: 7]. As it was in the case of blockchain, though, advanced technical solutions are developed without any reflection on their social impact – something that we will discuss again for the purposes of WP5.

A few other possible technical counter-measures can shortly be mentioned. Messina, Montagnuolo, Di Massa and Borgotallo [2013] bring forward an automated content aggregation system – called Hyper Media News, or HNNews – able to take together, in one sole stream, the information coming from diverse media, such as the web and the digital television. The purpose is that of limiting the fragmentation of news consumption, and its alleged effects on the overall social equilibrium. Evans and Klavans rather address the process we refer to as *balkanization*, by introducing a multilingual "news-blaster" capable of crawling contents from different countries, translating them, organizing them in thematic clusters, while also adding an English abstract [Evans & Klavans 2003: 6-7]. Rodrígues-Fidalgo and Paíno-Ambosio assessed the use of virtual reality viewers for immersive journalism, by measuring its success across time, and its impact in terms of most appreciated stories. With immersive news reporting sharply declining after 2017 [2022: 56], the authors observe, a more mature reflection is needed about the contents, as the most successful applications of VR have

all to do with tourism and travel, to the detriment of other arguments of public interest [2022: 55]. With this respect, the equivalence between the appropriation of new devices and the strengthening of people's agency reveals one more time to be unproper, as many of them are banally used for very different purposes, and for entertainment as well.

A final consideration about the technical counter-measures will require a critical emphasis on two aspects. Firstly, and not unseemingly so, all proposals come without the social and political consequences being taken into account – not to mention the ethical implications. As a consequence, and secondly, we run the risk of repeating the same mistake we have made many times in the past: putting all expectations in technological innovation per se, as it was in the case of 1970s informatic utopianism; that of the 1990s information highways; and then that of the so-called Web 2.0. As fascinating as artificial intelligence might be, this is a lesson we need to keep in mind. When it comes to the blockchain, even more, we have to recall a main lesson of media history: that decentralization is often a first stage in the development of infrastructures, invariably being followed by a centralization, if not monopolistic moment, according to a cyclical pattern [Wu 2011: 73-76]. With this respect, the emphasis on high-tech solution is in line with the tendency that Evgeny Morozov labeled as internet-centrism, or internet "solutionism" [2013]: the naïve idea that a purely technical fixing is possible, for social and political problems (though Morozov often mistakes the "internet-centrism" with "technological determinism", which is a theoretical paradigm, rather than an ideological statement).

4 Best Practices and Examples from the Ten Countries

4.1 Looking for operationalization

The dialogue between the theoretical – or at least, *bibliographical* – work and the empirical evidence is perhaps the single most complicated issue in social sciences. What is more, a relevant number of the papers we passed in review in the previous section deals with very broad issues, which can hardly be broken down into empirical indicators [i.e., the rise of new intermediaries, or the economic disruption]. This being said, we made a first attempt of operationalizing some recurrent concepts extracted from the scientific corpus, and translate them into more concrete research questions. A first set of questions [Part I] is related to the overall state of news platformization in each country; whilst the second one [Part II] will require a selection of the most impactful social media contents that have been analyzed and coded for the general purposes of WP2.

The last clarification is that we will only focus here on the *platformization* process, and its effects (or externalities). As the Europeanization theme will kick in at the stage of aggregate analysis of national data [D2.2- *Citizen Journalism in Ten Countries*], it will not be addressed in this document.

Part I: From the General Observation

A first assessment of news platformization in each country can be realized in force of background analysis and historical or bibliographical account. With all possible limitations, in this first case we tried to operationalize some of the categories synthetized above in Table 1- Systemic effects of news platformization; in Table 4- Economic effects of news platformization; and in Table 5- Effects of news platformization on professional routines and journalistic practices. Based on historical, statistical or bibliographical observation, therefore, we collected information about the following tendencies in each country.

- (RQ 1.1) How about the possibilities for new players, start-ups and spillovers? How open is the market? If available, provide an example of good practice, with a recent

news company getting relevance and notoriety. Or, if available, provide a negative example of spillover or start-up failure.

- (RQ 1.2) Is there a good cooperation among main digital platform and non-digital native news outlets? If available, please, provide an example of good practice, or the case of an unsuccessful cooperation strategy.
- (RQ 1.3) Is there a relevant strategy for fighting fake news and disinformation, besides the usual solutions everybody comes up [fact-checking, media literacy, and so on]?
- (RQ 1.4) Is there a properly *autonomous* fact-checking agency? And, is it getting any relevance in the national debate?

Part II: From the WP2 Social Media Posts

In this case, we aim to operationalizing some of the contents archived in Table 3- Effects of news platformization on audience activity and engagement; in Table 6- Effects of news platformization on disinformation and radicalization; and in Table 7- Other externalities of news platformization. In order to put the bibliographical findings to the test, we therefore looked in each dataset for:

- (RQ 2.1) High-ranked posts including deliberately false or unreliable information;
- (RQ 2.2) High-ranked posts including fact-checking or fake news debunking;
- (RQ 2.3) High-ranked posts based on a complete and balanced news reporting;
- (RQ 2.4) High-ranked posts showing a positive synergy with traditional media [i.e., linking to an investigation made by the printed press];
- (RQ 2.5) High-ranked posts coming from alternative media projects, or linking to alternative media sources;
- (RQ 2.6) High-ranked posts showing a generational difference among users commenting the same news;
- (RQ 2.7) High-ranked posts coming from local or hyperlocal media outlets, or linking to them;
- (RQ 2.8) High-ranked posts following the neutral point of view;
- (RQ 2.9) High-ranked posts challenging the neutral point of view;
- (RQ 2.10) High-ranked posts from journalists' *individual* accounts, rather than from those of a news outlet;

- (RQ 2.11) High-ranked posts revealing the softening of the tones, when compared to the general covering of the events in other online or traditional media;
- (RQ 2.12) High-ranked posts delivering hate speech contents – either supporting or contesting them;
- (RQ 2.13) High-ranked posts in which the visual component is decisive;
- (RQ 2.14) High-ranked posts triggering polarization or radicalization;
- (RQ 2.15) High-ranked posts discussing the state of people's trust in media.

4.2 Good and bad effects of news platformization across Europe

4.2.1 Research Questions 1.1 and 1.2

Research questions 1.1 and 1.2 relate to the state of the national markets, and precisely to the opportunities for new players and competitors to kick in; and to the level of cooperation among digital platforms and non-digital native media outlets.

We can start with the Greek media system [RQ 1.1], which traditionally presents a number of features that also appear in the Mediterranean model [Papathanassopoulos 2004], adopting a *modus vivendi* "characterized more by supply than consumer demand" [Papathanassopoulos 2001: 119-120]. These are features, or even paradoxes, that amount to weaknesses, empowered by the advent of fiscal crisis and the digital transformation. As a result, the Greek media system not only remains crowded in terms of the media organisations hosted in its boundaries, but it also perpetuates the interplay with politics, which is undergoing a new phase [Papathanassopoulos, 2020: 412]. Nevertheless, the market is open to new players appearing within market conditions that endanger their sustainability.

After all, the sustainability of the Greek media organisations is a long-lasting discussion dating back to the beginning of the 1990s, when newspapers' decline in sales could not be prevented even when innumerable gifts, coupons and special offers were offered to their readers [Papathanassopoulos 2001: 120-121]. As to the broadcasting sector, after two decades of a thriving deregulated radio and television field, conditions of precarious unemployment also emerged in the appealing to the public electronic media ecosystem [Spyridakis 2017; Dalkavoukis & Spyridakis 2018]. Today, after the crisis of the Greek economy, the

sustainability of the media sector is an equally hotly debated issue with "media outlets and journalism undergoing a sector and profession crisis" [Skamnakis 2018].

Nevertheless, despite the highly precarious conditions of the media market, there are cases of new digital ventures focusing on a news mission which confirms the already proven hypothesis, that media organizations in Greece are established with the aim of serving interests relating to other sectors of the economy. This implies that the media market is open to new digital players, however this openness is more pretentious than substantial, since it is based on an explicit paradox: the willingness of the few media moguls to invest in digital ventures although their sustainability is highly questionable. For the time being the online media registry in Greece incorporates 1,432 identified members, but the real number is definitely higher considering the unregistered websites [General Secretariat of Information and Communication 2022]. In Greece there is no recent news company getting relevance or notoriety, however already established news organisations have tried to renew their identity in the online environment. Such is the case of the website www.ertnews.gr, representing the autonomous news portal of the Greek public service broadcaster ERT, set in operation in February 2021 as a split from the central website of the broadcaster (ert.gr). It displays in the online world all the news content coming from the public service television. Over the first year of its operation the news website attracted 8 million unique visitors [typologies.gr 2022]. A process of renewal has also occurred since September 2019 in the digital news portal of the private broadcaster SKAI (www.skai.gr), where the news content is now presented in a sharper way with a variety of topics, being friendlier, in terms of layout, for mobile phone users. The new digital portal also hosts live blogging process for the greatest news topics and adopted a simplified process of navigation through the various news categories.

As to the cooperation between media outlets and digital platforms in Greece [RQ 1.2], Google has made deals with news providers but is not involved in content curation. This is also the case in the new *Google News Showcase* product. It is up to the news publishers to design their curated experience for users, according to a top executive working in the premises of Google in Athens. Facebook has approved "Hellenic Hoaxes" as the official fact-checker agency in Greece, a decision that has raised a lot of controversies in the political field. Details regarding the extension of the agreement are not publicly available, however "Hellenic Hoaxes" check images, videos and articles on Facebook as part of the social network's fact-checking initiative and this work is sponsored by Facebook. The amount of money earned by "Hellenic Hoaxes" depends on the number of actual checks performed under the programme.

As paradoxical as it may seem, the reported best practice in Bulgaria [RQ 1.1] is *Spiegel*. The reason is that reposting content from European media about Bulgaria is a way to say things, Bulgarian media do not want to tell by themselves. As a matter of fact, for a long time it is accepted that European media are more trustworthy than Bulgarian ones.

In the case of Sweden [RQ 1.1], the media market was highly restricted for many years, due to regulatory constraints in support of public monopoly, and lack of initiative and innovation in the private market. The change came in the 1980s, pushed through to no small extent by the individual entrepreneur and businessman, Jan Stenbäck. CEO of Kinnevik from 1976, he founded Comviq, Invik & Co AB, Tele2, Banque Invik, Millicom, Modern Times Group, NetCom Systems, and the paid first satellite television channel TV3, in 1989. In 1995, he founded Metro, a non-political daily paper circulated free of charge, based on a business model which included close collaboration with public transport organisations and revenue from advertising. Stenbäck's business models represented genuine innovations which paved the way for a radical change of the way the media market works. Stenbäck expanded Swedish media cross-border, with TV3 now well established throughout the Nordic countries and the Baltics. His expansive business made him one of the wealthiest citizens in Sweden[2].

Forcing regulatory reforms, Stenbäck in effect did away with the monopoly of public broadcasting not only in Sweden. He fundamentally altered market conditions across the Nordic countries as well as more broadly in East and Central European countries. Current channels that run with the TV3 concept are: TV3 Sweden; TV3 Denmark; TV3 Norway; TV3 Estonia; TV3 Latvia; TV3 Lithuania; TV3 Slovenia; Viasat 3 Hungary. For the newspaper industry, Metro in effect played a somewhat similar role in altering the established "rules of the game". First-move advantages from innovation and altering the market conditions were proven possible, even in the face of public monopoly and an entrenched incumbent media industry.

As to the cooperation between traditional media and digital platforms in Sweden [RQ 1.2], TT National News Agency (TT Nyhetsbyrån) offers the largest range of texts, images, videos, info graphics and other news material in the Nordics. They provide news content to media groups, authorities, and marketing departments. As such, they provide content both to digital and non-digital outlets. TT describe themselves as a credible and independent play in

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[2] https://www.modernista.se/bocker/stenbeck-en-biografi-over-en-framgangsrik-affarsman;
https://sv.wikipedia.org/wiki/P%C3%A4r_Stenb%C3%A4ck.

media Sweden. The premise is that, as in many other countries, Swedish newspapers buy articles from a press agency. TT is the most widely used press agency and is considered credible among people in Sweden[3].

The best practice in Spanish media market [RQ 1.1] comes from Prensa Ibérica, the leading regional information group, now preparing to launch a national newspaper in Madrid, which will be called *El Periódico de España*, and will be directed by the prominent journalist Fernando Garea, former president of the EFE Agency. It will be published in the last quarter of 2022, but even though it is not yet available, it is causing a lot of interest from citizens, for whom it is expected to be a great success. At the moment the news of the launch has been very well received, everything indicates that its entry into the media market will be a complete success.

As to Prensa Ibérica, it is highly recognized as it publishes 24 printed and digital newspapers in eleven autonomous communities and various magazines, it has two million paper readers (EGM) and more than 230,000 daily copies (OJD), it is the leader in audience and circulation in various autonomies and has a growing position in digital media, so it is expected that this new national newspaper will continue to have the same impact and the same number of readers, or more. Regarding the possibilities of new players, start-ups and spillovers, there is a high degree of concentration and 70% of the market is absorbed. All of this points to risks such as opacity and other behaviors that can undermine consumer welfare. Even so, the panorama is in full transformation due to the uncertainty caused by the coronavirus pandemic, which is why the market is growing, and with it the possibilities of new players entering.

As to digital native news organizations [RQ 1.2], they have grown steadily in Spain since the mid-1990s and have established themselves as a major force in the media market. However, these digital native news startups have yet to prove their sustainability and stability. For this reason, its relationship with non-digital native media, which are also strongly consolidated, is very necessary and essential.

