# 6. Empirical Analysis

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## 6.1. Questionnaire

### 6.1.1. Background

The theoretical considerations called for an empirical validation among the members of congress (MC), which focused on three topics:

- How do MCs see fake news and hate speech, how do they define it? This was done in Questions 1 and 2 building on Recommendation No. R(97)20 of the Council of Europe Committee of Ministers to the Member States on "Hate speech".
- What is their experience with both phenomena? Questions 3 to 6 deal with that.
- What countermeasures are recommended (Questions 7 and 8)?

Question 9 requested some general information. The questionnaire was established in close coordination with the General Secretariat of the Congress and implemented in an online tool at the University of Ludwigsburg, evasys<sup>274</sup>. The links were sent to MCs, Congress partner organisation delegates and youth delegates. The online questionnaire was open from December 13, 2021 till February 1, 2022.

187 questionnaires were returned of whom (types of respondents)

- 137 came from MCs;
- 17 from partner organisation delegates and
- 32 came from youth delegates.

One questionnaire was not attributed. The empirical analysis was done in IBM SPSS 28.<sup>275</sup> For verification and analysis the dataset and the spool files used in this study are made available from December 11, 2021 to January 31, 2022.

The following Section 1.2 presents the findings question by question and Section 1.3 attempts to relate data to one another. Section 1.4 presents a summary of the empirical findings and makes recommendations based upon them.

<sup>&</sup>lt;sup>274</sup> <u>https://evasys.de/evasys/</u>

<sup>&</sup>lt;sup>275</sup><u>https://www.ibm.com/analytics/spss-statistics-software</u> The analysis was done in a German version of the software, hence on some occasions the German-language descriptors appear in the results copied into the text.

## 6.1.2. Descriptive Results

General caveat: Due to the number of respondents (less than 200), the confidence intervals of the descriptive analysis are relatively high and may only serve as an indicator.

## 6.1.2.1. Definition of Fake News

Question 2 was designed to elicit, what delegates understood as "fake news". The results are presented in Table 4 (empty entries omitted, no distinction between types of respondents):

No.	Text (English)	Yes, in %	No, in %
2.1	Verifiably false information that is disseminated with	92.5	2.1
	malign intent.		
2.2	Verifiably false information that is disseminated bona	69.0	15.5
	fide.		
2.3	Verifiably true information that is presented out of context	56.7	27.3
	or disproportionately.		
2.4	Verifiably true information that is disseminated with	41.7	43.9
	malign intent.		
2.5	Dissemination of information that can neither be verified	46.0	25.1
	nor falsified at the time of dissemination.		

#### Table 3. Respondents specify what they see as "fake news", n=187.

Some of these results are worth noting:

- The share of respondents classifying verifiably false information that is disseminated bona fide is more than one-fifth lower than the share of respondents classifying the dissemination of false information with malign intent as fake news. This shows that the *intention* with which false information is disseminated plays a role in the perception of fake news.
- The dissemination of true information either in a distorted way or with malign intent is also classified as fake news by more than half of the respondents and over 40%, respectively. By inverse logic, 60% of the respondents say that it is fair and non-fake news to disseminate true information even with malign intent.
- Dissemination of information that cannot be verified as true or false is considered fake news as well, irrespective of the intention by almost half of the respondents.

This shows that despite the somewhat ubiquitous usage of the term "fake news", there are substantial differences in the perception of what is fake information. The intent of dissemination seems to play an important part in this perception.

6.1.2.2. Personal Experience with Hate Speech

Questions 3 and 4 asked about whether and to what extent hate speech was experienced by the respondents (missing values omitted).

Question 3: Have you experienced hate speech in the above definition?

No.	Text (English)	Hardly ever, in %	At times, in %	Frequently, in %
3.1	Personally	42.2	44.9	11.8
3.2	Members of your city council / regional assembly	31.0	50.8	16.6
3.3	Our institution	46.0	42.2	9.6

#### Table 4. Personal experience with hate speech, n=187 (non-respondents not shown).

More than one out of 10 delegates frequently experiences hate speech on a personal level, well over a half either at times or frequently. This is quite a depressing result and may be one explanation why it is getting increasingly difficult to recruit political representatives on local and regional level.

Institutions as such, however, appear to be less prone to become the target of hate speech. The central takeaway here is that hate speech is something eminently personal – and it is not a fringe phenomenon.

