



## 24<sup>TH</sup> GENERAL ONLINE RESEARCH CONFERENCE

>> 7 - 9 SEPTEMBER 2022 IN BERLIN <<



BELLA STRUMINSKAYA, SIMON KÜHNE, FLORIAN KEUSCH,  
OTTO HELLWIG, STEFAN OGLESBY, CATHLEEN M. STÜTZER,  
ALEXANDRA WACHENFELD-SCHELL (EDS.)

24<sup>TH</sup> GENERAL ONLINE RESEARCH CONFERENCE  
PROCEEDINGS, KÖLN 2022

ALL RIGHTS RESERVED.  
NO PART OF THIS PUBLICATION MAY BE REPRODUCED,  
STORED IN A RETRIEVAL SYSTEM, OR TRANSMITTED, IN ANY FORM OR BY ANY MEANS,  
WITHOUT THE PRIOR PERMISSION IN WRITING OF THE PUBLISHER:

ISBN 978-3-9822985-2-8

BELLA STRUMINSKAYA, SIMONE KÜHNE, FLORIAN KEUSCH, OTTO HELLWIG, STEFAN OGLESBY,  
CATHLEEN M. STÜTZER, ALEXANDRA WACHENFELD-SCHELL (EDS.)

GERMAN SOCIETY FOR ONLINE RESEARCH  
DEUTSCHE GESELLSCHAFT FÜR ONLINE-FORSCHUNG (DGOF) E.V.  
WWW.DGOF.DE

EDITING: ANJA HEITMANN, ANNA-LENA KEMPER  
LAYOUT AND TYPESET: NICOLE PROPACH, KÖLN

# TABLE OF CONTENTS

4

ORGANIZATION	5	WORKSHOPS	16
INTERNATIONAL BOARD	6	KEYNOTES	19
GREETINGS FROM DGOF	7	GOR BEST PRACTICE AWARD	21
ABOUT DGOF	8	ABSTRACTS GOR BEST PRACTICE AWARD	22
PORTRAITS OF THE BOARD	9	GOR POSTER AWARD	24
GREETINGS FROM THE LOCAL PARTNER	11	GOR THESIS AWARD	25
SPONSORS AND ORGANIZERS	12	DGOF BEST PAPER AWARD	26
PROGRAMME OVERVIEW	13	ABSTRACTS	27



## DGOF Board

**DR. OTTO HELLWIG**

Chairman DGOF Board, Bilendi & respondi, Germany



**PROF. DR. FLORIAN KEUSCH**

University of Mannheim, Germany

**ASSISTANT PROF. DR. BELLA STRUMINSKAYA**

Utrecht University, The Netherlands



**DR. STEFAN OGLESBY**

data IQ AG, Switzerland

**ALEXANDRA WACHENFELD-SCHELL**

GIM Gesellschaft für Innovative Marktforschung, Germany



**DR. CATHLEEN M. STÜTZER**

TU Dresden, Germany

## PROGRAMME COMMITTEE

**ASSISTANT PROF. DR. BELLA STRUMINSKAYA**

(Programme Chair), DGOF Board & Utrecht University

**ASSISTANT PROF. DR. SIMON KÜHNE**

(Vice Programme Chair), Bielefeld University

**DR. OTTO HELLWIG**

(Track A), DGOF Board, Bilendi & respondi, Germany

**DR. INESS SCHAURER**

(Track A), City of Mannheim

**DR. STEFAN OGLESBY**

(Track B), DGOF Board & data IQ AG

**PROF. DR. FLORIAN KEUSCH**

(Track B), DGOF Board & University of Mannheim

**PIRMIN STÖCKLE**

(Track C), Vocatus AG

**DR. BERNHARD CLEMM VON HOHENBERG**

(Track C), University of Amsterdam

**ALEXANDRA WACHENFELD-SCHELL**

(GOR Best Practice Award 2022 Competition), DGOF Board & GIM Gesellschaft für Innovative Marktforschung

**DR. OLAF WENZEL**

(GOR Thesis Award 2022 Competition), Wenzel Marktforschung

**DR. FREDERIK FUNKE**

(GOR Workshops), datenmethoden.de & LimeSurvey GmbH

## CONFERENCE CHAIR

**DR. OTTO HELLWIG**

Chairman DGOF Board, Bilendi & respondi, Germany

## LOCAL PARTNER

**HTW Berlin** – University of Applied Sciences, Germany

## DGOF OFFICE

**ANNA-LENA KEMPER, ANNA HRISTOVA**

## SUPPORT

**ARMIN DOBRATZ**



## International Board 2022

**DR. CHRISTOPHER ANTOUN** University of Maryland

**DR. RUBEN BACH** University of Mannheim

**DR. FRANCES M. BARLAS** Ipsos Public Affairs

**PROF. BERNAD BATINIC** JKU Linz

**ORIOLO J. BOSCH** The London School of Economics and Political Science

**DAVID BRETSCHI** Federal Criminal Police Office

**DR. ALEXANDRU CERNAT** University of Manchester

**DR. BERNHARD CLEMM VON HOHENBERG** University of Amsterdam

**DR. CARINA CORNESSE** German Institute for Economic Research (DIW Berlin)  
and Research Institute Social Cohesion (RISC)

