

Centre for Social Informatics
Faculty of Social Sciences
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Methodological Report

Survey on Internet Use and Current Social Issues

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PROJECTS FUNDING THE RESEARCH:

- J5-50159: Assessing and Modelling Unit Nonresponse Bias in Probability-Based Web Surveys (ARIS);
- J5-3100: Evaluating probability and nonprobability online panels (ARIS);
- V5-2157: Probability web panels in national statistics for persons and households (ARIS);
- P5-0399: Internet research (ARIS).

RESEARCH CONDUCTED BY:

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PROJECT LEADERS AND RESEARCH TEAM:

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SAMPLE:

8,917 adult residents of the Republic of Slovenia were invited to participate. The survey included:

- A representative sample of 7,000 adult residents of the Republic of Slovenia.
- In addition, all existing panelists from the 1KA probability web panel were invited (n = 1,617).
- Due to sample "aging," it was supplemented with 300 newly invited 17- to 19-year-olds.

DATA COLLECTION METHOD:

Standardized questionnaire; self-administered via a web questionnaire.

TIME PERIOD:

From June 13, 2024, to August 30, 2024.

CITING:

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1 Basic Information

Data collection for the Survey on Internet Use and Current Social Issues took place from June 13, 2024, to August 30, 2024. The survey covered various thematic sections. All respondents received questions on internet use, demographic questions, and questions about voting in the 2024 elections. Due to the length and complexity of the survey, the remaining sections were randomly divided among 4 groups of respondents.

1. Group 1 received a section on participation in surveys, questions on safe internet use, hobbies, health, neighborhood, various social aspects and activities, and questions related to politics and public institutions.
2. Group 2 received more detailed questions on internet use, digital certificates, artificial intelligence, e-voting, and online dating.
3. Group 3 had questions on hate speech.
4. Group 4 had questions on online disinformation (some questions on these two topics were also given to the other three groups).

Groups 3 and 4 also received some questions on media and news consumption and online privacy.

The survey was conducted as part of the research program of the Centre for Social Informatics (CSI, FDV). The questions were mostly repeated from previous studies published in the literature.

Participation in the survey was possible only via the web (self-administered web questionnaire). The invitation was first sent by regular mail on June 11, 2024. It included a link and a personalized access code for the web survey. The questionnaire was created using the 1KA tool.

The following describes the detailed course of the survey. Panelists received a written invitation and up to three email reminders; new respondents and panelists for whom we do not have an email received a written invitation and up to 2 written reminders:

- June 11, 2024 – 1st postal letter (invitation) sent to all.
- June 17, 2024 – 2nd postal letter (1st reminder) sent to all who had not responded, except existing 1KA panelists for whom we have an email.
- June 17, 2024 – 1st email reminder sent only to panelists for whom we have an email.

- June 21, 2024 – 2nd email reminder sent only to panelists for whom we have an email.
- June 26, 2024 – 3rd email reminder sent only to panelists for whom we have an email.
- June 28, 2024 – 3rd postal letter (2nd reminder) sent to all who had not responded, except panelists for whom we have an email.

The duration of the survey depended on the experimental group. The medians were as follows:

- Group 1: 27 min 52 s,
- Group 2: 34 min 48 s,
- Group 3: 38 min 54 s,
- Group 4: 44 min 23 s.

2 Sampling Design

8,917 adult residents of the Republic of Slovenia were invited to participate, specifically:

- A representative sample of 7,000 adult residents of the Republic of Slovenia. The sampling design was developed for a self-administered web survey. The population consisted of all residents of the Republic of Slovenia aged 18 or older. No upper age limit was set. The selection of individuals included in the sample was based on the Central Population Register of Slovenia as the sampling frame. The selection procedure was systematic random sampling, where each person in the population had an equal probability of being included in the sample. The systematic selection took into account prior implicit stratification by 12 statistical regions and 5 settlement types. Based on the sampling design, the sample size was set at $n = 7,000$ individuals.
- Due to the "aging" of the 1KA panel sample, it was supplemented with 300 newly invited 17- to 19-year-olds – selected using probability sampling in the same way as the other 7,000.
- In addition, all existing panelists from the 1KA probability web panel were invited ($n = 1,617$).

