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The HCI International 2021 Conference

NATIONAL RESEARCH UNIVERSITY

Testing Users' Ability to Recognize Fake News in Three Countries. An Experimental Perspective

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Why conduct experiments online?

Advantages:

- Lower costs
- Speed
- Access to diverse populations
- Large-scale studies

Why (not to) conduct experiments online?

Disadvantages:

- Lack of control over the procedure
- Lack of control over the sample
- Platform biases
- Lower internal validity

How people perceive fake news? Experiment in three countries

RESEARCH TEAM:
Laboratory for Social and Cognitive Informatics, Higher School of Economics (Russia), Nazarbayev university (Kazakhstan), Dublin City University (Ireland)

COUNTRIES: Russia, Ukraine, Kazakhstan

WHEN: April–May, July, 2020

NUMBER OF PARTICIPANTS: 10,789

How people perceive fake news? Experiment in three countries

RECRUITMENT METHOD: targeting through Facebook and VKontakte

DESIGN: 2x2x2, combination of between- and within-subject design

STIMULI: true and fake news covering another country

MAIN INDEPENDENT VARIABLES: type of the narrative (dominant/alternative), source (from the user's country / from the country covered in the news), conflict between the countries (absent/present)

Stimuli

News as stimuli

- It is impossible to isolate **a single message attribute**.

"Media messages are never an example of one thing and nothing else" (Reeves & Geiger, 1994).

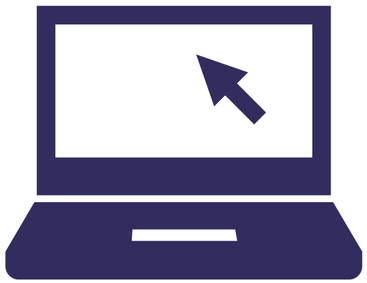
- Multiple **confounding factors and lurking variables** (e.g. topic, style, level of clarity, mentioned people/companies/countries).

- High level of variation in individual information processing, which is hard to control in an online experiment.

Stimuli set per participant

True news Dominant	Fake news Dominant
True news Dominant	Fake news Dominant
True news Alternative	Fake news Alternative
True news Alternative	Fake news Alternative