**DR. JESSICA DAIKELER** GESIS – Leibniz Institute for the Social Sciences

**PROF. MARCEL DAS** CentERdata

**DR. JEAN PHILIPPE DECIEUX** Federal Institute of Population Research

**ZACHARIAS DE GROOTE** Liveloop

**CHRISTIAN DÖSSEL** Behaviorally

**LISA DUST** Facts and Stories

**DR. FRANÇOIS ERNER** respondi SAS

**BEAT FISCHER** entrevista

**DR. FREDERIK FUNKE** Dr. Funke SPSS & R trainings & LimeSurveyGmbH

**DR. ANDREW GUESS** Princeton University

**DR. TOBIAS GUMMER** GESIS – Leibniz Institute for the Social Sciences

**GEORG-CHRISTOPH HAAS** Institut für Arbeitsmarkt- und  
Berufsforschung der Bundesagentur für Arbeit (IAB)

**TIM HANSON** City University London

**NIKLAS HAUPT** MILOS GmbH

**PROF. MOREEN HEINE** University of Lübeck

**DR. OTTO HELLWIG** Bilendi & respondi / DGOF

**FRANK HEUBLEIN** Frank Heublein M3 Services

**DR. JAN KAREM HÖHNE** University of Duisburg-Essen

**PROF. ANNETTE HOXTELL** VICTORIA International University of Applied Sciences

**DR. WOJCIECH JABLONSKI** Netherlands Interdisciplinary Demographic Institute

**PROF. ANNETTE JÄCKLE** University of Essex

**BIRGIT JESSKE** infas GmbH

**CHRISTIAN KÄMPER** Interrogare GmbH

**FLORIAN KEUSCH** University of Mannheim

**AIGUL KLIMOVA** National Research University Higher School of Economics

**DR. FRANK KNAPP** Psyma

**FABIENNE KRAEMER** GESIS – Leibniz Institute for the Social Sciences

**DR. THOMAS KRÜGER** Umfragezentrum Bonn – Prof. Rudinger GmbH (zubonn GmbH)

**ASSISTANT PROF. DR. SIMON KÜHNE** Bielefeld University

**TANJA KUNZ** GESIS – Leibniz Institute for the Social Sciences

**ANDRE LANG** Insius

**DR. HELEN LAUFF** Havas Media

**ELLEN LAUPPER** Swiss Federal Institute for Vocational Education and Training

**DANIIL LEBEDEV** HSE University

**PROF. JI-PING LIN** Academia Sinica

**ANNA ELISABETH** Linek eict

**OLIVER LIPPS** FORS

**FRANK LÜTTSCHWAGER** EARSandEYES

**PETER LUGTIG** Utrecht University

**DR. EMANUEL MAXL** Context-Research

**DR. KATHARINA MEITINGER** Utrecht University

**NATALJA MENOLD** TU Dresden

**PROF. GUSTAVO S. MESCH** University of Haifa

**PROF. JOCHEN MUSCH** University of Düsseldorf

**DR. CORNELIA NEUERT** GESIS – Leibniz Institute for the Social Sciences

**GERRY NICOLAAS** NatCen

**DR. STEFAN NIEBRÜGGE** Exo-Q GmbH

**MAREIKE OEHRL** Q I Agentur für Forschung

**DR. STEFAN OGLESBY** data IQ AG

**LYDIA PAULY** YouGov

**THOMAS PERRY** Q I Agentur für Forschung

**ANNE REIF** Technische Universität Braunschweig

**TOBIAS RETTIG** University of Mannheim

**DR. MELANIE REVILLA** RECSM

**YANNICK RIEDER** Janssen-Cilag GmbH

**DR. EIKE MARK** Rinke University of Leeds

**DR. JOSS ROSSMANN** GESIS – Leibniz Institute for the Social Sciences

**ANNA RYSINA** Kantar GmbH

**DR. INES SCHAURER** Stadt Mannheim

**SOPHIA SCHMID** Kantar GmbH

**HANNAH SCHWARZ** University of Pompeu Fabra

**DR. KS SHIBUYA** Tokyo Metropolitan University

**DR. HENNING SILBER** GESIS – Leibniz Institute for the Social Sciences

**ROBIN SPICER** Bilendi & respondi

**DR. MARKUS STEINBRECHER** Bundeswehr Center for Military History and Social Sciences

**PIRMIN STÖCKLE** Vocatus AG

**ASSISTANT PROF. DR. BELLA STRUMINSKAYA** Utrecht University

**DR. CATHLEEN M. STÜTZER** TU Dresden

**DR. ASLI TELLİ-AYDEMİR** University of Witwatersrand

**PROF. DR. MEINALD T. THIELSCH** University of Münster

**VERA TOEPOEL** Statistics Netherlands

**DORIAN TSOLAK** Bielefeld University

**PROF. ANNA-SOPHIE ULFERT-BLANK** Eindhoven University of Technology

**ALEXANDRA WACHENFELD-SCHELL** GIM Gesellschaft für Innovative Marktforschung

**ANJA WENKE** anwema / anja wenke marktforschung

**DR. ALEXANDER WENZ** University of Mannheim

**DR. OLAF WENZEL** Wenzel Marktforschung

**ZAZA ZINDEL** Bielefeld University



## “BERLIN, BERLIN, WIR FAHREN NACH BERLIN”

### DEAR GUESTS OF THE GOR 22!

**WELCOME TO THE 24TH EDITION OF THE GENERAL ONLINE RESEARCH CONFERENCE CELEBRATING 25 YEARS OF GOR. FOR THIS REASON, WE ARE VERY HAPPY TO HOST THIS YEAR'S GOR IN COOPERATION WITH BERLIN'S LARGEST UNIVERSITY OF APPLIED SCIENCE HTW IN BERLIN.**

“Berlin, Berlin, wir fahren nach Berlin” is a popular catch chant among football fans whose clubs qualify for the annual cup final in Berlin. Translated, this chant means “Berlin, Berlin, we’re going to Berlin”. In 2020 and 2021, however, these finals in Berlin were played in front of empty seats due to Covid, a fate that links football to the GOR. In the last two years, we also had to forego the planned face-to-face conferences in Berlin for Covid reasons and hold the GOR as an online event. While the online GORs were very good events where we as organisers and the visitors had a high learning curve, this year we are looking forward to finally coming together again in Berlin and in this spirit, we can join the fans happily in singing: “Berlin, Berlin, wir fahren nach Berlin”.

As in previous years, we have a great conference programme lined up for you including keynotes, discussions, presentations, awards, posters, workshops and much more. You can choose between four simultaneous conference tracks: Track A covers “Survey Research: Advancements in Online and Mobile Web Surveys”. Track B deals with “Data Science: From Big Data to Smart Data”. Track C features “Politics, Public Opinion and Communication” and Track D covers “Digital Methods in Applied Research”. In addition, we have three award competitions:

- i) the GOR Best Practice Award 2022 for the best practice study from applied online research,
- ii) the GOR Thesis Award 2022 for the best thesis in online research,
- iii) the GOR Poster Award 2022 for the best poster of the conference. The DGOF Best Paper Award 2022 for the best paper in online research will also be awarded at GOR.

Our keynotes this year take different looks at the development of our profession. On Thursday, 8 September, Susan Shaw, Managing Director and co-owner of GIM Suisse and former President of SWISS INSIGHTS, the Swiss Data Insights Association, will present “New Digital Possibilities in Qualitative Research”. And on Friday, 9 September, Prof. Claudia Wagner, professor for Applied Computational Social Sciences at RWTH Aachen University and the Scientific Director of the department Computational Social Science at GESIS, will talk about “The Role of Algorithms in Computational Social Science”. Both keynotes can also be followed online via streaming.