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[3] TT National News Agency [TT Nyhetsbyrån]. (n.d.). *About TT [Om TT]*. Retrieved 10 October 2022, from https://tt.se/om/om-tt.

The situation in Czech Republic appears to be more fluid and dynamic, given the growth of such news media websites as Refresher or Czech Crunch. As to RQ 1.1., new generation news media start-up platforms continue to proliferate. But there are two barriers in the Czech market: firstly, readers are not used to paying for their content, which is a main obstacle to the media's economic viability; secondly, websites struggle to maintain financing through advertisements, so they need to develop alternative strategies. In particular, Refresher has been transformed from a lifestyle website into the news media platform which employs the most modern journalistic practices - such as the use of artificial intelligence in news reporting - but at the same time they try to adapt high editorial standards on their original content.

For what concerns the cooperation among old and new media [RQ 1.2], the best practice is that of Seznam.cz, the most powerful platform on the Czech internet: to the point that it also goes by the name of Czech Google. Through its Newsfeed.cz, it builds strong cooperation with traditional media outlets. Newsfeed functions additionally as a net of discussion forums. We may notice here that this is the only exception to the rule, in Europe: the rare case of a national platform able to stand up against global platforms.

A few successful cases of journalistic start-ups [RQ 1.1] can be found in Italy. In particular, Dagospia is a half-serious and yet very influential magazine, founded by Roberto D'Agostino in 2010 and focusing on both gossip and news reporting. Linkiesta, Lettera43, and Post are part of the first-generation start-ups as well, and they have been getting some notoriety in their turn, at least in proportion to the Italian rate of newspapers readers and web users. Though serious doubts have been casted on their financial viability and on their very survival – for instance, in the 2012 Reuters Institute report on start-ups [Bruno & Nielsen 2012: 88-90] – these outlets are still operating, and at least two more recent cases can be cited. The first is Open, launched by anchorman and TV journalist Enrico Mentana; and even more striking is the success of the right-wing ByoBlu - founded by the former (and controversial) Movimento Cinque Stelle spokesman Claudio Messora - which easily indulges in conspiracy theories. The notoriety of these outlets can probably be explained upon the low perceived credibility of traditional media. When it goes down to the relations between legacy media and main platforms [RQ 1.2], there is no evidence of advanced cooperation and synergies – thought the Italian digital ecosystem is not easy to map. In this respect, it has been observed that the traditional dependence of news outlets on political powers has been hampering such synergies [Rizzuto, D'Ambrosi, Ducci, & Lovari 2020: 138-142].

Best practice in Turkey [RQ 1.1] is the news platform *Medyascope*, which is a totally new player in local media ecosystem. The online newspaper is not rooted in any printed media or agency. In addition to Turkish language, it produces news in German, English, French, Kurdish and Arabic; and they actively use podcast and Youtube to distribute stories.

In Germany, we can say that new intermediaries own young audiences [RQ 1.1]. Public Service Media have to put their content there in order to be relevant to them. German public service media ARD and ZDF in 2016 jointly launched the young content network *funk*. It aims at 14 to 29-year-old people. It presents about 150 formats at any time on Youtube, Facebook, Instagram, Tiktok, Spotify and Snapchat. Funk is widely acclaimed for the success in its mission and won a number of awards. Since both PSM cooperate in funk, it cannot be called typical of anything else. Commercial media do address the same age group on social media, but there is nothing comparable in scope and reach to funk.

As to the connection between legacy media and platforms [RQ 1.2], an exemplary case is that of Russia Today. It is a state overseas TV service founded in 2005, transmitted via satellites and Internet in five languages. RT is a foreign propaganda channel of the Russian government spreading disinformation such as conspiracy theories. RT DE regularly featured politically radical voices as long as they were critical of the Merkel government and the EU. RT DE it was banned in February 2022 due to the lack of a German broadcasting licence. After Putin's invasion of Ukraine, propaganda escalated to the point where the EU decided to ban RT in the entire union, which came into force on March 2, 2022.

Thus, RT is both a negative example of bad actors using media – both traditional broadcast and social media – to poison the public sphere in other countries, and a positive one, because it shows that the legal instruments to defend democracy are in place and allow a fairly rapid and effective response. The US had banned RT in 2017, the UK in 2018 after disinformation on the poison attack on the former Russian double agent Sergei Skripal. DE banned RT at the beginning of February 2022 because of a lack of valid broadcast licence. As a matter of fact, German broadcast law is increasingly used against platforms, including a ban in March 2022 against porn-site xHamster which does not prevent access by minors and plans to rein in Onlyfans[4].

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[4] Correctiv, Russische Propaganda für deutsche Zuschauer, 04.01.2017, https://correctiv.org/aktuelles/neue-rechte/2017/01/04/russische-propaganda-fuer-deutsche-

Best practice from Portugal is [RQ 1.1] is the fact-checker *Polígrafo* (poligrafo.sapo.pt). Funded on November 11, 2019, just in few months it surpassed the audience goals, had a fixed space on the main news-bulletin on one of the three open-access national TVs, and it even became profitable. For the size of the country, it is one of the most successful fact-checkers worldwide, and is now available online, on TV and radio. It has contracts with Facebook and is part of national and international research projects, having achieved audience recognition and financial success.

As a negative example we can point to attempts from traditional print media to develop video content. As an example, both *Diário de Notícias* (a 125+ years daily) and *Jornal de Notícias* daily newspapers, from the same media group (Global Media), tried to launch video contents on their websites (in the mid 2010s), and even special brands dedicated to video, but the lack of audiences and advertising revenues led to the demise of both video efforts.

As to the cooperation between international social media platforms (Meta, Alphabet, etc.) and national media groups [RQ 1.2], in Portugal it is very scarce and episodic. Most of the times, there is more of a clash than a cooperation. It is difficult to flag up a good example, except, maybe, the Google News Initiative calls for the Portuguese market (Digital Growth Program), which counts on the participation of some media groups as regular clients. Most of the time, these media groups receive grants for particular projects. *Público* daily newspaper and Media Capital TV network (TVI and *CNN Portugal*, among others) are, probably, the two which got more grants from GNI.

As a negative example, we can point to the Netflix cooperation with the Portuguese Ministry of Culture: they launched a joint call for TV and cinema projects in 2019/2020, with the goal of choosing the best ones for possible production by Netflix. There were more than 1,200 project applications, but the Portuguese authorities, themselves, decided to choose the best ones (thus

zuschauer/;
https://de.wikipedia.org/wiki/RT_(Fernsehsender)#Verbot_der_Ausstrahlung_in_Deutschland;
Ukraine: Sanctions on Kremlin-backed outlets Russia Today and Sputnik02.03.2022,
https://ec.europa.eu/commission/presscorner/detail/en/IP_22_1490;
https://de.wikipedia.org/wiki/RT_(Fernsehsender)#Betriebseinstellungen_und_Ausstrahlungsverbote; https://de.wikipedia.org/wiki/RT_(Fernsehsender)#Verbot_der_Ausstrahlung_in_Deutschland;
KJM beschließt Sperrung von xHamster, 03.03.2022, https://www.medienanstalt-nrw.de/presse/pressemitteilungen-2022/2022/maerz/kjm-beschliesst-sperrung-von-xhamster.html;
Medienwächter wollen Internetdienste wie Onlyfans strenger regulieren, 31.03.2022,
https://www.welt.de/wirtschaft/article228195491/Porno-Medienwaechter-wollen-Onlinedienste-wie-Onlyfans-regulieren.html .

dispensing joint evaluation with Netflix, contrary to what was contemplated in the agreement). As a result, Netflix stated that they were not interested in producing any of the 10 "best ones", and the partnership died there.

It is worth adding that most international media and tech groups do not have local operations in Portugal, including the country usually within a group, alongside Spain and/or Italy. Due to the small market size, Portugal is not a priority or even relevant for them, so contact is almost none, or only residual, between big media/tech and Portuguese media agents [see Cardoso & others 2021a and 2021b; Crespo & others 2020; Digital News Report 2022]. Also, cultural clashes are common, as happened in the case of Netflix with the Portuguese authorities (the audiovisual production public grants are usually very controversial and frequently the target of public accusations of lack of diversity and fairness).

The reported best practice from Belgium [RQ 1.1] is Belga (https://belga.press), a local news agency that does not publish news itself through a daily or weekly newspaper, but has newspapers as clients. However, Belga's articles can be read digitally. So, there is a link here between the online news agency Belga and printed newspapers. Since in Belgium every newspaper also has a website and/or online version, news items are posted both online, and offline. As in many other countries, Belgian newspapers buy articles from a press agency. Some adjustments may be made to the articles. Images are also bought from Belga.

As a short conclusion of this overview, we can notice two main tendencies. On the one hand, despite the monopolistic position taken on by major global companies, *there is still space* for new initiatives and proposals in news platform markets. The opportunity for them to stabilize and consolidate is not easy to assess, though, given the high rise of failures among start-ups, small companies and spillovers in this field [Martens, Aguiar, Gomez-Herrera & Müller-Langer 2018]. Some national media landscapes can be considered more dynamic - for instance, Sweden and Czech Republic – while in some others, and namely Spain and Portugal, the market appears to be blocked. In other countries, and based to this limited observation, platformization hardly modified the traditional configuration of the media system. This is the case of Italy, where the success of new outlets is usually due to the diffused distrust in official media; and that of Greece, where the media still serve the interests of other sectors of national economy. In a similar vein, the relevance of Western sources of Bulgaria can confirm the political short-circuit between Europeanization and modernization, that has sustained the first wave of media globalization in Eastern Europe [Dobek-Ostrowska & Glowacki 2021; Herrero & others 2017; Radeljić 2021]. As to the big picture of media monopolies, and as we know,

major tech companies rather claim to be part of an openly concurrency market - the statement on which Nicholas Petit's [2020] idea of *moligopoly* is based. How to protect small companies from the power and appetite of the global players, nonetheless, is a main problem for both information professionals and regulators.

This argument leads us to the second consideration. A well-organized and profitable cooperation among news media and main platforms is hardly in place, in the considered countries – the more so in Portugal, Belgium, and Turkey. Needless to say, this does not main that no cooperation exists: rather, that the cooperation mostly *goes one way*. At the deeper level of web architecture, as a matter of fact, websites and news outlets are mostly forced to rely on the services provided by the Big Five: that would be the distinction between *sectorial* platforms delivering a specific content – among which the news – and *infrastructural* platforms equipping them with services, data centers and servers [van Dijck, Poell & de Waal 2018: 12-22]. In short, if no cooperation can be detected at the visible level of news delivering, this probably means that the win-win hypothesis – the idea of a mutual reinforcement between old and new media – can not be confirmed, and that main platforms risk to appropriate the whole ecosystem.

4.2.2 Research Questions 1.3 and 1.4

In a different vein, research questions 1.3 and 1.4 are meant to collect information about fact-checking policies in order in all countries, with attention placed, respectively, to the most efficient strategies, and to the role of properly independent fact-checking agencies. The reason behind this has been already touched on in the previous section, and has to do with the growing power of fact checkers, their political biases, and their overlooked *political*, rather than technical role in regulating information flows [see Lazer & others 2018; Pavleska, Školkay, Zankova, Ribeiro & Bechmann 2018].

In Sweden, the national government decided on August 23, 2018, to give a special investigator the mission to work together with relevant actors on outward-facing initiatives that increase people's resistance to misinformation, propaganda, and online hate, e.g. through media and information literacy. A report was submitted two years later, in September 2020. It includes information about the work of the investigators, including, for example: a communication strategy; a national municipality tour; meetings, conferences, and collaborations; participation in news media; seminars and events; and educational materials. The committee behind the report also recommends that a strategy for strengthened resilience

against misinformation, propaganda and online hate should be drawn up. There are similar initiatives in other countries to counter and deal with fake news and misinformation. The strategy that the committee behind the report recommended to be drawn up does not seem to be developed thus far [Heath & others 2020].

For what concerns the autonomy of fact-checkers [RQ 1.4], the Source Criticism Bureau (Källkritikbyrån) is a project to help people become confident and aware net users. They provide inspiration and knowledge about online source criticism and who it is that is being deceived in the Swedish fake arena. The bureau systematically reviews online claims and pass on the knowledge to the public. The Source Criticism Bureau is a run like a company and describe themselves as an independent journalistic office. The Source Criticism Bureau focuses on *falsification*, rather than verification, of viral claims[5].

As to German fact-checkers, we can cite Correctiv, which is the first donation-funded research centre for investigative journalism in the country [RQ 1.3]. They broke several big stories, including the cum-ex tax scandal and the AfD donations affair, and won numerous awards. Together with more than 40 other European fact checking organisation it devised the *European Code of Standards for Independent Fact-Checking Organisations*. Correctiv cannot be called typical for the German media system, but it sets a positive example and raises the bar for other media.

Another example of independent fact-checking [RQ 1.4] has been set, in Germany, by the Press publishers' ancillary copyright, that is a reaction to the dependence of journalism on infrastructural platforms. The assumption is that snippets in search results replace the press publishers' audience. Therefore, search engines should pay. A "lex Google" that had – unsuccessfully – been tried in Germany and Spain, and then was introduced in EU law (see Art. 12 DSMD).

When it gets to Greece, the media market presents some interesting peculiarities that need to be considered in the attempts for fighting fake news and disinformation [RQ 1.3], which usually incorporate fact-checking processes, media literacy and training sessions addressing professional journalists:

- The political debate has been framed by perceptions of media bias;

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[5] https://kallkritikbyran.se/om-oss/.

