IMSyPP

Innovative Monitoring Systems and
Prevention Policies of Online Hate Speech

WP4 – Implementing regulations and increasing awareness

JOURNALISM OBSERVATORY 2

March, 2022

DISSEMINATION LEVEL: Public

Executive summary

Freedom to inform and be informed, plurality and transparency of sources, accessibility to media and content of information constitute indispensable foundations of the Rule of Law, lifeblood of dialectical debate and free flow of ideas and thought, which are essential for the maintenance and consolidation of any democracy.

Nevertheless, the social debate triggered by news media is often characterised by extreme polarisation and heated discussions, especially online. In such a situation freedom of expression can be abused and it transfers into a completely opposite phenomenon. Users online tend to select information that is consistent with their own value system, forming groups of like-minded people on shared narratives. Within the so-called echo-chambers, discordant information is at best ignored, or it becomes the object of confrontation and a reason for attack – thanks also to the possibility of greater anonymity and the illusory virtual-real distinction – and risks leading to 'social fragmentation'[1].

In the manifestation of information-related hate phenomena, the role of the media – and journalists in particular - is twofold. On the one hand, journalists can not be totally free of bias, even of implicit nature, and this could lead to misuse of language (e.g. terms, concepts, entities, etc) in framing and presenting stories which in turn may lead to intolerance in the public opinion and trigger hateful reaction in the public debate. On the other hand, the reporter and not the reported news is often the target of hatred and other intimidation, and this is particularly serious since it can affect or compromise the spread and freedom of information, both pillars of democracies.

This report, as an objective of deliverable D4.4 of the European IMSyPP project, analyses the role of the media in information-related hate speech from both perspectives.

With respect to the former aforementioned case, it includes the results of a four-year period analysis (2017-2020) concerning the role of gender in the personalization of a wide range of political office holders in Italy. An innovative data-driven approach based on lexical, syntactic, and sentiment analysis reveals that the political personalization in Italy is more detrimental for women than men, with the persistence of entrenched stereotypes including a masculine connotation of leadership, the resulting women's unsuitability to hold political functions, and a greater deal of focus on their attractiveness and body parts. In addition, women politicians are covered with a more negative tone than their men counterpart when personal details are reported. Further, the major contribution to the observed gender differences comes from online news rather than print news, suggesting that the expression of certain stereotypes may be better conveyed when click baiting and personal targeting have a major impact.

To perform the analyses Agcom decided to create a lexicon composed of 3,303 words (2,125 adjectives, 1,084 nouns and 94 verbs) – annotated with the corresponding semantic orientation in the political domain –by systematically investigating key indicators of personalized news coverage, i.e., personality traits and behavioral attitude, coverage of the family, past life and

---

[1] See Agcom, "Rapporto tecnico - Le strategie di disinformazione online e la filiera dei contenuti fake", cit.

upbringing, leisure time, love life, age, appearance, social background and economic opportunities. To the best of our knowledge, Agcom dataset of personalizing words represents the first publicly available lexical resources in Italian language which is designed to account for the personalization phenomenon in the political domain.

The second part of the report is devoted to investigate the phenomenon of intimidation against journalists in Italy. Considering both the emerged and the submerged part of the phenomenon, it can be observed that in Italy almost a quarter of journalists (24%) suffered at least one threat in the twelve months preceding the survey, showing a reduction compared to 2016. However, the recorded trend must be read as the product of different and contrasting dynamics. In fact, on the one hand there is a significant reduction in the percentage of episodes relating to obstacles to information, and a substantial stability in the incidence of intimidation through legal means (mostly attributable to reckless litigation in civil and criminal proceedings), which still affects 10% of Italian journalists. On the other hand, however, there has been a marked increase in direct threats (affecting 18% of journalists). In this regard, if traditional threats show a rather constant trend, online intimidation is exploding, becoming the most frequent form of threats against Italian journalists (13% say they have been subjected to them). Although online threats may seem less serious, in reality, the pervasiveness and repetition allowed by the digital tool amplify the persecution component, worsening the victims' state of fear and anxiety, and may even represent real forms of stalking. In the current information ecosystem, new forms of threats have been added to the traditionally known ones, such as computer attacks aimed at content, identity theft or defamation, as well as the spreading of the phenomenon of hate speech, which, in the case of the journalistic profession, can easily lead to intimidation, favored by the physical distance of the threatened and the anonymity of the aggressor.

In general terms, the frequency of intimidation against Italian journalists varies according to the variation of different factors (social, economic, cultural, psychological, etc.). The analysis of these correlation relationships has made it possible to identify the risk factors capable of affecting a journalist's probability of being threatened. More specifically, the four main risk conditions for a journalist's exposure to threats relate to:

- dangerousness of the territory in which the work is carried out;
- dangerousness of the professional activity;
- proximity to the news;
- professional motivations.

All forms of threat and intimidation aim at inhibiting the exercise of journalists' freedom of speech (the so-called *chilling effect*), i.e. deterring journalists, in order to induce them to censor themselves (totally or partially). In this regard, the analysis highlights several factors that can significantly increase the probability that the threats perpetrated will actually result in a chilling effect. First of all, gender: if women are affected by intimidation, the threat is more likely to have the deterrent effect desired by the threatening party. Similarly, the danger that the intimidation directed at the journalist will have an effect increases as their contractual stability and hierarchical position in the newsroom decreases: freelance journalists, who are generally less well paid and less well insured, appear more vulnerable. The type of threat also influences the deterrent effect: traditional direct threats, which include acts of violence, have the greatest

impact on the likelihood that journalists will self-censor. Moreover, the probability of chilling effect in territories with high presence of mafias is double compared to territories with low or no presence of organized crime.

The findings of the monitoring carried out with the second part of this report could give important insights for a possible legislative intervention to adapt the rules protecting freedom of expression and journalism to the new risks for democracy, in line with the principles set out by the ECHR. For instance, with the only exception of borderline cases such as expressions of hatred or incitement to hatred or to disturb public order and cause social alarm, the abolition of prison sentences for journalists convicted of defamation could be envisaged. Moreover, the financial penalty imposed on the convicted journalists could be proportionate to their economic and financial situation, so as not to prejudice the continuation of their professional and editorial activity. Along this path, a professional insurance to protect journalists from the growing economic risks associated with their work could also be considered, together with further legislation to recognise a legal status to journalists so that, where the right to information has been exercised correctly, they are protected.

Finally, a further emerging aspect concerns the need to provide forms of support for journalists who are most at risk. This would encourage the emergence of the phenomenon of threats, which all too often go not only unpunished, but are not even reported either to the competent authorities or to professional associations.

Table of contents

Gender stereotypes in the mediated personalization of politics

Introduction

Gender stereotypes are widespread and display structural effects even in more egalitarian and more developed countries (1). They may contribute to gender disparities in the pursuit of societally important fields (2). Their origin can be linked to the social and cultural environment, and the educational system (3). In this context, information plays a fundamental role in generating, disseminating and reinforcing gender stereotypes. For instance, the media image of politics as a masculine realm (4) can depress the political ambitions of young women and discourage political elites from selecting women (5).

The current media communication is even more characterized by sensation and entertainment (6) and the phenomenon of personalization become a fundamental concept in the discussion on how political news evolves through time (7). At a coarse level, one speaks of personalization for referring to a focus on individual politicians rather than on the institutions they represent. More subtly, personalization implies a shift in media focus from the politician as a public office holder to the politician as a private individual. In the former case it is labelled as "individualization", in the latter case as "privatization" (8). In this realm, gender stereotypes can be translated into the association of women politicians with private life (9), physical beauty (10) and supporting roles (11).

The aim of this first part of the Report is therefore to assess the presence of gender stereotypes in the political news. After an examination of what is available also at international level[2], an innovative approach and a methodology for an organic analysis of the phenomenon were developed, the results of which are presented below and further discussed in the following chapters. The combination of lexical, syntactic and sentiment analysis of the political news reported in the period from January 2017 to November 2020 by almost all national (and multiregional) newspapers and online news outlets[3], allows us to compare the media attention addressed to men and women politicians for a wide and differentiated number of public roles: minsters, undersecretaries of state, governors and mayors of cities with more than sixty thousand inhabitants. In addition, the analysis covers a timeframe that comprises two changes of government, a constitutional referendum, a general election, several both local and regional elections, and the occurrence of considerable events (e.g., the outbreak of the Covid-19 pandemic and the related social and economic effects and policies), so that it is large and representative of all political parties in Italy.

The findings highlight the existence of persistent, entrenched gender stereotypes, especially when going online (i.e., in online news outlets compared to traditional newspapers). Women politicians receive more focus on the privatization dimension than men (physical and socio-economic characteristics), whereas the coverage of their men colleagues is higher on the individualization dimension (moral and behavioral characteristics). In particular, men are

---

[2] Most existing studies concern a single context, and this could lead to stronger gender bias in reporting. For instance, the political actors under scrutiny are most powerful offices rather than representatives at local level (12), the focus is most solely on electoral campaigns and rarely even routine time (13, 14), the majority of the extant work is conducted in the United States and less work is done in multi-party systems (5).

[3] The final dataset consists of more than 1.8 million news items. Note that most of existing studies rely instead on the content analysis of a relatively small amount of articles, which in turn allows to manually identify the presence of personalizing elements and assign a polarity orientation (8, 15 ,16).

depicted as powerful, active and violent, while women are told as not fit to hold a public office, concentrating a greater deal of focus on their attractiveness and body parts. Finally, we find that women politicians are depicted with a more negative tone with respect to each of the analyzed categories.

The selection of news media sources

To ensure the most representative picture of both traditional and new media, Agcom considered a wide range of national and local newspapers and online news outlets that are active in Italy during the period January 2017 - November 2020 (see Appendix for the complete list of sources). The selection includes all the major Italian newspapers which are the ones that still have a great influence on the political agenda[4] (17), as well as more than 250 online-only news outlets covering a broad spectrum of points of views and reaching the great majority of Italian citizens who get informed[5].

Moreover, to include offices at both local and national level, the target under scrutiny comprises all the Italian politicians serving as minsters, undersecretaries of state, governors and mayors of cities with more than sixty thousand inhabitants. Presidents of the Republic and Prime Ministers are both excluded from the analysis, since no woman has ever occupied such roles in Italy.

The Agcom methodology

Most existing studies, both at international and national level, concern a single context, and this could lead to stronger gender bias in reporting. For instance, the political actors under scrutiny are most powerful offices rather than representatives at local level (12), the focus is most solely on electoral campaigns and rarely even routine time (13, 14), the majority of the extant work is conducted in the United States and less work is done in multi-party systems (5). In addition, such studies mainly rely on the content analysis of a relatively small amount of articles which, while allows to manually identify the presence of personalizing elements and assign a polarity orientation (8, 15 ,16), it may not represent a particularly meaningful sample of the investigation space.

In order to overcome the methodological problems outlined so far, the Authority has identified its own methodology capable of detecting the different dimensions of the personalization phenomenon also in particularly large datasets and in political contexts such as the Italian one. Figure 1 shows the architectural overview of the Agcom method.

---

[4] In 2020, the 83 considered newspapers reached 22 million Italians, i.e., 43% of the population (aged more than 18).
[5] The selected online sources monthly reach 38 million Italians (i.e., 93% of the total internet audience; source: ComScore).
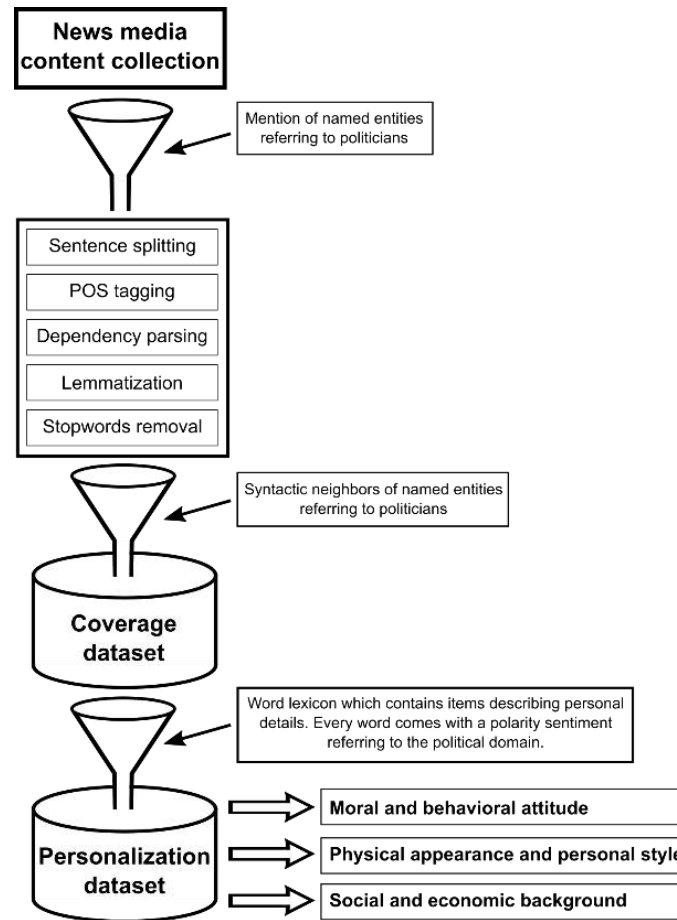
Figure 1: Overview of the Agcom approach.

The input to the system is a collection of news items filtered according to the occurrence of named entities referring to the political offices under scrutiny. The output of the system is an assessment of the personalized coverage and the corresponding sentiment concerning the politicians under investigation. All the procedural steps are illustrated in Appendix.

To identify the personalizing elements of the coverage – and then distinguish between the coverage dataset (D_c) and the personalization datasets (D_p) – the Authority decided to construct a word lexicon based on several key indicators which are representative of the media coverage of personal details (8, 15). The lexicon is divided into three categories that aim at capturing the context of each word: i) moral and behavioral attitude; ii) physical appearance and personal style; and iii) social and economic background. For each of these terms the corresponding semantic orientation in the political domain has been determined.

Data have been gathered by means of a media monitoring platform developed by the IT company Volocom Technology. The exact breakdown of both the coverage dataset (D_c) and the personalization datasets (D_p) is presented in Table 1.

Table 1: Breakdown of both the coverage and personalization datasets divided by gender.

	Coverage dataset D_c		Personalization dataset D_p	
	F	M	F	M
Politicians	57	213	56	211
Contents	328,842	1,519,115	19,185	82,429
Sentences	689,574	3,368,608	21,599	97,589
Words	929,160	5,075,651	23,875	110,765
Distinct words	17,722	36,238	1,357	1,793

The reported values concern the number of political offices under scrutiny; the number of media contents with the mention of at least one of such politicians; the related sentences containing such mentions; the number of words and unique words[6], respectively, contained in the syntactic neighborhood of the named entities mentioned. Moreover, albeit we aim to refer to sentences as coded units to analyze, for the sake of simplicity we consider words instead. Indeed, the syntactic neighborhood of the named entity mentioned consists of a single lexicon word in almost all the sentences in D_p (see Appendix for further details).

The elements that make the proposed methodology innovative and particularly effective are:

1. the identification of the words directly referring to the politicians under consideration through the analysis of the syntactic trees of each sentence in which the nominal entities representing them are mentioned;
2. the construction of a dictionary of personalizing words and the assignment to each of them of the corresponding semantic annotation (sentiment) in the political domain.

Part-of-speech (POS) tagging is a method to automatically analyse a text grammatically and can be considered the first step in semantic disambiguation (18) and sentiment analysis (19). Adjectives are indeed considered the primary source of subjective content (20, 21, 22) as well as the gauge of personality features of politicians (23, 24, 25, 26). Nevertheless, this does not imply that other parts of speech cannot be used for referring to personal details. Indeed, nouns (e.g., *skirt*, *son*, *hair*) as well as verbs (e.g., *love*, *wear*, *tease*) can also be strong indicators for personalization (27). Despite following the pattern of linear n-grams, the Agcom methodology relies on syntactic n-grams, in which the linguistic pattern of the words is based on their respective position in the syntactic parse tree. Indeed, words which appear nearby a named entity in the dependency tree are more likely candidates for personalizing expressions than those farther by. Through the SpaCy linguistic parser (28) trained on a corpus of annotated news media texts in Italian (29, 30), the text of each media content was first splitted into sentences, then the POS tag for each word and the syntactic tree of each sentence were produced. Hence words to analyze are reduced to the syntactic neighborhood of the named entities mentioned.

---

[6] Note that the term "word" is used for referring to its base form.

In order to reduce the set of filtered words to only those that specifically refer to the personal sphere of the individual, the Authority has created its own lexical resource, starting from a selection of suitable words (1,249 unique lemmas) extracted from a preexisting lexicon of hate words (31). As a second step, the lexicon has been expanded by systematically investigating key indicators of personalized news coverage, i.e., personality traits and behavioral attitude, coverage of the family, past life and upbringing, leisure time, love life, age, appearance, social background and economic opportunities (8, 15). The third step consisted of identifying any further personalizing word in the coverage dataset, and then ensures an exhaustive inventory of all the personalizing terms occurring in the news media contents under investigation. The final lexicon is composed of 3,303 words divided in 2,125 adjectives, 1,084 nouns and 94 verbs.