On the pre-conference day, Wednesday 7 September, four workshops will take place and on Wednesday evening we will meet for the GOR 22 Get Together with drinks and snacks. Thursday evening is finally GOR party time again. The GOR Get-Together will take place at the “Palabra Bar”. The very famous Berlin club “Jung&Schönn” opens its doors for the GOR Party on Thursday at 8pm.

We are particularly grateful for the enthusiastic support of and collaboration with our partners at HTW Berlin: Prof. Holger Lütters and his team. We would also like to thank our sponsors and media partners. And, of course, a big THANKS to you, the conference participants, presenters, and speakers at this event!

**HAVE A GREAT TIME AT THE GENERAL ONLINE RESEARCH CONFERENCE 2022!**

**DR. OTTO HELLWIG**

# DEUTSCHE GESELLSCHAFT FÜR ONLINE- FORSCHUNG E.V.

## ONLINE RESEARCH IS A DYNAMIC, INNOVATIVE FIELD, WITH CONSTANTLY EMERGING CHALLENGES AS WELL AS OPPORTUNITIES FOR RESEARCH AND PRACTICE.

The German Society for Online Research (Deutsche Gesellschaft für Online Forschung) (DGOF) is a modern, innovative association, which has focused on the interests of the actors in the field of online research since its establishment in 1998.

It is the association's goal to be the leader in this field. DGOF seeks to bridge different research fields (such as sociology, psychology, political science, economics, market and opinion research, data science) using online research methods and facilitates the transfer between academic research and the industry.

DGOF campaigns for the establishment and the development of online research as well as the interests of online researchers in Germany. Online research ranges from online based data collection methods (e.g., web surveys in online panels); to mobile research with smartphones, tablets, and wearables; to the collection and analysis of social media data, administrative data, data from passive measurements, and other big data sources.

DGOF organizes the General Online Research (GOR) conference and the Research Plus event series which support professional and collegial exchanges between researchers and practitioners across academia and the industry. By bringing together scientific findings, commercial needs, and practical applications for best practices, DGOF provides a sustainable input for further developments in online research.

## ABOUT DGOF

8

## CHANGE THROUGH INNOVATION IS A KEY CHARACTERISTIC OF OUR RESEARCH FIELD. DGOF IS A FACILITATOR FOR THIS CHANGE:

- 1. DGOF** means development: Online research is more than just web surveys. We constantly expand our portfolio and our expertise with the development, encouragement, and establishment of innovative digital methods, passive measurement, and big data methods. In addition, we focus on the relationship between the Internet and society.
- 2. DGOF** connects: We are a bridge between different research disciplines and across commercial applications.
- 3. DGOF** is diverse: We support our members' interests, for the dissemination of knowledge, for exchange, and for discussion, as well as for the establishment and implementation of scientific standards.
- 4. DGOF** is innovative: We are a facilitator of new issues such as big data and data science.
- 5. DGOF** is disruptive: We support change. It is our practice to foster acceptance for new methods in research, and we are always on the lookout for new developments.



## DGOF

DEUTSCHE GESELLSCHAFT FÜR ONLINE-FORSCHUNG – DGOF E. V.  
GERMAN SOCIETY FOR ONLINE RESEARCH  
HUHNESGASSE 34B  
50676 COLOGNE (GERMANY)

PHONE: +49 (0)221-27 23 18 180  
E-MAIL: OFFICE@DGOF.DE

WWW.DGOF.DE • WWW.GOR.DE



**DR. OTTO HELLWIG**

**OTTO HELLWIG WAS THE CEO OF RESPONDI AG FROM ITS FOUNDATION IN 2005 UNTIL THE SALE OF THE RESPONDI GROUP TO BILENDI IN 2021. SINCE THEN HE HAS BEEN CORPORATE INTEGRATION DIRECTOR OF BILENDI & RESPONDI.** He has been active in the field of market and social research since the early 1990s. Dr. Hellwig has a degree in social sciences, psychology and media studies. He worked for several years as a research assistant at the Institute for Applied Social Research at the University of Cologne and received his doctorate in 2000. Otto Hellwig has been Chairman of the Board of DGOF since March 2013.

**PROF. DR. FLORIAN KEUSCH**

**FLORIAN KEUSCH IS PROFESSOR OF SOCIAL DATA SCIENCE AND METHODOLOGY IN THE SCHOOL OF SOCIAL SCIENCES AT THE UNIVERSITY OF MANNHEIM AND ADJUNCT ASSISTANT PROFESSOR IN THE JOINT PROGRAM IN SURVEY METHODOLOGY (JPSM) AT THE UNIVERSITY OF MARYLAND.** He received his PhD in Social and Economic Sciences from WU, Vienna University of Economics and Business, Austria. In his research, he develops, implements, and assesses modern methods of collecting digital data for the behavioral and social sciences. He has been a member of the DGOF board since 2017.

**DR. STEFAN OGLESBY, MBA**

**STEFAN OGLESBY IS CHAIRMAN OF DATA IQ AG, A CONSULTING AGENCY SPECIALIZING IN DATA STRATEGY AND ANALYTICS SERVICES.** He is also active in academia, with publications about digital methods, and in his role as lecturer for consumer research at the University of Lucerne. He has more than 20 years of experience in marketing and social research, including roles as research director and CEO at a leading Swiss market research agency. He is a board member of DGOF since 2019.

**ASSISTANT PROF. DR. BELLA STRUMINSKAYA**

**BELLA STRUMINSKAYA IS AN ASSISTANT PROFESSOR IN METHODS AND STATISTICS AT UTRECHT UNIVERSITY IN THE NETHERLANDS AND AN AFFILIATED RESEARCHER AT STATISTICS NETHERLANDS.** She holds a doctoral degree in Survey Methodology from Utrecht University. Her research focuses on innovations in data collection methods, data quality in studies that use smartphone apps, sensors, and wearables, and combining survey data with other data sources. She has published on various aspects of data quality in sensor and survey data, nonresponse and measurement error, panel conditioning, and device effects. Bella Struminskaya has been a board member of the German Society for Online Research (DGOF) since 2017 and is a programme chair of the GOR 22 conference.





**CATHLEEN M. STUETZER IS A RESEARCH GROUP LEADER AND LECTURER AT UNIVERSITY OF TECHNOLOGY DRESDEN, GERMANY.** She is leading projects funded by e.g. the German Federal Ministry of Education and Research [BMBF]. She conducts research in the areas of artificial intelligence, data science, and digital transformation in higher education. She holds a doctoral degree in Education Science (Educational Technology). Since 2015 she has been a board member of the German Society for Online Research (DGOF). She is co-editor of the annual Compendium of Online Research and she served as the programme chair of the GOR conferences between 2015 and 2017.