#### 6.1.2.3. Extent and Manifestation of Hate Speech

Questions 4 investigated the extent and manifestation of hate speech experienced by the respondents; questions are sorted in what the authors considered an increasing level of severity.

No.	Text (English)	Hardly ever,	At times, in %	Frequently, in %
4.1	Personal insults in media	34.2	46.0	14.4
4.2	Libel in media	40.6	39.6	13.9
4.3	Material damage in media (eg. cyberattacks against homepage)	67.9	20.3	4.3
4.4	Physical threats in media against the person addressed	56.1	31.0	5.3
4.5	Physical threats in media against the family of that person	66.3	22.5	3.2
4.6	Personal insults in the real world	40.6	45.5	7.5
4.7	Libel in the real world	44.4	39.6	9.1
4.8	Material damage in the real world	67.9	22.5	2.7
4.9	Physical violence in the real world against the person addressed	73.8	17.1	2.1
4.10	Physical violence in the real world against the family of the person addressed	75.9	13.9	2.7

Question 4: Extent of hate speech (either 3.1 or 3.2, not the institution)

Table 5. Extent and manifestation of hate speech, n=187 (non-respondents not shown).

Considering only the "frequently" answers, some patterns can be recognised:

- Personal insults and libel are the top scorers both in the digital and the real world.
- However, one fifth has encountered physical violence against themselves and one out of six against their families, in the real world either frequently or at times.
- On average, about half as many respondents were subjected to hate speech/acts in the digital media than in the real world. However, filtering for those respondents who replied with "frequently" in questions 4.1 to 4.5 (digital world) shows the following picture:<sup>276</sup>

Filtering for respondents indicating 4.1 = frequently					
4.6	Personal insults in the real world	33.3	33.3	33.3	

Filtering for respondents indicating $4.2 =$ frequently					
4.7	Libel in the real world	15.4	38.5	46.2	

Filtering for respondents indicating 4.3 = frequently					
4.8	Material damage in the real world	37.5	37.5	25.0	

Filtering	Filtering for respondents indicating 4.4 = frequently					
4.9	Physical violence in the real world against the person addressed	50.0	10.0	40.0		

Filtering	Filtering for respondents indicating $4.5 =$ frequently					
4.10	Physical violence in the real world against the family of the person addressed	33.3	0.0	66.7		

Between 50% and 80% of those who "frequently" received threats in the virtual sphere were also attacked "frequently" or "at times" in the real world. It has to be re-emphasised that Question 4 only asks for the personal experience of the respondent or his/her colleagues from the representative body, not against the organisation. One may hence confirm the oft-used dictum that verbal abuse regularly leads to physical violence.

# 6.1.2.4. Personal Experience with Fake News

In a very similar way to hate speech, Questions 5 and 6 explored the extent to which Members of Congress were subjected to fake news (Question 5) and what form of fake news they experienced.

<sup>&</sup>lt;sup>276</sup> With a caveat as to the small number of cases.

No.	Text (English)	Hardly ever, in %	At times, in %	Frequently, in %
5.1	Personally	29.4	47.6	21.9
5.2	Members of your city council / regional assembly	28.9	54.5	15.0
5.3	Our institution	43.9	44.9	9.6

Question 5: Have you experienced fake news in the above definition?

The percentage of respondents who have "frequently" experienced fake news personally is about twice as high as the percentage with a "frequent" experience with hate speech. However, the "frequently" responses concerning other members of the representative body and the institution itself are about the same as with hate speech. This looks odd and warrants closer investigation. One explanation may be that experience with hate speech is more readily shared among representatives than experience with fake news.

Naturally, the question arises, whether experience with hate speech and fake news correlates, particularly on a personal level. Since both variables are ordinally scaled, an  $X^2$  test is the method of choice, the result is shown below (n=184 valid cases).

			1	2	3	Gesamt
Q3.1	1	Anzahl	41	32	6	79
		% von Q3.1	51,9%	40,5%	7,6%	100,0%
	2	Anzahl	12	54	17	83
		% von Q3.1	14,5%	65,1%	20,5%	100,0%
	3	Anzahl	1	3	18	22
		% von Q3.1	4,5%	13,6%	81,8%	100,0%
Gesamt		Anzahl	54	89	41	184
		% von Q3.1	29,3%	48,4%	22,3%	100,0%

#### Q3.1 \* Q5.1 Cross tabulation

#### Chi-Square-Tests

			Asymptotische Signifikanz
	Wert	df	(zweiseitig)
Pearson-Chi-Quadrat	78,613ª	4	<,001
Likelihood-Quotient	70,133	4	<,001
Anzahl der gültigen Fälle	184		

Table 7. X<sup>2</sup> test personal experience fake news x hate speech

The result is unequivocal and on a significance level beyond 99.9%<sup>277</sup>:

Being subjected to hate speech and fake news strongly correlate. One entails the other. Therefore, one may also reject the consideration that fake news is the more "harmless" phenomenon here as compared to hate speech. The result suggests both are two sides of the same coin.