Once the lexicon was complete, five annotators among the Agcom staff manually assigned to each word one of the following sentiment scores: -1, 0 and 1 for negative, neutral and positive meanings, respectively. To summarize the semantic orientation of a single word in our lexicon, it was considered the average value of the five scores received during the annotation process. Hence, the aggregate sentiment score assigned to a lexicon word can be one of the eleven terms of the sequence $\left(\frac{k-5}{5}\right)_{k=0}^{10}$. The resulting values was then grouped into ordinal categories: negative (strong and weakly), neutral, positive (weakly and strong).

To the best of our knowledge, there are no publicly available lexical resources in Italian language which are designed to account for the personalization phenomenon in the political domain.

Metrics used to measure personalization

Since the political offices in Italy are mainly coupled with men candidates, this naturally implies that the whole women representative receives less media coverage than the men counterpart. Therefore, to compare the words' coverage per women and men, respectively, we needed to define a gendered score for each word that takes into account the women-men unbalance concerning both the number of politicians and gender-coverage. With some more details, the score of a word w is measured by the coverage bias index I given by the normalized difference between the (adjusted) incidence rate $\tilde{t}_F(w)$ associating the word with women and the (adjusted) incidence rate $\tilde{t}_M(w)$ associating the word with men (See SI Appendix for details), that is:

$$I(w) = \frac{\tilde{t}_F(w) - \tilde{t}_M(w)}{\tilde{t}_F(w) + \tilde{t}_M(w)}, \quad I(w) \in [-1,1]. \tag{1}$$

It is straightforward to notice that $I(w) = 1$ if and only if w is used exclusively for women politicians, whereas $I(w) = -1$ if and only if w is used for their men colleagues only. See SI Appendix for the definition of the adjusted incidence rate and for a discussion on the reliability of the coverage bias index I under different scenarios.

Aside from studying the distribution of the coverage bias index I, we also pursued an analysis of the words' frequency distributions with the goal of determining possible gender-distinctive words. To this aim, we borrowed the rationale of Leti diversity index (32) and we defined an index of dissimilarity between women and men representations as follows:

$$\text{Diss} = \frac{c_F \cdot c_M}{c_F + c_M} \sum_{w \in D_c} |\tilde{t}_F(w) - \tilde{t}_M(w)|, \quad \text{Diss} \in [0,1], \tag{2}$$

where c_F and c_M are the correction factors defined to adjust the aforementioned incidence rates and thus make them comparable in view of the strong unbalance of the dataset (See SI Appendix for details). Next, we computed the *leave-one-out* dissimilarity to identify gender-distinctive personalizing words. Thus, for each word $w^* \in D_c$ we computed the dissimilarity between men and women-frequency distributions obtained after omitting w^*, namely:

$$\text{Diss}_{(-w^*)} = \frac{c_F^* \cdot c_M^*}{c_F^* + c_M^*} \sum_{\substack{w \in D_c, \\ w \neq w^*}} |\tilde{t}_F^*(w) - \tilde{t}_M^*(w)|, \quad \text{Diss}_{(-w^*)} \in [0,1]. \tag{3}$$

where the superscript $*$ means that correction factors and adjusted incidence rates are calculated on $D_c \setminus \{w^*\}$. Finally, we identified as gender-distinctive those words w^* such that $\text{Diss}_{(-w^*)} < \text{Diss}$, namely those words whose omission from D_c contributes to reduce the dissimilarity of words coverage between gender. In particular, a word w^* such that $\text{Diss}_{(-w^*)} < \text{Diss}$ is considered men-distinctive if $\tilde{t}_M(w^*) > \tilde{t}_F(w^*)$ and women-distinctive otherwise.

Gender gaps in the mediated personalization of political office holders

Figure 2 shows the PDF of the coverage bias index I defined in Eq. [1] over the personalizing wording with regard to the political actors under scrutiny, conditional to each analyzed category.
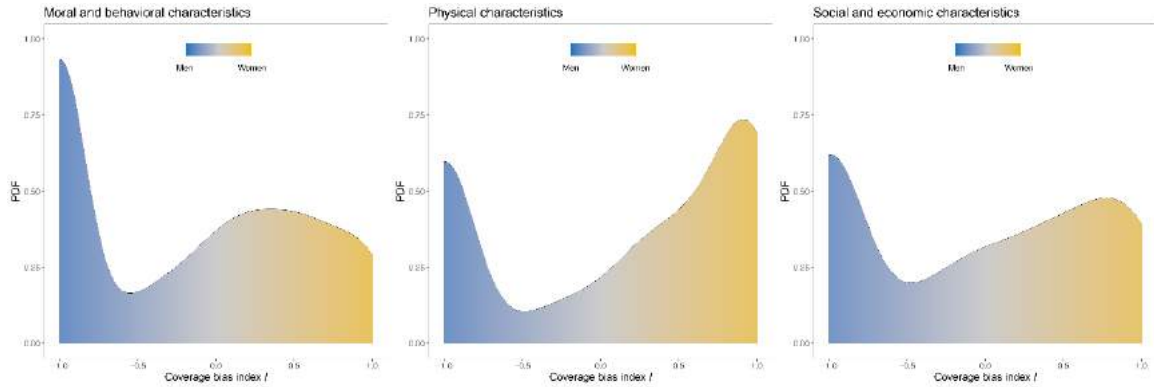
Figure 2: Empirical PDF of the coverage bias index I evaluated over the personalizing wording with regard to the political actors under scrutiny. Given a word w, I(w) represents the normalized difference in using w for women and men representations.

Moreover, Table 2 reports some descriptive statistics for the coverage bias index I for the total counts per words category.

Table 2: Summary descriptive statistics for the coverage bias index I – words count per category of personalization: Average μ; Fisher index of asymmetry γ_3; Median D_5, third quartile Q_3 and ninth decile D_9; inter-quartile range (IQR).

Category	μ	γ_3	D_5	Q_3	D_9	IQR

Moral and behavioral	-0.185	0.142	-0.122	0.454	0.828	1.454
Physical	0.134	-0.419	0.391	0.931	1.000	1.931
Social and economic	-0.074	-0.029	0.005	0.647	1.000	1.647

Assuming that gender balance would correspond to a symmetric distribution with mean at $I = 0$, evidence is found that political coverage is biased in favour of men with respect to moral and behavioral characteristics. On the contrary, the coverage bias index presents a strong negative skewness for physical characteristics, which along with a positive average, indicate that political journalism towards women focuses a strong amount of attention to physical characteristics. It should be noted that this result is also confirmed by the time analysis that shows a persistent and structural difference typical of entrenched stereotypes (see Appendix for details).

Besides wondering whether women politicians receive more media attention on personal details, the analysis also accounted for gender differences in the ways those details are reported. To this aim, among the gender-distinctive personalizing words of each category, only those words w^* for which the difference Diss - $Diss_{(-w^*)}$ is large enough were selected (see Eq. [2] and Eq. [3]). This filtering returned men politicians stereotypically depicted as powerful, active and violent. On the contrary, women are strongly perceived as not fit to hold public office. It is also interesting to note that all the words referring to parenting are unbalanced towards women, as if to stress the role played by powerful parents in the political careers of their daughters. With respect to physical characteristics instead, men politicians are mainly depicted with reference to size while women receive a greater deal of focus on their attractiveness and body parts (see Appendix for details).

As already mentioned above, the lexicon words used to identify the personalized items of media coverage have been also annotated with the semantic orientation assigned by five distinct annotators. The final semantic orinetation assigned to a word is then given by the average value of the single sentiment scores assigned, while the reliability of the annotation process was gauged by the Krippendorff's alpha ($\alpha = 0.712$). Table 3 shows, for each analyzed facet of the personalization phenomenon, the fraction of negative, neutral and positive wording with regard to the women and men representations. To be thorough, we also report the distribution of the lexicon words over the sentiment categories. As highlighted with bold font, the negative tone is always greater (in percent) on women politicians than on their men counterparts, with the only exception of strong negative descriptions concerning the socio-economic category. A reverse trend concerns instead neutral and uplifting portrayals.

Table 3: Fraction of negative, neutral and positive wording with regard to lexicon, men and women representations, respectively, for each analyzed facet of personalization.

Category		Negative		Neutral	Positive	
		strong	weakly		weakly	strong
Moral and behavioral	*Lexicon*	*51.09%*	*15.86%*	*9.25%*	*7.93%*	*15.87%*

	Men	23.24%	18.90%	**19.24%**	**22.35%**	**16.28%**
	Women	**28.20%**	**19.80%**	16.14%	19.77%	16.19%
Physical	*Lexicon*	*29.41%*	*23.26%*	*28.18%*	*13.54%*	*5.61%*
	Men	13.39%	13.82%	**46.30%**	**22.79%**	3.70%
	Women	**15.28%**	**17.49%**	40.03%	21.16%	**6.04%**
Social and economic	*Lexicon*	*41.02%*	*17.22%*	*26.74%*	*13.19%*	*1.83%*
	Men	**5.32%**	14.91%	**54.54%**	23.23%	**2.00%**
	Women	3.08%	**15.30%**	48.56%	**31.97%**	1.09%

Print news versus online news: the personalization phenomenon as a function of the type of media source

Compared to print newspapers, online news outlets have a number of characteristics that can affect the personalization phenomenon and widen the differences between women and men representations. Indeed, online-only news outlets are presumed to be influenced more strongly by personalized algorithms, click baiting phenomenon, and individual comments on news stories (33). To check this hypothesis we consider the frequency distribution of words count per gender conditional to both dataset (coverage and personalization) and source type (traditional newspapers and online news outlets). The χ^2 test of independence for both these contingency tables is highly significant, indicating a strong association between gendered coverage (personalization) and source type. Specifically, observed coverage (personalization) provided by online sources is higher than expected under the assumption of independence for women, whereas it is lower than expected for men. The converse is true for traditional sources: observed coverage (personalization) for women is lower than expected if no association were present, whereas it is higher for men (see Table S3 in Appendix for details).

The empirical distribution of the coverage-bias index I given source type is substantially similar to the PDF of Figure 2, with respect to any of the considered personalization categories, both for traditional newspapers and online news outlets. Hence, political coverage results biased in favour of men with respect to moral and behavioral characteristics, whereas it results biased towards women with regard to physical characteristics, both for traditional newspapers and online news outlets. The coverage bias density distribution for socio-economic characteristics, instead, is more heterogeneous.

Concerning the tone of personalized coverage, we estimate a quantile regression model based on the observations of the personalization dataset (conditional to each analyzed category) for the (jittered) sentiment score distribution (Y_i) as a function of dummy variables for Gender, Source type, and their interaction:

$$Quantile(Y_i) = \beta_0 + \beta_1 Gender_i + \beta_2\, Source_i + \beta_3 Gender_i * Source_i \qquad [4]$$

Table 4 reports the estimated conditional quantiles for each of the 12 groups identified by cross-classifying gender, source type and word categories. Specifically, the quantile regression was

meant to test: i) if strong and weak negative tones (in terms of first decile D_1 and first quartile Q_1, resp.), neutral tone (in terms of median D_5), and weak and positive tones (in terms of third quartile Q_3 and ninth decile D_9) are addressed to women and men in a significantly different way; ii) if this circumstance depends in turn on the source type; and iii) the extent by which gender differences vary from tradition to online sources.

Table 4: Estimated (conditional) quantiles from regression model [4].

Category	Gender	Source type	D_1	Q_1	D_5	Q_3	D_9
Moral and behavioral	F	Online	-1.000	-0.801	-0.208	0.593	0.813
		Traditional	-0.999	-0.795	-0.203	0.596	0.813
	M	Online	-0.999	-0.792	-0.195	0.598	0.977
		Traditional	-0.995	-0.606	-0.007	0.599	0.810
Physical	F	Online	-0.997	-0.598	-0.002	0.393	0.600
		Traditional	-0.815	-0.589	-0.002	0.388	0.598
	M	Online	-0.806	-0.394	0.001	0.391	0.597
		Traditional	-0.799	-0.400	0.000	0.384	0.592
Social and economic	F	Online	-0.595	-0.193	0.004	0.398	0.596
		Traditional	-0.413	-0.015	0.007	0.401	0.599
	M	Online	-0.592	-0.021	0.002	0.212	0.411
		Traditional	-0.594	-0.194	0.002	0.385	0.590

Hereafter, we comment only on the significant results: with the only exception of socio-economic facet for men politicians, negative sentiment results stronger for online news outlets than it is for traditional newspapers. This is especially true for physical and socio-economic features of the women representative, and moral-behavioral details of the men counterpart. Moreover, with the only exception of traditional coverage on socio-economic details, negative sentiment is stronger for women than it is for men. This is true to a greater extent for online coverage on physical characteristics.

Conclusions

The present Report provides robust evidence on the presence of different and stereotyped narratives of news media when dealing with the gender of the politicians. The quantitative analysis of all the articles produced by almost the entire universe of Italian traditional newspapers and online news outlets over the four-year period 2017-2020, reveals indeed that the personalization in Italy is still a gendered phenomenon, with women politicians typically receiving more mentions (in percent) to their private, i.e., physical and socio-economic characteristics, throughout the period under investigation.

Moreover, an assessment of the differences in the ways politicians are discussed reveals that stereotypically men are depicted as powerful, active and violent, whereas women are strongly

perceived as not fit to hold a public office. In addition, with respect to physical appearance, women politicians receive a greater deal of focus on their attractiveness and their body parts.

Finally, by investigating the personalization phenomenon as a function of the type of source, we find that the major contribution to the personalized overrepresentation and more negative sentiment concerning women politicians comes from online news outlets rather than traditional newspapers, suggesting that the expression of certain stereotypes may be better conveyed when personalized algorithms and click baiting logics have a major impact.

The Agcom methodology, based on a hybrid approach combining lexical, syntactic and sentiment analysis, allowed us to overcome some of the limitations of existing studies on the phenomenon of personalization and to apply big data analytics techniques that enable us to effectively analyse huge amounts of data. A dictionary of words, semantically annotated with specific reference to the political domain, has also been built to measure the phenomenon. It represents the first lexical resource in the Italian language designed to investigate personalisation in the political sphere.

References

1. T. Breda, E. Jouini, C. Napp, G. Thebault, Gender stereotypes can explain the gender-equality paradox. *Proc. Natl. Acad. Sci. U.S.A.* **117**, 31063-31069 (2020).
2. A. Master, A.-N. Meltzoff, S. Cheryan, Gender stereotypes about interests start early and cause gender disparities in computer science and engineering. *Proc. Natl. Acad. Sci. U.S.A.* **118**, e2100030118 (2021).
3. M. Carlana, Implicit stereotypes: Evidence from teachers' gender bias. *Q. J. Econ.* **134**, 1163-1224 (2019).
4. N.-M. Bauer, Emotional, sensitive, and unfit for office? Gender stereotype activation and support women candidates. *Polit. Psychol.* **36**, 691-708 (2015).
5. D.-J. Van der Pas, L. Aaldering, Gender differences in political media coverage: A meta-analysis. *J. Commun.* **70**, 114-143 (2020).
6. H. Örnebring, A.-M. Jönsson, Tabloid journalism and the public sphere: A historical perspective on tabloid journalism. *Journalism Stud.* **5**, 283-295 (2004).
7. N. Landerer, Rethinking the Logics: A conceptual framework for the mediatization of politics. *Commun. Theor.* **23**, 239-258 (2013).
8. P. Van Aelst, T. Sheafer, J. Stanyer, The personalization of mediated political communication: A review of concepts, operationalizations and key findings. *Journalism* **13**, 203-220 (2012).
9. D. O'Neill, H. Savigny, V. Cann, Women politicians in the UK press: Not seen and not heard?. *Feminist Media Studies* **16**, 293-307 (2016).
10. M. Conroy, S. Oliver, I. Breckenridge-Jackson, C. Heldman, From Ferraro to Palin: Sexism in coverage of vice presidential candidates in old and new media. *Polit. Groups Identities* **3**, 573-591 (2015).
11. A.-M. Koenig, A.-H. Eagly, A.-A. Mitchell, T. Ristikari, Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychol. Bull.* **137**, 616-642 (2011).
12. L.-R. Atkeson, T.-B. Krebs, Press coverage of mayoral candidates: The role of gender in news reporting and campaign issue speech. *Polit. Res. Quart.* **61**, 239-252 (2008).
13. L. Aaldering, D.-J. Van Der Pas, Political leadership in the media: Gender bias in leader stereotypes during campaign and routine times. *Brit. J. Polit. Sci.* **50**, 911-931 (2020).
14. A.-S. Gerber, D. Karlan, D. Bergan, Does the media matter? A field experiment measuring the effect of newspapers on voting behavior and political opinions. *Am. Econ. J.-Appl. Econ.* **1**, 35-52 (2009).
15. L. Trimble, A. Wagner, S. Sampert, D. Raphael, B. Gerrits, Is it personal? Gendered mediation in newspaper coverage of Canadian national party leadership contests, 1975–2012. *Int. J. Press/Polit.* **18**, 462-481 (2013).