**ALEXANDRA WACHENFELD-SCHELL**

**ALEXANDRA WACHENFELD-SCHELL IS SENIOR RESEARCH DIRECTOR AT GIM GESELLSCHAFT FÜR INNOVATIVE MARKTFORSCHUNG.** She was previously Customer Experience Manager at SGBDD and Managing Director at forsa.main, a full-service institute specialized in market, media and social surveys. She has broad experience in the area of quantitative market and social research. She began working in market research more than 20 years ago as a project manager at LINK Institut. For over 10 years she was responsible for strategy, marketing and business development in the area of online research in her role as Research Director at LINK. She, moreover, supervised the actively recruited [by representative telephone interviews] LINK online panel with regards to methods. She focuses on online and methodological research and is a regular speaker at [market] research conferences. She is a member of the DGOF board since March 2013.





**PROF. DR. STEFANIE MOLTHAGEN-SCHNÖRING**  
Vice president Research and Transfer @SMolthagenS



**PROF. DR. HOLGER LÜTTERS**  
Professor International Marketing FB3 @Luetters

## GREETINGS FROM THE LOCAL PARTNER

After a very successful GOR conference at HTW Berlin in 2017, the online research community was trying to come back to meet at HTW Berlin again. Due to a worldwide pandemic that changed all our lives we needed to postpone our real-life meetings several times in a row. GOR 2022 is the fifth attempt to host GOR at HTW Berlin. The sad record of nohosting a conference will hopefully never be beaten by anyone else.

Even though our academic research life was possible during the phase of social distancing, we are longing to see each other again face to face. The idea of a personal academic exchange is vital for an academic community. Socializing is an important part to build and sustain a community of researchers coming from different fields and learning from each other.

As we all have partly forgotten how to be close to other people, we will have to learn in this field too. GOR always offers a program starting with a welcome evening and an evening event after the first conference day. This year these “side events” may be more important than ever to re-establish the good personal links between researchers from across the world.

We are looking forward to getting to know you as an academic and as a person. There will be plenty of opportunities to make this happen. In person and on premise.

**SEE YOU FINALLY AT HTW BERLIN!**

**YOUR LOCAL HOSTS**

proper hex string

```

    $rgb_array['r'] = 0xFF & ($color_val >> 0x10);
    elseif( strlen($hex_str) == 3 ) {
        $rgb_array['r'] = hexdec(str_repeat(substr($hex_str, 0, 1), 2));
        $rgb_array['g'] = hexdec(str_repeat(substr($hex_str, 1, 1), 2));
        $rgb_array['b'] = hexdec(str_repeat(substr($hex_str, 2, 1), 2));
    } else {
        return false;
    }
    return $return_string ? implode($separator, $rgb_array) : $rgb_array;

```



## ORGANIZER



## SPONSORS



## MEDIA PARTNER



## COOPERATION PARTNER





## WEDNESDAY 07/09/2022

10:00 - 1:00 PM

**WORKSHOP 1**

Nonresponse Bias Analysis  
Instructor: Barbara Felderer

**WORKSHOP 2**

Introduction to GDPR Ready High Data Quality Panel Management  
Instructors: Ludger Kesting, Christian Kamp

1:00 - 2:00 PM

**BREAK**

2:00 - 5:00 PM

**WORKSHOP 3**

SoSci Survey – Not Only for the Scientists  
Instructor: Dominik Leiner

**WORKSHOP 4**

Smartphones: From Survey Design to Sensor Data  
Instructors: Vera Toepoel, Anne Elevelt

7:30 - 11:00 PM

**GOR 22 GET TOGETHER** / sponsored by Caplena

## THURSDAY 08/09/2022

9:00 - 10:15 AM

**GOR 22 OPENING & KEYNOTE 1:**

NEW DIGITAL POSSIBILITIES IN QUALITATIVE RESEARCH  
Keynote Speaker: Susan Shaw (GIM Suisse AG, Switzerland)

10:15 - 10:45 AM

**BREAK**

10:45 - 11:45 AM

A1: Probability-Based Online Panel Research / sponsored by GESIS  
B1: Web Data  
C1: How and Why Misinformation Spreads  
D1: GOR Best Practice Award 2022 Competition / sponsored by KANTAR  
T1: GOR Thesis Award 2022 Competition: PhD / sponsored by TIVIAN

11:45 - 12:00 PM

**BREAK**

12:00 - 1:00 PM

A2: New Technologies in Surveys / sponsored by GESIS  
B2: Collecting Smartphone Data via Apps and Sensors  
C2: A Shared Reality? – Information Exposure and Political Outcomes  
D2: Up-Date Restech: Driving Automation, Self-Service and Platform Integration in Survey Research  
T2: GOR Thesis Award 2022 Competition: Bachelor/Master / sponsored by TIVIAN

1:00 - 2:15 PM

**LUNCH BREAK**

2:15 - 3:30 PM

Poster Session

3:30 - 3:45 PM

**BREAK**

3:45 - 4:45 PM

A3.1: Question Format and Survey Invitation Methodology / sponsored by GESIS  
A3.2: Nonresponse and Data Quality / sponsored by GESIS  
C3: Populism and Negative Campaigning  
D3: The Transparent Consumer-Citizen and Fair Data Exploitation

4:45 - 5:00 PM

**BREAK**



## THURSDAY 08/09/2022

5:00 - 6:00 PM

A4: Respondent Behavior and Data Quality I / sponsored by GESIS  
B4: Social Media and Networks  
C4: Methodology  
D4: Practical Application of AI for Better Insights

8:00 PM

**GOR 22 PARTY** / sponsored by moweb research

## FRIDAY 09/09/2022

9:00 - 10:00 AM

A5: Respondent Behavior and Data Quality II / sponsored by GESIS  
B5: Accelerometer Data  
C5: Societal Issues: Corona, Climate, Gender  
D5: Online Research of the Future:  
Do's and Don'ts on the Way to Robust Results.  
Online-Forschung der Zukunft:  
Der Weg zu belastbaren Ergebnissen

10:00 - 11:15 AM

**KEYNOTE 2:**  
THE ROLE OF ALGORITHMS IN COMPUTATIONAL SOCIAL SCIENCE  
Keynote Speaker: Claudia Wagner (RWTH Aachen, Germany;  
GESIS – Leibniz Institute for the Social Sciences, Germany)

11:15 - 11:45 AM

**GOR AWARD CEREMONY**

11:45 - 12:00 PM

**BREAK**

12:00 - 1:00 PM

A6.1: Respondent Behavior and Data Quality III / sponsored by GESIS  
A6.2: Mixed Mode and Mode Transition / sponsored by GESIS  
C6: Access to and Spreading of Digital Information  
D6: Panel Discussion: Challenges in Recruiting and  
Operating Probabilistic Online-Panels