- There is a very low share of citizens thinking that press is free from undue political or business influence;
- The online news market is fragmented within a disrupted context of high use of social media for news consumption, lack of trust in news as well as lack of culture for payment when it comes to the consumption of online news;
- The majority of news portals in Greece place more emphasis on gaining page views rather than formulating a loyal audience whose attention is highly fragmented among many news outlets, more than the market can sustain;
- Podcasts, incorporating current affairs discussions, is the new trend in Greece on which investments are made not only from digital-born news outlets but also by legacy news media;
- TV market is still dominant in Greece;
- In 2021, during the pandemic crisis, the Greek Parliament has passed a law rendering criminal offence the act of spreading false news, "capable of causing concern or fear to the public or undermining public confidence in the national economy, the country's defense capacity or public health". Spreading misinformation is punished by a fine and up to five years of imprisonment.

The phenomenon of fake or unverified news dissemination through social media platforms, media outlets and portals/blogs is quite common in Greece [Patrona, 2018; Poulakidakos & Armenakis 2014; Lamprou & Antonopoulos 2020]. The mitigation of the above trend is usually based on fact-checking processes which are captured in specific online ventures/digital platforms implemented either by scientific or non-scientific working groups. The operation of these platforms incorporates machine-learning algorithms, organised by experts on informatics, and traditional research procedures carried out by researchers who are familiar with the tools of data journalism and with the research methodologies of social sciences.

In Greece the first organised attempt of combating fake news was implemented by the digital platform *Hellenic Hoaxes*, established in 2013, which detects non-true stories and low-quality content based on a model combining crowdsourcing strategies and professional fact-checkers processes [Lamprou, Antonopoulos, Anomeritou & Apostolou 2021].   In Greece the strategy of digital communication literacy with the aim of countering fake news and dissemination sometimes takes broader patterns addressing young adults as influencers who are asked to take on the role of "Leader" and empower their peers. Combating fake news and propaganda is considered as an essential part of a broader obligation for active engagement in

public life. This is exemplified by [YouthMythBusters](#), a platform designed to promote the participation of vulnerable young people in political life and to enhance their engagement in preventing the phenomenon of fake news dissemination.

Speaking of autonomous and independent fact checkers [RQ 1.4], we have to notice that in Greece there are only a few agencies, with the first of them having being established in 2013. It is called "Hellenic Hoaxes" and it cannot be considered properly "autonomous" given that, since 2019, their resources have been coming from a combination of sources: Facebook, it being part of the social network's fact-checking initiative by fact-checking organizations; projects organised either by the European Parliament or by IFCN; and advertising based on Google Ad-sense.

A properly autonomous fact-checking agency can be considered the platform [http://check4facts.gr/,](http://check4facts.gr/) which is part of a programme entitled "Public Discourse Fact-Checking" aimed at responding to the need for producing inter-disciplinary scholarship on fact-checking in the Greek public sphere. With the aim of addressing the problem of post-truth it has developed three pillars:

- The creation of a digital platform where political statements are evaluated for the degree of their veracity. The platform is freely accessible to citizens, political players, journalists and scientists of all disciplines;
- The implementation of research on public discourse, as appeared mainly on the mainstream media;
- The provision of education to students and to the general public so as to stand critically against misinformation and dis-information by developing skills related to critical assessment of news.

The preparation and the first stage of the project lasted two and a half years (from January 2020 until June 2022) having as a main objective to enhance public knowledge on issues of information evaluation and management in the digital environment. The website (digital platform) went online in June 2022. By developing their awareness of how information is managed and how false or falsified information is created and released (in cases of public discourse used by political or government players or even non-elected political personnel) the users of the platform are expected to enhance their media information literacy or news literacy.

Check4facts project was funded by the Hellenic Foundation of Research and Innovation and its implementation was based on the collaboration of three very prolific research institutions based in Athens: The National Centre for Social Research, the Laboratory for Social Research in the Media of the National and Kapodistrian University of Athens as well as the Athena Research Institute, the last two being cooperative organisations. It corresponds to the

need for scientific knowledge and dialogue with regard to the credibility of public discourse in Greece. More specifically, the check4facts website, for the time being, focuses on two particularly important thematic sections of the political discourse: the refugee/immigrant issue, and crime.

These are themes characterised by interconnectedness occupying at the same time a central position in the Greek public sphere. What is more important is the fact that they also reflect controversial topics, frequently related to fake news dissemination, rumors or conspiracy theories, being simultaneously associated with the post-truth phenomenon in Greek journalism. Therefore, the need for fact-checking with respect to above-mentioned issues has reasonably been considered more imperative than ever.

The best strategy in force in Spain [RQ 1.3] actually derives from the implementation of a European initiative, called EUvsDisinfo. This is the flagship project of the European External Action Service's East StratCom Task Force that was created in 2015 to better forecast, address and respond to disinformation campaigns affecting the European Union. Its primary goal is to increase public awareness and understanding of the Kremlin's disinformation operations, collate international research that makes groundbreaking contributions to the field, while also aiming to help citizens in Europe and beyond develop resistance to digital information. and the manipulation of the media, with which it intends to end. To do this, it uses data analysis and media monitoring services in 15 languages, including Spanish. EUvsDisinfo identifies, collects and exposes cases of disinformation originating from pro-Kremlin media spread across the EU, recording these cases in the database, which is updated weekly, along with a short summary of trends which will be published regularly along with articles and analyses on new developments in disinformation methods and practices.

More broadly speaking, there are several alternatives to deal with falsehoods and misinformation, without endangering freedom of expression and investigative journalism. Among them is the well-known fact-checking and media literacy, although there are other alternatives such as the government responsibilities, which should encourage independent and professional journalism to avoid crackdowns on the news media's ability to cover the news and avoid censoring content and making online platforms liable for misinformation. On another side, currently, the technology company's responsibilities are very useful because technology firms should invest in technology to find fake news and identify it for users through algorithms and crowdsourcing.

The Spanish example of independent fact checker [RQ 1.4] appears to be more controversial, as it refers to an agency owned by the Spanish government, but even so, remaining autonomous. Agencia EFE, as it is called, is an international news agency that covers all areas of information in the media of the written press, radio, television, and the Internet. It is also one of the three Spanish media signatories of IFCN (International Fact-Checking Network) since it complies with the commitment of impartiality and fairness, with open and honest corrections, transparency of sources, financing, organization, and methodology. Therefore, its objective is fact-checking promoting good practices in the journalistic genre.

It has a wide repercussion at the national level thanks to the more than 1,800 national media subscribers to the services of Agencia EFE, which was the first news agency in the world in Spanish. It is currently focused on the Spanish-speaking markets and helping to improve the presence and notoriety in social networks, gaining more popularity and relevance day after day in Spain. EFE also was the first Spanish agency to have delegations in all the Spanish autonomous communities and cities, contributing to the information structure of the national territory and currently operates 24 hours a day from at least 180 cities in 110 countries.

The Italian best practice about tackling disinformation [RQ 1.3] comes from a very advanced academic proposal, which goes by the name of "early warning", as laid out by data scientists Walter Quattrociocchi and Fabiana Zollo. The starting point is the ineffectiveness of common strategies, due to the fact that in polarized communities the fact-checking is not accepted – bases on wide-scale data analyses - and debunking can even *backfire*, and trigger further levels of radicalization. For this reason, the proposal is that of timely analyzing both the web environments and the discussion topics and sub-topics that are more likely to produce polarization – a point after which misinformation cascades and fake news can easily spread. The methodology has been proposed to relevant national institutions, including the Council of Ministers, and *early warnings* have been released about several opinion trends [Del Vicario, Quattrociocchi, Scala & Zollo 2018 and 2019].

The actual autonomy of Italian fact-checkers [RQ 1.4] is quite problematic. The most relevant agency is Pagella Politica, which nonetheless has several links with political and institutional bodies; and the same can be told for Facta, which is a spinoff of the same company. The main independent agency was probably Fact-Checkers, that used to be part of the International Fact-Checking Networks as well, and has been active between 2017 and 2021. It has to be noticed, additionally, the role of *impure* fact-checkers, or the fact checking operated by publishers and news agencies: in particular, this is the case of Open, an on-line magazine

founded by an influential TV journalist; and that of AGI, which is the biggest Italian news agency, well-connected with relevant national industrial conglomerates.

The Czech best strategy against disinformation [RQ 1.3] has been jointly developed by national institutions and academics. A group of experts - among which analytics from public research company STEM, managers from Prague Security Studies Institute, research director of the Institute of International Relations Prague - created a document with the proposal of strategy how to fight disinformation. The goal, politically speaking, is tom, is to make political institutions aware of the problem: "the state must consistently enforce the law in the cyberspace", or "regulation of social platforms should be a key task for the Czech Presidency of the Council of the EU".

Also in the field of independent fact-checkers, the Czech digital ecosystem shows some dynamic features [RQ 1.4]. Demagog.cz (https://demagog.cz/), to start with, is a platform that fact-checks the statements of Czech politicians' claims and popular content on social networks. There are other platforms like Manipulátoři.cz (https://manipulatori.cz/), whose commitment is as follows: "Our main activity is fact-checking. We strive to debunk hoaxes, other misinformation, politicians' statements and false statements. We also point out fraud (fake contests, fraudulent e-shops and products...)". Another verifying platform is Ověřovna.cz (https://www.irozhlas.cz/zpravy-tag/overovna), run by Czech Radio (PBS): "The iROZHLAS.cz server launched the Verification project! In it, we try to explain and verify false information, half-truths or distorted facts. You can join too! Have you come across some information and are not sure if it is true? We will try to verify it for you".

The best strategy in Turkey [RQ 1.3] is that of Teyt. It is an internationally recognized fact checking organization dedicated to track false information, its source and to create a sustainable relationship between media and public. Collaborative agreements, first with Facebook in 2018 and with TikTok in 2020, were made to assign teyit.org as third-party fact-checking partners to these social media sites. An active – and self-defined – independent fact-checkers is FactCheckingTurkey (https://factcheckingturkey.com/), mainly focusing on national political contents [RQ 1.4].

In Portugal there are no official or governmental strategies for dealing with fake news [RQ 1.3]. In 2021, a Digital Human Rights Act was proposed at the Portuguese parliament and approved with no real discussion. A few months later, some citizen groups and, subsequently, opposition parties, started questioning some of its items, especially the ones that propose the

existence of "verified" entities with the power to decide what fake news is or not. So, even if approved, this proposed legislation was not put into action, and indeed should not be so in the near future.

There is probably a historical reason for that, due to strict censorship during the Portuguese right-wing dictatorship (until 1974): so that any attempt to evaluate content or discourse is seen as a possible act of censorship and a limitation to the freedom of speech[6].

For the same reason, if there is no official fact-checking in Portugal, there are rather independent agencies [RQ 1.4]. Two fact-checkers agencies, in particular, have been recognized by the International Fact-Checking Network. The already mentioned *Polígrafo* is the most successful and known by most of the population (https://poligrafo.sapo.pt/), due to its partnership with the SIC open TV channel, where every Monday, on prime-time news, there is a 30-minute *Polígrafo* section. *Polígrafo* is an internet-based start-up, also with presence on radio, with partnerships with companies like Facebook and participation in international research projects. It is seen as mainly independent from political and economic powers, and politicians use their articles either to support their positions or to attack opponents. The second one consists in the *Observador* Factchecks (https://observador.pt/factchecks/), a section in the online newspaper *Observador*, but many consider them not very independent due to the political alignment of the newspaper (right, conservative) and its financers.

As to the Belgian case [RQ 1.3], the Flemish Journalism Fund (VJF) supports two initiatives that fight disinformation using technology. The first initiative is Textgain. This develops algorithms that collects and analyzes texts in e-mails, documents, or tweets. Using the -algorithm, journalists or fact checkers can better assess where there is an increased risk of disinformation. The company is collaborating with press agency Belga, Tree Company, VRT NWS and the journalism schools of the Erasmushogeschool Brussel and the Antwerp campus of KU Leuven. The second initiative is FactRank Pro [de Vlaamse Regulator voor de Media n.d.; Ruebens n.d.]. This aims to help journalists to find the drops worth checking in the cascade of information. The algorithm looks at the transcript of the plenary session of the federal parliament to filter out statements worth checking out. One of the objectives of the Flemish coalition agreement is to tackle fake news through fact checking programmes and/or organisations.

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[6] https://www.parlamento.pt/Legislacao/; https://www.dge.mec.pt/noticias/carta-portuguesa-de-direitos-humanos-na-era-digital.

We can add that every Belgian newspaper does have a factchecking system, but VRT and Knack also work with external/independent partners. In addition, VRT NWS also publishes articles in which it specifically addresses reports that are false. They then also clearly explain why this is the case. The best practice in independent debunking in the country [RQ 1.4] is that of Factcheck.Vlaanderen (https://factcheck.vlaanderen), a non-profit website entirely dedicated to factchecking. They research any public statements or online content. This ranges from ranging from climate, health to economics. Their selection of claims is done by their own monitoring, using artificial intelligence (posts on social media with large reach and possible misinformation) or through suggestions from readers. They also cooperate with the Flemish Public Broadcasting Company (VRT) and the Belgian news agency Belga [VTR News 2021].

Let us conclude this section with a few short reflections on the state of fact checking. Firstly, for what concerns the role of independent agencies, we clearly see a two-level problem: as fact-checkers have to be autonomous from both political institutions, and economic powers. With this respect, a major concern is about the frequent collaboration between fact-checking companies and global platforms: while political independence is somehow easier to assess, questions arise as to whether debunkers should be commercially or operationally linked to Facebook.