16. A. Wagner, L. Trimble, S. Sampert, One smart politician: Gendered media discourses of political leadership in Canada. *Can. J. Political Sci.* **52**, 141–162 (2019).
17. F. Drago, T. Nannicini, F. Sobbrio, Meet the press: How voters and politicians respond to newspaper entry and exit. *Am. Econ. J.-Appl. Econ.* **6**, 159-188 (2014).
18. Z. Wilks, M. Stevenson, The grammar of sense: Using part-of-speech tags as a first step in semantic disambiguation. *Nat. Lang. Eng.* **4**, 135-143 (1998).
19. B. Pang, L. Lee, Opinion mining and sentiment analysis. *Found. Trends Inf. Retr.* **2**, 1-135 (2008).
20. V. Hatzivassiloglou, J.-M. Wiebe, Effects of adjective orientation and gradability on sentence subjectivity. *Proceedings of the 18th Conference on Computational Linguistics* **1**, 299–305 (2000).
21. C. Whitelaw, N. Garg, S. Argamon, Using appraisal groups for sentiment analysis. *Proceedings of the 14th ACM International Conference on Information and Knowledge Management*, 625-631 (2005).
22. H. Yu, V. Hatzivassiloglou, Towards answering opinion questions: Separating facts from opinions and identifying the polarity of opinion sentences. *Proceedings of the 2003 Conference on Empirical Methods in Natural Language Processing*, 129-136 (2003).
23. G.-V. Caprara, The personalization of modern politics. *Eur. Rev.* **15**, 151-164 (2007).
24. G.-V. Caprara, S.-H. Schwartz, C. Capanna, M. Vecchione, C. Barbaranelli, Personality and politics: Values, traits, and political choice. *Polit. Psychol.* **27**, 1-28 (2006).
25. G.-V. Caprara, S.-H. Schwartz, M. Vecchione, C. Barbaranelli, The personalization of politics: Lessons from the Italian case. *Eur. Psychol.* 13, 157-172 (2008).
26. D.-K. Simonton, Presidential personality: Biographical use of the Gough adjective check list. *J. Pers. Soc Psychol.* **51**, 149-160 (1986).
27. E. Fast, T. Vachovsky, M.-S. Bernstein, Shirtless and dangerous: Quantifying linguistic signals of gender bias in an online fiction writing community. *Proceedings of the Tenth International AAAI Conference on Web and Social Media*, 112-120 (2016).
28. M. Honnibal, I. Montani, S. Van Landeghem, A. Boyd, spaCy: Industrial-strength natural language processing in Python. *Zenodo* (2020). Available at https://doi.org/10.5281/zenodo.1212303.
29. C. Bosco, F. Dell'Orletta, S. Montemagni, M. Sanguinetti, M. Simi, The Evalita 2014 dependency parsing task. *Proceedings of the First Italian Conference on Computational Linguistics CLiC-it 2014 & of the Fourth International Workshop EVALITA 2014*, 1-8 (2014).
30. C. Bosco, S. Montemagni, M. Simi, Converting Italian treebanks: Towards an Italian Stanford dependency treebank. *Proceedings of the 7th Linguistic Annotation Workshop and Interoperability with Discourse*, 61-63 (2013).
31. E. Bassignana, V. Basile, V. Patti, Hurtlex: A multilingual lexicon of words to hurt. *Proceeding of the fifth Italian Conference on Computational Linguistics CLiC-it 2018*, 51-56 (2018).
32. G. Leti, Statistica descrittiva. Bologna, Italy (Il Mulino 1983).
33. M. Skovsgaard, A tabloid mind? Professional values and organizational pressures as explanations of tabloid journalism. *Media Cult. Soc.* **36**, 200-218 (2014).

Appendix

List of news media sources

Table S1 reports the list of all the news media sources that produced the contents analyzed in the paper, divided by type of source (traditional newspapers or online news outlets).

Table S1: List of sources that produced the political contents analyzed in the paper. The list is sorted alphabetically and each headline is associated with the corresponding type of source, i.e. traditional newspapers or online news outlets.

Headline	Source Set	7per24	Online
24Emilia	Online	Affari Italiani	Online
4 Minuti	Online	Agorà 24	Online

Agrigento Oggi	Online	Corriere Comunicazioni	Online
AgrigentoWeb	Online	Corriere del Mezzogiorno	Print
AlQamah	Online	Corriere del Trentino	Print
altarimini.it	Online	Corriere del Veneto	Print
Alto Adige	Print	Corriere dell'Alto Adige	Print
Ancona Today	Online	Corriere dell'Umbria	Print
AnconaNotizie	Online	Corriere della Calabria	Online
Arezzo Web	Online	Corriere della Sera	Print
Augusta Online	Online	Corriere delle Alpi	Print
Avellino Today	Online	Corriere dello Sport	Print
Avvenire	Print	Corriere dello Sport Stadio	Print
Bagheria News	Online	Corriere di Bologna	Print
Bari Today	Online	Corriere di Romagna	Print
Basilicata Notizie	Online	Corriere di Sciacca	Online
Blasting News	Online	Corriere Fiorentino	Print
Blitz Quotidiano	Online	corrierediroma-news.it	Online
Blog Beppe Grillo	Online	Cronaca Qui	Print
Blog Sicilia	Online	cronacadelveneto.com	Online
Blogo Online	Online	cronacadiverona.com	Online
Bologna Today	Online	Cronache di Caserta	Print
Bologna2000	Online	Cronache di Napoli	Print
Brescia Oggi	Print	cronachemaceratesi.it	Online
Brescia Today	Online	Crotone24News	Online
Brindisi Report	Online	Dagospia	Online
CalNews.it	Online	Data Sport	Online
Campania Su Web	Online	Dg Mag	Online
CanicattiWeb	Online	Diritto Di Cronaca	Online
CastelloIncantato	Online	ECNews	Online
CastelVetranoSelinunte	Online	Eco Di Basilicata	Online
Catania Oggi	Online	Economia Sicilia	Online
Catania Today	Online	EconomyUp	Online
Catania46	Online	Edicola Di Pinuccio	Online
Catanzaro Informa	Online	**Headline**	**Source Set**
CefaluNews	Online	emiliaromagnanews.it	Online
Headline	**Source Set**	Estense	Online
Centonove.it	Online	FanPage	Online
Cesena Today	Online	ferrara24ore.it	Online
ChartaBianca	Online	Firenze Today	Online
Chieti Today	Online	Foggia Today	Online
Citta della Spezia	Online	Forli 24 Ore	Online
City News	Online	Forli Today	Online
CoriglianoCalabro	Online	Formiche	Online
Corriere Adriatico	Print	Gazzetta del Sud	Print
		Gazzetta Dell'Emilia	Online
		Gazzetta di Mantova	Print

Headline	Source Set		Headline	Source Set
Gazzetta di Modena	Print		Il Quaderno.it	Online
Gazzetta di Parma	Print		Il Resto del Carlino	Print
Gazzetta di Reggio	Print		Il Roma	Print
GazzettaJonica	Online		Il Secolo XIX	Print
Genova Today	Online		Il Sole 24 Ore	Print
Giornale Del Cilento	Online		Il Tempo	Print
Giornale di Brescia	Print		Il Tirreno	Print
Giornale di Sicilia	Print		IlCaffeGeopolitico	Online
Giornale Il Sud	Online		ilcittadinodimessina.it	Online
Giornale L'Ora	Online		IlDiarioMetropolitano	Online
Giornale Nisseno	Online		IlDolomiti	Online
GiornaleDiLipari	Online		IlFattoVesuviano	Online
Giornalettismo	Online		IlNordEstQuotidiano	Online
GlPress	Online		IlPaeseNuovo	Online
Gomarche	Online		IlQuotidianoItaliano	Online
GrandangoloAgrigento	Online		ilsussidiario.net	Online
Hercole	Online		Infiltrato	Online
Huffington Post	Online		IonioNotizie	Online
I Giornali di Sicilia	Online		IrpiniaNews	Online
Il Centro	Print		Italia Oggi	Print
Il Cittadino	Print		Key4Biz	Online
Il Crotonese	Online		L'Adige	Print
Il Dispaccio	Online		L'Arena	Print
Il Dubbio	Print		L'Eco di Bergamo	Print
Il Fatto Nisseno	Online		L'Eco di Parma	Online
Il Fatto Quotidiano	Print		L'Osservatore Romano	Print
Il Fogliettone	Online		L'Unione Sarda	Print
Il Foglio	Print		L'Unità	Print
Il Gazzettino	Print		La Città di Salerno	Print
Il Giornale	Print		La Gazzetta del Mezzogiorno	Print
Il Giornale D'Italia	Online			
Il Giornale Di Vicenza	Print		La Gazzetta dello Sport	Print
Headline	**Source Set**		**Headline**	**Source Set**
Il Giorno	Print		La Gazzetta Ennese	Online
Il Lametino	Online		La Gazzetta Trapanese	Online
Il Manifesto	Print		La Nazione	Print
Il Mattino	Print		La Nota 7	Online
Il Mattino di Padova	Print		La Nuova di Venezia e Mestre	Print
Il Messaggero	Print			
Il Nuovo Giornale di Modena	Online		La Nuova Ferrara	Print
			La Nuova Sardegna	Print
Il Pescara	Online		La Prealpina	Print
Il Piacenza	Online		La Provincia di Como	Print
Il Piccolo	Print		La Provincia di Cosenza	Print
Il Post	Online		La Provincia di Lecco	Print

Headline	Source Set	Headline	Source Set
La Provincia di Sondrio	Print	Megachip	Online
La Provincia di Varese	Print	MeridioNews	Online
La Provincia Pavese	Print	Messaggero Veneto	Print
La Repubblica	Print	Messina Oggi	Online
La Riviera Online	Online	Messina Ora	Online
La Sberla	Online	MF	Print
La Sicilia	Print	Milano Today	Online
La Sicilia Web	Online	Mo24	Online
La Stampa	Print	Modena Online	Online
La Tribuna di Treviso	Print	Modena Today	Online
La Verità	Print	Modena2000	Online
La Voce	Online	MondoCatania	Online
La Voce di Mantova	Print	Monza Today	Online
La Voce di Romagna	Print	Msn	Online
LAdigetto	Online	Nano Press	Online
LameziaClick	Online	Napoli Today	Online
lascansione.net	Online	Newz	Online
Latina Quotidiano	Online	NordMilano24	Online
Latina Today	Online	Normanno	Online
LaVoceDelNordEst	Online	Notizie	Online
LaVoceDelTrentino	Online	Novara Today	Online
Le Cronache Lucane	Online	Nta Calabria	Online
LecceCronaca	Online	Nuova Cosenza	Online
LecceNews24	Online	Nuova Società	Online
LeccePrima	Online	Nuovo Sud	Online
Lecco Today	Online	Oggi Milazzo	Online
LegnanoNews	Online	Open Online	Online
Lettera 43	Online	Padova News	Online
Libero	Print	Padova Oggi	Online
Libero Reporter	Online	Palermo Mania	Online
Libertà	Print	Palermo Today	Online
lindiscreto.it	Online	Parma Online	Online
Headline	**Source Set**	**Headline**	**Source Set**
Linkiesta	Online	Parma Quotidiano	Online
lintraprendente.it	Online	Parma Today	Online
LiveSicilia	Online	ParmaDaily.it	Online
Lo Spiffero	Online	ParmaReport	Online
Lo Strillone	Online	Pavaglione Lugo	Online
LOccidentale	Online	Perugia Today	Online
Lugonotizie	Online	Piacenza24	Online
MadonieLive	Online	PiacenzaSera.it	Online
Magaze	Online	Picchio News	Online
Marsala News	Online	Pisa Today	Online
Mazara Online	Online	Piu Notizie	Online
Mc Net Tv	Online	Puglia Live	Online

QtSicilia	Online	Sicilians	Online
Quotidiano di Puglia	Print	Siracusa Live	Online
Quotidiano di Sicilia	Print	Siracusa News	Online
Ragusa Oggi	Online	Siracusa Oggi	Online
RagusaNews	Online	Stretto Web	Online
Ravenna Today	Online	Strill	Online
Ravenna24Ore.it	Online	SudPress	Online
RavennaNotizie.it	Online	TargatoCN	Online
ravennawebtv.it	Online	Telestense	Online
Redacon	Online	TempoStretto	Online
Reggio Nel Web	Online	The Social Post	Online
Reggio Report	Online	Tiscali	Online
Reggio Sera	Online	Today	Online
Reggio2000	Online	Torino Today	Online
ResegoneOnline	Online	TP24	Online
Rete News 24	Online	TPI News	Online
Rimini Today	Online	Trapani Oggi	Online
Roma	Print	TrapaniOk	Online
Roma Today	Online	Trentino	Print
Salerno Today	Online	Trento Today	Online
Sanremo News	Online	Treviso Today	Online
Sardegna Oggi	Online	Trieste Prima	Online
Sardinia Post	Online	TuttoSport	Print
Sassari Notizie	Online	Udine Today	Online
Sassuolo Oggi	Online	Urban Post	Online
Sassuolo2000	Online	Vai Taormina	Online
Savona Notizie	Online	Varese News	Online
SciroccoNews	Online	Venezia Today	Online
SecoloTrentino	Online	Verona Sera	Online
SempioneNews	Online	Vicenza Today	Online
Settesere	Online	vivereancona.it	Online
Si24	Online	ViviEnna	Online
Sicilia Journal	Online	voceditalia.it	Online
Sicilia Today	Online	Web Marte	Online
Sicilia24h	Online	Yahoo Notizie	Online
SiciliaInformazioni	Online	Zoom Sud	Online
SiciliaNews24	Online		

Preprocessing procedure

The space of our investigation is represented by the universe of all the articles reported in all national (and multiregional) newspapers and online news outlets during the period from January 2017 to November 2020. The news items collected are filtered according to the occurrence of named entities referring to the political offices under scrutiny. We consider as named entity one of the following mentions:

- name + surname, e.g. *Chiara Appendino, Attilio Fontana*

- role + surname, e.g. *Governor De Luca, Minister Fedeli, Undersecretary Castelli*
- specific role, e.g. *Governor (or President) of Lazio, Governor (or President) of the Lazio Region, Mayor of Rome, Minister of Interior*

We first perform a sequence of actions to the texts of the resulting collection of news items D_c. These steps include the splitting of contents into sentences and the pruning of sentences not mentioning the entities investigated, the part-of-speech (POS) tagging and the dependency parsing tasks. In addition, the single words are reduced to their base (or lemma) forms by means of a manually created list token-lemma available at https://github.com/brema76/lemmatization-ita. Further, a list of terms which do not add much meaning to a sentence (stopwords) is filtered out together with digits, special characters and url addresses. Second, we exploit the syntactic structures of the remaining sentences in order to select only the words which are more likely to be attributed to the named entity mentioned. In addition, for each of these terms we determine its semantic orientation in the political domain.

Syntactic n-grams Vs linear n-grams

The personalization literature which relies on computer-assisted content analysis mainly consists in searching for media contents that contain at least one of the words of a pre-specified lexicon within a certain linear distance to the politician under scrutiny (1, 2, 3). Nevertheless, for identifying the words in a sentence which are actually attributed to a given target, linear n-grams in the sense of adjacent strings of tokens, parts of speech, etc. could be not satisfactory. For instance, consider the sentence

The mayor of Rome met the actress visiting the capital.

Since the personalizing word *actress* is at distance 3 from the named entity *mayor of Rome*, any system based on linear n-grams with $n \geq 3$ would regard it as referred to the political office holder. One possible approach for overcoming this problem is the use of syntactic n-grams. Instead of following the sequential order in the sentence, the linguistic pattern of the words is based on their respective position in the syntactic parse tree. We argue that the words which appear nearby a named entity in the dependency tree are more likely candidates for personalizing expressions. For instance, adjectives generally appear in a dependency tree close to the nouns they describe. Hence, we limit our scope to the syntactic neighborhoods of the named entities which refer to the politicians under scrutiny, by keeping only adjectives, nouns and verbs (except auxiliary and modal). Fig. S1 shows the dependency tree of the aforementioned example sentence. The words within the red rectangle represent the named entity under scrutiny, whereas the green circles represent the corresponding syntactic neighbors. Since these latter are both excluded from the analysis (*the* is a stopword and *meet* is not in our lexicon), the sentence is pruned, notwithstanding the simultaneous presence of a named entity under investigation (*mayor of Rome*) and a personalizing word (*actor*).
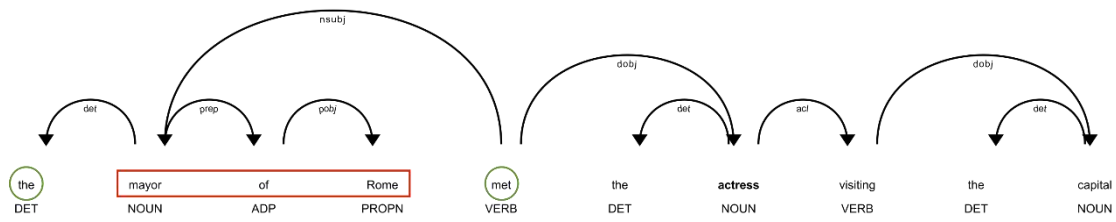
Figure S1: The dependency tree of the example sentence.