1:00 - 2:15 PM

**LUNCH BREAK**

2:15 - 3:15 PM

A7.1: Representativity I / sponsored by GESIS  
A7.2: Recruitment Processes for Online Surveys / sponsored by GESIS  
C7: Strategic Election Campaigning

3:15 - 3:30 PM

**BREAK**

3:30 - 4:30 PM

A8.1: Representativity II / sponsored by GESIS  
A8.2: Mixed Mode and Mode Transition II / sponsored by GESIS  
C8: Media Use in Times of Crisis

# WORKSHOPS

## WORKSHOP

1

Wednesday

07 September 2022  
10:00 AM - 01:00 PMNONRESPONSE  
BIAS ANALYSISInstructor: **BARBARA FELDERER**

GESIS – Leibniz Institute for the Social Sciences, Germany

Workshop language: **English**

The workshop discusses the emergence and analysis of nonresponse bias. Frequently used indicators of nonresponse bias will be introduced and their usefulness and limitations discussed. In the practical part of the workshop, indicators for nonresponse bias will be calculated. A synthetic dataset will be provided, but participants are welcome to bring their own datasets to conduct nonresponse bias analysis.

**GOALS OF THE WORKSHOP:** Participants will be enabled to conduct nonresponse bias analysis.

**ABOUT THE INSTRUCTOR:** Barbara Felderer is head of team Survey Statistics at GESIS. Her research focuses on nonresponse and nonresponse bias.

## WORKSHOP

2

Wednesday

07 September 2022  
10:00 AM - 01:00 PMINTRODUCTION TO GDPR  
READY HIGH DATA QUALITY  
PANEL MANAGEMENTInstructor: **CHRISTIAN KAMP, LUDGER KESTING TIVIAN**Workshop language: **English**

In the workshop Tivian will provide an introduction of how researchers can benefit from technology that allows to cover two important aspects of panel management:

- high quality panelist and master data
- alignment with GDPR requirements

During the workshop we will explore methods to automate workflows to ensure high data quality, and avoid recurring manual tasks as well as always covering how GDPR requirements can be handled to ensure a future proof setup of a panel.

## WORKSHOP

3

Wednesday

07 SEPTEMBER 2022  
02:00 - 05:00 PMSOSCI SURVEY –  
NOT ONLY FOR THE SCIENTISTSInstructor: **DOMINIK LEINER** SoSci Survey GmbH, GermanyWorkshop language: **English**

SoSci Survey has been used in science for more than 10 years, yet the interest of practical researchs is constantly increasing. The workshop explains the fuss about SoSci Survey, guides the participants through a quick start and several practical applications.

**GOALS OF THE WORKSHOP:** Get a feeling when SoSci Survey will increase productivity, get started with the tool, and learn about realizing ambitious designs.

**ABOUT THE INSTRUCTOR:** Dominik Leiner has been the developer of SoSci Survey and practical researcher at the LMU for more than a decade. Recently, some pandemic caused him lots of additional attention, because he found that SoSci Survey was also suitable for online exams, self-assessments, and vacation management.



## WORKSHOP

## 4

Wednesday

07 September 2022  
02:00 - 05:00 PMInstructor: **VERA TOEPOEL, ANNE ELEVELT**

Statistics Netherlands, Netherlands

Workshop language: **English****SMARTPHONES:  
FROM SURVEY DESIGN  
TO SENSOR DATA**

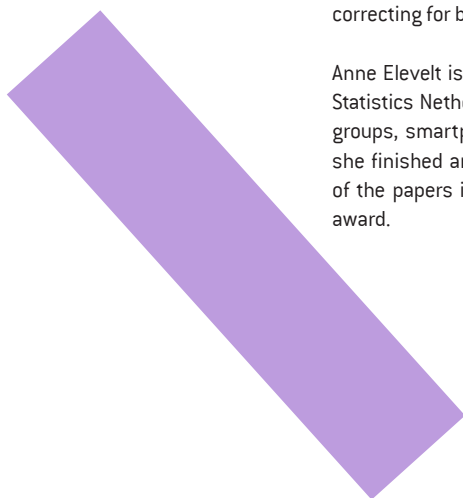
Smartphones have become a mainstream device. In many countries, smartphones are replacing traditional PCs and laptops as the primary device to browse the internet, and use social media. In the last couple of years, researchers have experimented with smartphones as a method of data collection. This short course focuses on recent studies that have aimed to study how smartphones can be used:

1. As a device to administer surveys, and
2. To acquire additional behavioral data using sensors.

**GOALS OF THE WORKSHOP:** Understand why you should want to do research using smartphones. Learn how to make web surveys mobile-friendly, understand issues around the collection of smartphone sensor data.

**ABOUT THE INSTRUCTORS:** Vera Toepoel is head of methodology at Statistics Netherlands. Before this she was assistant professor in survey methodology at the Department of Methods and Statistics at Utrecht University (NL). Her research interests lie in everything related to survey methodology and online surveys in particular. From recruiting respondents, designing the survey instrument, hybrid data, correcting for bias etc.

Anne Elevelt is statistical researcher in the field of data innovation at Statistics Netherlands. Here, she mainly focuses on difficult-to-reach groups, smartphones apps, data donation and wearables. Last year, she finished and defended her PhD on smartphone surveys. For one of the papers in this dissertation she received an ESRA early career award.





SUSAN SHAW

**SUSAN SHAW IS MANAGING DIRECTOR AT GIM SUISSE AG.** After receiving a degree in history, linguistics, literature and social research, she has been working in market research for approx. 20 years on the customer and institute side.

She also worked over 10 years in the operational market research department of a large publishing house in Switzerland. From 2010 to 2013, she was a member of the WEMF research commission. And from 2015 to 2021, she was President of SWISS INSIGHTS, the Swiss industry association.

## NEW DIGITAL POSSIBILITIES IN QUALITATIVE RESEARCH

**QUALITATIVE RESEARCHERS FACE AN INCREASING VARIETY OF NEW METHODS AND TOOLS OVER THE LAST TWO YEARS. WHAT IS THE IMPACT OF THE POST PANDEMIC POSSIBILITIES ON QUALITATIVE RESEARCH AND WHAT ARE THE CHALLENGES FOR RESEARCHERS TO PROVIDE THE BEST METHODOLOGICAL SOLUTION?**

In the keynote I want to address the digital influences on qualitative research on two levels: One is the level of the actual data collection. What is really the benefit of online-interviews or online-focus groups for our clients, now that we can conduct research online and offline again? What is the methodological contribution of these new possibilities in qualitative research? Can we also gain further advantages or methodological innovations from the digital push in the last two years? More variety definitely doesn't make things easier, and I want to focus on the challenges but also the chances for researchers to choose and to justify the most target-oriented and cost-effective method.