Secondly, the most successful institutional cooperation against fake news – as we saw in this section about Spain, and in section 4.2.1 about Germany – have to do with the contrast to Russian disinformation. To some extent, this can be considered as a purely *defensive* European narrative, made possible by the presence of an external enemy, or what we define a *constitutive other* - while a *positive* European narrative, once again, is still to come.

Finally, we can not help but notice how Spain is actually the *only nation* where the application of an EU framework is reported to have a relevant impact, while the same can not be told about the other countries. We can refer in particular, here, to the local branches of EDMO-European Digital Media Observatory, which – so far – seem not to act as game changers, as it was probably expected. As the launch of national observatories connected to EDMO is still recent, in any case, we will keep monitoring its results in the coming months. As to Spain, it may well be that its exception can be explained upon the cultural specificities of the country, where anti-European sentiments are hardly perceived.

Table 10. Best practices in fighting disinformation across Europe: A synopsis

Country	Agency	Independent	Specifics
Belgium	Factcheck.Vlaanderen	Yes [non-profit website]	Also uses AI tools for detecting fake news
Czech Republic	Demagog.cz	Yes	Also focuses on fraudolent commercial contents and e-shops
Germany	Correctiv	Yes [funded by donations]	Co-authored the European Code of Standards for Independent Fact-checking Organizations
Greece	Hellenic Hoaxes	No [funded also by Facebook, EU, and Google-based advertising]	First national agency, active since 2013
Greece	Check4facts	Partially [universities are involved]	Focus on media literacy
Portugal	Polígrafo	No [several partnerships with mainstream media]	It is the most important in Portugal, and it is part of the International Fact-checking Network
Spain	EUvsDisinfo	No [funded by the EU]	It is the only relevant case of EU-funded fact checking.
Sweden	Källkritikbyrån- Source Criticism Bureau	Yes	Focus on falsification, rather than verification
Turkey	Teyt	No [collaborates with TikTok and Facebook]	Tracks the institutional and governmental fake news

4.3 Insights from the WP2 datasets

It is important to premise that these insights iare not representative of general tendencies in the considered countries, as each research team was asked to select a few examples through a qualitative interpretation of its own dataset. With this respect, this section illustrates a series of cases, without making it possible any generalization. As all data come from the most impactful social media contents in each country, though, we can likely consider them as being indicative of some tendencies, which will be discussed below.

4.3.1 Research Questions 2.1 and 2.2

As disinformation is inevitably a much talked-about issue, let us start with the relevant posts containing deliberately false or unreliable information, or – it is the other side of the same coin – those debunking fake news of any kind [research questions 2.1 and 2.2]. Not surprisingly at all, many of these posts are about the most polarizing issues in public debate, and namely European Union itself, and Sars-CoV-2-related political measures.

Table 10. High-ranked posts including deliberately false or unreliable information, or debunking fake news.

Country	Content	Notes about the relevance	Link
Spain	False news about WHO expert Christian Perronne asking to quarantine the people vaccinated against Sars-Cov-2.	--	https://www.facebook.com/groups/235745661340994/permalink/385157796399779.
Spain	Open Data Institute, the European Federation for Transport and the Environment, and the International Council on Clean Transport, release a post about the use of aviation for mitigating climate change	With media trust being a main problem – and paralleling that of trust in politics and representative organs – one may wonder if people would rather trust institutions which are perceived to be more neutral and above the parts.	https://www.facebook.com/groups/1089924571339612/permalink/1604844296514301.
Portugal	A post in a Facebook group, about a female doctor in South	All the posts selected by ISCTE insist on the main	https://www.facebook.com/groups/2395192772

	Africa stating that Omicron is not dangerous.	risk brough about by disinformation in terms of people's trust.	21002/permalink/6402 80807144845
Portugal	Post about the Covid-related measures being part of the so-called Great Reset, or the World Economic Forum conspiracy.		https://www.facebook.c om/groups/5401735336 29892/permalink/6858 71779060066.
Portugal	Fact-checking and debunking of a post stating that former Prime Minister Antonio Costa, had lied in Parliament about fuel prices.		https://www.facebook.c om/PSDEuropa/photos /a.428373800621073/3 35
Portugal	Post released by a Facebook group about Portuguese houses not being heated enough, and citizens not being protected from the cold.		https://www.facebook.c om/groups/3715034040 44901/permalink/6429 64656898773
Czech Republic	Post spreading disinformation about Europe and supporting the so-called Czechxit.	Both Czech cases show how the whole discourse about disinformation – fake news, debunking, and so on - is a double-edged weapon, that can be used from all sides. This is probably why disinformation affects the overall state of people's trust in the system, well beyond the contents and the effects of a single misinformation campaign [see Anstead 2021; Bhuiyan, Whitley, Horning, Lee & Mitra 2021; Tunstall 2009].	https://twitter.com/Jak ubMichalek19/status/14 61653438660587523
Czech Republic	A post by a member of the Czech Pirate Party, accusing the Prime Minister of disinformation		https://twitter.com/iRO ZHLAScz/status/14569 40031923392514

Turkey	A post about the economic crises and the economic problems faced by European countries.	TRT, the main news channel in Turkey, presents unreliable information which is not supported either by statistical data or official statement. This is a case of – so to speak – *top-down disinformation* - which might require our attention: when fake news is produced by the institutions themselves, rather than by common social media users.	https://www.facebook.com/127630700588623/posts/49099456056904 18#
Turkey	A post that debunks Erdoğan's speech, Prime Minister of Turkey, about the high salaries paid to primary school teachers in Turkey.	In this case, the author uses OECD analytics to provide statistical comparative data about the salaries.	https://www.facebook.com/207787009653168/posts/13063988631253 05#
Belgium	A post by right-wing group Notre Bon Droit about the introduction of the Covid Safe ticket in Brussels. They point out the dangers of the vaccine and also refer to the Belgian government going against human rights by mandating the Covid Safe ticket in Brussels.	--	(https://www.facebook.com/101097945255072/posts/14623507767778)
Belgium	The post addresses the fake news spreading about the growing excess mortality among 15- to 74-year-olds in Europe. The fake news links the excess mortality to the vaccination campaign. The Flemish public broadcaster VRT NWS refutes this by stating that European	VRT aims to tackle disinformation and fake news. Since 2020, VRT NWS has been issuing factchecks in which they check claims for accuracy.	(https://twitter.com/vrtnws/status/1450298795 607080961) [See also Van Bakel 2022]

	over-mortality among 15- to 74-year-olds has actually risen, but that it has nothing to do with the vaccination campaigns.		
Italy	The post is against the Italian government's decision to implement the Green Pass to be able to go to work. In criticizing the Italian government's take on the Green Pass it deliberately spreads false information about covid tests being free or cheaper in other EU countries.	Content by a politician using media platforms (Facebook) to fuel controversy over Covid-related regulation, vaccine and tests in order to gain traction and user engagement.	https://www.facebook.com/watch/?v=881335829442733
Italy	Post from a Facebook group dedicated to an independentist party's politician (a fan group of Conte from M5) - the post presents what are simply opinions as objective facts and 'news', in order to support the politician.	--	https://www.facebook.com/groups/217216540073660/permalink/413856283743017
Germany	The Facebook group "TEAM TRUTH - Fan-Club für ehrlichen Journalismus!", with 4,006 members. Basically Covid-deniers, with references made to 'Great Reset' and 'lyers press'. They state that Omikron has no clinical effects, but "welcome in EU to continue repressive measures and forced vaccination.'	The sources addresses people who have no trust in mainstream media and politics, and rather "think for themselves".	https://www.facebook.com/groups/346125607155892/permalink/426001799168272
Germany	Repost of a Spiegel article by Lobo, debunking Covid denier movement fueled by Kremlin/RT propaganda.	Three positive comments have to be noticed, one pointing out that those who should read will not.	https://www.facebook.com/groups/1513255398834556/permalink/1957790244381067.

Greece	An anecdote about the interaction between Greece's former Prime Minister George Papandreou and Madeleine Albright, Former United States Secretary of State, stating as a source "via an online friend".	When researching misinformation or propaganda, researchers tend to analyse the links posted from news sources, however, as in the case of content touching on climate issues, there might be a number of posts with misinformation which are deprived of links. Market research supports that Facebook posts with links external to the platfrom receive decreased engagement compared to the one's that have none [Sabate & others 2014]. On the other hand, Facebook's latest strategy for post ranking, called "meaningful social interactions" decreased the volume of content coming from businesses and media to content coming from family, friends and groups depending on users' individual interactions [Mosseri 2018]. This strategy to make Facebook even more engaging to users leaves a wider space for spreading misinformation and fake news, specially if we take into account that users have difficulties in recalling	https://www.facebook.com/groups/400151306843919/permalink/176113 2557412447.

		where their information came from while being on the platform [Vraga & others 2016], as well as relying to their social circle to keep themselves informed [Baresch & others 2016].	
Greece	General finding	A general, interesting finding regarding the health topic is that "fake news debunking" took place on the behalf of the anti-vaccination groups, which tried to "scrutinize" the scientific facts and prove the validity of their own arguments by spreading a wide distrust on the clinical performance of vaccinations and their safety. Disinformation regarding covid-19 and its severity prevailed among Facebook groups, where members of the anti-vaccination community successfully created their own echo chambers.	--
Bulgaria	The post is accusing Bulgarian President for bad Covid-19 measures and high prices of electricity.	Throwing accusations without evidence is extremely characteristic of the Bulgarian public space.	https://www.facebook.com/groups/241925439342775/permalink/166585959596949345.
Bulgaria	A post by an individual with tens of thousands of followers (a likely influencer). It claims the	The post has strong claims without any evidence or	https://www.facebook.com/astrofilip/videos/за дава-се-пълна-

	existence of a super-effective natural medicine against Covid, developed in Bulgaria, which has caused great interest abroad, but due to corporate interests is not produced.	facts. Emotionally affecting expressions are used.	ликвидация-на-пландемията-лекарство-на-билкова-основа-одобрено-в/383698800212695/.
Sweden	The German newspaper Bild reports that the number of murders is increasing in Sweden. According to German media, Sweden was about 50% higher than the EU average in terms of murders per million inhabitants.	The German newspaper states that "Sweden is the most dangerous country in Europe".	https://www.facebook.com/groups/463907247095192/permalink/2141560199329880
Sweden	This post is about fake news and the energy issue. Leaders like Viktor Orbán are spreading fake news and blaming the EU emissions trading scheme for soaring energy prices. These false claims risk undermining the EU Emissions Trading Scheme.	The post refers directly to a statement by the Swedish politician Emma Wiesner who is Member of the European Parliament for the Centre Party. She discusses the energy issue and criticizes Viktor Orbán for spreading fake news and blaming the EU emissions trading scheme for soaring energy prices.	https://www.facebook.com/653072158104424/posts/4374218249323111

4.3.2 Research Question 2.3

Another set of questions [RQ 2.3] aimed at assessing the effects of news platformization, with respect to quality and completeness of the reporting [partially based on Andersen 2022; Lamot 2022; Segesten, Bossetta, Holmberg & Nihorster 2022]. No constant indications would emerge here, as best practices belong to different fields: in Czech Republic it is the web radio, which would confirm the reputation of the radio as a trustworthy medium [see deliverable D1.1]; in Belgium, it is the posts of a Public Service Media outlet; in Turkey, the online version of a left-oriented newspaper based in Istanbul; whilst Spanish data highlight the centrality of a medical institution, El Zendal, in providing reliable and unbiased

information about Covid-19. Needless to say, our observation is based on a limited sample, and therefore can not allow for any generalization.

In Greece, in health issues, both in the case of Facebook and Twitter the posts coming from media accounts adopted a neutral tonality of balanced reporting, by sharing the latest information on the pandemic. Particularly, Facebook posts from media pages are mostly based on neutral content, stating the facts, i.e., the number of Sars-CoV-2 cases in the country, scientific achievements for confronting Covid-19 (vaccines, therapies, etc). However, during the third month of analysis (November) there seems to be a shift towards more "opinionated" posts, which linked to articles with headlines that cultivated fear or anxiety. As far as the economy issue is concerned, only a single post can be found on Facebook platform which can be considered a clear exception, as the content included in the majority of the other posts focus on just covering the news rather than presenting multiple opinions, perspectives or aspects of the issue presented.