3 Response Rates

The survey included 10 experimental groups. The first group consisted of existing panelists from the 1KA panel. The second group was a refreshment sample of young people aged 17–19, added due to sample aging. Both groups received a DM card worth 5 € in advance. For the remaining groups, experiments were conducted with conditional (upon completion) and unconditional (prepaid) incentives – see Table 1.

Table 1: Response Rates by Experimental Groups

Group	Respondents	Incentive		Type of Voucher	N	Number of Responses	Response Rate
		Unconditional	Conditional				
1	Existing panelists from 2023	5	-	DM	1,617	1,341	83%
2	Refreshment sample: 17–19 years	5	-	DM	300	162	54%
3	New sample	-	-	-	1,000	163	16%
4		-	10	DM	1,000	253	25%
5		5	10	DM	1,000	445	45%
6		-	5	DM	1,000	192	19%
7		5	-	DM	1,000	373	37%
8		5	5	DM	1,000	408	41%
9		10	-	DM	500	225	45%
10		10	-	Mercator	500	204	41%
Total					8,917	3,766	42%
Total new sample (groups 3–10)					7,000	2,263	32%

Considering all units, the response rate is 42%. Here, the response rate is understood as the ratio of respondents to all units included in the sample. Among existing panelists, 83% responded. Among newly recruited individuals, including the youth refreshment (17–19 years), the response rate was 33%; for the new sample alone, it was 32%. The highest response rate (54%) was achieved by Group 2 – new youth aged 17–19 in 2024. It was also high (45%) in Group 5 (5 € DM unconditional and 10 € DM conditional) and Group 9 (10 € DM unconditional). The lowest was in Group 3, which received no incentive – only 16%, but also in Group 6 with a conditional 5 € DM incentive it was only 3% higher. It was slightly higher in Group 4 with a conditional 10 € incentive – 25%. Group 10, which received an unconditional 10 € Mercator card, had the same response rate as Group 8, which received 5 € DM upfront and 5 € DM

conditional – 41%. Group 7, which received 5 € DM unconditional, did not have a much lower rate than Group 8 (5 € DM conditional and unconditional) – only 4% lower at 37%.

A total of 3,766 individuals responded to the survey. There were 3,436 fully completed surveys and 330 partially completed. Non-responding units also included those who called and requested not to be surveyed (241 units) and all units that simply did not respond for any reason. Some letters were returned because the person no longer lived at the address. Such individuals can be treated as ineligible for the survey, which reduces the base for calculating nonresponse. Taking into account explicitly returned letters, response rates are 1% higher – see Table 3.

Table 2: Detailed Response Rates

Surveys Answered	N	%
Completed surveys	3,436	39%
Partially completed surveys	330	4%
Total	3,766	42%
Missing Responses	5,151	58%
Non-responses	17	40.5%
Ineligible units (returned letter) – Group 1	17	0.2%
Ineligible units (returned letter) – other groups	120	1.3%
Total units	8,917	100%

Table 3: Response Rates Without and With Returned Letters

	N	R	%
Response rates without returned letters			
Group 1	1,617	1,341	83%
Other groups	7,300	2,425	33%
Total	8,917	3,766	42%
Response rates with returned letters			
Group 1	1,600	1,341	84%
Other groups	7,180	2,425	34%
Total	8,780	3,766	43%

4 Completion Rate

Using AAPOR¹ standards for completion rates, these can be estimated based on the RR4 formula, where partially completed responses are included in the numerator, and the number of ineligible units is estimated from other sources. We estimate that around 5% of selected individuals in the register sample are ineligible (permanently absent, deceased, or living at another address), although we identified only about 1% in our sample (of course, only those where mail was returned).

- a) RR4 estimate for the 1KA 2022 panel (part of Group 1) after the fourth wave: 18% (post-recruitment completion rate was 33%). We considered only those captured with the new SURS sample and additionally divided by 0.95 due to ineligible units: $622 / 3,600 = 17\% \rightarrow 17 / 0.95 = 18\%$.
- b) RR4 estimate for the 1KA 2024 panel
 - RR4 estimate for part of Group 1² from 1KA 2022, main cohort a): 15% (product where we account for a 1% reduction in the base (mortality, relocation, etc.): $18 / 0.99 \times 0.83 = 15\%$)
 - RR4 estimate for the new sample (average for all experimental groups (3–10): 34% ($2,263 / 7,000 / 0.95$); the response itself was 32%, which can be compared to the 1KA 2022 response (33%).