The other level is on the analysis side with always new technological and digital innovations. Here we are also confronted with new tools, technologies and methods which challenge institutes to find the best and most result-orientated way. I want to rise the question what artificial intelligence can really contribute to qualitative research and where the limits are. How can automatization or standardisation can be brought in line with qualitative research, who's purpose is to explore open, adaptive and flexible?

By showing examples or sharing my reflections I can hopefully stimulate a discussion or inspire the audience to have a more differentiated view on the various digital possibilities in qualitative research and how to use them without losing our purpose.



CLAUDIA WAGNER

**CLAUDIA WAGNER IS A FULL PROFESSOR (W3) FOR APPLIED COMPUTATIONAL SOCIAL SCIENCES AT RWTH AACHEN AND THE SCIENTIFIC DIRECTOR OF THE DEPARTMENT COMPUTATIONAL SOCIAL SCIENCES AT GESIS – LEIBNIZ INSTITUTE FOR THE SOCIAL SCIENCES.** Also, she organizes interdisciplinary training events for early career researchers and coordinates the development of new data collection and analysis instruments for digital trace data at GESIS. Furthermore, she is part of the Advisory Board of the NRW Graduate School Digital Society, a Steering Committee Member of International AAAI Conference on Web and Social Media, a Steering Committee Member of International Conference on Social Networks Analysis, Management and Security, and an external faculty member of the Complexity Science Hub Vienna.

Her research focuses on digital societies and the role of algorithms and AI in those societies. She is also passionate about methodological challenges that arise when using digital trace data to build models of human behavior and attitudes.

# THE ROLE OF ALGORITHMS IN COMPUTATIONAL SOCIAL SCIENCE

**ALGORITHMS – AND THE TOOLS, SERVICES AND PLATFORMS THEY POWER – SHAPE A WIDE RANGE OF ACTIVITIES AND DECISION-MAKING PRACTICES ACROSS MANY AREAS OF OUR LIVES, BE IT BY MAKING PURCHASE OR INFORMATION RECOMMENDATIONS ON THE WEB, BY PRESORTING JOB APPLICATIONS, OR BY MODERATING DISCUSSIONS. CONSEQUENTLY, THOSE ALGORITHMS MAY HAVE FAR-REACHING IMPACTS ON INDIVIDUALS AND SOCIETY. AT THE SAME TIME SCIENTISTS USE INCREASINGLY COMPLEX ALGORITHMS TO EXPLORE INDIVIDUAL AND SOCIETAL PHENOMENA.**

In this talk I will reflect on the role of algorithms in social science research as measurement instrument and as a part of socio-technical systems.

I will present two case studies that highlight the need for better methodologies to evaluate, monitor and improve algorithms that are characterized by high adaptability and a low degree (or new form) of human control.



# GOR BEST PRACTICE AWARD 2022

**THURSDAY 08 SEPTEMBER 2022:  
10:45 - 11:45 AM**

Nominees for the GOR Best Practice Award 2022 come from aimpower GmbH, Germany; LINK Marketing Services AG, Switzerland; Credit Suisse AG, Switzerland, neuroflash GmbH, Germany; Neurons Inc., Denmark; Success Drivers, Germany; LINK, Switzerland; Novaltica, Switzerland; Centerdata, Netherlands and The World Bank, UN.

The “best practice in commercial online market research” competition was introduced at the 2008 GOR conference and since then has become an important tradition at the General Online Research Conference. Real world case studies with a strong focus on online market research are presented in the competition. The prize is awarded annually to the study which has most effectively answered a key question of online market research with the help of innovative digital methods.

The winners of the award will be selected by the jury and by a random sample of the audience via a mobile survey conducted by respondi. The award will be presented to the winners at the GOR Party Thursday evening and the laudatory speech will be held at the GOR Award Ceremony on Friday 11:15 - 11:45 AM.

The GOR Best Practice Award 2022 is sponsored by

## KANTAR

### THE MEMBERS OF THE GOR BEST PRACTICE AWARD 2022 JURY ARE:

**YANNICK RIEDER**

Janssen-Cilag GmbH, Jury Chair



**HOLGER GEISSLER**

marktforschung.de



**SABINE MENZEL**

L'Oréal Deutschland



**SEBASTIAN VERFÜHRTH**

RTL DISNEY Fernsehen GmbH & Co. KG



# D1: GOR BEST PRACTICE AWARD 2022 COMPETITION

## LEVERAGE THE VIRTUAL CONSUMER – HOW AN ONLINE AUGMENTED INTELLIGENCE SOLUTION SUPPORTS HENKEL SALES TEAMS TO CLIMB UP THE EFFECTIVENESS LADDER.

**AUTHORS / ORGANISATIONS** **DIRK HELD** aimpower GmbH, Germany  
**VERA WAGNER** Henkel, Germany

**RELEVANCE & RESEARCH QUESTION:** In an ever increasingly agile environment with limited time and budget it is often not possible to do market research. And traditional training to build capability does not fit the fast turn-over of people. How can the teams be informed by a consumer perspective and at the same time build an effectiveness capability in the sales organization?

**METHODS & DATA:** The relevant effectiveness KPIs were identified based on behavioral science principles. Neuronal networks trained with primary consumer responses were leveraged to provide automatized feedback on the relevant KPIs instantly and just in time when the teams need it. The team can use this virtual consumer using a DIY online tool to get feedback on the core effectiveness KPIs that determine the assets' impact on consumer purchase behavior.

**RESULTS:** The tool is globally rolled-out and enables teams to optimize their offline and online assets iteratively along the development process and with that increase the impact and ROI of their initiatives.

**ADDED VALUE:** By using the online tool the teams learn which KPIs are important to drive effectiveness and through the iterative process learns how to optimize these. This training on the job (supervised feedback) builds effectiveness capability that can easily be scaled and transferred to new people. This creates a scalable, person-agnostic effectiveness capability of the organization and builds a common mental effectiveness model amongst internal and external stakeholders.