Words as coded units to analyze

Fig. S2 shows the complementary cumulative distribution function (CCDF) of both the number of syntactic neighbors per sentence (main plots) and the number of sentences per politician (inset plots). Data are divided by both dataset (coverage and personalization, respectively) and gender.
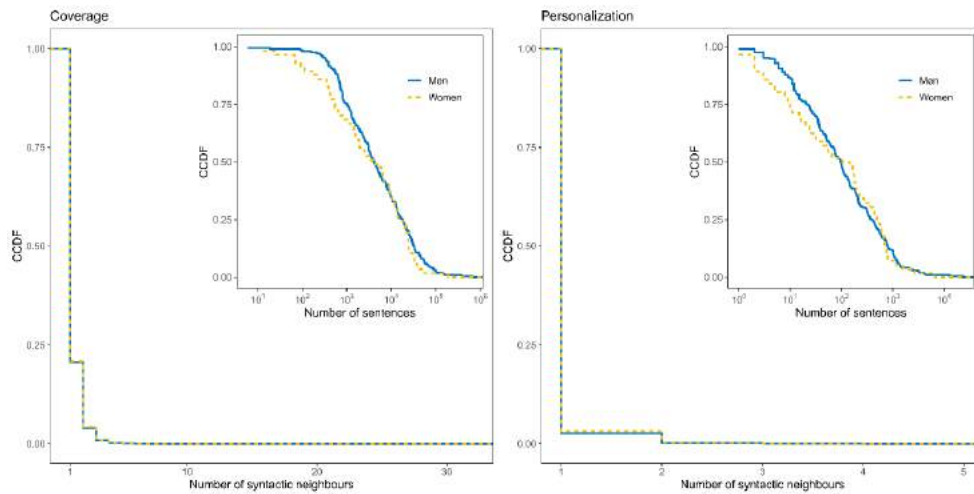

Figure S2: Complementary cumulative distribution function (CCDF) of both the number of syntactic neighbors per sentence (main plots) and the number of sentences per politician (inset plots). Data are divided by both dataset and gender.

Despite the considerable difference in coverage between women and men, the two representatives exhibit very similar patterns with respect to the number of both sentences and syntactic neighbors. Furthermore, in almost all the sentences in the personalization dataset D_p, the syntactic neighborhood of the named entity mentioned consists of a single lexicon word. Hence, albeit we aim to refer to sentences as coded units to analyze, for the sake of simplicity we consider the single lexicon words instead.

The sentiment classification

The annotators who manually assigned a sentiment score to each personalizing word (-1, 0 and 1 for negative, neutral and positive meanings, respectively), have been instructed to proceed by contextualizing the words to annotate in the political domain. The task of identifying the semantic orientation of the single words as referrer to political offices requires indeed a particular attention. For instance, the terms *teenager, fairy, powerful, tempting* could have a positive or neutral sentiment in a more general context, but they certainly gain a negative sense when attributed to politicians. To summarize the semantic orientation, we assigned to any word

in our lexicon the average value of the five scores received during the annotation process. According to their aggregate sentiment scores, the lexicon words were also classified as depicted in Table S2.

Table S2: Sentiment classification of the lexicon words.

Sentiment	Score values
strong positive	{0.8, 1}
weakly positive	{0.4, 0.6}
neutral	{-0.2, 0, 0.2}
weakly negative	{-0.6, -0.4}
strong negative	{-0.8, -1}

Aside from the aggregate sentiment score of each lexicon word, we also measure the agreement among annotators as results from the Krippendorff's alpha (α). This coefficient accounts for the reliability of the annotation process by returning a real value between 0 (total disagreement) and 1 (perfect agreement). Note that α also accounts for different metrics. Since the sentiment scores assigned by each annotator have the meaning of ranks, we use the ordinal metric (4).

The coverage bias index *I*

For a word w observed in the coverage dataset D_c, let $|w_F|$ and $|w_M|$ be the counts for women and men, respectively. Let $|F|$ and $|M|$ be the total number of women and men politicians for which at least one record is found in D_c. Let $|D_F|$ and $|D_M|$ be the total number of words addressed to women and men, respectively, so that $|D_T| = |D_F| + |D_M|$ is the total number of words listed in D_c. Thus, $a_F = \frac{|D_F|}{|F|}$ and $a_M = \frac{|D_M|}{|M|}$ are the average numbers of words per woman and man, respectively. Given the above notation, consider the incidence rates:

$$t_F(w) = \frac{|w_F|}{|D_F|} \quad \text{and} \quad t_M(w) = \frac{|w_M|}{|D_M|} \tag{5}$$

reporting the importance of a word count relative to total number of words per women and men, respectively. Given the structural under-presence of women in politics, it is reasonable to find $|D_F| < |D_M|$ and $|F| < |M|$. However, if the average number of words per individual is constant given gender ($a_F \cong a_M$), one could claim that news coverage is homogeneous and women and men are equally represented. In order to adjust the observed incidence rates for gender bias in coverage given by [5], we define the coverage factors to be the importance of a_F and a_M relative to their average $\tilde{a} = \frac{1}{2}(a_F + a_M)$. Specifically, the proposal is to adjust the total counts $|D_F|$ and $|D_M|$ with correction factors c_F and c_M defined as:

$$c_F = \frac{a_F}{\tilde{a}} \quad \text{and} \quad c_M = \frac{a_M}{\tilde{a}}. \tag{6}$$

Consequently, we propose to measure gender bias in coverage in terms of the adjusted incidence rates:

$$\tilde{t}_F(w) = \frac{t_F(w)}{c_F|D_F|} \quad \text{and} \quad \tilde{t}_M(w) = \frac{t_M(w)}{c_M|D_M|}. \tag{7}$$

Clearly, if news coverage is gender-balanced, then both c_F and c_M will be close to 1 and one recovers [5] from [7]. The smaller a_F is relative to $\tilde{a}$ instead, the stronger is the magnification effect on words' count needed to compare words' incidence rates for women with those on men in order to account for unbalanced coverage. Dually, the larger is a_M with respect to $\tilde{a}$ the higher c_M will be and thus the corresponding words' incidence $\tilde{t}_M$ will be more mitigated.

Figure S3 shows a graphical assessment on the reliability of the coverage bias index I, by investigating its behavior under different scenarios, i.e. the index values (y-axis) for increasing values of D_F (x-axis), ranging from 0 to the observed total number of word counts D_T in the coverage dataset.
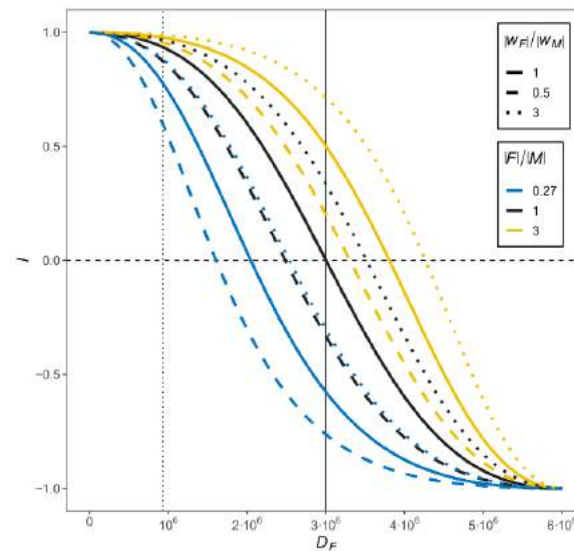

*Figure S3: The behavior of the coverage bias index **I** for different scenarios.*

Comparing the levels of personalized coverage of women and men representatives

Figure S4 shows the percentage of media coverage containing references to personal details of the political offices under scrutiny, with respect to different textual units. Namely, we consider the media contents and the sentences contained therein where a politician is mentioned, as well as the (distinct) personalizing words which constitute the syntactic neighborhood of the corresponding named entity. The observations underlying each empirical Probability Density Function (PDF) curve represent the single politicians and the corresponding sizes the amount of personal coverage they received. The vertical lines indicate the average rates as a result of considering all the politicians as a whole.
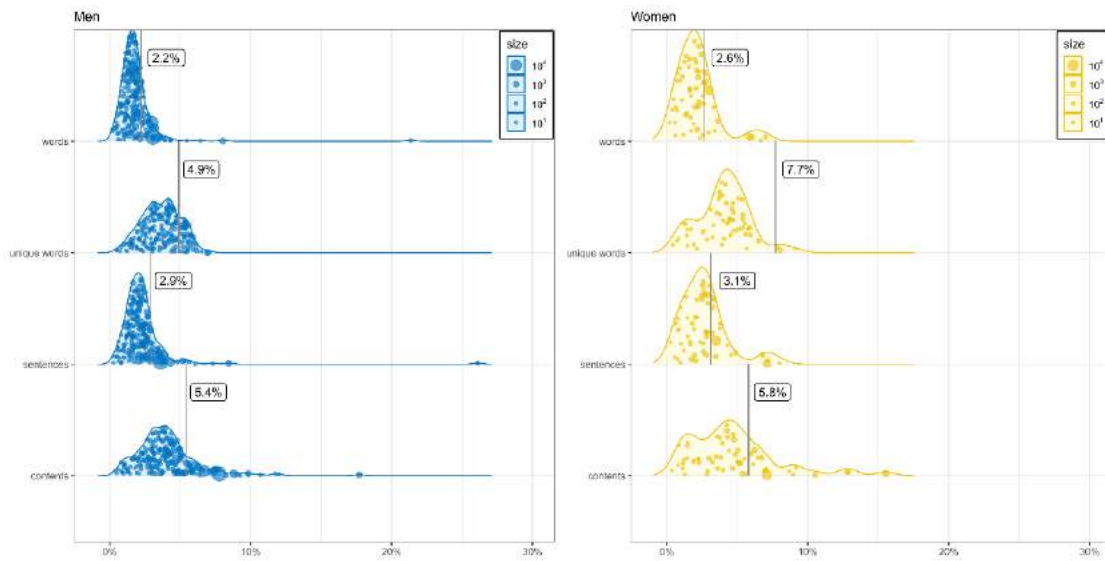
27

Figure S4: Personalization coverage with respect to different textual units.

Except a few offices who, nonetheless, do not attract a significant personal reporting, the fraction of personalized coverage is always below 10% for every other politician. The breakdown by gender reveals instead that women representative attracts more personal reporting with respect to all the textual units considered, especially words and distinct words.

To gain a deeper insight into the nature of this gender-differentiated coverage, we analyze different aspects of the personalization in relation to news content. Namely, each personalized element is classified according to whether it refers to moral-behavioral characteristics, physical characteristics, or socio-economic characteristics. Figure S5 displays the distribution of the lexicon words among the specified categories and the number of times they are used as references to women and men politicians, respectively (right panel). Moreover, it shows that media attention on personal details of women politicians is distributed over the three categories similarly to the men representative (left panel).
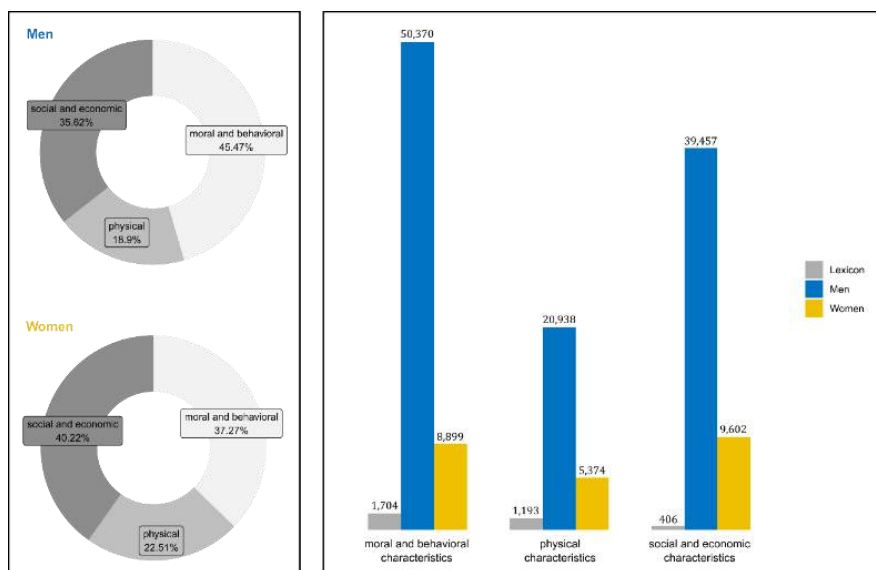

Figure S5: The distribution of the lexicon words between the three facets of the personalization, and the corresponding cumulative frequency with regard to the women and men coverage, respectively (right panel). The fraction of women

Nevertheless, women politicians generally receive more attention on their private life (nearly 2.5% and 5% more than their men colleagues with respect to physical and socio-economic characteristics, respectively). To the contrary, there is a greater focus on moral and behavioral characteristics of men politicians (nearly 8% more than the women representative).

Analysis of the personalization phenomenon through time

To check whether the observed gaps are due to specific and time-limited events or they reflect the persistence of entrenched gender stereotypes, we also investigate the personalization phenomenon through time. Namely, we consider the time series whose data-points are represented by the daily fraction of personalized coverage concerning each analyzed category for women and men politicians, respectively, and we estimate the underlying trends in each time series by taking a 3-months simple moving average (5), i.e. the data-point at time t is given by the mean over the last 90 data-points:

$$\bar{p}(t) = \frac{1}{90} \sum_{\tau=1}^{90} p(t - \tau + 1) \qquad [8]$$

where $p(t)$ is the actual daily fraction of personalized coverage at time t.

Coverage on both physical and socio-economic characteristics results almost continuously higher for women than men politicians (89-11% and 82-18% of data-points, respectively), suggesting that such personal details typically receive more focus when concerning the women representative. Instead, with respect to moral and behavioral characteristics, neither of the two series is constantly over the other and a number of alternations occurs throughout the period (women prevalence covers 54% of data-points, men prevalence 46%).

In addition, to measure the cumulative difference between the two trends, we rely on the area of the region R between the moving average curves $\bar{p}_F(t)$ and $\bar{p}_M(t)$, and bounded on the left and right by the lines $t = t_s$ and $t = t_f$ respectively, where t_s and t_f are the extreme values of the time domain. The area of R is given by

$$A = \int_{t_s}^{t_f} |\bar{p}_F(t) - \bar{p}_M(t)| \, dt \qquad [9]$$

and it holds $A = A_F + A_M$, where A_F is the area of the region where $\bar{p}_F(t) > \bar{p}_M(t)$ and A_M is the area of the region where $\bar{p}_M(t) > \bar{p}_F(t)$.

Table S3 shows, for each analyzed category, the area A of the region between the moving average curves $\bar{p}_F(t)$ and $\bar{p}_M(t)$, together with the area A_F of the region where $\bar{p}_F(t) > \bar{p}_M(t)$ and the area A_M of the region where $\bar{p}_M(t) > \bar{p}_F(t)$, as a result of the numerical approximation of [9] using Simpson's rule (6).

Table S3: Area of the region between the moving average curves $\bar{p}_F(t)$ and $\bar{p}_M(t)$, and bounded on the left and right by the lines $t = t_s$ and $t = t_f$, respectively, where t_s and t_f are the extreme values of the time domain. For each analyzed

Category	A_F	A_M	A
Moral and behavioral	1.073	0.996	2.069
Physical	1.770	0.044	1.814
Social and economic	4.571	0.701	5.272

Despite the physical trends define the smallest region, the breakdown by gender reveals the irrelevance of the few parts with a men prevalence. The moving average curves concerning moral and behavioral characteristics limit a little bit larger region, but the parts with women and men prevalence, respectively, are approximately equivalent. Finally, the socio-economic moving averages are combined with both the biggest region and the greatest difference between areas of the subregions with women and men prevalence, respectively.

Summarizing, the coverage gaps concerning private life (physical appearance and socio-economic background) can be reasonably framed as a result of the persistence of entrenched women stereotypes, being such personal descriptions almost continuously higher for women than men politicians throughout the period. Instead, the lack of a clear dominant trend regarding moral and behavioral characteristics suggests a more mitigated (or at least a more balanced) effect of gender stereotypes.