### 6.1.2.5. Extent and Manifestation of Fake News

Question 6 dealt with the form of fake news the respondents experienced.

No.	Text (English)	Hardly ever, in %	At times, in %	Frequently, in %
6.1	As part of hate speech	41.2	38.5	17.1
6.2	To influence decision making in our municipality / region	30.5	52.4	13.9
6.3	To influence elections for our city council / regional government	34.2	40.6	22.5

#### Table 8. Extent and form of fake news experience, n=187 (non-respondents not shown).

There is a clear tendency towards the use of fake news to influence elections. More than one-fifth of respondents indicate that they frequently experience fake news as part of an electoral campaign. This indicates that such interference is not an exception to the rule, but rather a commonplace occurrence. More research in this area is indicated as failure to ensure the integrity of the elections is a major issue in a democracy [1].

### 6.2. Countermeasures

Question 7 of the questionnaire inquired about suggested countermeasures, some of which are technically not feasible or at least not feasible in a non-police state. The following table lists the results and the technical feasibility.

### 6.2.1. Technological and Legal Remedies

Question 7.1 inquired about the proposed technological methods:

Which measures would you consider a technically and legally viable option against fake news and hate speech?

 $<sup>^{277}</sup>$  In statistical tests, typically the hypothesis of independence is tested. The significance level indicates the probability with which the hypothesis of independence can be rejected – or inversely how likely it is that the two variables are indeed independent.

Text (English)	Proposed	Feasible?	Comment
Blocking of a web site in my own country	51.9	Yes	DNS entries of the site are replaced with a link to a page informing the user that the page is blocked
Blocking of a web site in another country	33.2	No	Only possible, when all DNS (see [2] and the standards bundle cited therein) and VPN [3] traffic outside the country is monitored/blocked; an example may be the Great Chinese Firewall. <sup>278</sup>
Identifying and blocking IP addresses of offensive posts in my own country	66.3	No	Pointless, most IP addresses are assigned by the provider dynamically.
Identifying and blocking IP addresses of offensive posts in another country	48.1	No	See above
Identifying posters of offensive content in my own country	64.7	Depends	If there is an obligation to use clear names at least known to the platform provider and the provider has to disclose them, yes. Otherwise, no.
Identifying posters of offensive content in another country	46.5	Depends	See above, but even more unlikely.
Blocking email addresses	43.9	No	Using a fake sender email, such as <u>biden@whitehouse.gov</u> is simple, for an example see <u>https://emkei.cz/</u>
Upload filters to social media platforms	55.6	Yes	Actually implemented, but with severe issues. Difficult for AI to recognize irony, figurative speech, memes etc. AI is here still in its infancy. <sup>279</sup>
Obligation to use clear name in social media	67.4	Yes	This is a highly effective way of tracing posters of offensive content, however it requires a legal basis to oblige operators of social media and discussion platforms to enforce clear names for users (at least known to the platform operator, not necessarily shown in the posts). <sup>280</sup> However, this measure is not undisputed. <sup>281,282</sup>

#### Table 9. Countermeasures proposed by the respondents (technical and legal) (n=187)

This is pretty bad (0,00)

https://www.parlament.gv.at/PAKT/VHG/XXVI/ME/ME\_00134/index.shtml#tab-Stellungnahmen

<sup>&</sup>lt;sup>278</sup> Washington Post, China's scary lesson to the world: Censoring the Internet works <u>https://www.washingtonpost.com/world/asia\_pacific/chinas-scary-lesson-to-the-world-censoring-the-internet-works/2016/05/23/413afe78-fff3-11e5-8bb1-f124a43f84dc story.html</u>

<sup>&</sup>lt;sup>279</sup> The author uses the following classroom example in the sentiment analysis library *sentimentr* fort he R studio development workbench:

The *sentimentr* package assigns a sentiment value to every string of English-language words between -1 (totally negative) and +1 (totally positive) with 0 being neutral value. The following values apply:

This is bad (-0.43)

This is pretty (+0,43)

The figurative speech is lost on AI, "pretty" and "bad" cancel out each other. Basing upload filters on such a technology is highly problematic. Viennese museums show their works of art by Egon Schiele and others on OnlyFans as it is the only platform allowing the upload of "adult content", <u>https://www.wien.info/de/sightseeing/museen-ausstellungen/of-411214</u>

 $<sup>\</sup>overline{^{280}}$  A less obvious but still highly effective variation is to require a mobile phone verification where no anonymous prepaid phones are possible.