## THE FOUR HORSEMEN OF ADVERTISING SUCCESS: RIDE THE INSIGHTS WAVE WITH MIND MINING

**AUTHORS / ORGANISATIONS** **STEFFEN SCHMIDT, ALEX SCHMIDLIN**  
LINK Marketing Services AG, Switzerland  
**ANNE BENNER, DANG NGUYEN**  
Credit Suisse AG, Switzerland  
**JONATHAN T. MALL** neuroflash GmbH, Germany  
**MIKE STORM** Neurons Inc., Denmark  
**FRANK BUCKLER** Success Drivers, Germany

**RELEVANCE & RESEARCH QUESTION:** Credit Suisse is challenged from two directions: First, to strengthen its market position over established competitors in times of increasing digitalization density, and second, to counter the attack from innovative financial service providers such as neo-banks. To meet these challenges, Credit Suisse has developed CSX, a new product for digital-savvy clients, and launched it on the market over the past 12 months with a targeted product campaign. Also, other campaigns have been specifically placed that address the zeitgeist such as sustainable investing and sustainable entrepreneurship.

**METHODS & DATA:** Four sophisticated methods from neuromarketing and artificial intelligence (AI) were used, which are summarized as mind-mining approach: a) implicit association measurement for knowledge analysis, b) universal structural modeling using Bayesian Neural Networks for key driver analysis, c) attentional AI to predict what people will perceive/see from the advertisement, and d) neurosemiotic AI to determine how people understand the textual communication content. For each ad pretest in 2020/2021 prior to the launch of a campaign, the online surveys used an experimental design to determine ad effectiveness.

**RESULTS:** The mind mining approach identified the winner ads of each campaign that substantially increased the brand/product performance (e.g., willingness to download the app). These pre-tested campaigns not only achieved above-average values in terms of ad recall (e.g., CSX campaign 37%, 17% above target, Credit Suisse's most successful BSC campaign ever) and image values (e.g., modern with 81%, 23% above target), but above all also a substantial business impact. In detail, new client growth accelerated by 38% compared to the average monthly client growth, resulting in 100'000 clients now using CSX in Switzerland after 12 months.

**ADDED VALUE:** Besides an evidence-based management foundation for selecting the best-performing ad creatives, also the reasons for success were identified by this approach. This included which implicit associations were and should be reinforced, as well as which ad elements generated increased and distinct attention and how easy it was to understand the textual ad content to ensure improved communication performance. As shown, this approach provides a holistic customer understanding for targeted brand communication and product promotion for a substantial and lasting business impact.

## THE SWISS ENERGY MARKET ATLAS: SHAPING THE FUTURE OF ENERGY SUPPLIERS WITH A SMART COMBINATION OF MACHINE LEARNING AND MARKET RESEARCH

**AUTHORS / ORGANISATIONS**

**STEFAN REISER, DAVID SANCHEZ**  
LINK, Switzerland  
**THOMAS SPYCHER**  
Novalytica, Switzerland

**RELEVANCE & RESEARCH QUESTION:** Unlike in Germany, the Swiss energy sector is still about to face the liberalization of the private market. As protected supply areas are expected to fall, so providers must already invest more in active marketing of their brand and products. The core challenges here are:

How can customers in one's own supply area be localized in the best possible way?

How and where should their own brand be extended?

How can new product solutions such as photovoltaic, wallboxes or heat pumps be marketed most effectively and efficiently?

A problem to this is that due to the fragmentation of the market, Swiss energy suppliers at best have data on satisfaction for customers in their supply area, but not a benchmark for classifying these values. Outside the supply area, no information is available due to a lack of customer addresses, and the market research budgets of individual suppliers are naturally limited.

**METHODS & DATA:** This is why the applicants LINK and Novalytica have implemented the "EVU MarktAtlas B2C". With over 10,000 online interviews, it is based on the so far largest survey of private energy customers in Switzerland. The questionnaire is based on expert interviews with industry representatives and covers the most important KPIs and topics that will be important for marketing and sales in the future.

In order to be able to perform regionally granular evaluations, the survey data was then extrapolated to the whole country using register data (e.g. proportion of EFH per hectare, average age of inhabitants per hectare) and machine learning algorithms (Gradient tree boosting) that detect systematic correlations in the data.

**RESULTS & ADDED VALUE:** Due to the syndicated study approach, even small utilities can afford data access. Energy suppliers gain access to the survey data as well as detailed regional extrapolations via an online dashboard. For example, they can...

- benchmark customer loyalty and satisfaction in their service area against other areas.
- identify which communities or road areas have customers at risk of churn.
- analyze the market potential for product solutions such as photovoltaic, wallboxes or heat pumps by hectare and thus plan targeted marketing activities.
- analyze awareness and attractiveness for the 30 biggest energy supplier brands in the country.

A short video about the study results and dashboard may be seen here for more information: <https://www.link.ch/evu-marktatlas>.

## WEARABLE DEVICES AS A SURROGATE FOR TIME USE SURVEYS

**AUTHORS / ORGANISATIONS**

**SEYIT HOCUK, PRADEEP KIMAR, JORIS MULDER**  
Centerdata, Netherlands  
**ALBERTO ZEZZA, TALIP KILIC**  
The World Bank, United Nations

**RELEVANCE & RESEARCH QUESTION:** In survey research, obtaining data on people's time use is time consuming, laborious, and costly. Collecting data becomes more cumbersome in rural communities, where our knowledge is limited to a handful of studies. Especially in such regions policies can benefit from more information. Here, we investigate whether predicting people's time use is possible by using machine learning (ML)-techniques on sensor data instead. In this way, costly and difficult to obtain time use surveys can be replaced by cheaper, more accurate, and objective wearable devices to study a variety of issues in rural communities.

**METHODS & DATA:** We make use of data that is collected in rural communities of Malawi. The time use data is a recall-based questionnaire and the accumulated answers are categorized into 25 broad group activities. At the same time, sensor-based data is collected from the same participants using a tri-axial accelerometer device. The sensor data is part of a physical activity tracking study that ran for two consecutive weeks. Using ML-techniques, we build a supervised classification model on the combined time use and sensor data to correctly predict the performed activity on a minute level. We utilize the reported activities as our dependent variable and the collected sensor data together with basic participant background information as our independent variables.

**RESULTS:** Two ML-classifiers are used for training models; Gradient Boosting and Random Forest. We find that our models can predict the performed time-use activity with decent accuracy using sensor-based and background data. We obtain a macro average F1-score of 76% for our best performing model. A random guess would result in an F1-score of merely 8.33% since we made use of twelve balanced classes. We also find that adding background information as additional independent variables add a consistent boost to model performance.