Gender differences in the content of media coverage

The wordclouds of Figure S6 show a comparison of the most distinctive words of women and men politicians, respectively, with regard to each analyzed facet of personalization. A word w^* belonging to one of the analyzed facet of personalization for which $\text{Diss}_{(-w^*)} < \text{Diss}$ is considered men-distinctive if $\tilde{t}_M(w^*) > \tilde{t}_F(w^*)$ women-distinctive otherwise. The font size of w^* is proportional to the difference $\text{Diss} - \text{Diss}_{(-w^*)}$ and represents the dissimilarity of the frequency distributions obtained after omitting w^* from the dataset.
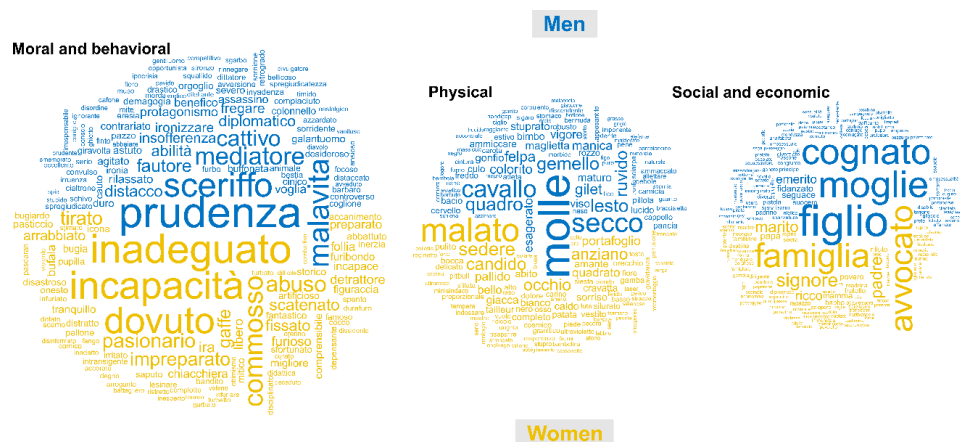

Figure S6: Comparison of the most distinctive personalized words of women and men politicians.

The Moral and behavioral wordle shows that stereotypically men politicians are depicted as:

- powerful: *sheriff-sceriffo, strong-duro, colonel-colonnello, intrusiveness-invadenza, impetuosity-irruenza*;
- active: *mediator-mediatore, advocate-fautore, ability-abilità, desire-voglia, cynical-cinico, unscrupulous-spregiudicato, fiery-fiero, bold-azzardato, convulsive-convulso, competitive-competitivo*;
- violent: *underworld-malavita, bad-cattivo, assassin-assassino, beast-bestia, animal-animale, barbarian-barbaro, dictator-dittatore, warlike-bellico*so.

On the contrary, it is impressive how strongly women are perceived as not fit to hold public office: *unfit-inadeguato, incapability-incapacità, unprepared-impreparato, gaffe, madness-follia, incompetent-incapace, unsuitable-inadatto, embarrassment-figuraccia, stupid-scemo, disastrous-disastroso, trouble-pasticcio, jerk-cretino, misinformed-disinformato, inexperienced-inesperto*.

Along this path, concerning social and economic characteristics, it is interesting to note that all the words referred to parenting (*mum-mamma, mother-madre, father-padre, dad-papa/babbo*) are unbalanced towards women, as if to stress the role played by powerful parents in the political careers of their daughters.

With respect to physical characteristics, it is worth to differentiate between physical appearance, clothing and body parts. With reference to physical appearance, men politicians are mainly depicted with reference to size: *soft-molle, slender-secco, puffy-gonfio, exaggerated-esagerato, robust-robusto, dwarf-nano, imposing-imponente, massive-massiccio, clumsy-maldestro, portly-corpulento, smug-tronfio, fat-grasso, skinny-magro*. On the other hand, women politicians receive a greater deal of focus on their attractiveness: *pretty-bello, smile-sorriso, lover-amante, tall-alto, fashion parade-sfilata, cute-carino, beauty queen-reginetta, baby girl-bambolina, fairy-fatina, sexy*. With reference to clothing, men politicians are mostly portrayed with casual outfits (*sweatshirt-felpa, vest-gilet, shirt-maglietta, hat-cappello, shorts-pantaloncino, jacket-giaccone*), whereas women with stylish ones (*blouse-blusa, pantsuit-pantalone, dress-abito, suit-completo, blazer-giacca, tailleur, collar-colletto, tie-cravatta*). Finally, with a few exception in favour of men (*nose-naso, tummy-pancia, stomach-stomaco, back-schiena*), body parts are mentioned more as reference to women (*eye-occhio, backside-sedere, mouth-bocca, ear-orecchio, neck-collo, foot-piede, leg-gamba, bosom-seno, lip-labbro, nail-unghia, blonde hair-biondo*).

The restriction to negative meanings does not produce significant differences with the general wordles of Figure S6, as regards to both Moral and behavioral category and Physical category. This implies that most of the gender-distinctive words in such categories are assigned with a negative sentiment. With reference to socio-economic characteristics, a negative sentiment towards men is mostly associated with underworld and criminal organizations (*adept-seguace, servility-servilismo, gun-pistola, freemason-massone, freemasonry-massoneria, hierarch-gerarca, clique-cosca, gang-cricca, rabble-gentaglia, henchman-tirapiedi, whoremonger-protettore, pimp-pappone, kidnapper-sequestratore, usury-usura, clientelist-clientelare, dealer-trafficante*). On the other hand, a negative sentiment towards women is mainly used to describe their economic status (*rich-ricco, poor-povero, billionaire-miliardario, burgeois-borghese, poverty-miseria, scrooge-paperone, baron-barone, homeless-senzatetto, pauper-meschino, needy-poverello, viscount-visconte*).

Table S4: Words count per gender conditional to both dataset (coverage and personalization) and source type (traditional newspapers and online news outlets). Corresponding χ^2 statistics is reported. Expected frequency under the assumption of independence of coverage between gender of the politician and source type are reported in smaller italics font for each cell.

	Coverage dataset		Personalization dataset	
	F	M	F	M
Traditional newspapers	550,681 *(565,822)*	3,106,012 *(3,090,871)*	14,803 *(15,289)*	71,415 *(70,929)*
Online news outlets	378,479 *(363,338)*	1,969,639 *(1,984,780)*	9,072 *(8,586)*	39,350 *(39,836)*
χ^2 statistics	1225.7		52.02	

Dataset S1 (separate file). List of 3,303 personalizing words annotated with the corresponding sentiment classification as referred to political offices. Words are group by category: Moral and behavioral, Physical, Social and economic.

References

1. L. Aaldering, T. van der Meer, W. Van der Brug, Mediated leader effects: The impact of newspapers' portrayal of party leadership on electoral support. *Int. J. Press/Polit.* 23, 70-94 (2018).
2. L. Aaldering, R. Vliegenthart, Political leaders and the media. Can we measure political leadership images in newspapers using computer-assisted content analysis?. *Qual. Quant.* 50, 1871-1905 (2016).
3. D. Hollanders, R. Vliegenthart, The influence of negative newspaper coverage on consumer confidence: The Dutch case. *J. Econ. Psychol.* 32, 367-373 (2011).
4. K. Krippendorff, Reliability in content analysis. *Hum. Commun. Res.* 30, 411-433 (2004).
5. G.-R. Arce, Nonlinear signal processing: a statistical approach. New York, NY (Wiley, 2004).
6. H. Jeffreys, B. Jeffreys, Methods of mathematical physics. Cambridge, UK (Cambridge University Press, 1999).

Threats against journalists

Introduction

As a fundamental principle of constitutional systems and contemporary democracies, freedom of expression is widely and solidly recognised in international charters and conventions[7].

In Europe, after the dramatic experience of totalitarianism, freedom of expression has been recognised as a fundamental human right by Article 10 of the European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR)[8] and by Article 11 of the Charter of Fundamental Rights of the European Union. All the institutions of the European legal system are oriented towards this principle; in particular, the Council of Europe (COE) is actively involved and promotes cooperation initiatives in order to assist countries in drafting legislation and to help establish practices that comply with European standards.

In addition to the constitutional principle of freedom of thought which naturally concerns all citizens, journalistic activity in Italy is protected by the rules protecting the exercise of the profession and is governed by the deontological rules of the sector.

In this framework, AGCOM has set up, since 2014, a biennial Observatory on Journalism[9], aimed at monitoring the evolution of the profession at a critical time for the entire information ecosystem, both national and international.

This second part of the report aims to identify and analyse the phenomenon of intimidation of journalists in Italy which is particularly serious because it can affect or compromise the spread of information. The study has been carried out starting from the data collected by AGCOM in Deliverable D4.3 Journalism Observatory 1 through an online anonymous questionnaire addressed to the journalists working in Italy. Indeed, a specific section of the survey concerned the different forms of threats that journalists may face in the exercise of their profession. The survey is a participatory instrument, which envisages the spontaneous and open adhesion of all subjects belonging to the national journalistic universe. The small number of the universe of active journalists in Italy (35,179 as of December 2017, of which 30,285 relevant for the analysis) and the ex-ante knowledge of socio-demographic variables (gender, age, income, region of belonging) make the approach adopted rigorous and robust also from a statistical

---

[7] Article 19 of the 1948 Universal Declaration of Human Rights recognises the right to freedom of speech and expression as an inalienable right of every person. In 1993, the United Nations General Assembly, on the recommendation of the UNESCO General Conference, proclaimed 3 May as World Press Freedom Day. The day was chosen to commemorate the UNESCO seminar to promote the independence and pluralism of the African press held from 29 April to 3 May 1991 in Windhoek, Namibia.

[8] Article 10 Freedom of expression: *1. Everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas without interference by public authority and regardless of frontiers. This article shall not prevent States from imposing a system of authorisation on broadcasting, cinematographic or television enterprises. 2. The exercise of these freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are prescribed by law and are necessary in a democratic society in the interests of national security, territorial integrity or public safety, for the prevention of disorder or crime, for the protection of health or morals, for the protection of the reputation or rights of others, for preventing the disclosure of confidential information or for ensuring the authority and impartiality of the judiciary.*

[9] AGCOM Journalism observatory.

point of view[10]. The over 3,000 responses obtained – 2,191 could be used for the analysis – and the further processing of the data using complementary sources and information qualify the final work as a best practice in the international scenario of sector studies, with a representativeness rate of 6.2% of the universe of Italian journalists in activity.

Moreover, AGCOM has benefited from the active cooperation of the main institutional stakeholders of the journalistic profession in Italy: the National Order of Journalists (Odg), the National Italian Press Federation (FNSI), the National Insurance Institute of Italian Journalists (INPGI), the Union of RAI Journalists' Unions (USIGRAI), and the Union of Freelance Journalists' Unions (USGF).

Complexity of the phenomenon and survey methodology

The analysis of the threats to journalists, as can be deduced from what has been said so far, is highly complex and involves various aspects and elements. Moreover, the evolution of the information system has exacerbated certain critical aspects of the profession, adding new forms of threats to those traditionally known.

One might have thought that the digital revolution – multiplying the sources, means and volume of information circulating; facilitating access to the profession and the same working conditions; even making the very concept of censorship obsolete[11] – would have reduced the problems and made the phenomenon of threats and intimidation of journalists less alarming. Instead, the same technological changes that make it possible to do more advanced journalism (e.g. distributing content in real time and accessing and analysing open data) also entail new risks linked to surveillance and tracking. New ways of intimidation are also emerging on the web, including cyber attacks aimed at content, identity theft or defamation, and the explosion of hate speech, which, in the case of the journalistic profession, can be translated into real threats, favoured by the physical distance of the threatened and the anonymity of the aggressor.

In this context, one can understand the increased international attention to these issues, even if the performed analyses revealed the persistence of a number of critical issues (limits to circumscribed perspectives, lack of homogeneity in the classification of the different types of intimidation, use of inadequate survey and monitoring instruments often qualitative and partial), which make the reliability and comparison of the data uncertain.

In addition to this critical aspect, there is a further methodological complexity, typical of these social phenomena, which concerns the substantial difference between the component that emerges (denounced, or in any case probed by the media), and that which remains submerged.

---

[10] See for more details Osservatorio sul giornalismo.
[11] J. Simon, *Introduction: The new Face of Censorship*, Cpj, april 2017.

Available sources and data

Many institutions and associations, both national and international, are involved in monitoring and analysing the phenomenon of threats to journalists, even if the statistics they provide relate often to single, specific aspects (e.g. journalists killed), or are purely qualitative studies.

In the field of investigation that is the subject of this study, among the many existing contributions, the one by Reporters Sans Frontières (RSF) stands out. It identifies the Press Freedom Index for each country, based on the testimonies of experts (journalists, researchers, lawyers and human rights activists), integrated with data on violence against media workers monitored by RSF staff during the year[12]. This Report (and the relative ranking) offers an interesting overview of the world as a whole and allows us to grasp some of the dynamics specific to each country (in Italy, for example, it identifies the intimidating pressure of the mafias as the main limitation to press freedom[13]). From a methodological point of view, however, the study is clearly affected by the discretionary nature of the survey method used, which does not lend itself to quantitative comparisons between countries.

Other studies also try to provide indications at a global level[14] by basing themselves on general, qualitative indicators, which in any case suffer from a non-systematic methodology, both in defining and monitoring threats.

Finally, there are attempts which, taking into account the complexity of the phenomenon and the impossibility of acquiring homogeneous data on a wide range of countries, try to focus attention on specific and more easily measurable aspects.

In Italy, the "Coordination Centre for the monitoring, analysis and permanent exchange of information on the phenomenon of acts of intimidation against journalists" collects data on crimes committed against information operators, by exploiting the territorial branches of the Ministry[15].

At the same time, civil society associations play an important role not only in combating threats to journalists, but also in detecting them[16]. In this context, the action of Ossigeno (acronym of

---

[12] The Report is based on a questionnaire asking 87 questions to experts in the field, covering 6 indicators: pluralism, media independence, environment and self-censorship, legislative framework, transparency and infrastructure. The questionnaire takes into account the legal framework for the media (including penalties for press offences, the existence of a state monopoly for certain types of media and how the media are regulated), the level of independence of the public media, as well as violations of the free flow of information on the internet. https://rsf.org/en/detailed-methodology

[13] Reporters Sans Frontières highlights the state of degradation in countries like China and Turkey, and Iran in the case of female journalists.

[14] See, for instance, Freedom House, *Attacks on the Record: The State of Global press Freedom*, 2017-2018. https://freedomhouse.org/report/special-reports/attacks-record-state-global-press-freedom-2017-2018.

[15] "The Minister of the Interior has reiterated that episodes of intimidation and threats against journalists are the subject of constant attention, with a view to the timely adoption of the necessary interventions and the most appropriate protection measures'. At present, official complaint data are collected for the following crimes: malicious injury, threats, insults, extortion. It should be noted that the offence of insult has recently been decriminalised (although it can be prosecuted in a civil court), so in future it will no longer be among the offences recorded.

[16] These include, for example, Articolo 21 and A mano disarmata, an association of anointed journalists against the mafias (see https://amanodisarmata.com/) that plays an important role in social and cultural promotion, with the creation of the multimedia and international Forum of information against the mafias. The Forum's activities include the production of a documentary film, teaching in schools, training seminars for journalists, cultural events and opportunities for Italian and foreign journalists involved in investigating organised crime to meet.

OSservatorio Su Informazioni Giornalistiche E Notizie Oscurate) per l'Informazione appears particularly worthwhile. In 2008 it set up an Observatory to monitor violations of press freedom in Italy in the form of threats, intimidation or abuse against journalists, bloggers, photo reporters, video reporters and other information workers. By selecting and verifying reliable episodes, the Association has developed a solid methodology for classifying and surveying the phenomenon, which has received numerous international awards. In particular, the Osservatorio di Ossigeno analyses, classifies and verifies the legitimacy of the intimidations suffered by journalists, both those that emerge in the information scene (through articles, press releases, radio and television reports, etc.) and those reported to the Association by the journalists themselves[17].

Agcom methodology: an integrated approach

In order to give concrete answers to the methodological problems exposed until now, AGCOM has identified its own methodology able to dynamically detect the different dimensions of the phenomenon.

First of all, the acts of intimidation were classified so as to correctly identify the perimeter of analysis, and then the metrics to be examined and the survey was defined, following a methodological approach which integrates the use of a wide survey conducted on the universe of Italian journalists with qualitative instruments.

    a) Classification of intimidation acts

Starting from the classifications used in the national and international context, we identified categories of intimidating acts that integrate and subsume all the components of the phenomenon, taking into account the evolution of the forms of intimidation over time. Specifically, it was considered opportune to start from the categories identified by Ossigeno per l'Informazione, which, over the years and on the basis of its decades of experience in the field, has established a veritable taxonomy of threats to the profession (see https://www.ossigeno.info/). This taxonomy is taken up at an international level and is used, among other things, in the ambit of projects under the aegis of the European Commission and the Council of Europe.

In order to define the perimeter of investigation as exhaustively and in as much detail as possible, the classification was then supplemented with other cases identified mainly with reference to the new forms of intimidation on the web. Fortunately, in the last period in Italy there have been no homicides or kidnappings of journalists, hence the classification of AGCOM distinguishes the following four main types of intimidating acts, the first two qualifiable as direct threats, the other two as indirect threats:

    1) traditional threats, such as physical attacks and damage to personal property;
    2) online intimidation (insults, threats and dissemination of false personal information);
    3) intimidation through legal means (pretextual complaints, seizure of documents);
    4) Obstacles to obtaining information and documents.