Table 11. High-ranked posts based on a complete and balanced news reporting

Country	Source	Notes about the relevance	Link to the post
Spain	El Zendal has become a very important source of news on Covid-19 in all Europe.	In the very basic sense of the expression, this might be a case of *disintermediation*, in its turn suggesting the possible centrality of agents and institutions commonly perceived as neutral.	https://www.facebook.com/113080018770027/posts/4484277524983566
Czech Republic	Through social media, web radio [and radio, needless to say], iRozlhas.cz has realized valid reports about the tension between Poland and Belarus.	If anything, a confirmation of radio being a very trusted – and trustworthy – medium.	https://www.facebook.com/123858471641/posts/10157930029136642.
Belgium	The Standaard news and post, hosting different point of views on European issues.	This finding would support the relevance of Public Service Media [Flemish, in the case] and the need of new policies	https://www.facebook.com/7133374462/posts/10159375549684463.

		for their funding and support.	
Turkey	A post taken from Birgün newspaper, which is clear in language and content and unbiased. The post is about the EU, showing a picture of Ursula von der Leyen.	The content behind the news is explained with scientific data leaving no biased opinion.	https://www.facebook.com/119984304704521/posts/4718885321481040#
Italy	A tweet about European targets concerning the recycling of paper.	Both posts focus only on presenting data, not opinions. Balanced news reporting more likely to be found on Youtube and Twitter rather than Facebook. In this category we mostly found posts from press agencies (like ANSA). The most relevant topic falling in this category was the climate topic due to its scientific character. Balance and neutrality disappeared when it came to the topic of health	http://twitter.com/Agenzia_Ansa/statuses/1450700815837110274
Italy	YouTube video bringing data on climate change.		https://www.youtube.com/watch?v=uynhvHZUOOo&t=25s&ab_channel=TheEconomist
Germany	The European beech was again chosen as the Tree of the Year in 2022, drawing attention to climate change.	PSM, and in particular the news programmes Tagesschau and Heute, enjoy the greatest trust of audiences in Germany.	https://www.facebook.com/193081554406/posts/10160020703819407.
Greece	This post has been released by the Office of the European Parliament in Greece. Page name in Greek: Γραφείο του Ευρωπαικού Κοινοβουλίου στην Ελλάδα.	--	https://www.facebook.com/117261614999869/posts/5173376226055024
Greece	The post reports on the UN General Assembly, including diverse viewpoints and analysis in	In the case of Europe dimension whereas the majority of the posts focus	https://www.enikos.gr/international/aukus-epicheirisi-bainten-na-

	the aftermath of the AUKUS agreement.	on just covering the news rather than presenting multiple opinions and aspects of the issue presented, there is one exceptional post based on a complete and balanced news reporting.	rixei-tous-tonous-entoni-i-dysareskeia-tis-ee/1674997/.
Bulgaria	The post is related to the Health topic. It features the famous boxer Tyson Fury and his cause for the importance of mental well-being.	Publication of a highly professionalism media with a proven record of credibility. The tone of the post is informative and balanced.	https://www.facebook.com/1977240255906003/posts/2678007939162561.
Sweden	This post comes from "dagens nyheter", Sweden's most widely circulated daily newspaper. In the post leaders discuss why Sweden's pandemic preparedness is being investigated.	This post is on a debate where healthcare reporter Anna Gustafsson intervews the Corona Commission including, chairman Mats Meli, Minister of Social Affairs Lena Hallengren, Prime Minister Stefan Löfven and Deputy Prime Minister Isabella Lövin.	https://www.dn.se/sverige/studio-dn-29-oktober-darfor-utreds-sveriges-pandemiberedskap/.

4.3.3 Research Question 2.4

Another aspect of news reporting we investigated is the possible synergy between social and traditional media [RQ 2.4]: an expected indicator of what has been defined the possible "win-win relation" between Facebook and the print [Chen & Pain 2021: 374-375]. Results are not relevant, here, as the detected practices are basically in line with the most classical mechanisms of remediation [see Bolter & Grusin 1999]. In Portugal, for instance, a Facebook group posted the infographic related to fuel prices, extracted from a newspaper. In Czechia, the web Tv DVTV.cz interviewed a journalist of the magazine *Respekt* about an article he had written. Similarities between news media and social media have been also found in Turkey, for

what concerns the coverage of main international events, and particularly the meeting between Merkel and Erdoğan. In Italy, a few contents of this kind reached a certain notoriety: a Facebook post talking about second-hand clothing used in Europe, US and Asia, ending up in Chile as waste and contaminating the territory; a second Facebook post with references to various media sources (*Corriere della Sera*, *la Repubblica*, etc.) to legitimize their content; while the third post is a tweet which references *the Independent*, a British newspaper, as a source to "prove" the increase of Covid-cases in UK. In Bulgaria, the most relevant case is that of CapitalBig, one of the main and most trusted media in Bulgaria, which as a print and strong online presence. More specifically, the post is dedicated of the need of EU support for Bulgaria during the Covid-19 crisis[7].

In Germany a relevant good practice is the Facebook group called *Corona Science and More*, where a common citizen writes a weekly compilation with pandemics data from the newspaper *Tagessspiegel*, health institutes, hospitals and similar. and contextualises them, also by comparing them with data from other European countries. In a highly controversial subject area, this citizen is a calm voice of reason, providing sourced facts, for which he is praised in the comments.

A partial exception is Greece, where when it comes to climate issues, most of the high - ranked posts in all social media platforms came from institutional actors such as politicians or traditional media outlets. Therefore, neither Europe nor its policies and values were contested. Particularly on twitter platform high ranked posts coming from individuals were framed by established news media articles or passages linked to the EU institutions[8]. Even in the case of Europe dimension, there is one Facebook post showing a positive synergy with traditional media, since it is released on the Facebook page of a mainstream news portal[9].

4.3.4 Research Question 2.5

Research question 2.5 would rather bring in the role of *alternative* media. All in all, the EUMEPLAT project is mostly about what we could call the mainstream, or *hegemonic* media,

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[7] http://twitter.com/bozhobg/statuses/1452650959025364996.
[8] https://twitter.com/FChaniwn/status/1437377402603294725;
https://twitter.com/NikosS_nt/status/1442110511143800837.
[9] https://www.facebook.com/91157111480/posts/10158335158991481.

with little space made for counter-proposals – which will be somehow addressed in Work-Package 5. It goes without saying that a mapping of antagonist platforms is out of the reach of our work; so, we limited ourselves to consider the relevant posts produced by alternative media, when available.

Table 12. High-ranked posts coming from alternative media projects, or linking to alternative media sources

Country	Source	Description	Link to the post
Spain	HOPE	Hope is an alternative media outlet working on climate change and environment. It was founded by a group of Spanish ecologists.	https://www.facebook.com/13095777098 5906/posts/1094457 111302629.
Portugal	Wilder	Post published in the official Facebook page of an Wilder.pt, alternative niche media project focused on the preservation and defense of the environment and wildlife. Post reports the release into the wild of a previously injured bird of a species threatened by extinction. This is the rare case of a very small, niche media outlet getting notoriety through major social media.	https://www.facebook.com/14854220283 89661/posts/298075 5995522916
Belgium	PAL NWS	The post refers directly to a statement by the prime minister of Belgium giving his opinion on the pendency of the Constitutional Court in Poland. PAL NWS is a Flemish-nationalist right-conservative political news website dedicated to "hard topics". They also criticise the traditional media, which they say neglects "hard topics". This might be an interesting case of right-wing alternative outlet not accused of producing disinformation.	https://www.facebook.com/31902230176 5098/posts/1517812 058552777)

Turkey	Birgün	The post is about a meeting between Erdoğan, Prime Minister of Turkey, and Merkel, at the time PM of Germany. The source, Birgün newspaper, is a highly alternative media source. It has to be remembered, here, that Turkey is a real outlier in terms of media freedom, ranking 149 out of 180 countries in the last Free Press Index.	https://www.facebook.com/119984304704521/posts/4585205688182338#
Italy	Tu; L'informazione	The post is about supporting a journalist being accused of misconduct by reporting a voice in his defense. The post supports contents produced by an internet-only media (*Tu e L'informazione*) aiming to contribute to transparency in news.	https://www.facebook.com/107049787648624/posts/453559236331009
Germany	Boris Reitschuster	Boris Reitschuster reports that only vaccinated journalists may participate in events of the German Federal Press Conference. He as anti-vaxxer will be banned from asking questions to cabinet members. Reitschuster is among several fomer mainstream media journalists who turned into Covid-denier and conspiracy loudspeakers.	https://twitter.com/reitschuster/status/1462838210124562437.
Greece	Star TV; Mesogeios TV Rosa; DEYA Serron	In health issues, YouTube seems to hold the lion's share regarding the use of alternative and diverse news sources. On the one hand, the users opt for internet native channels and local channels that produce their own news stories, while at the same time, the use of foreign mainstream media, as a means for obtaining information on different types of vaccines and their efficacy has also evolved as a main trend for Greek YouTube users.	https://www.youtube.com/watch?v=9KSjdTVoZ-M; https://www.youtube.com/watch?v=1c_Cs1gx1r8; https://www.facebook.com/2279604772360110/posts/3042027962784450; https://www.youtube.com/watch?v=bTE4hDB0yEc;

		In the case of climate issue as well, YouTube was the platform where users came across the most alternative news sources. In this category videos derived from local media can be foun: Star TV for Northern Greece; Mesogeios TV; the municipal water and sewage enterprise of Serres city (DEYA Serron); a channel from a research team of the Polytechnical School of NKUA; as well as from individual journalists. However, these videos in rare occasions performed well, in terms of viewership and engagement. When it comes to Europe dimension, there is only one Facebook post coming from an alternative media project, whereas all the other high-ranked posts are coming from mainstream media.	https://www.youtube.com/watch?v=TM4atjk_dRs; https://www.youtube.com/watch?v=3ZUk0k4MVu0.

4.3.5 Research Question 2.7

Research question 2.7 focuses on the part of local and hyperlocal journalistic outlets, based on the idea of them not able to live up to the competition with global platforms [premised on Hepp & Lonse 2019; Nocera, Costantinou, Tran, Kim, Kahan & Shahabi 2021]. A few best practices could actually be detected. In Portugal, it is the Facebook page of *Tribuna del Alentejo*, a local newspaper from a rural region of the country, getting some notoriety with its campaigns related to environmental issues: in particular, the threads about the "European Tree of the Year", which is a half-serious way of advocating for the respect of natural elements. In Spain too, the good example of a local outlet scaling up global networks is connected with environment: precisely, the coverage of the renewable energies problem as made by *El Correo de Andalucia*. In Italy, for some reason high-ranked posts from local or hyperlocal media outlets are more likely to be found on YouTube, rather than on Facebook or Twitter. Also, on Youtube, the topics which allowed the local media outlets to become influential are *Europe* (at least four posts from local media outlets in this dataset with topic of Europe) and *Economy* (with one post from local media outlets in this category). Somehow, there seems to be a

difference in the way platforms are *colonized* by different media agents: YouTube is more likely to be occupied by local media than Facebook and Twitter.

In Germany, *Kreiszeitung* is a newspaper from a small town south of Bremen, partnering with the 5th-largest newspaper conglomerate, Ippen. This is a human relations story of a 93-year-old man who wants to see the sea again, leading to his 20-year-old neighbour taking him on a 4,000 km road trip across Europe. The post received more than 25,000 likes[10]. In Greece, when it gets to the "Europe" dimension the trend is that national media organisations are usually dominant, however there has been one exception: the YouTube channel Star Κεντρικής Ελλάδος[11]. In Sweden, we can highlight the case of Göteborgs-Tidningen, from Gothenberg, Sweden's second biggest city. It got notoriety with a post about police in western Sweden took part in a European operation against prostitution and sex trafficking.

4.3.6 Research Questions 2.8 and 2.9

Research questions 2.8 and 2.9 deal with a well-known issue in the internet studies, the neutral point of view. As to our literature review, we saw that the most sustained thesis is about news platformization promoting the neutral reporting [Gallofré Ocaña, Nyre, Opdahl, Tessem, Trattner & Veres 2018; Vaydianathan 2011]: from our side, though, we dealt with both contents following or challenging it.

Table 13. High-ranked posts following or challenging the neutral point of view

Country	Following or challenging	Post	Link and Notes
Italy	Following	A YouTube video about European funding to support the tech sector by supplying microchips. Looking at the difference in framing the news across platforms reveals that news channels on YouTube tend to be neutral in reporting news than Twitter or Facebook. On Facebook it is more likely that people express	https://www.youtube.com/watch?v=Ntblmdhk0fw.

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[10] https://www.facebook.com/146798206489/posts/10160036089936490.

[11] https://www.youtube.com/watch?v=O2MLutikRII&ab_channel=Star%CE%9A%CE%B5%CE%BD%CF%84%CF%81%CE%B9%CE%BA%CE%AE%CF%82%CE%95%CE%BB%CE%BB%CE%AC%CE%B4%CE%B1%CF%82.

		their own opinion, making posts less neutral. Perhaps the exposition of facts in a neutral fashion is an attempt to circumvent the danger of being labeled as fake news.	
Spain	Following	Post from the European Medicines Agency about the third dose of Pfizer and Moderna Covid vaccines.	https://twitter.com/abc_es /status/144503094655472 0260
Czech Republic	Following	The Czech television PBS on-line coverage of Covid-19 epidemic.	https://www.facebook.com /137067469008/posts/101 60477680804009.
Belgium	Following	The Flemish newspaper The Standard coverage of Covid-19 epidemic.	https://www.facebook.com /7133374462/posts/101593 75549684463.
Turkey	Following	A post about the agreement between Turkey and European countries to recognize each other's vaccine certificates.	https://twitter.com/trthabe r/status/144951047050378 0357.
Greece	Following	When it comes to the economy theme, in general the posts derived from the media organisations follow a neutral point of view. Particularly, this type of view is adopted in twitter posts touching on the economy issue derived from mainstream media organisations (the first one appears on the twitter account of the legacy broadcaster skai.gr, whereas the second one emerges on the twitter account of the well-known news portal news247.gr).	http://twitter.com/skaigr/s tatuses/1461713131001069 572; http://twitter.com/News24 7gr/statuses/144077031916 6312451.
Sweden	Following	This post is about Finland's Green Party. It describes how the party want the EU to classify nuclear power as a sustainable alternative in the climate transition. The post contains an interview with Maria Ohisalo, party leader and Minister of the Interior, in which she argues that the climate crisis must be stopped by all available means.	https://www.gp.se/nyheter /v%C3%A4rlden/gr%C3%B 6na-i-finland-lobbar- f%C3%B6r- k%C3%A4rnkraft- 1.57700431?fbclid=IwAR05 rhEtU1RUc7344LHbXt8ef HAongF0x9zlZZG9OTlhbq B7cHj3WgB0l-w.