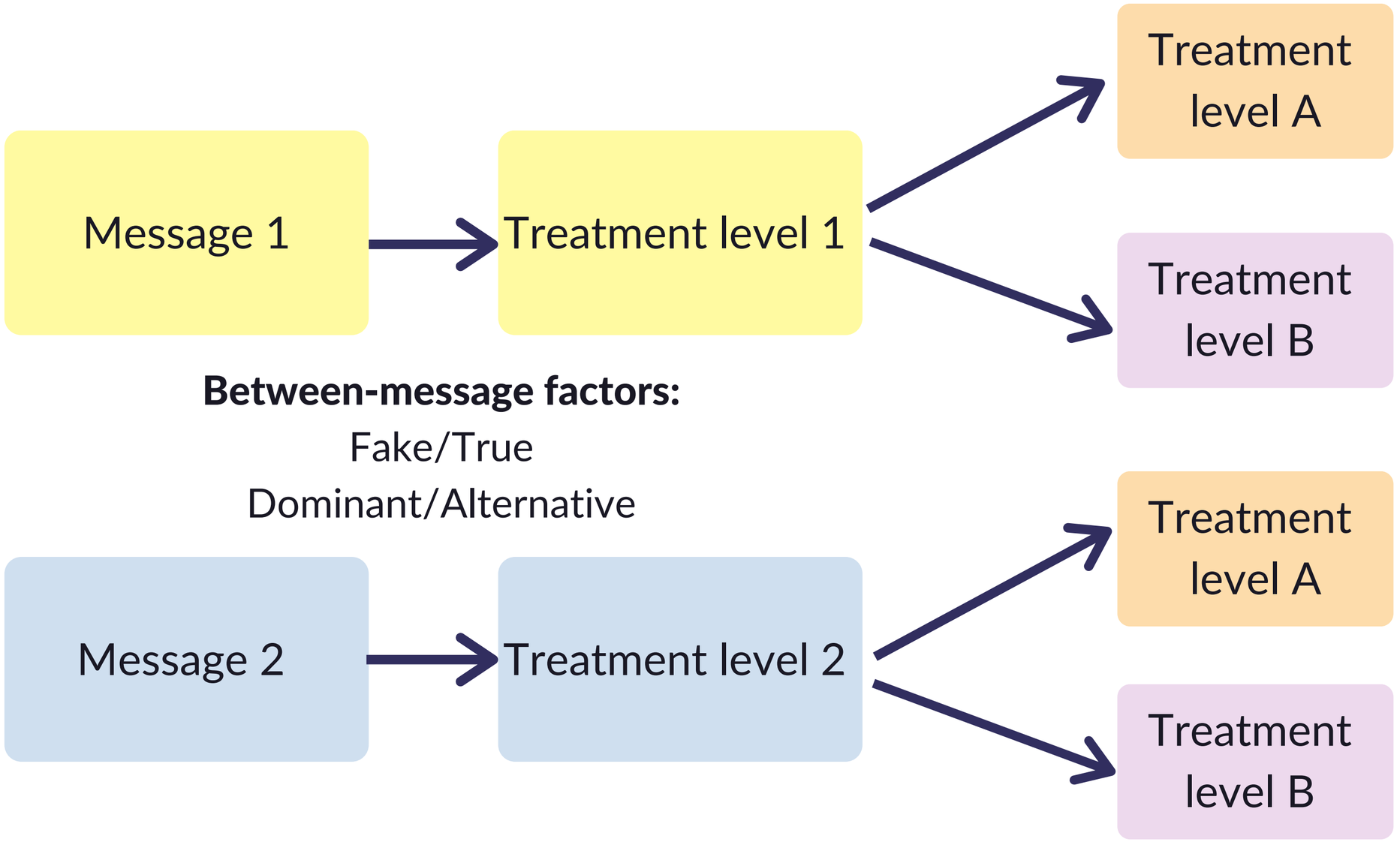
Random retrieval



Unique dataset of 24 news items per country

Participant accesses experiment via the application (stand-alone/VK)

Message variance



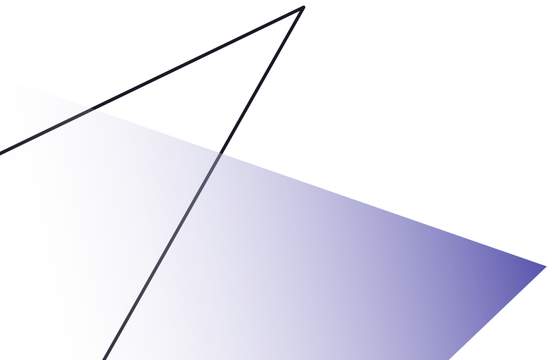
Stimuli selection in a cross-national experiment

Problem: differences in the agenda and media cultures between the countries.

Procedure:

1. Identifying common topics in the reporting guided by topic modelling;
2. Selecting the most prominent and/or controversial issues;
3. Identifying the dominant and the alternative frames/narratives;
4. Looking for / constructing relevant news items;
5. Double-checking news items with experts.