---

[17] For more details, see https://www.ossigeno.info/

These actions represent the set of threats that can be addressed to journalists, including physical and virtual intimidation, concrete actions and legal acts, direct conduct and indirect obstacles.

Table 1: Classification of intimidating acts

Direct threats	
Traditional	Warnings
	Physical attacks
	Damage to personal property
Intimidation on the web	Dissemination of false personal information
	Insults
	Sexual insults
	Threats of physical violence
	Threats of sexual violence
Indirect threats	
Legal means	Pretextual complaints, seizure of documents or working tools, …
Obstacles to information	Obstacles to obtaining documents, …

b) *Defining metrics and measuring acts of intimidation*

In order to grasp, as far as possible, the real dimensions of the phenomenon, AGCOM has chosen to rely on a survey. According to the prevailing literature on the subject, this instrument is considered the most appropriate methodology to analyse, in an exhaustive manner, social problems where there is a substantial submerged part. In addition, the survey makes it possible to examine the phenomenon by going directly to the source, without having to depend on subjective and indirect opinions of third parties. In this sense, the administration of a questionnaire is a more objective and accurate method of analysis than those commonly used. Moreover, the conducted survey has allowed AGCOM to come into contact with a very large sample of Italian journalists (equal to 6% of all active journalists), which, through statistical techniques of re-weighting, is suitable to represent in a robust manner the universe of reference.

The questionnaire, scrupulously formulated also on the basis of national and international scientific works (see The World of Journalism Study[18]), provided for sections defining all the areas of possible interest for the analysis.

The exact delimitation of the perimeter of observation (threats to journalists) was followed by the definition of the metrics used to measure it. In the case of intimidation, the different possible events were measured along two dimensions: occurrence (whether the events happened or not), and frequency (how often they happened) in the 12 months preceding the survey.

---

[18] Hanitzsch, T., Hanusch, F., Ramaprasad, J., de Beer, A. (eds.) (2019). "Worlds of Journalism Journalistic Cultures Around the Globe". Columbia University Press.

Moreover, this methodology was integrated by AGCOM with other sources, not only for classifying the cases of intimidation, but also for evaluating the representativeness and analyzing statistically and econometrically the results of the survey. In particular, the quantitative evidence coming from the survey was compared with the information of the monitoring carried out by Ossigeno per l'Informazione. The latter allowed, on the one hand, a check of the sample data and, on the other, the integration of the quantitative analysis with a qualitative analysis, also through the examination of specific case studies.

The results of the survey conducted by AGCOM were also compared, checked and integrated with the official statistics of the Ministry of the Interior and ISTAT.

Figure 1: AGCOM Methodology for the analysis of intimidating acts of intimidation

Threats to the journalistic profession in Italy

Intimidation of journalists does not only occur in countries with authoritarian regimes, but also in democratic systems. For instance, Europe has recently recorded the second worst global decline in the index that assesses the state of journalism and information in an area and, although it is still the region where press freedom is most respected and, in principle, the safest, journalists are still exposed to serious threats[19].

Physical violence is not the only threat used in the attempt to silence information. Before the assault, the attack on the journalist is often carried out through other forms, such as the dissemination of discrediting information to delegitimise the person and undermine the value of the reported, insults, warnings.

At the same time, there are more indirect methods of undermining journalism, such as preventing access to certain information or using legal means to intimidate and threaten.

The conditioning of the journalistic profession can lead to the limitation, elimination or delay of the production of news, with a consequent lack of information on facts and subjects of extreme social, political and economic importance. Information is the main means of bringing to light

---

[19] See Reporters Sans Frontières, *World Press Freedom Index – A cycle of fear*, 2019.

and combating abuses, offences and mafia infiltration in the productive and social fabric, helping to cultivate respect for legality, a fundamental democratic value and indispensable condition for the full development of territories.

According to what emerges from the survey conducted by AGCOM as a part of the Journalism Observatory, in Italy almost a quarter of journalists (24%) have suffered, in the twelve months preceding the survey, at least one threat among all the intimidating acts identified (attributable to direct threats of the traditional type or on the web, obstacles to information and legal means), while a small but significant proportion of them (3% of journalists) have been victims of threats attributable to all three cases considered.
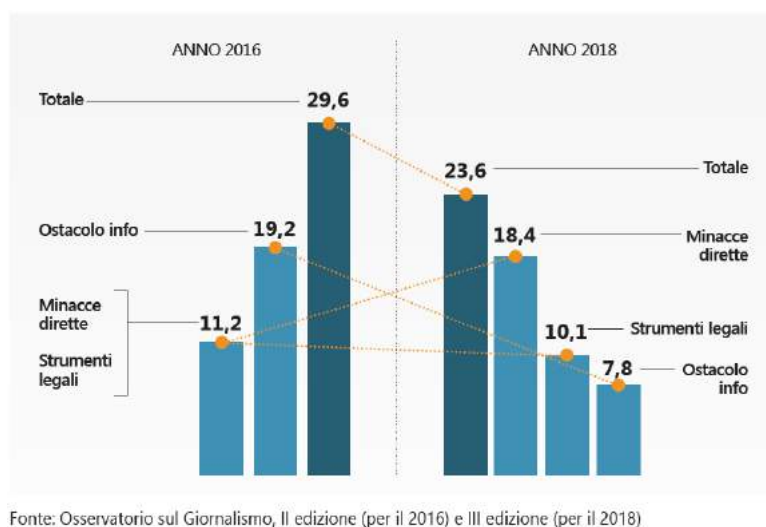

Fonte: Osservatorio sul Giornalismo, II edizione (per il 2016) e III edizione (per il 2018)

Figure 2: Evolution of the incidence of threats by typology (% on total of journalists)

Comparing the data with those of the previous survey conducted by AGCOM (Observatory on Journalism - II edition 2016), there is an overall reduction in the incidence of the phenomenon of 6%. Without prejudice to the continuing importance of the spread of intimidating acts, the trend recorded should be read as the product of different and contrasting dynamics.

In fact, if on the one hand there is a significant reduction in the percentage of episodes relating to obstacles to access to information and documents (a variation that weighs more on the general trend, determining its sign); on the other hand, however, there is a sharp increase in direct threats on the total.

More specifically, with regard to obstacles to information, in two years, this issue has been reduced by 12%, from an incidence of about one fifth of Italian journalists (19%) to less than one tenth (7%). In practice, about two-thirds of journalists who in 2016 encountered obstacles to accessing information no longer report this issue after two years. This change could largely be attributed to the transformation in the cultural and regulatory context of increased focus on transparency that has occurred and is further emerging. We refer, for instance, to the greater availability of information and data, including online (e.g. open data), as well as to the new rules on access to public acts and documents. In fact, in 2016 the legislation (Legislative Decree No. 97/16) protecting freedom of information and the right of access to administrative acts, the so-called FOIA (Freedom of Information Act), was approved. This first positive evidence is in line

with what has been observed at international level in relation to similar regulatory interventions, and shows how much the legislative context can contribute to producing, or conversely resolve, a deterrent effect on the exercise of fundamental rights, such as that of freedom of thought[20].

With regard to threats made through legal means, such as lawsuits or complaints against journalists in order to prevent, or in any case hinder, their investigative and informative activities on topics on which criminal, economic and/or political interests insist, Figure 2 shows that this form of intimidation remains decidedly widespread, involving 10% of Italian journalists.

Direct threats, on the other hand, in 2018 became the issue with the highest incidence (18%) among Italian journalists (in 2016, it was 11%). The increase in the incidence of direct threats is linked not so much to traditional threats, which remain at significant percentages and similar to the past, but to the explosion of online intimidation (see below). These are insults, mostly of a sexist nature, warnings and threats that are often characterised by the anonymity of the threatening party and the repetition of events (which can even represent real forms of stalking).

Direct threats

Traditional direct threats

Focusing on direct threats, the results of the survey also show that 60% of traditional threats (constituting serious crimes) are not reported or denounced, often due to mistrust on the part of the journalist, but sometimes also due to not knowing where to turn. Of the component that has emerged, by the way, only a small percentage is measured by official statistics, while of the vast majority of reports of traditional threats, for various reasons, no official trace remains. Even higher is the share of web-based intimidation that goes unreported by the journalists who suffer it: for this type of threats, it is estimated that the submerged part reaches 85%.

The perimeter of traditional direct threats, defined in the table below, includes all types of intimidation that can be ascribed to three main categories: warnings (verbal, telephonic, through letters, stalking, …); actual physical attacks (acts of violence, gunshots, explosions, …) and damage (to personal property, work tools, …).

---

[20] See, for example, the work of Hazlett and Sosa, who verify the existence of the effect in the US context. T. Hazlett and D. Sosa (1997), 'Was the fairness doctrine a ''chilling effect''? Evidence from the post deregulation radio market', Journal of Legal Studies, vol. XXVI. In the paper, the two authors conclude by stating that "*This is evidence that the old rules did indeed provide a disincentive to broadcast news programmes. The Supreme Court, if it is still looking for a ''chilling effect'', could carefully examine this experience in the radio broadcasting market*".

41

Warnings
Verbal warning in the presence of third persons
Threatening letter or other form of threat in writing
Letter with live bullets or letter with exploded shell casing
Stalking
Threat of death
Personal threat
Threatening phone call
Insult
Banner and writing
Tailing
Physical attacks
Act of violence
Shot
Home invasion
Explosion or explosive
Damages
Car or house fire
Theft
Damage to property and personal or work-related items

In Italy, traditional threats affect 10% of journalists, a figure that has remained stable over time.

Figure 3: Diffusion of traditional direct threats by category (% of total journalists)

Warnings have a much higher incidence than other forms of intimidation and are often repeated. Physical aggression and damage, which are particularly serious acts, affect between 1% and 2% of journalists. The cases of damage, as can be seen from the qualitative analysis carried out on the episodes collected by Ossigeno per l'Informazione, are often due to burning of property. More generally, traditional direct threats are often intimidation by organised crime[21].

---

[21] Report "Molta mafia, poche notizie" by Ossigeno per l'informazione, with the support of the European Commission, commissioned by the European Centre for Freedom of the Press and Media Leipzig (ECPMF). The report presents

The results of the survey, confirming what already emerged in the second edition of the Observatory on Journalism, show that traditional threats are felt more frequently by journalists working for local newspapers, which, compared to national newspapers, are distinguished, among other things, by their (geographical) proximity to the news.
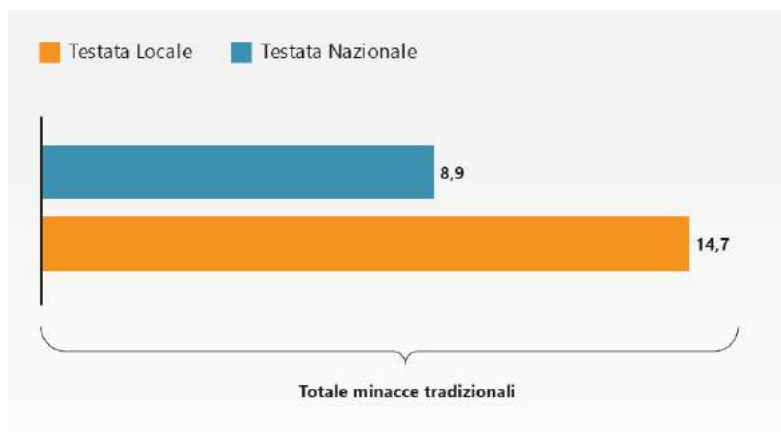

Figure 4: Diffusion of traditional threats to journalists in national and local newspapers (% of total working journalists for each type of news source)

As described in detail by AGCOM in the specific fact-finding survey[22], local information fulfils many functions in society and, in addition to informing, contributes to creating or strengthening a local community identity. The local information system, on the other hand, is facing a deep and structural crisis and is seeing a reduction in independent information voices, especially among the traditional media. These difficulties exacerbate the phenomenon of threats, and contribute to consolidating a system in which the absence of protection facilitates mechanisms of censorship and self-censorship.

Journalists working at a local level see closely and experience the danger of the territories, which is more or less accentuated and rooted depending on the areas of the country where they work. Especially in areas with a higher incidence of organised criminal activities, mafias represent for journalists a reality they encounter in their daily life and many of them receive warnings and attacks not only personal, but also directed to their families.

Analysing the diffusion of traditional threats among journalists working in each Italian geographical area, it can be observed that in the South and Islands there is the highest incidence, which is also higher than the national average for each category of intimidation: on the one hand, warnings reach 16% of journalists in the area; on the other hand, the percentages of damage and physical aggression reach values twice as high as those found on average in Italy.

the results of the Fact-Finding Mission for which 25 structured interviews were conducted to gather the views of experts, judges, parliamentarians, government representatives and journalists.
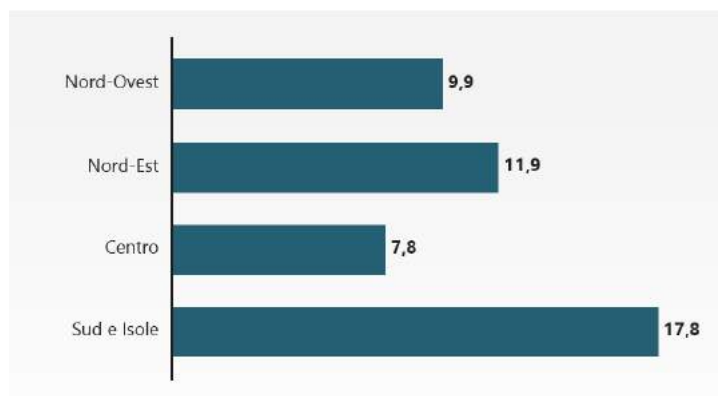[22] See Indagine conoscitiva on "Informazione locale" (2018).

Figure 5: Diffusion of traditional threats by geographical area (% of total journalists working in each area) in each area)

It is also worth noting that above-average incidences of traditional acts of intimidation are also found in the North-East, particularly with regard to warnings, and in the Central regions[23], for the single category of physical aggression.

Intimidation on the web

Intimidation on the web is the most common type of threat: in one year, 13% of Italian journalists claim to have suffered such threats.

This is a phenomenon that looks set to grow further, due to several factors. As observed in other studies[24], it is relatively easy to collect information and track someone through their online publications, even more so if they are particularly active. At the same time, it is easy to disseminate information (true or false), and to stimulate reactions towards a specific target, even in a viral way. In addition, one has to take into account the so-called 'disinhibition effect' reinforced by the anonymity and/or distance of the online relationship, which reduces the perception of the consequences of one's actions, both in revealing personal information and in conversing with someone one is not physically facing and whose reactions one cannot see. It follows that the possibility of remaining (partially) anonymous can influence the modality and persistence of the intimidating action.

The online threat landscape is increasingly broad and complex. The forms of threat can be the most varied, such as surveillance, installation of software capable of extracting information from unwitting victims, identity or domain theft, damage to sites, etc.

As highlighted by AGCOM on several occasions[25], information consumption patterns and users' interaction with news on online platforms are characterised by a strong tendency to polarisation, aggravated by selective exposure and the emergence of echo chambers. Users, therefore, tend to select information that is consistent with their own value system, forming

---

[23] As an analysis by the Lazio Region Observatory highlights (see Report on "Le mafie nel Lazio" carried out by Crime&tech "Le infiltrazioni della Criminalità organizzata nell'Economia del Lazio, 2018"), Mafia infiltration in this region is intense, and particularly concentrated in the province and city of Rome and Latina "*Both show an infiltration rate (ratio between the number of confiscated companies and the number of registered companies) more than double the national average*".

[24] See J. R. Henrichsen, M. Betz, J. M. Lisosky, *Building Digital Safety for Journalism*, UNESCO Series on Internet Freedom, 2015.

[25] See Agcom, "Rapporto sul consumo di informazione", cit. and "News vs. fake nel sistema dell'informazione", cit.

groups of like-minded people on shared narratives, in which discordant information is, at best, ignored; alternatively, it becomes the object of confrontation and a reason for attack, thanks also to the possibility of greater anonymity and the illusion of "virtuality", risking leading to "*social fragmentation*"[26].

In this context - in which polarisation, aggressiveness of comments and discussions, and hate speech increase; in which users participate in the production and re-production of content; and in which false news and information are also likely to spread widely - the role of journalists may be deligitimised and they may find themselves more easily exposed to insults and other types of intimidating attacks.

Among the intimidations on the web directed at journalists, the most frequent are insults (almost 13%). This is followed by the dissemination of false personal information (more than 6%), which occurs without significant gender differentiation. Moreover, it should be noted that among those who suffer online intimidation, about one third are victims of at least one threat of physical violence.

Figure 6: Spread of intimidation on the web by category (data % on total number of journalists)

From the point of view of the diffusion of online intimidation in the different geographical areas, similarly to what happens for traditional threats, there is a higher than average incidence among journalists working in the southern regions and on the Islands (18%).