<sup>&</sup>lt;sup>282</sup> <u>https://netzpolitik.org/2019/digitales-vermummungsverbot-oesterreich-will-klarnamen-und-wohnsitz-von-forennutzern/</u>

The results indicate that many legislators/policymakers are not aware of the technological feasibilities and restrictions under which the Internet operates. One-third and one half, respectively, for example, believe it is possible to block a website or an IP address in another country. Four out of ten respondents believe it is possible to block email addresses. This may be possible locally in one's mailer – and even then the success is doubtful if the perpetrator uses different email addresses, which is simple using a fake mail site – on a general level it is simply not feasible.

More than half of the respondents believe that upload filters are a useful tool for stopping hate speech and fake news, which to some extent is, of course, possible, but with the side-effects shown in some examples in the above table.

Only in two instances, there are clear matches between the inclination of the respondents and the technical feasibility: (i) blocking websites in one's jurisdiction (51.9%) and (ii) the obligation to use clear names (67.4%).

It would suggest itself that similar answers may be obtained from members of other legislative bodies all over Europe. One may see a clear need for educational resources here for legislators regarding the internet and its functioning. The internet is not only a key economic factor and a critical infrastructure, it has become a cultural technique, where legislation should be based on informed decision making on the technology at hand.

# 6.2.2. Political Remedies

Question 7.2 enquired about political remedies against fake news and hate speech, here are the answers:

Text (English)	Proposed by %
Open data, transparency of the grounds of political decision making	80.7
Citizen participation in decision making	62.6
Better explanation of decisions to the citizenry	75.9
Increased own social media activity	42.8
Increased off-line contact with citizenry	59.9

#### Table 10. Countermeasures proposed by the respondents (political) (n=187)

The two top scorers here both refer to openness in decision making and transparent communication why certain decisions were made. Citizen participation, sometimes seen as a panacea in overcoming the tendency to people distancing themselves from politics comes in only a third. Increased own social media activity (which can maybe be dubbed as "counter-strike" strategy) is decidedly in the minority.

Also increased offline contact with citizens is a popular answer, here – and also generally – it remains to be seen, whether this depends on the size of the political entity. Hence,  $X^2$  tests were run between these answers and the size category of the entity as shown below. First the descriptive analysis of the size question:

Nr	Text (English)	Number	Percent
1	A local authority of less than 50,000 people	60	39.2
2	A local authority of 50,000 to 500,000 people	41	26.8
3	A local authority of more than 500,000 people	10	6.5
4	A regional authority of less than 100,000 people	3	2.0
5	A regional authority of 100,000 to 1,000,000 people	21	13.7
6	A regional authority of more than 1,000,000 people	18	11.8

#### Table 11. Entity represented (n=153), percentage from valid answers

Joining categories 1 and 4 (smallest entities, encoded as 1), 2 and 5 (medium, encoded as 2) and 3 and 6 (large, encoded as 3) into transformed variable T9.2 yields interesting  $X^2$  test results: none, literally none, of the answers to Questions 7.2 depends on the size category of the political entity on a significance level of 90%.

One may have surmised that, for instance, increased off-line contact to citizens may decrease the issue but no significant connection between entity size and the answers in Question 7.2 was observed (shown as an example below).

Recommendation as to these measures hence do not depend on entity size.