Sample & Recruitment

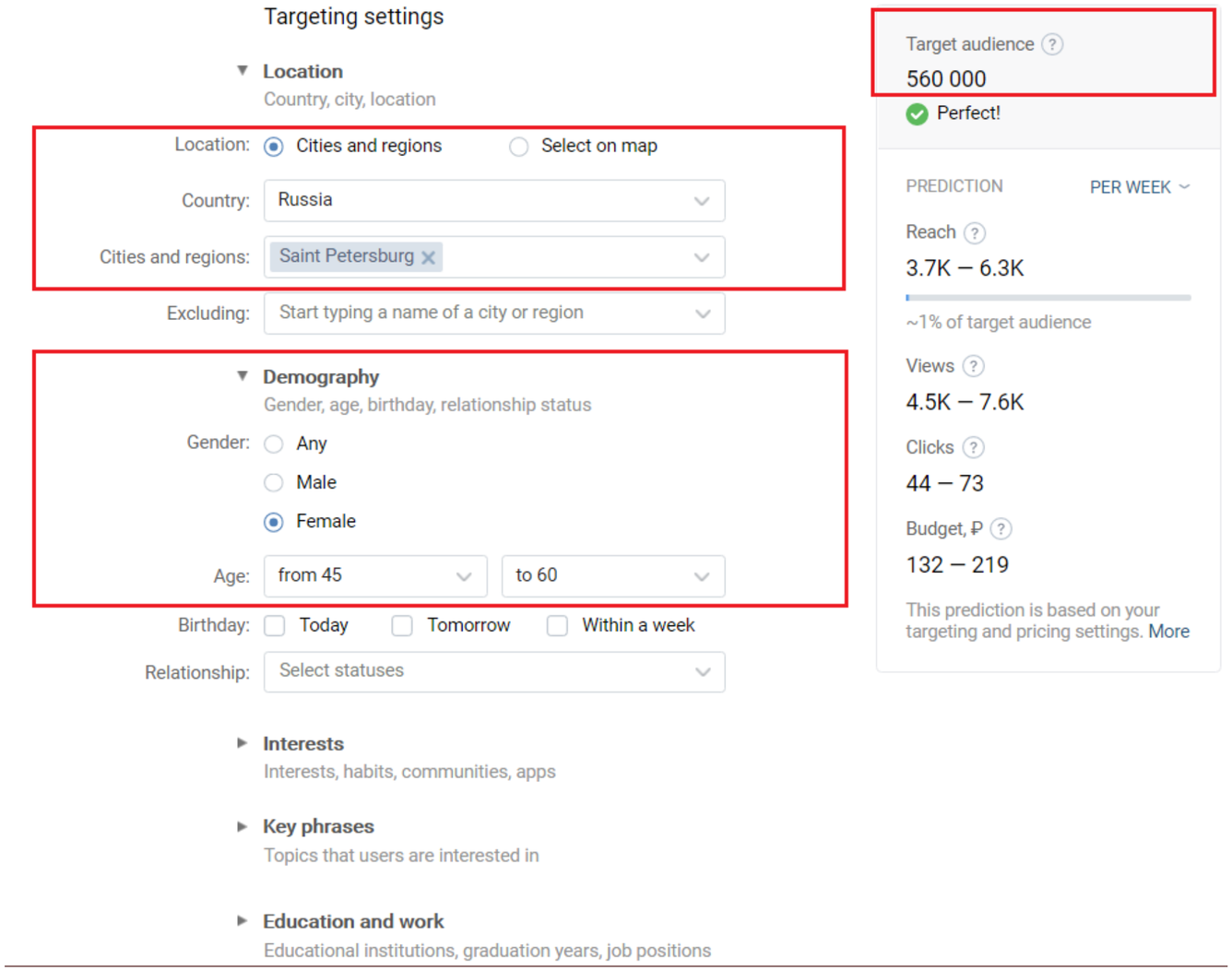


Sample construction

- especially popular among health studies scholars to reach “hidden” populations (Thornton et al., 2016)
- non-random samples
- algorithmically determined —> no control of representativeness —> biased samples
- requires post-stratifications technics