Although to a lesser extent, values higher than the national average are also recorded among journalists working in the Centre of the country (where those who receive threats on the web are 15%).
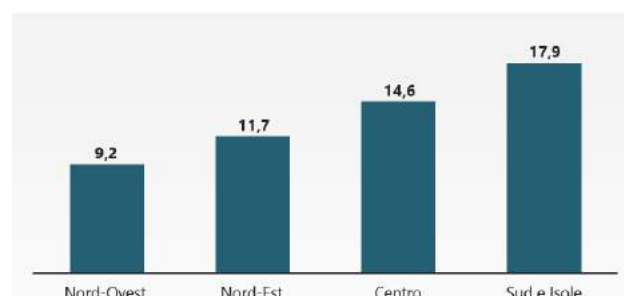

Figure 7: Spread of intimidation on the web by geographical area (% of total of journalists working in each area)

---

[26] See Agcom, "Rapporto tecnico - Le strategie di disinformazione online e la filiera dei contenuti fake", cit.

Indirect threats

Barriers against information

As highlighted above, an important component of the impediments to the journalistic profession concerns the so-called obstacles to the acquisition of documents and information necessary for the correct performance of professional activities. Although in sharp decline compared to the last survey, this form is still reported by about 8% of journalists working in Italy.

The refusal (also through the lack of accreditation) to access press conferences or places where public events take place (rallies, sporting events, ...) and to film them are certainly the most common obstacles to information, followed by the cancellation of mailing lists or the lack of invitations to the press and the interruption of television or radio links.

Greater difficulties are encountered by journalists working in the primary information production media, in particular daily newspapers and online publications, especially those of a local nature, which are increasingly responsible for local information (the latter are often excluded from accreditation).

On the other hand, at geographical level, the differences observed appear to be linked to different reasons. About half of the obstructions concern information on politics; other obstructions concern news items or sports events.

Looking at the evolution through time (see Figure 2), as mentioned above, there has been a net decrease in these episodes (probably due to the greater attention to transparency), towards a more complete form of democracy in which the decision-making processes of public and private organisations are more open to the participation of journalists and, more generally, citizens, businesses and civil society organisations[27].

With the FOIA legislation, the Italian legal system recognises the freedom to access information held by public administrations as a fundamental right, ensuring preferential protection to the cognitive interest of all civil society actors, so that citizens, and therefore journalists, are entitled to request data and documents. Moreover, the legislation has recently been amended[28] and sanctions have been introduced for non-compliance with the publication obligations provided for and for refusal, deferral and limitation of civic access, responding to one of the major criticisms highlighted with regard to the effectiveness of the rule. However, many have warned that there is still much room for improvement in the implementation of the FOIA framework, which suffers from the stratification of different access disciplines (resulting from a process of mere addition and not systematization of rules), as well as from fragmented governance and jurisdiction, critical issues in terms of protecting the privacy of those who request access to documents, and the still poor knowledge of the tool by citizens and offices.

Legal means

In Italy, one in ten journalists suffers intimidation through legal means, especially pretextual lawsuits for defamation, but also other types of actions or intimidating acts that are difficult to

---

[27] See ARTICLE 19, *Fighting corruption through access to information*, 2017.
[28] Article 163, law n. 160 / 27 december 2019, concerning "Bilancio di previsione dello Stato per l'anno finanziario 2020 e bilancio pluriennale per il triennio 2020-2022".

prove, as well as abuses of the law carried out in an ambiguous way, such as instrumental subpoenas for damages, disciplinary proceedings, accusations of violation of investigation secrecy, seizure of archives, equipment and websites, discrimination at work and, particularly frequent, claims for damages based on false or exaggerated assumptions.

The most important phenomenon, affecting about 70% of those who are threatened by legal means, is that of reckless litigation in civil and criminal proceedings. Not occasionally, in fact, unfounded or specious legal actions are used for intimidatory purposes, which can be aimed at undermining the assets of journalists[29]. In particular, in addition to reckless lawsuits for the offence of defamation by the press, this phenomenology also includes the establishment of a civil party and the bringing of civil actions in the relevant criminal proceedings[30], as well as the bringing of civil actions on a stand-alone basis for compensation for alleged damages caused to persons who speciously denounce journalists in order to hinder their investigative activities. In both cases, the judge will have to ascertain whether, in the case brought to his attention, the journalist legitimately exercised his right-duty of reporting. If this is not the case, the judge will have to award damages to the complainant. If the action turns out to be unfounded or unjust, and exercised with bad faith or gross negligence, the journalist who has been unjustly subjected to a lawsuit can claim against the offender under article 96 of the Code of Civil Procedure, claiming aggravated liability for recklessness in the dispute.

Among the reckless actions, it is noted that the instrument of the civil summons for damages is capable of achieving an even more intense intimidating effect than a reckless criminal action.

In our legal system, the discipline relating to reckless litigation has been present since Law no. 69 of 18 June 2009 introduced paragraph 3 of Article 96 of the Code of Civil Procedure, aimed at discouraging the abuse of legal proceedings and defusing unjustified litigation, introducing the institution, originally unknown, of the so-called "punitive damages". However, this article, in its current formulation, has implications that make its practical application complex, and the amount of compensation following the establishment of the recklessness of the case appears to be complex to assess. It is not by chance that, in practice, Article 96 of the Code of Civil Procedure has been scarcely applied.

Therefore, in recent years, proposals have been made to reform the rules contained therein. In particular, in 2019, a bill was presented that took a first significant step in the Parliamentary process, to protect journalists from intimidation and retaliation carried out by pretextual lawsuits for defamation by the press. The proposal stipulates that those who initiate in bad faith reckless lawsuits against journalists with disproportionate claims for damages will be obliged

---

[29] In addition to civil and criminal proceedings, the alleged injured party has a number of other tools at his disposal, such as the exercise of the right of rectification, civil precautionary protection, and compulsory civil mediation.

[30] The claim for compensation may relate to pecuniary and non-pecuniary damage. With regard to pecuniary damage, proof is required of the direct impact of disclosure of the defamatory news on the pecuniary sphere of the defamed party. With regard to non-asset damage, intended as an impact on the moral and psychic heritage of the subject, Article 2059 of the Civil Code applies. On this point, mention should be made of the rulings by the Supreme Court of Cassation nos. 8827/2003, 8828/20003 and S.U. 26972/2008 which, through a constitutionally oriented reading of the article (in accordance with the protection offered by the Constitution to the individual and the family) aim to overcome the traditional restrictive interpretation. Compensation for non-asset damage is no longer limited solely to the cases provided for by the law, but also extends to the circumstances in which the illicit act has seriously damaged a personal right directly protected by the Constitution.

to compensate them with a sum decided by the judge and not less than a quarter of the sum claimed.

Looking at the national data, the seriousness of the Italian situation emerges: the figure of the journalist appears poorly guaranteed and mostly weak in the face of the forms of threat suffered[31].

In fact, journalists who are target of the abuse of process will have to take legal action, more often than not anticipate the legal costs, and face a long process in which they will also have the burden of providing proof of the correct exercise of his right-duty of reporting. Such proof is often not based on mere documentary data, and is by its nature complex to demonstrate[32]. Inevitably, the fear of having to face the costs - in psychological and monetary terms - of a lawsuit, ends up by exerting a heavy dissuasive effect on the journalist and can lead to structural phenomena of chilling effect. The high degree of precariousness and the most widespread forms of contractual classification of the category do not appear to be suitable to support journalists with respect to the court costs linked to the above-mentioned forms of intimidation. It is not uncommon to find a lack of support from the publisher[33], especially in the case of small local organisations. Moreover, AGCOM survey shows that 56% of the complaints concern journalists from local newspapers.

Journalists' exposure to threats: determinants and effects

In the previous chapter, we investigated the incidence of threats to journalists, measuring their concrete diffusion among those who practice the profession in Italy. However, in addition to the frequency with which it occurs, the problem of intimidation, due to its seriousness, needs to be understood and studied in depth from two points of view: on the one hand, the factors that may favour its occurrence; on the other hand, the effects that threats are actually able to generate in the work of journalists, and the variables capable of influencing the possibility that the same effects occur.

Intimidating journalists is a complex phenomenon. In fact, the occurrence of intimidation and the repercussions that may result vary according to the variation of different elements (social,

---

[31] Reporters Sans Frontières highlights Italy's low position in the Index despite an improvement in recent years (in the 2016 edition, Italy is in 77th place, one of the last in Europe, while in 2020 it will be in 41st place, up a further 2 places from 2019). On this subject, see https://rsf.org/en/ranking.

[32] The judgment of the Court of Cassation (Court of Cassation I Civ. 18 October 1984, no. 5259) established the conditions in the presence of which the exercise of the right to report news is to be considered legitimate - even if it results in damage to the reputation of others - and therefore the exemption under Article 51 of the Criminal Code applies. Namely: social usefulness of the information in relation to the topicality and relevance of the facts narrated; objective truth of the news published, i.e. correspondence between the facts occurred and those narrated (or even only putative, provided that it is the result of serious and diligent research); continence or civil form of exposure, i.e. mode of representation of the news maintained within the limits of objectivity and serenity and not exceeding the informative purpose to be achieved.

[33] The case of Concita De Gregorio is emblematic in this respect: due to a legislative vacuum, she lost the legal assistance of her publisher and found herself having to bear, at her own expense, more than 50 legal proceedings on charges of defamation in the press for articles published by the newspaper l'Unità, of which she was editor-in-chief. See https://www.articolo21.org/2019/02/diffamazione-e-diffamati-una-riforma-integrale-per-salvare-la-liberta-di-stampa-ed-i-direttori-senza-piu-editore/ and https://www.ossigeno.info/perche-ossigeno-assiste-concita-de-gregorio/

economic, cultural, psychological, etc.). Examining these correlation relationships becomes crucial for identifying the risk factors that affect a journalist's likelihood of being threatened and those that influence the likelihood of their consequences on journalistic activity. In turn, identifying these determinants is an essential aspect for the formulation of adequate policy indications and the definition of effective prevention and counteraction measures. From this point of view, starting from the preliminary evidence that emerged from the data collected, as well as from a reconnaissance of the existing national and international literature, it was possible to identify the dimensions from which to study the aforementioned phenomena.

The following paragraphs illustrate and discuss the results of the study that completes the Report.

Determinants of exposure to threats

Having the results of the survey carried out available, the study aimed at testing the correlation between the dimensions identified and the probability of journalists being subjected to threats consisted in combining the examination of descriptive statistics with the construction of specific indices of the dimensions (and of the traits that characterise them), of which an exploratory analysis was carried out (supported by econometric modelling).

More specifically, the aforementioned dimensions, which are likely to represent the main risk conditions for the journalist's exposure to threats, concern: the dangerousness of the territory where the work activity is carried out; the dangerousness of the professional activity; the proximity to the news; and the professional motivations.

Dangerousness of the territory

The fact that in some areas of Italy rather than in others there is a greater concentration of cases of threats to journalists is a fact that has already been observed with reference to some types of intimidation. Even making a more general analysis and considering the diffusion of any type of threat among journalists working in each geographical area, a strong correlation can be deduced between exposure to threats and the fact of working in a region of the South or the Islands (see Figure 8). In fact, the South and Islands is the only area that shows values significantly higher than the national average (9% higher).
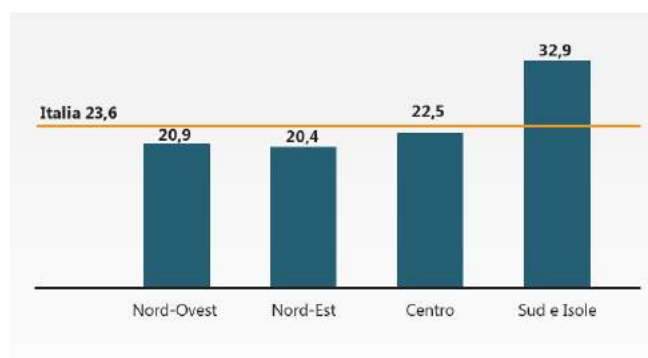

Figure 8: Spread of threats by geographical area (% of total journalists working in each area)

However, this relationship needs to be further investigated with a view to what extent it depends on the dangerousness of the territory. In other words, what we want to assess is how the

probability of being threatened varies according to the degree of danger of the geographical area in which the journalist works.

The dimension of the dangerousness of the territory can be defined through the characteristic trait of the presence of criminal phenomena on the territory, which can be measured by using two simple indices (source: ISTAT): the first one corresponds to the territorial presence of common crime (number of crimes per 100,000 inhabitants), the second one refers to the presence of organised crime on the territory (number of crimes of mafia association per 100,000 inhabitants).

By associating to each journalist the value assumed by the indices in the area where he/she works and by plotting the relative frequency distributions, it emerges how the context of territorial dangerousness significantly affects the probability of being threatened, in particular when the presence of mafia-type organised crime is higher.

Figure 9 shows that the distribution of the territorial index of mafia crimes indeed presents on average higher values for journalists who have been threatened than for those who have not been threatened, suggesting that threatened journalists work more frequently in areas with higher mafia intensity.
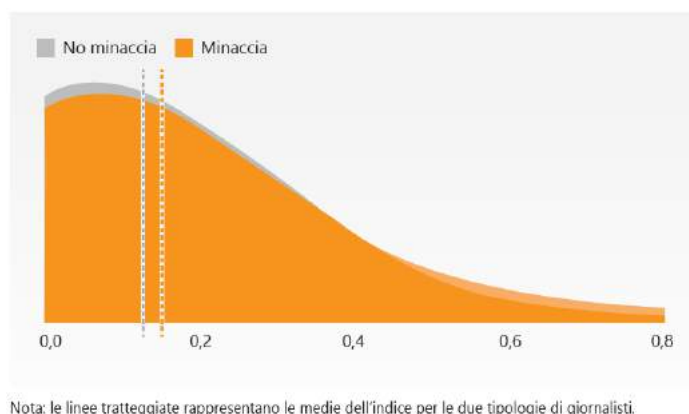

Nota: le linee tratteggiate rappresentano le medie dell'indice per le due tipologie di giornalisti.

Figure 9: Distribution of the territorial Index of mafia crimes

Dangerousness of the type of activity

The profession of journalist differs considerably according to the type of activity carried out. In particular, from the point of view of the dangerousness of the activity itself, there is a clear link, on the one hand, with the subjects the journalist deals with (which may concern so-called hard news, such as politics, or so-called soft news, such as entertainment, gossip, fashion) and, on the other, with the type of task performed as an employee within the editorial staff or as a freelance.

Therefore, to study the relationship between the dimension of dangerousness of the type of activity carried out and the probability of the journalist being subjected to threats, it is possible to consider the aforementioned aspects (dangerousness of the subject dealt with and dangerousness of the task carried out) as the salient features in which the dimension under examination can be declined.

Focusing on those topics that are known to be the most sensitive, we find that, in fact, for those journalists who have suffered at least one threat, the percentage of those who deal mainly with hard news is much higher than average.
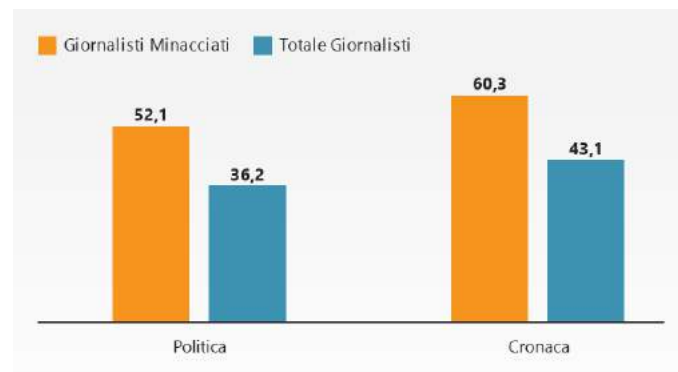

Figure 10: Distribution of journalists by main topic they cover (% of total threatened journalists vs. % of total journalists)

The tasks that journalists can perform are manifold and include activities ranging from web news aggregation, radio and television broadcasting, to investigations and/or reportage. Clearly, the most dangerous of these are those that consist in the actual production of information content and that imply the direct attribution of what is published and reported to the person of the journalist (e.g. investigative journalism), exposing the professional to a greater risk of becoming a victim of threats.

For both subjects and tasks, it is possible to arrange the relative categories considered in the analysis, assigning each of them an increasing value according to the degree of danger recognised[34]. For the individual journalist, the values thus associated with the main subject he or she deals with and the task he or she performs correspond respectively to the simple indices of the two traits of the dimension. The mathematical combination of the simple indices of the sections gives the composite index[35] of the entire dimension.

Comparing, with the aid of Figure 11, the distributions of the index of dangerousness for all threatened journalists and for all non-threatened journalists, it can be clearly observed that the index takes values above the average (100) in the case of journalists who suffer intimidating acts. Only for threatened journalists, in fact, the distribution of the index shows a further trend in correspondence with even higher values (in the right tail of the distribution).

---

[34] In detail, the categorical ordering established to derive the simple indices was obtained in two steps: first, on the basis of the relevant scientific literature, an 'a priori' ordering of the options on the basis of their dangerousness was carried out; then this ordering was submitted to the evaluation of a panel of experts using an iterative technique (the so-called Delphi method).

