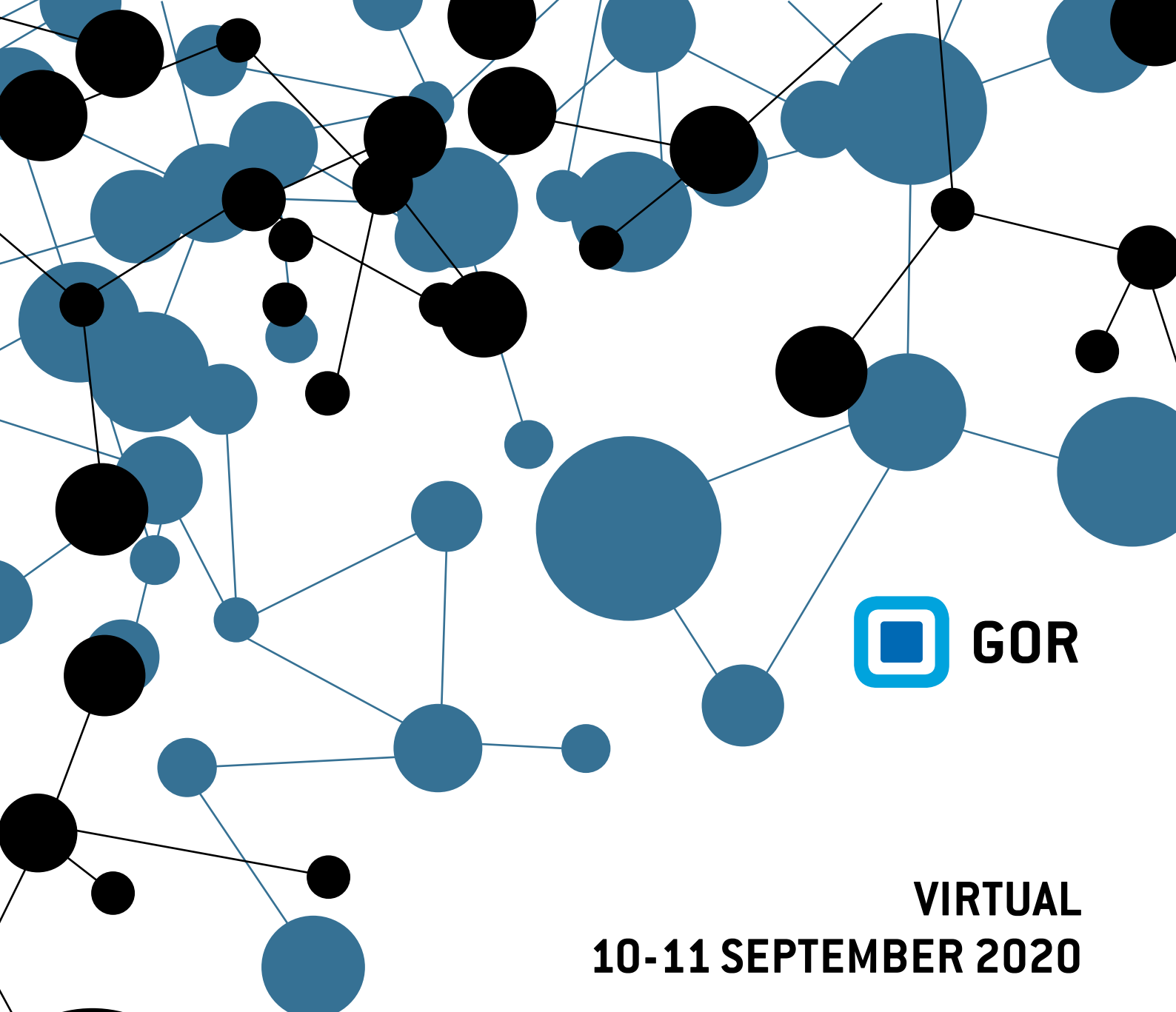

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vey researchers and polling companies are abandoning large, expensive probability-based samples in favour of less expensive nonprobability samples. The empirical literature suggests this strategy may be suboptimal for multiple reasons, amongst them probability samples tend to outperform nonprobability samples on accuracy when assessed against population benchmarks. However, nonprobability samples are often preferred due to convenience and cost effectiveness.

Methods & Data:
Instead of forgoing probability sampling entirely, we propose a method of combining both probability and nonprobability samples in a way that exploits their strengths to overcome their weaknesses within a Bayesian inferential framework. By using simulated data, we evaluate supplementing inferences based on small probability samples with prior distributions derived from nonprobability data. The method is also illustrated with actual probability and nonprobability survey data.