Spain	Challenging	Critical post about the public funding of audiovisual products.	https://www.facebook.com/login/?next=https%3A%2F%2Fwww.facebook.com%2F376573025871689%2Fposts%2F2007999572729018. Interestingly enough, the success of the post is due to its sarcastic style, with the Prime Minister being called "Superman", and Spain referred to "Hollywood of Europe".
Portugal	Challenging	Critical post about the lifting of Covid-related measures, due to Sars-Cov-2 cases rising in the country.	https://www.facebook.com/joanamaraldias/videos/loucura-é-fazer-sempre-a-mesma-coisa-e-esperar-resultados-diferentes-não-é-o-que/293277972675443/. Content posted by a well-known political commentator, and former politician himself.
Portugal	Challenging	Critical post about the common coverage of both Covid vaccination campaign and climate change issues.	https://www.facebook.com/groups/239519277221002/permalink/640280807144845. In this case too, the content has been posted by a well-known political commentator and former politician.
Turkey	Challenging	A post about some European countries announcing new precautions to combat Covid-19 4th wave.	https://www.facebook.com/233408450693/posts/10165989104830694#. The language and the title here is a bit sarcastic

			referring to Europe's initial claims about Covid-19.
Belgium	Challenging	Post from the news websites of Flemish public broadcaster (VRT NWS) on the thousands of unaccompanied minor refugees wandering around Europe in search of a better life. There is a reference to an interview by VRT NWS with Samid, a 16-year-old refugee.	https://www.facebook.com/270994524621/posts/10161406628719622.
Belgium	Challenging	Post by the Flemish nationalist party, N-VA. Here, they criticise the current European return system. The posts are negative, stating that the current system is not working, and the failing policy is creating a suction effect. N-VA also refers in their post to Theo Francken who argues that the Australian migration model would end the illegal migration chaos, the thousands of drownings and rogue human smuggling. N-VA is known in Belgium for their negative views on migrants.	https://www.facebook.com/334361224413/posts/10159717952314414.
Italy	Challenging	A Facebook post from right-wing politician (and future prime minister) Giorgia Meloni. The post is built around the dichotomy fascism and stalinism. Typically, they voice the opinions of independentist or right-wing politicians. These types of posts are more likely to be found on Facebook e Twitter all posts.	https://www.facebook.com/38919827644/photos/a.10151958645677645/10159487957267645/?type=3
Italy	Challenging	A Twitter post a tweet by a member of the European parliament from the nationalist, anti-immigration right-wing party Lega, proclaiming their support for the construction of anti-immigration defence walls.	http://twitter.com/AngeloCiocca/statuses/1446431136314544142.
Greece	Challenging	This type of posts, challenging the natural point of view, concern the dimension "Economy" and it is observed that they are	: http://twitter.com/Leonida

		coming from Facebook Groups and Twitter where all users can be regarded as more biased. Furthermore, among high-ranked posts, there are those coming from media outlets close to certain political parties, whose content is explicitly more biased. Good examples of influential profiles are LeonidasV; Ενιαίος ΣΥ.ΡΙ.ΖΑ; Το Kouti tis Pandoras; Νίκος Μπογιόπουλος; Κίνηση Ελεύθερων Πολιτών - Ελεύθεροι Ξανά; and even PrimeMinisterGR.	sV/statuses/145913902390 6254854; https://www.facebook.com /293492044073929/posts/ 4630268023729621; https://www.facebook.com /tsiprasalexis/videos/3084 712421795233; https://www.facebook.com /groups/249190295721306 /permalink/855510445089 285; https://www.facebook.com /groups/256791100997654 3/permalink/39668184967 52447; https://twitter.com/Prime ministerGR/status/144573 6111398064128.
Sweden	Challenging	This post is from a common citizen criticizing a post about the fact that EU should take in half of all Afghans who want to leave the country.	https://www.facebook.com /groups/95688273440980.

4.3.7 Research Question 2.10

Research question 2.10 leads us back to professional routines, and to what we may call the *personalization* of journalism - on the *production* rather, than on the much-discussed consumption side of the so-called *Daily Me*. This is due to single reporters getting a notoriety comparable to – if not superior to – that of the media outlets they work for. As this tendency is also reported to be producing tensions in the newsrooms [Dvir-Gvirsman & Tsuriel 2022; Hanusch 2017], we collected some information in the considered countries. The main cases are of high ranked posts by *individual* journalists are as follows:

- in Spain, by Ignacio Escobar, commentator and journalist, also director of *elDiario*;
- in Portugal, by Cabral Fernandes, editor of the alternative magazine *Setenta e Quatro*, with a post criticizing the Polish-Belarus wall and mocking its supporters;
- in Greece, Kostas Vaxevanis is the only journalist whose posts are included in the high-ranked posts;

- in Czech Republic, it is a satiric post by Jindřich Šídlo, against the nationalist leader Okamura;
- in Belgium, Joren Vermeersch, a journalist for *De Standaard* – and also affiliated to nationalist party NVA – with a post about holding China responsible for polluting emissions;
- in Turkey, a tweet by Aslı Aydın Taçbaş's individual account, complaining about the practices followed by local news media;
- in Italy – where this trend is very common on Twitter - a tweet by Giorgio La Porta, journalist and former spokesman of Italian government, against the so-called Green Pass;
- in Germany, by *Der Graslutscher*, which is the pen name of Jan Hegenberg. He is a blogger (https://graslutscher.de/) and journalist (incl. at Volksverpetzer) writing on veganism, energy and mobility. While media outlets lose trust, individual journalists with pointed but well-sourced reporting gain followers.

Due to the limited cases we are taking into consideration, it goes without saying, no generalization is possible. This *personalization* issue will require further attention, though, also due to a new trend which we have firstly measured in Italy, by means of an analysis of 4.3 million tweets: the *colonization* of the social media debate on the part of traditional – or, so to speak, non-digital native – opinion-makers, which is possible opening up a new era in the evolution of on-line political discussion [Miconi & Pilati 2022].

4.3.8 Research Questions 2.12 and 2.14

Answers to research questions 2.12 and 2.14 can be taken together, here, given the intimate connection between hate speech contents and polarization.

Table 14. High-ranked posts triggering polarization, radicalization and hate speech.

Country	Sub-category	Post	Link
Turkey	Polarization	The *Star* newspaper post quotes Erdoğan calling for collective action against the ten ambassadors who intervened in the political affairs of Turkey. The language employed in this post is quite rhetorical and requests that the ten ambassadors be persecuted, ignored, and treated accordingly.	https://www.facebook.com/251345351611115/posts/4556906864388254#

Czech Republic	Polarization	A post by former PM Andrej Babiš, accusing the Pirate Party to want to destroy Czech culture and tradition.	https://www.facebook.com/login/?next=https%3A%2F%2Fwww.facebook.com%2F214827221987263%2Fposts%2F2336210439848920
Czech Republic	Polarization	A post by far-right SPD leader Tomio Okamura, about the *Czechxit*.	https://www.facebook.com/login/?next=https%3A%2F%2Fwww.facebook.com%2F179497582061065%2Fposts%2F4530365753640871
Greece	Polarization	With respect to climate issues, on Facebook groups there are a couple of high - ranked posts characterised by a negative tone, since they focus on criticizing the new law of the Greek state regarding stray animals, which are led to euthanasia in compliance with the European "death – directive" that aims to diminish the number of stray animals. These posts were coming from animals' welfare organizations, not alternative media per se. Similarly, a couple of posts can be found focusing on presenting arguments against the Greek state's renewable energy policy. The posts coming from politicians rarely include links to news sources or there are posts as well with no links at all. These posts are long texts, sometimes accompanied by photos, presenting the arguments of the account holder or in the case of Facebook groups the opinion of any user of the group. The arguments are often mixed with facts or "alternative facts", may use polemic language and negative or even dismissive tone. This finding comes as complementary to research showing that misinformation in social platforms can be attributed to the process of posting links from non	https://www.facebook.com/174051975954985/posts/5010389538987847). (https://m.facebook.com/photo.php?fbid=1869857063187460&set=gm.4239300969452886&type=3&_rdr, https://www.facebook.com/groups/232097493534423/permalink/4471701946240602.

		– credible news sources [Broniatowski & others 2022; Guess & others 2019]. When it comes to health issues, on twitter platform the most popular tweets come from Greek politicians, with governmental rivals taking the chance to attack the government for the inadequacies of the national health system and its strategy to confront the coronavirus. Therefore, the tone of these tweets are mainly negative, giving rise to the "politicization of health".	
Greece	Polarization	In the case of Europe dimension, posts triggering polarization can only be observed in such Facebook Groups as ΔΕΥΤΕΡΗ ΜΑΤΙΑ - Ομάδα στήριξης της εκπομπής "2η Ματιά", or Μπογιόπουλος Νίκος.	https://www.facebook.com/groups/249190295721306/permalink/836543786985951; https://www.facebook.com/groups/1240425469418892/permalink/4119501211511289.
Belgium	Polarization	An example of bubble, with self-referential discourses triggering radicalization. This group post clearly contrasts two different generations. It also juxtaposes different political parties. The fact that something like this occurs in a group post can be linked to the bubble created here. As in other countries, social media plays an important role in connecting like-minded people. This has the danger that people constantly see the same content, without a critical eye. Which in turn can contribute to polarisation. We/they thinking plays an important role here.	https://www.facebook.com/groups/675536122576970/permalink/2385138078283424.
Belgium	Polarization	A post by nationalist party NVA against Europe, holding Australia as a good model for migration policies.	https://www.facebook.com/334361224413/posts/10159717952314414.

Spain	Polarization	A speech by VOX delegate Jorge Buxadé about national sovereignty.	https://twitter.com/edubayon_/status/1446904474774147076.
Portugal	Polarization	A post by the citizen group Wake Up Portugal against vaccination certificates.	https://www.facebook.com/groups/830398580930321/permalink/872145856755593
Spain	Hate speech	A video posted in social media, showing the fascist attack to the CGIL trade union headquarter in Rome.	https://twitter.com/edubayon_/status/1446904474774147076.
Czech Republic	Hate speech	A speech by far-right leader Tokio Okamura.	https://www.facebook.com/login/?next=https%3A%2F%2Fwww.facebook.com%2F179497582061065%2Fposts%2F4530365753640871.
Portugal	Hate speech	A post by a right-wing politician about the connection between migration and Islamist terrorism.	https://www.facebook.com/1464024720559644/posts/2690480674580703
Belgium	Hate speech	A post about the ban of ritual slaughtering, which would affect Muslim and Jewish traditions.	https://www.facebook.com/143068588877/posts/10158810024938878.
Turkey	Hate speech	A post about the collective political action taken by 10 ambassadors who issued a common letter of condemnation against the court decision taken for Osman Kavala, a Turkish journalist. Here Erdoğan, Prime Minister of Turkey, directly accuses the ambassadors for intervening in national affairs and clearly calls for strategies of exclusion claiming that they will "pay for it."	https://www.facebook.com/251345351611115/posts/4556906864388254#
Italy	Hate Speech	The post contests hate speech from Italian right-wing politician Salvini by recalling a migrant's personal experience of arriving in Italy. It is actually a content from a common citizen supporting the voice of the socially excluded by direct engagement with hate speech.	https://www.facebook.com/2064954427096620/posts/2964470917144962

Italy	Polarization	The post identifies otherness - illegal immigrants, criminals and people generally breaking laws - and argues that the unruly 'others' do indeed enjoy more freedom than good people such as workers, who are instead forced to adopt the green pass and see their freedom curtailed. The Green Pass was a polarising topic and such polarisation effort has been strentghened even more so by means of the association to another polarising topics such as immigration - the most popular polarising topic before the pandemics. This shows that keywords were specifically chosen and aligned (green pass and immigration) to create a controversial post attracting more user engagement.	https://www.facebook.com/38919827644/posts/10159463702607645
Germany	Hate speech	By citing likeminded sources and pseudo-scientists like Wodarg and Bhakdi, the group reinforces an anti-establishment echo chamber.	https://www.facebook.com/groups/2833260833587489/permalink/3055152531398317.
Germany	Polarization	A post by Radio Iskra, a channel with a map of the Sovjet Union as profile picture, and a description saying "A better world is possible" against the deligitimisation of the "real existing socialism". Casting doubt about the benefits of vaccines is the main strategy of the anti-vaxx movement. The video was removed by Youtube, "because it violates YouTube's community guidelines."	https://www.youtube.com/watch?v=Tqh7I1qG5qA.
Bulgaria	Polarization	A post in which the topic of immigration is used to polarize public opinion; the title itself is misleading.	https://twitter.com/dnevnik/status/1440553958519427081.
Bulgaria	Polarization	This publication was shared on the Facebook page of a self-described "information portal for radical politics". A publication that discredits and calls into question the policies of the European Union through a personal attack on a European Member of Parliament, a representative of a pro-European party.	https://www.facebook.com/bezlogosite/videos/радан-кънев-настоява-ес-да-се-намеси-и-да-задължи-българите-да-се-ваксинират-сре/160352039515254/.