Some explanations for the achieved completion rates should be added:

- a) Recruitment took place during the summer months, which are very unfavorable for this;
- b) The survey did not provide a mail option, which could potentially increase participation by up to 5 percentage points;
- c) We ended invitations with two reminders; an additional reminder would certainly increase participation by a few more percent.

The above strategies could move participation above 40%, but experience shows that after a few waves, we would reach the same level as we have now, as these additionally attracted units do not remain in the panel.

5 Data Editing and Analysis

The data were analyzed using the IBM SPSS Statistics 25.0 statistical software package and weighted using the raking method (the sample structure by weighting variables is iteratively adjusted to the population), with the help of the open-source [SurveyWeightingGUI](#) weighting tool, where the raking procedure itself was performed in the R software with the anesrake package.

The weighting variables are gender x age, region, settlement type, and education. If weights exceeded a value of 5, a weight trimming procedure was used, ensuring that no weight value exceeded the set limit. A value of 5 is often mentioned as the optimal choice, also used by default in the anesrake package settings. Weights were also always rescaled or normalized to maintain an average weight of 1 and a sum of weights equal to the sample size. The design effect is 1.85, and the increase in sample variance due to weighting is 85%.

Collected units were reviewed for data appropriateness and quality. 66 units were excluded due to data mismatch – either between survey data and register data or between different survey questions. The final database thus contains 3,700 valid units.

6 Demographic Characteristics of Respondents

The following shows the demographic characteristics of respondents compared to the population (residents of Slovenia aged 18–94).

Among survey participants, there were slightly more women (6%) compared to the entire Slovenian population aged 18–94. The age distribution largely matches the population. There were slightly fewer (4%) aged 70–94 and slightly more younger people – 3% more aged 18–19, which is a result of additional recruitment in this age group due to sample "aging." The distribution is quite good by regions, deviating from the population by no more than 2% in any individual region. The same applies to settlement type. The largest deviations are in education, where, as usual, there are too few with low and too many with high education – 12% fewer with primary school (or less) education than in the population, 15% fewer with vocational secondary education, 21% more with education higher than secondary school, and 6% more with secondary school education.

Table 4: Respondents by Gender

Gender	Respondents		Population Slo 18-94 (%)
	Number	Share (%)	
Male	1,668	44	50
Female	2,098	56	50
Total	3,766	100	100

Table 5: Respondents by Age Categories¹

Age	Respondents		Population Slo 18-94 (%)
	Number	Share (%)	
18 - 19	241	6	2
20 - 29	533	14	12
30 - 39	577	15	16
40 - 49	745	20	19
50 - 59	623	17	17
60 - 69	570	15	16
70 - 94	477	13	17
Total	3,766	100	100

¹ For weighting, 17-year-olds (n = 69) were merged into the 18–19 age category, and respondents older than 94 (n = 1, age 98) were merged into the 70–94 age category.

Table 6: Respondents by Statistical Regions

Statistical Region	Respondents		Population Slo 18-94 (%)
	Number	Share (%)	
Pomurska	198	5	6
Podravska	533	14	16
Koroška	139	4	3
Savinjska	437	12	12
Zasavska	119	3	3
Posavska	125	3	4
Southeast Slovenia	265	7	7
Osrednjeslovenska	1,040	28	26
Gorenjska	407	11	10
Primorsko-notranjska	93	2	3
Goriška	216	6	6
Obalno-kraška	194	5	6
Total	3,766	100	100

Table 7: Respondents by Settlement Type

Settlement Type	Respondents		Population Slo 18-94 (%)
	Number	Share (%)	
Non-urban settlements	863	23	25
Smaller urban settlements	1,008	27	25
Larger urban settlements	718	19	19
Cities with at least 10,000 inhabitants	681	18	17
Ljubljana	496	13	14
Total	3,766	100	100

Table 8: Respondents by Education

Education	Respondents		Population Slo 18-94 (%)
	Number	Share (%)	
Primary school or less	245	7	19
Vocational school	275	8	23
Secondary school	1,321	37	31
More than secondary school	1,688	48	27
Total	3,529*	100	100

Note: Education is unknown for 237 units.

All mentioned deviations are, of course, smoothed out by weighting, but a certain effect arising from too few older and too few less-educated individuals may indirectly remain in the form of

underestimating socially weaker segments. Weighting or imputation, in one way or another, projects the responses of existing respondents (who are, for example, more educated) onto the responses of non-respondents.