Results:
We demonstrate that informative priors based on nonprobability data can lead to reductions in variances and mean-squared errors for linear model coefficients.

Added Value:
A summary of these findings, their implications for survey practice, and possible research extensions will be provided in conclusion.

SEMIAUTOMATIC DICTIONARY-BASED CLASSIFICATION OF ENVIRONMENT TWEETS BY TOPIC

Authors: Cameletti, Michela (2); Schlosser, Stephan (1); Toninelli, Daniele (2); Fabris, Silvia (2)
Organisation: 1: University of Göttingen, Germany
2: University of Bergamo, Italy

Relevance & Research Question:
In the era of social media, the huge availability of digital data allows to develop several types of research in a wide range of fields. Such data is characterized by several advantages: reduced collection costs, short retrieval times and production of almost real-time outputs. At the same time, this data is unstructured and unclassified in terms of content. This study aims to develop an efficient way to filter and analyze tweets by means of sentiment related to a specific topic.

Methods & Data:
We developed a semiautomatic unsupervised dictionary-based method to filter tweets related to a specific topic (environment, in our study). Starting from the tweets sent by a selection of Official Social Accounts linked with this topic, a list of keywords, bigrams and trigrams is identified in order to set up a topic-oriented dictionary. We test the performance of our method by applying the dictionary to more than 54 million tweets posted in Great Britain between January and May 2019. Since the analyzed tweets are geolocalized due to the method of data collection, we also analyze the spatial variability of the sentiment for this topic across the country sub-areas.

Results:
All the performance indexes considered denote that our semiautomatic dictionary-based approach is able to filter tweets linked to the topic of interest. Despite the short time window considered, we highlight a growing inclination to environment in any area of Great Britain. Nevertheless, the spatial analysis found a lack of spatial correlation (probably because environment is a broad argument, but also strongly affected by local factors).

Added Value:
Our method is able to build (and to periodically update) a dictionary useful to select tweets about a specific topic. Starting from this, we classify selected tweets and we apply a spatial sentiment analysis. Focusing on environment, our method of setting up a dictionary and of selecting tweets by topic leaded to interesting results. Thus, it could be reused in the future as a starting point for a wide variety of analysis, also on other topics and for other social phenomena.

WHAT IS THE MEASUREMENT QUALITY OF QUESTIONS ON ENVIRONMENTAL ATTITUDES AND SUPERNATURAL BELIEFS IN THE GESIS PANEL?

Authors: Schwarz, Hannah; Weber, Wiebke
Organisation: Pompeu Fabra University (UPF), Spain

Relevance & Research Question:
The measurement quality of survey questions, defined as the product of validity and reliability, indicates how well a latent concept is measured by a question. Measurement quality also needs to be estimated in order to correct for measurement error. Multitrait-Multimethod (MTMM) experiments allow us to do this. Our research aims to determine the measurement quality resulting from variations in formal characteristics such as number of scale points and partial versus full labelling of scale points, for the given questions in web mode.

Methods & Data:
We conducted two MTMM experiments on the mixed-mode (majority web) GESIS panel, one dealing with environmental attitudes and the other with supernatural beliefs. We estimate the quality of three different response scales for each of the experiments by means of structural equation modelling.

Results:
We do not have results yet. Based on evidence from face-to-face surveys, we would expect that, in both cases, a continuous scale with fixed reference points will lead to the highest measurement quality among the three, that a partially labelled 11-point scale will result in the second highest measurement quality and that a fully labelled 7-point scale will yield the lowest measurement quality.

Added Value:
Quite some research exists on MTMM experiments in more traditional modes, especially face-to-face. However, only few MTMM experiments in web mode have been conducted and analyzed so far.

OPEN LAB: A WEB APPLICATION FOR CONDUCTING AND SHARING ONLINE-EXPERIMENTS

Authors: Shevchenko, Yury (1); Henninger, Felix (2)
Organisation: 1: University of Konstanz, Germany;
2: University of Koblenz-Landau, Germany

Relevance & Research Question:
Online experiments have become a popular way of collection data in social sciences. However, high technical hurdles in setting up a server prevent a researcher from starting an online study. On the other hand, proprietary software restricts the researcher's freedom to customize or share the code. We present Open Lab – the server-side application that makes online data collection simple and flexible. Open Lab is not dedicated to one particular study, but is a hub where online studies can be easily carried out.

Methods & Data:
Available online at https://open-lab.online, the application offers a fast, secure and transparent way to deploy a study. It takes care of uploading