		Extremely aggressive in tone, attacks, without facts to back them up. A radicalized opinion that incites hatred.	
Sweden	Hate Speech	A made by Tomas Tobe, member of the Moderates party and is part of the EPP Group in the European Parliament. The posts This post clearly says no to Turkey joining the EU and shares his dislike of President Erdogan. But at the same time, he argues that Turkey is in the EU's immediate vicinity and that it should not be neglected.	https://www.facebook.com/100057760791181/posts/304863011449056.
Sweden	Polarization	This post is made by Erik Hansson, a common citizen. He made this post on the Facebook group called "Motvind Sverige - Open debate on Swedish Wind Power". He claims in his post that wind and solar power have not been delivering enough due to the lack of electricity generation in large parts of Europe.	https://www.facebook.com/groups/1379511478940601/permalink/3705638259661233.
Sweden	Radicalization	This post has had a lot of traction on several Swedish FB groups during the studied period. These FB groups have all been radically right wing leaning, focusing on anti-immigrant rhetoric. The post claims that Swedes have a right to be alarmed that, for instance, immigrants lift pensions both in Sweden and in their home country, in this way cheating the system. It is relevant as it is supporting the right wing agenda in Sweden and successfully reaches a lot of potential voters who are interacting with the post.	https://www.facebook.com/groups/629782497631532/permalink/899844477291998.

A very few remarks are possible here. Firstly, we see how often hate speech and radicalization are inducted *from above*, as those contents are usually posted by journalists or politicians - or, not accidentally, by journalists with some experience in politics. This would

confirm the hypothesis of a progressive colonization of web spaces, already referred to in this section – with a possible objection. In WP2 we are working with the most impactful posts, based on a combination of different social media metrics [for the methodology, see deliverable D2.1], and it is a fact that influential people get to reach a broader audience: while we have no evidence here about the massive on-line discussion taking place at the smaller scale of mini-influencers, long-tail, or scattered audiences. Given that wide-scale analyses indicate a strong centralization of the web debate, though, the problem will deserve some attention, as it would testify against the idea of bad information only coming from the bottom of society – *from the shallows*, so to speak. If anything, this indication would give strength to the opposite interpretation: the idea of radicalization and hate being part of the current institutional discourse, also known as *political incivility* [see Harcourt 2012; Muddiman 2017].

Additionally, we may recall that we looked for both posts supporting or tackling radicalization: while as a result, at least at this level of scale, we only found posts of the first kind. This would remind us of a widely accepted idea, that of fake and radicalized contents circulating faster: which nonetheless has been recently questioned, as some big data analyses did not find any difference between reliable and reliable posts, in terms of their spreading pattern [Cinelli & others 2020]. In this case as well, it is too early for pushing forward a theoretical hypothesis, and much more work will be needed for the purpose.

The final consideration about research questions 2.12 and 1.14 is perhaps unpleasant, and in any case, it only reflects the position of the Coordinator, without representing in any way the ideas of the other members of the EUMEPLAT project. This being said, it is a fact that all posts including hate speech or promoting radicalization come *from the right wing* of the political spectrum. As social scientists, we can obviously not assume that left-oriented people do not indulge in mystification and polarization: though, truth being told, some scholars did push forward something similar [see, for instance, Filkenstein 2020: 3-6; Sunstein 2021: 20-21; Bratton 2021: 154-155; Vaccari & Valeriani 2021: 43]. Two options are left open, as it seems: either those discourses get more success in right-oriented communities (which is possible, though it would be inconsistent with the findings proposed by Cinelli & others 2020); or in the academy there is some bias in favor of the left, which is making it difficult to see the specular phenomenon on that side. This suspect may be confirmed by the fact that the reported violations of the neutral point of view are all inspired by classical right-wing positions, whether they are about migration, environment, or the European Union [see table 13].

4.3.9 Research Question 2.13

Research question 2.13 addresses "high-ranked posts in which the visual component is decisive", and therefore requires a premise. *How decisive* the visual part of a post might be is actually subjective, and this indication leaves much space to the discretionality of each researcher. For this reason, it has to be intended as nothing but a first step, in the path towards the reflection of a common European visual identity (or lack thereof, once again). We will list the examples provided below.

Greece

Description: They started… knitting during the speech by the President of the Commission. When it comes to Europe issue, in general the visual component is complementary to the message of the post and/or it contains information that already exists in the post.

Link: https://twitter.com/enikos_gr/status/1438146509745295360

Germany

Description: "As of this Monday, cosmetics tested on animals may no longer be marketed in the EU", written on a PR-like photo of cosmetics. The strategy is that of using advertising appeal to transport political news. Image:

Link: https://www.facebook.com/572098642854485/posts/4985192224878416.

Sweden

Description. This post is made by a political organization called "Defund SVT". The post is about the energy crisis. The image in the post is a cartoon which depicts Putin's Russia by showing how Europe is in a position of dependence on Russian gas.

Link:

https://www.facebook.com/groups/1659949284294120/permalink/3103292093293158

Belgium

Description: Facebook post addressing the pollution of the sea and the beach; reference is made to an ecocide. In itself, the text is quite dry, but the images really show how much waste is in the sea and how harmful it is to animals both on land, and in the sea. The post shows how strong a reference to France there is in news coverage in Wallonia. Because of the similarity in language, a lot of Walloons watch French-language television and Walloon news media refer frequently to France.

Link: https://www.facebook.com/7357986105/posts/10158041026836106.

Turkey

Description: Twitter post. The graphic content in this post is decisive due to the weakness of the claim in the sub-title "it is predicted that."

Link: https://twitter.com/anadoluajansi/status/1450864408503230477
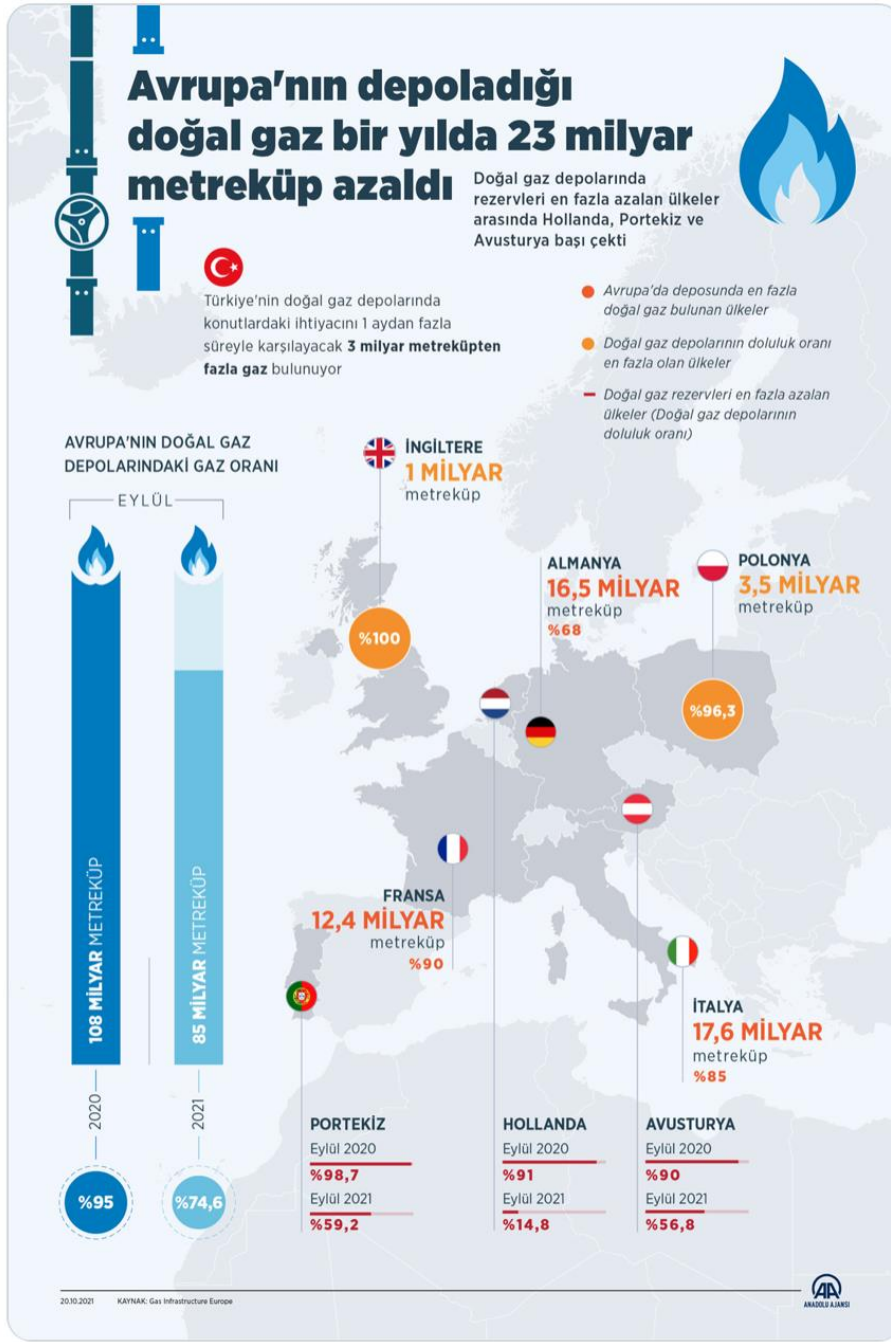
Spain

Description: It is shown, by means of the representation of two maps, the importance, and the consequences of being vaccinated or not against Covid-19 in Europe.

The post bases its thesis on the fact that the more people vaccinated the fewer infections. Therefore, it offers information in a visual way. In the Spanish case, this type of message was relevant to support the European theses and those of the Ministry of Health in favor of effective

and rapid vaccination. This type of post helped to understand the pandemic situation and reassure the population.

Link: https://twitter.com/Fre_CP/status/1454620154789302277

2:24 AM · Oct 31, 2021 from Piedrahíta, España · Twitter for Android
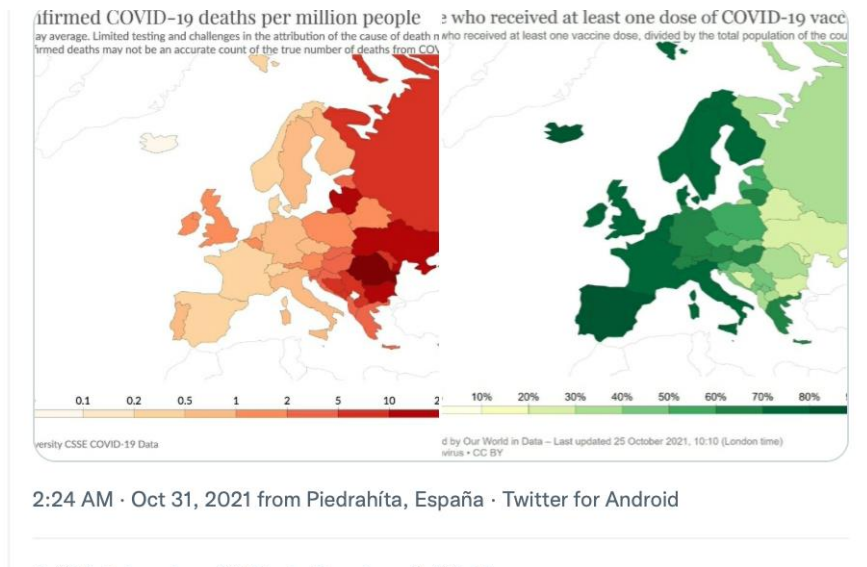
Portugal

Description: A tweet from the youth organization of a major political left wing party contesting a chart from a right wing think-tank. The Tweet manipulates the original image from that think-tank and opposes its own visual component.

Link: https://twitter.com/JSPortugal/status/1461783079509446659

🗣️Ha mitos que muitos querem perpetuar mas os factos são inegáveis.

‼️ Os últimos 5 anos foram o maior período de aceleração económica desde a entrada na União Europeia!

Translate Tweet

8:46 PM · Nov 19, 2021 · Twitter for iPhone

Description: Post in a Facebook Groups (by a common citizen) using a chart to illustrate the number of cases of Covid-19 in Europe. The source of the image/chart is not clear.

Link: https://www.facebook.com/groups/673782030095451/permalink/1076471779826472
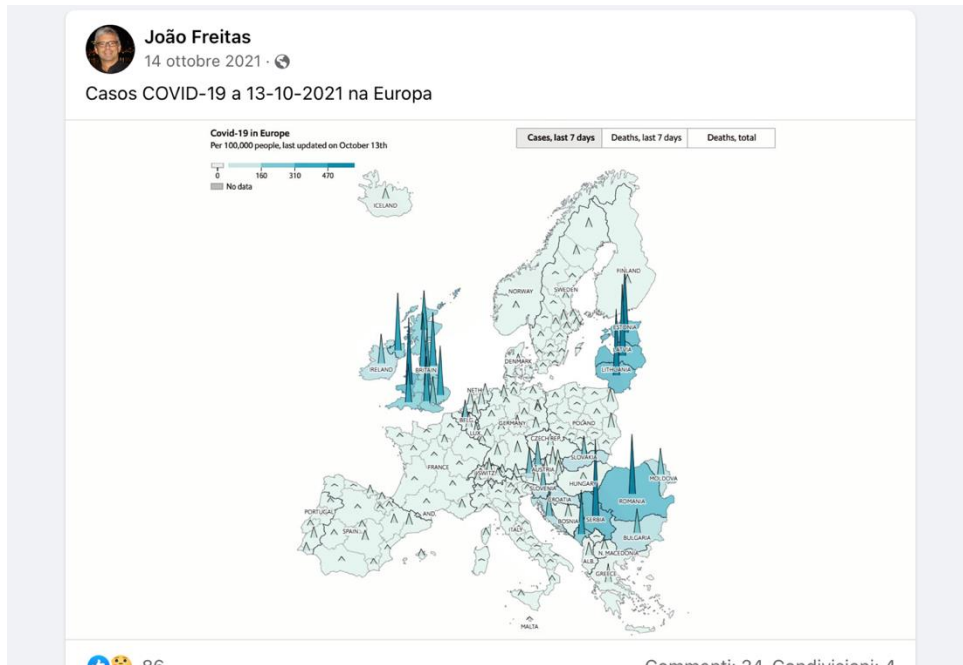
Czech Republic

Description: Another hate-speech post by Okamura with his opinions on migration. The picture shows SPD's member Jaroslav Foldyna with the members of bike gang Night Wolfs.