		Q7.2.5			
			0	1	Gesamt
T9.2	1	Anzahl	18	45	63
		% von T9.2	28,6%	71,4%	100,0%
	2	Anzahl	27	35	62
		% von T9.2	43,5%	56,5%	100,0%
	3	Anzahl	11	17	28
		% von T9.2	39,3%	60,7%	100,0%
Gesamt		Anzahl	56	97	153
		% von T9.2	36,6%	63,4%	100,0%

#### T9.2 \* Q7.2.5 Cross tabulation

#### Chi-Square-Tests

				Asymptotische
				Signifikanz
		Wert	df	(zweiseitig)
Pearson-Chi-Qua	drat	3,127ª	2	,209
Likelihood-Quoti	ent	3,163	2	,206
Zusammenhang line linear	ar-mit-	1,742	1	,187
Anzahl der gültigen	Fälle	153		

#### Table 12. Proposed remedies by entity size

## 6.2.3. Support Infrastructure

Question 7.3 inquired about the support infrastructure desired by the Members of Congress concerning hate speech: "What kind of resources or support would help you cope with hate speech".

Text (English)	Percent
Training and education of myself and my institution on this topic	71.1
Counseling and supervision by psychologists, coaches etc.	34.8
Specialized staff within the police force which I can directly approach	60.4
Taskforce within my political party to effectively deal with online hate speech at my request	42.2
Taskforce within my institution to effectively deal with online hate speech at my request	52.9

#### Table 13. Support infrastructure against hate speech attacks (n=187) 100 minute

There is a clear and clearly articulated demand for training on how to cope with hate speech attacks. Respondents do not see themselves as an issue when it comes to hate speech as indicated by the relatively low demand for psychological counseling – hate speech is clearly (and rightfully) not seen as the psychological problem of the person attacked.

A strong(er) involvement of law enforcement is indicated by respondents as well as, to a lesser extent, a specialized task force within their political group and/or institution.

### 6.2.4. Motives

Question 8 inquired about possible, perceived motives for fake news and hate speech. Here are the results:

Text (English)	Percent "yes"
Hate speech and fake news are more likely when people lack trust in the government.	80.3
If the government keeps its action secret and hidden, fake news and hate speech occur more likely.	88.9
More Open Government could reduce both hate speech and fake news by increasing transparency and accountability.	89.5
Organized creation of hate speech and fake news cannot be countered by government actions.	29.0

#### Table 14. Motives (n=157, 153, 153 and 138), valid percentage only

The answers show a clear pattern:

- Hate speech and fake news susceptibility are seen as a failure in government performance alienating people. The first two questions point in that direction. This is a remarkably honest approach by the respondents to assign these issues fundamentally to something being wrong with politics or their communications to the citizenry.
- Openness and transparency are seen as effective countermeasure corroborating the results for Question 7.2.
- And finally, with all the issues being discussed, there is a clear message that something can be done against it.

### 6.3. Summary

Even considering the small sample size, some interesting results can be drawn from the survey:

- Fake news and hate speech are not distant, theoretical issues, but they are a real part of a representative's political and also private life. They have the tendency to go together and hate speech has a tendency to spill over from the cyber to the real-world domain.
- Both phenomena are seen as a failure of the political system and an indication of a lack of trust in government. Transparent decision making and open government measures are seen as a key element to counter these phenomena. These findings are independent of entity size.
- In many instances, the respondents' perception of technical countermeasures is technically not feasible. Here, sometimes an unrealistic expectation towards technology can be seen.
- Respondents see better education of themselves and to a somewhat lesser extent of law enforcement as a viable remedy to counter fake news and hate speech.

One may hence draw the conclusion that a specialised training and education package specifically designed for political representatives would have a clear value added. It would on the one hand help them to counter aggression via social media and on the other hand to make better informed decisions on the digital media in their political capacity.

# **References Chapter 6**

- [6-1] Colomina, C., Sanchez Margalef, H., Youngs, R., The impact of disinformation on democratic processes and human rights in the world, Study requested by the European Parliament, 2021, download at <u>https://www.europarl.europa.eu/RegData/etudes/STUD</u>/2021/653635/EXPO\_STU(2021)653635\_EN.pdf
- [6-2] IETF, Network Working Group, RFC 1034: Domain Names Concepts and Facilities, download at <u>https://datatracker.ietf.org/doc/html/rfc1034</u>
- [6-3] Ezra P.J., Misra S., Agrawal A., Oluranti J., Maskeliunas R., Damasevicius R., Secured Communication Using Virtual Private Network (VPN). In: Khanna K., Estrela V.V., Rodrigues J.J.P.C. (eds) Cyber Security and Digital Forensics. Lecture Notes on Data Engineering and Communications Technologies, vol. 73. Springer, Singapore, 2022. <u>https://doi.org/10.1007/978-981-16-3961-6\_27</u>