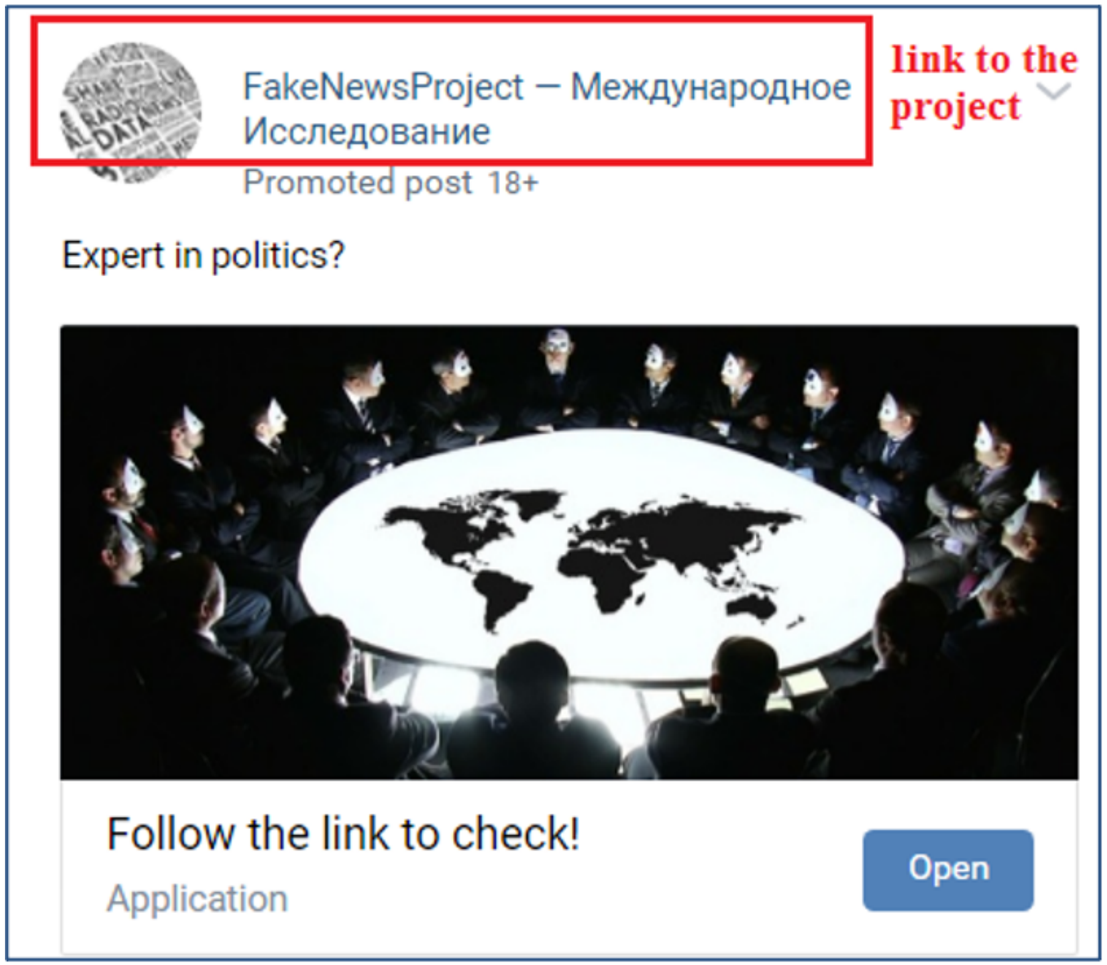
Our study: Quota samples based on age, gender and geographic distribution —> representative of the online social network (OSN) population

Sample construction



VK ads manager system

Recruitment



example of the ad

Recruitment

10 ad campaigns ran simultaneously on each platform
Set of **7 advertisements**

CTR (click-through rate) — from 2,7% to 12,7%
Completion rate — 18% to 40%

Impressions:
Facebook — 414,227
VKontakte — 5,9 million

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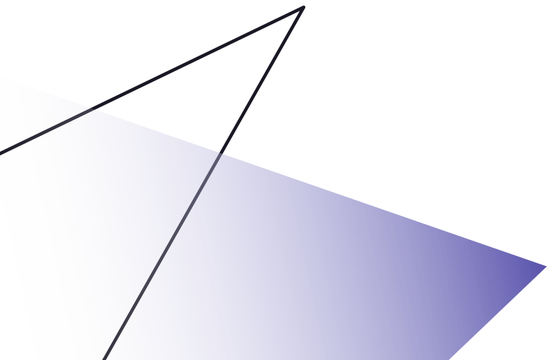
Data Pre- and Postprocessing



Data Pre- and Postprocessing

Stage 1: Data integrity testing, cleaning, and filtering
Removal of incomplete surveys, participants with discrepant responses, mistakes in records.

Stage 2: Post-stratification
Oversampling due to the gap between starting and completing the survey by a participant.

References

Reeves, B., Geiger, S.: Designing experiments that assess psychological responses to media messages. In: Lang A. (ed.) Measuring Psychological Responses to Media Messages, 1st edn., pp. 165–180. Routledge, New York (1994). https://doi.org/10.4324/9780203812853

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Thank you for the attention!