Link: https://www.facebook.com/179497582061065/posts/4404420606235387

Tomio Okamura - SPD
26 settembre 2021 ·

Souhlasím s poslancem SPD Jardou Foldynou. A co Vy? 🙂

Pokud si sem tedy pustíme Afričany, Araby a Afghánce, tak se z Evropy stane hybrid mezi Afrikou,

Italy

Description: This post argues that the government (represented by former Italian Prime Minister Mario Draghi) pushes citizens to fight amongst themselves about welfare (reddito di cittadinanza) in order to detract attention from their own mis-givings. This media content features a close up shot of Draghi's face with a peculiar expression, part of a series of the so-called internet memes.

Link: https://www.facebook.com/299413980170673/posts/4274698225975542

👍 11.713   Commenti
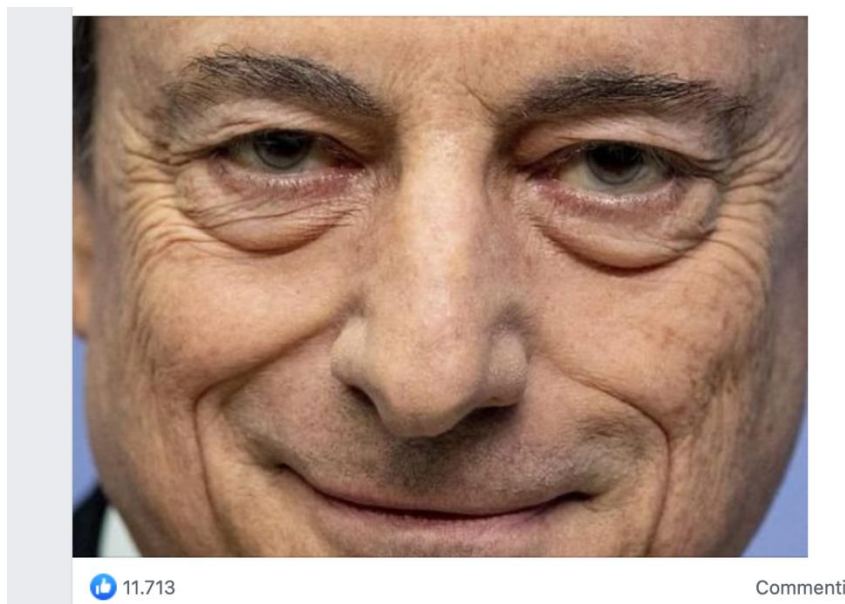
We know that the methodology of visual studies is controversial, so that extracting inferences from a corpus of images is not an easy task: and in any case, more attention to the visual dimensions of European discourse will be paid in the next months. With this in mind, at least one remark is admissible, as these images are all included in the most impactful social media posts in each country.

For sure, we can see that the most aggressive use of images is related to climate change and environmental issues – as in the German and Belgian examples - which can not come as a surprise, given the shocking strategies traditionally used by green activists. A more important fact, nonetheless, is how rarely Europe is captured and visually shaped. Firstly, the only representation of Europe in the *material* sense comes from Greece: and it depicts *two officers* – against the backdrop of the most classical stereotype of the Europe of bureaucrats – which are even hard to recognize, due to the face masks. That there is hardly a European narrative is also confirmed by the confrontation with national images. In Italy, it is the close-up of former Prime Minister Mario Draghi; in Czech Republic - with all due differences – the encounter between far-Right politicians and a bike gang. These pictures actually *tell a story*, no matter how agreeable the specific contents may be, unlike the images representing Europe – not to mention the Swedish example of Russian hegemony over Europe itself.

What is particularly interesting, in the latter case, is that in no less than four cases – coming from Spain, Portugal, and Turkey – the images we have are actually charts, maps, and data displays. In other words, these pictures *do not show Europe*. Very differently, a didactic use is made of the graphic visualizations: so that the images *explain* something – some economic trends; the spatial distribution of gas reserves or Sars-Cov-2 cases – while they are not meant to generate empathy, nor they allow deep readings of any kind. No matter which theoretical map we use, the same result would follow: there is no *punctum* in Barthes' terms [1980], intended as the sensory impact of a photography on its observer; no archetypal reference to a structure of meaning, as in Mitchell's famous picture/image model; not to mention the so-called "pictorial uncanny", the ability of an icon to make emerge a latent or obscure presence [see Liu 2009, besides Mitchell 1994 and 2005].

In the most iconic images, so to speak, Europe is taken out of the picture – what does this tell us, about Europeanization? Firstly, that there is no common representation of Europe at the visual level, as there is a scarcity of it in many other fields of cultural industries; and secondly, as a more specific consequence, that there is no *emphatic* communication, when it gets down to internal European affairs. This is even more evident, when one considers how rare the pro-EU *memes* are, when compared to anti-EU ones: and when one recalls that

memes, ad trivial as they may appear, result from a very serious labor of appropriation and participation [Nissenbaum & Shifman 2017: 485]. It is maybe accidental, though emblematic, that the EU regulation – strictly speaking – does not allow the very circulation of memes themselves, as the "derivative work" of making them would infringe the copyright of the original contents [Bonetto 2018; Sanchez 2021: 316-322]. Which may well be, but given the centrality of mash-up in digital culture [see Lessig 2008: 28-83 in particular], the problem would need a different attention, as the weakness of a common remix culture is perhaps an additional indicator of that of people's agency in the European Union. As limited as our observation may be, it is fact that discourses around Europe lack of the most *emotional* form of communication – so that one might wonder if there can be a common culture, without *a common culture of memes*.

4.3.10 Research Question 2.15

Research question 2.15 finally draws on the paramount topic of media *trust* [see deliverables D1.1 and D1.6]. A few references can be detected in our WP2 dataset: in Spain, a post by a former Constitutional Court lawyer insinuating that the public Tv of the Madrid Community is at the service of the President of Community itself, based on the covering of Spanish Covid mortality; in Czechia, a post by a group of conspirators, supporting the President and putting to doubt the reliability of national public service media; in Turkey, the attack of Soner Yalçın, a leftist journalist, over his colleagues and their trustworthiness. In Sweden, a Facebook group hosts climate change deniers who use the platform to attack Swedish media, claiming that they are spreading misinformation, thus addressing the topic of media trust from an adverse angle. The poster makes unsubstantiated claims, criticizing media publishing which Swedish companies account for most CO2 emissions. Two cases can be extracted from the Italian dataset, and both from Facebook. The first is a post linking to an online article by a major Italian newspaper suggesting that Italians do not trust the vaccine; it argues that data spread by traditional media about the efficacy of the vaccine is to be doubted and invites people to "switch off the TV and put down the newspapers" and reflect alone. The second post discredits traditional media (the press) or journalists (for example newspaper directors) by associating them to selfish political interest, corruption and crime. Content by a common citizen which contributes to eroding trust in the press.

The German case possible provides the ideal synthesis, with a popular post stating that "the common political denominator of Corona, Climate and the European Union is the farewell to democracy." This is a content produced by Norbert Bolz, former postmodern philosopher,

former professor for media science at TU Berlin, now right-wing influencer on Twitter. Bolz is part of a right-wing echo chamber where Corona and climate are pretexts for establishing a dictatorship and doubts are cast against institutions, elites, the media, among which PSM are the most hated.

As to research questions 2.6 and 2.11 – respectively focused on generational differences in social media debate and in the alleged softening of tone news – we could not find appreciable evidence in the datasets of the ten countries. As RQ 2.6 and 2.11 were probably not well-elaborated, we decided to drop them.

5 Synopsis

Table 15. Systemic effects of news platformization(*)

Externality of news platformization	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; Peruško 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 Baldini, Túñez-López & Barrientos Báez 2021; Bonini Baldini & Mazzoli 2022; van Dijck 2020; van Dijck 2021a; van Dijck 2021b.	--

(*) To be honest, I am not sure that such effects, as synthetized in Table 1, can be framed in terms of externalities. By definition, externalities are expected to impact some specific fields of the social structure [hence the distinction between *economic* and *social* externalities, by the way] whereas all authors are here working at a very *macro*-level of scale – with platforms allegedly reshaping the system itself.

Table 16. Effects of news platformization on political knowledge, interest and participation

Externality of news platformization	Type of externality: Negative, neutral, or positive	Sources	Notes
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 17. Effects of news platformization on audience activity and engagement

Externality of news platformization	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; Merten 2021; Thorson, Cotter, Medeiros & Park 2021.	More specifically, Merten proposes the concept of "personal news curation"; and Hurcombe, Burgess & Harrington that of "social news".
Audience fragmentation	Negative	Evans 2003; Messina 2011.	--
Audience responsivity 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 18. Economic effects of news platformization

Externality of news platformization	Type of externality: Negative, neutral, or positive	Sources	Notes
Lowering of marginal costs	Positive	Schlesinger & Doyle 2015.	--

Disruption 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 information monopolies	Negative	Martens, Aguiar, Gomez-Herrera & Müller-Langer 2018; Nushin Rashidian, Brown, Hansen, Bell & Hartstone 2018.	Nushin Rashidian, Brown, Hansen, Bell & Hartstone 2018 note that the frequent failures do not prevent companies from making new attempts and risking their investments.
Deindustrialization of journalism	Negative	Siapera 2013.	--
Win-win relationship between Facebook and news outlets	Positive	Chen & Pain 2021.	--

Table 19. Effects of news platformization on professional routines and journalistic practices

Externality of news platformization	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	Neutral	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	Annany 2018; Molyneux & McGregor 2021; Smyrnaios & Rebillard 2019.	Negative interpretations are based on different reasons: for Ananny, the cooperation with Facebook is dangerous, due to its power; Smyrnaios & 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 & Sen]; audience tracking and commodification is increasing [Willig].

Table 20. Effects of news platformization on disinformation and radicalization

Externality of news platformization	Type of externality: Negative, neutral, or positive	Sources	Notes
Spread of fake news	Negative	Anstead 2021; Christodolou & Christodulou 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; Torky, 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, polarization and radicalization	Negative	Klein 2020; Levy 2021; Masip, Suau, Ruiz-Caballero, Capilla & Zilles 2021; Manjoo 2008; Osatuyi & Hughes 2018; Sunstein 2018; Sunstein 2021.	--
Overall impact on media trust	Negative	Bhuiyan, Whitley, Horning, Lee & Mitra [2021]; Tunstall 2009.	

Table 21. Other externalities of news platformization

Externality of news platformization	Type of externality: Negative, neutral, or positive	Sources	Notes
Generational divide between youth and elders	Neutral	Bachman, Kaufhold, Lewis & de Zúñiga 2010; Bergstrom & Wadbring 2012; Boyd 2014; Guess, Aslett, Bonneau, Nagler & Tucker 2021; Sang, Lee, Park, Fischer & Fuller 2020.	--
New audience segmentation	Neutral	Chyi & Chadha 2012; Nelson & Lei 2018.	--

Table 22. The Geographical Stance

Countries analyzed	Sources
Australia, Italy, UK, USA	Fletcher & Nielsen 2018.

Austria	Jääskeläinen, Yanatma & Ritala 2021.
Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden	Bonsón, Royo & Ratkai 2014.
Belgium	Lamot 2022.
Belgium [Flanders]	Van Erkel & Van Aelst 2021.
Chile	Mellado, Humanes, Scherman & Ovando 2018.
China	Chung Ng, Tang & Lee 2021; Yuan 2011.
Denmark, France, Germany, Greece, Italy, Poland, Spain, UK, USA	Vaccari & Valeriani 2021.
Egypt, Jordan, Morocco, Tunisia	Zaid, Ibahrine & Fedtke 2022.
France	Smyrnaios & Rebillard 2019.
Germany	Claussen, Peukert & Sen 2019.
Germany, UK, USA	Kalogeropoulos & Nielsen 2018.
Israel	Dvir-Gvirsman & Tsuriel 2022.
Italy, Jordan, Lebanon, Libya, Morocco, Portugal, Spain, Tunisia	Di Donato & Stefanelli 2019.
Netherlands	Swart 2021.
Spain	Goyanes & Demeter 2022; Masip, Suau, Ruiz-Caballero, Capilla & Zilles 2021.
Sweden	Bergrström & Wadbring 2012.
USA	Boyd 2014; Diehl, Barnidge & de Zúñiga 2019; Guo & Sun 2020; Guess, Aslett, Bonneau, Nagler & Tucker 2021; Hepp and Loosen 2019; Levy 2021; Nelson & Lei 2018; Nocera, Costantinou, Tran, Kim, Kahan & Shahabi 2021; Nushin Rashidian, Brown, Hansen, Bell; Albright & Hartstone 2018; Purcell, Rainie, Mitchell, Rosenstiel & Olmstead 2010; Walker & Matsa 2021.
European Union	Martens, Aguiar, Gomez-Herrera & Müller-Langer 2018; Pavleska, Školkay, Zankova, Ribeiro & Bechmann 2018; Renda 2021; Salgado 2021.
Eastern Europe	Peruško 2021.
Global comparison by country or by continent	Dos Santos Jr, Lycarião & de Aquino 2019; Rodrígues-Fidalgo & Paíno-Ambosio 2022; Strauss, Huber & de Zúñiga 2020.

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