[35] In the present work, the methodology of Mazziotta and Pareto was used to construct the composite indices. In particular, the composite index is constructed as a combination of a "mean effect" and a "penalty effect" (given by the ratio between the standard deviation and the coefficient of variation) of the normalised simple indices. See M. Mazziotta, A., Pareto (2016), 'On a Generalized Non-compensatory Composite Index for Measuring Socio-economic Phenomena', Social Indicators Research, 127, 983-1003.
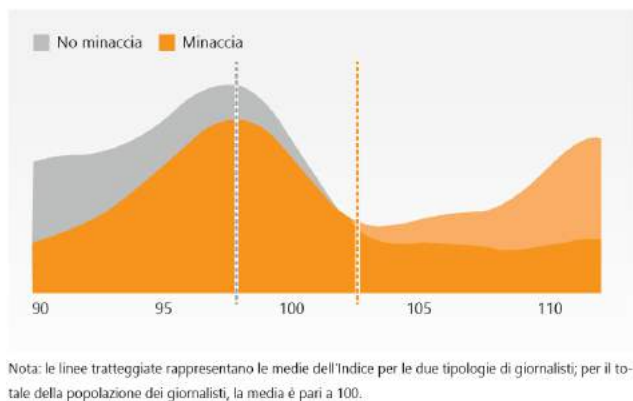
Figure 11: Distribution of the Hazardousness Index: comparison between journalists threatened and not threatened

This shows the existence of a significant effect exerted by the dangerousness of the professional activity on the probability of the journalist receiving threats.

Moreover, by resorting to econometric models, it has been possible to evaluate the joint effect of the danger of the activity and the territorial danger, ascertaining how, other things being equal, the combined action of the two types of risk (one endogenous, the other exogenous) more than doubles the probability of an Italian journalist being intimidated.

Proximity to the news story

Proximity to the news is a central element in the journalistic profession. In order to verify its impact on the probability of the journalist being threatened, it is useful to identify the traits that characterise it. Specifically, the dimension can be broken down into three traits: proximity of the publication for which the journalist works, proximity of the activity carried out, and proximity of the information content produced.

On the basis of proximity, newspapers can be classified as: national, multi-regional, regional and provincial. By examining the frequency distribution of threatened journalists for each of these types of newspapers, it can be seen that the percentage of threatened journalists out of the total increases as the geographical scope of the newspaper increases, i.e. as the proximity of the newspaper they work for to the news published increases.
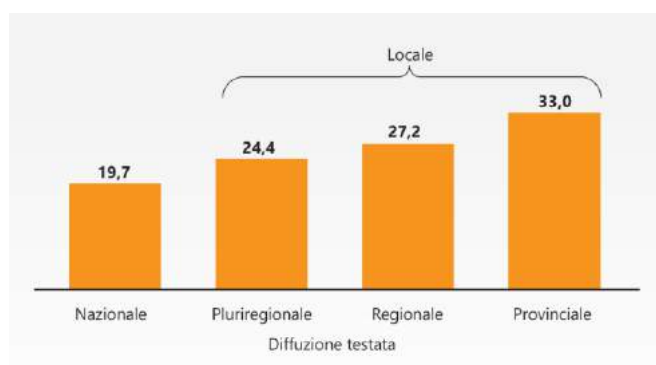

Figure 12: Diffusion of threats to journalists of national and local newspapers (% of total working journalists) for each type of publication)

As far as the activities carried out by journalists are concerned, according to the proximity criterion, a distinction is made between closer tasks (e.g. news gathering in the field) and more

distant ones (e.g. editorial work). The activities that expose journalists most to the risk of being intimidated are undoubtedly those in which they are personally involved in the retrieval of information, documents, testimonies, as happens for example in investigative journalism, usually oriented to bring to light situations that may be of social importance and public interest. Generally speaking, it certainly involves different risks to carry out an investigation or a report on certain topics by working directly in the field rather than remotely.

With regard to the content produced by journalists, it can be divided into two categories according to its proximity to the subject matter: those that, regardless of the type of publication (see above), concern national (or international) facts and events, and those that concern local facts and events. Journalists involved in local information are the most affected by intimidation. In this sense, the correlation between the coverage of local content and exposure to threats is evident: for journalists who publish content on local facts, the incidence of threats is about twice as high as that found among journalists covering national news.
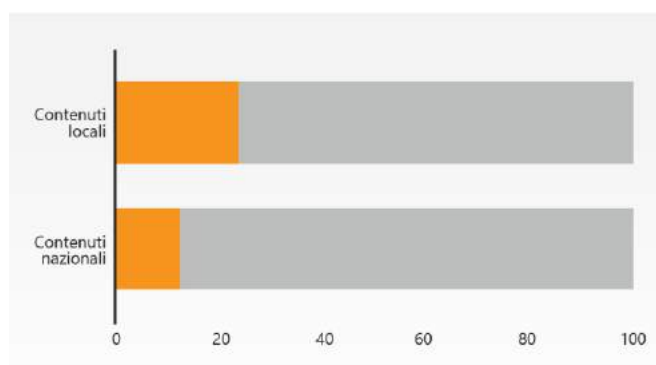

Figure 13: Spread of threats to journalists producing national and local content (% of the total number of journalists who producing each typology of content)

Each of the three proximity traits can easily be measured by a simple index. Since proximity is a physical concept, the options considered in the analysis for each trait can be ordered objectively on the basis of the assumed distance. The individual option is assigned an increasing value as the distance decreases (i.e. as the level of proximity increases). For each journalist, this value corresponds to the simple index of the tract. Similarly to the hazard dimension[36], the mathematical combination of the simple indices of the sections gives the composite index of the whole dimension.

The following Figure 14 shows the trend of the index distributions for threatened and non-threatened journalists. A comparison of such trends shows that for threatened journalists the average composite index is higher than for the entire population of journalists.
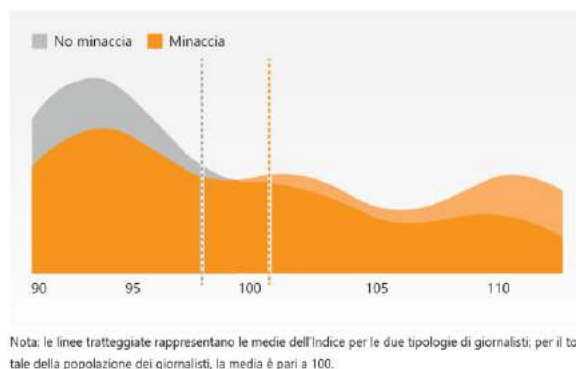
---

[36] See note 35.

Figure 14: Distribution of the Proximity Index: comparison between threatened and non-threatened journalists

The dimension of proximity to the news is therefore able to exert effects on the probability of being intimidated in the exercise of the journalistic profession. This result is also confirmed by further econometric analyses. These analyses also show, on the one hand, how this correlation is particularly accentuated for the proximity of the activity carried out; and, on the other hand, that physical proximity does not affect the probability of the journalist being the target of a specific type of intimidation: that of intimidation on the web.

Professional motivation

A final aspect that may condition the likelihood of a journalist receiving threats is the motivational dimension. In the journalistic profession, where economic motivation (the so-called "extrinsic motivation") is generally not a priority, the role played by the so-called "intrinsic motivation" of the person, oriented by interest and satisfaction in doing one's job, becomes fundamental.

For the purposes of this analysis, some salient features of the motivational dimension have been identified. As with the dimensions examined above, it is possible to define a composite index of the various traits of the motivational dimension.

The distributions of the Motivational Index for the two sets of journalists, those who had experienced at least one threat and those who had not, are shown in the Figure 15. The difference exhibited by the two distributions is clear: for journalists affected by intimidation the mean value of the ICM is higher than the mean of the overall population of journalists. It follows that the dimension of professional motivation is indeed able to affect the probability of exposure to threats.
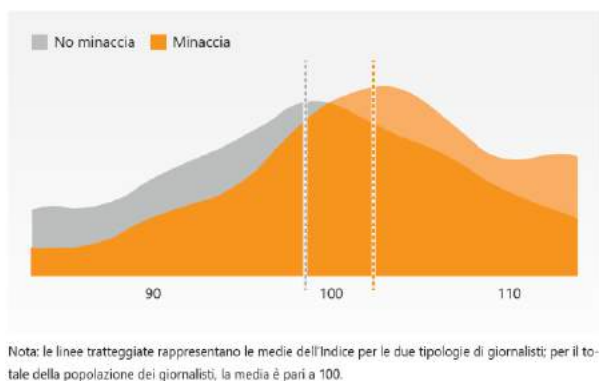
Figure 15: Distribution of the Motivational index: comparison between threatened and non-threatened journalists

Also in this case, the econometric analysis confirms the robustness of the results, proving moreover that the correlation with the probability of being threatened is even more marked for the motivational trait linked to the possibility of providing useful information to citizens.

Moreover, the econometric analysis also reveals that the dimensions of professional motivation and the dangerousness of the type of activity carried out are those that, in terms of intensity, have the greatest effect on the probability of the journalist being a victim of intimidation.

Effects of threats: the chilling effect

All the forms of threat, intimidation and hindrance mentioned here constitute actions aimed at producing the effect of inhibiting the exercise of the journalist's freedom of speech (the so-called chilling effect). It is, therefore, acts committed with the aim of deterring journalists from publicly reporting facts, ideas, opinions, in order to induce them, in essence, to censor themselves (totally or partially) in conducting an investigation or disseminating news about certain events or happenings[37].

In order to study the relationship between threats and the chilling effect, the preliminary aspect consists in identifying the set of factors that can affect the personal perception and propensity/adversion to risk and fear, and therefore the probability that the intimidating act is followed by the journalist's self-censorship.

On the basis of empirical evidence and reference literature, these factors may concern features of the socio-demographic dimension of the journalist (such as gender) and of the professional sphere (such as contractual condition and role), or relate to the type of threat (traditional or web-based direct, obstruction of information, intimidation through legal means), as well as, as anticipated, to the dangerousness of the territorial context in which the journalist carries out his or her activities (presence of organised crime).

Moreover, thanks to the results of the survey conducted by AGCOM, it was possible to measure the frequency distribution of the chilling effect within the population of threatened Italian journalists, who were asked whether they had found themselves in the situation of reducing or eliminating news coverage after being threatened.

The statistical analysis of the data collected reveals that there are several factors that can significantly increase the probability of a direct chilling effect. In particular, if women are affected by intimidating acts, the threat is more likely to generate the deterrent effect desired by the threatening party. Similarly, the probability that the intimidation directed at the journalist will have an effect increases as their contractual stability and hierarchical position in the newsroom decreases. Compared to employees, freelance journalists, who are generally less well paid and have less insurance protection, are more vulnerable. The same applies to those

---

[37] Concerning the chilling effect mechanism, see, among others, F. Schauer (1978), "Fear, Risk and the First Amendment: Unraveling the Chilling Effect", Faculty Publications, 879; M.M. Yesil (2014), "The Invisible Threat for the Future of Journalism: Self-Censorship and Conflicting Interests in an Increasingly Competitive Media Environment", International Journal of Business and Social Science, vol. 5 n. 3; Pew Research Center, Self Censorship: How Often And Why Journalists Avoiding The News, (2000).

in lower hierarchical positions (such as editors) compared to journalists in higher positions (such as directors).

The type of threat also influences the deterrent effect. As could be guessed, direct threats of the traditional kind, which also include acts of violence, probably triggering a greater perception of risk, are those that have the greatest impact on the likelihood that the journalist will self-censor.

The analysis also shows that when the chilling effect is a combined one, it is more likely to occur. In fact, if a journalist is directly affected by an act of intimidation, all other things being equal, working in an area with a high incidence of mafia-type criminal activities significantly increases the probability that he/she will refrain (completely or at least partially) from reporting unwelcome news.

Figure 16 shows that, if the danger of the area is high (high presence of mafia-type criminal activities), the probability of chilling effect is double compared to the hypothesis in which the area has low or no presence of organized crime.

Nota: in grigio la funzione stimata in funzione dell'Indice dei reati mafiosi nella regione nel caso di uomini, in arancione quella nel caso di donne.
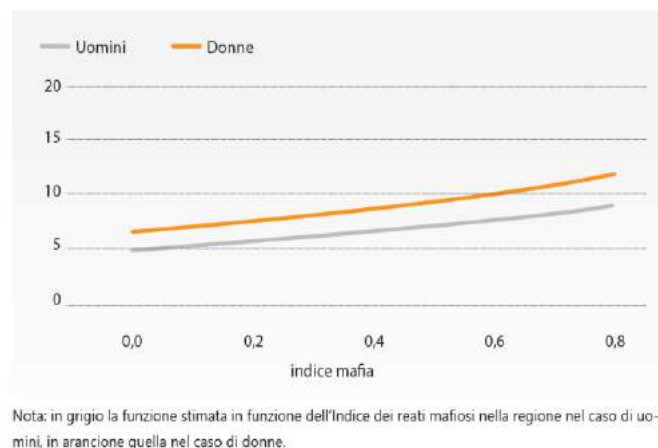
Figure 16: Probability that a journalist following the threats will no longer cover the topic anymore ("chilling effect") in relation to the dangerousness of the territorial context

Conclusions

The right to information and freedom of expression, fundamental human rights and pillars of democracies, are suffering the fragility of an information ecosystem weakened by structural deficiencies and economic shock.

The impact of the COVID-19 epidemic crisis on the institutional sectors of interest[38] has accelerated the sharp contraction of funding sources, already underway for at least a decade, which is disrupting the media system at its roots with effects not only on employment, but also on the nature and structure of the supply of news and insights.

---

[38] See Agcom (2020), "Le comunicazioni nel 2020. L'impatto del coronavirus nei settori regolati", Annex to Relazione annuale dell'Autorità.

The worsening of these critical factors also jeopardises the guarantee role played by the journalistic profession. As emerged in this Report, the dangerousness of the territory, economic and contractual precariousness, and perceived uncertainty are elements that can significantly affect the probability of journalists being affected by threats, and therefore the ability of information to cover economically and socially salient events and facts.

In the current news landscape, moreover, the range of threats (especially online threats) is widening and becoming more complex. Intimidation on the web, which in parallel sees an increase in the frequency of attacks on information security and citizens' privacy, has become the most widespread threat against Italian journalists. Although online threats may seem to be less serious and have a lower emotional impact, in reality, the pervasiveness and repetition allowed by the digital tool amplify the persecution component, worsening the victims' state of fear and anxiety, to the point of seriously compromising the normal course of their professional (and personal) lives.

Nevertheless, direct threats of a traditional kind, which include not only warnings but also acts of physical violence and material damage, still affect one in ten journalists[39].

There is also an unscrupulous and intimidating use of certain legal instruments, such as reckless lawsuits, especially for defamation, and civil actions for damages requiring exorbitant compensation. These legal disputes can jeopardise the very economic survival of both journalists and publishers.

It is therefore necessary to balance opposing interests (freedom of expression vs. infringement of fundamental rights and values, right of reporting vs. public safety and protection of individual data) and to act on various fronts to ensure full democratic development by strengthening the role of information.

In this regard, the recommendations of the Council of Europe on this subject identify, in particular, four fundamental lines of action: the introduction of a new legislative framework consistent with the principles enunciated by the ECHR; the definition of rules that adequately protect journalists who are victims of threats; the predisposition of an effective system of investigation and repression of crimes committed against journalists; the promotion of information, awareness and education campaigns[40].

In this context, the role of the independent authorities responsible for the protection of pluralism of information emerges strongly.

The Authority has been entrusted with this function and for several years now has been closely monitoring the information system and, within it, the development of the journalistic profession and the phenomenon of threats, with a view to cooperation and collaboration with other national and international organisations. To this end, it adopts the most appropriate tools and

---

[39] In this regard, it is noted that there are currently more than 20 journalists who are protected by the police with armoured cars and armed escorts. A further 170 journalists, who are the target of direct non-fatal threats, are protected by agents guarding their homes or workplaces.
[40] For example, the Recommendation, adopted by the Committee of Ministers on 13 April 2016, available at the following link: https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=09000016806415d9

methodologies to measure also that component (which has proved to be the majority) of intimidating acts that tends to remain undetected, escaping official statistics.

The results of the monitoring carried out by this report could provide important ideas for an organic legislative intervention to adapt the rules protecting freedom of expression and journalism to the new risks for democracy, in line with the principles set out by the ECHR, which would include rules able to discourage the abuse for instrumental and intimidatory purposes of reckless lawsuits against journalists, for example on the model of the English Defamation Act. Among these, it could be useful to recognise a legal status that ensures that the journalist who produces information has a role that corresponds not only to deontological duties but also to certain protections, so that, where the right to information has been exercised correctly, the journalist is protected.

Finally, a further emerging aspect concerns the need to provide forms of support for journalists who are most at risk. This would encourage the emergence of the phenomenon of threats, which all too often go not only unpunished, but are not even reported either to the competent authorities or to professional associations.