**ADDED VALUE:** We have successfully shown that predicting time use activities with physical activity sensor data is possible with high accuracy. This is despite any possible limitations imposed by the quality of the recall-based data and the level of data aggregation of the sensors that was used in this work. We also successfully identified the activities that are harder to predict and classify, which will help in improving future data collection efforts to build better ML-models. Using our work, one can replace costly and difficult to obtain time use surveys with better and more objective alternatives to perform studies in rural communities.

The GOR Best Practice Award 2022 Competition is sponsored by

# KANTAR



# GOR POSTER AWARD 2022

**THURSDAY 08 SEPTEMBER 2022:  
2:15 - 3:30 PM**

Posters offer the opportunity to present late breaking research, short research findings or discuss work in progress at the GOR conference. The presented works will be evaluated by a jury. The GOR Poster Award 2022 comes with a prize money of € 500.

Posters are presented in a plenary session on Thursday. Access to the poster presentations will be possible during the whole conference. A poster may cover any topic of online research. All submissions in this

category are considered for the GOR Poster Award 2022. The poster award ceremony will take place on Friday, 9 September 2022 at 11.15 PM.

Past winners of the GOR Poster Award are:

- **GOR POSTER AWARD 2021:** Tobias Rettig, Bella Struminskaya and Annelies Blom for their Poster: "Memory Effects in Online Panel Surveys: Investigating Respondents' Ability to Recall Responses from a Previous Panel Wave"
- **GOR POSTER AWARD 2020:** Adrian Hoffmann, Julia Meisters and Jochen Musch (University of Duesseldorf, Germany) for their Poster "Indirect Questioning Techniques: An Effective Means to Increase the Validity of Online Surveys"
- **GOR POSTER AWARD 2019:** Stephan Schlosser (University Göttingen), Jan Karem Höhne (University of Mannheim) and Daniel Qureshi (University Frankfurt) for their Poster „SurveyMaps: A sensor-based supplement to GPS in mobile web surveys“

## THE MEMBERS OF THE GOR POSTER AWARD 2022 JURY ARE:

**CAROLYN CHAMBERLAIN**  
Blueprint Partnership UK



**CARINA CORNESSE**  
DIW Berlin



**BEAT FISCHER**  
intervista AG



**JAN KAREM HÖHNE**  
University of Duisburg-Essen; Jury Chair



**OLGA MASLOVSKAYA**  
University of Southampton



# GOR THESIS AWARD 2022

**THURSDAY 08 SEPTEMBER 2022:  
10:45 - 11:45 AM + 12:00 AM - 01:00PM**

The GOR Thesis Award Competition is an integral part of the GOR conference series and takes place annually. It comes with a prize money of 500 € for each of the two parts of the competition.

All submissions relevant to online research are welcome. Presentations in the past years covered a broad range of topics, be it online surveys or research on the Internet or social aspects of the Web. Theses must have been submitted in 2020 or 2021, the Thesis language can be either English or German. The programme committee assigned three members of the Thesis jury to review each submission. The review process was completely anonymised and reviews were randomly distributed in a way that conflicts of interests were avoided.

Three Doctoral Theses, one Master and one Bachelor Thesis are nominated for this year's GOR Thesis Award. The selected authors will present their findings at the GOR conference and the best presentations will be awarded.

## NOMINATED FOR THE GOR THESIS AWARD 2022 ARE:

**GEORG-CHRISTOPH HAAS** Institute for Employment Research, University of Mannheim, Germany: Modernization of Data Collection Methods

**DAVID BRETSCHI** Federal Criminal Police Office, Germany: Web-Push Strategies for Probability-Based Mixed-Mode Panel Surveys

**ANNE ELEVELT** Statistics Netherlands, Utrecht University, The Netherlands: Smart(phone) Surveys

**TRUONG TRUNG HIEU NGUYEN** University of Hohenheim, Germany: Motivational methods to reduce possible response biases of online survey participants in the context of market research

**MATTHIAS KLOFT** Philipps-University Marburg, Germany: The Dirichlet Dual Response Model: An Item Response Model for Continuous Bounded Responses Collected via Dual Range Sliders

The GOR Thesis Award 2022 is sponsored by

[ TIVIAN ]

## THE MEMBERS OF THE GOR THESIS AWARD 2022 JURY ARE:

**DR. OLAF WENZEL**

Wenzel Marktforschung & Jury Chair



**DR. FREDERIK FUNKE**

LimeSurvey & datenmethoden.de

**PROF. DR. MOREEN HEINE**

University of Lübeck



**DR. CATHLEEN M. STUETZER**

TU Dresden

**ASSISTANT PROFESSOR  
ANNA-SOPHIE ULFERT-BLANK**

Eindhoven University of Technology



# DGOF BEST PAPER AWARD 2022

**FRIDAY 9 SEPTEMBER 2022:  
11:15 - 11:45 AM (AWARD CEREMONY)**

The German Society for Online Research (DGOF) annually recognizes outstanding scientific contributions in online research through the DGOF Best Paper Award for a researcher or group of researchers.

The prize is awarded to a paper that provides a fundamental scientific contribution to the advancement of the methods of online research. Both theoretical/conceptual and empirical/methodological papers are considered for the award.

The award is worth 500 Euro and will be presented at the annual GOR conference. An abstract (and, if available, a preprint) of the award-winning paper will be posted to the DGOF website ([www.dgof.de](http://www.dgof.de)). To be considered for the award, papers must have been published in an outlet that uses a peer-review process (e.g., peer-reviewed journal, full papers in peer-reviewed conference proceedings, refereed book chapter) at the time of submission. Papers written in German or English and published not earlier than 2021 (if the paper was published online-first, then the online-first publication date counts) were eligible to be submitted for the DGOF Best Paper Award 2022.

## WINNER:

Simon Munzert, Peter Selb, Anita Gohdes, Lukas F. Stoetzer and Will Lowe for their paper „**TRACKING AND PROMOTING THE USAGE OF A COVID-19 CONTACT TRACING APP**“ Nature Human Behavior, 5, 247-255

Accessible on <https://www.nature.com/articles/s41562-020-01044-x>

Sponsored by



## THE MEMBERS OF THE DGOF BEST PAPER AWARD 2022 JURY ARE:

**ASSISTANT RESEARCH  
PROF. CHRISTOPHER ANTOUN**  
University of Maryland



**PROF. DR. NICOLA DOERING**  
Ilmenau University of Technology



**PROF. DR. FLORIAN KEUSCH**  
University of Mannheim, Jury Chair



**DR. HENNING SILBER**  
GESIS – Leibniz Institute for the Social Sciences



**ASSOCIATE PROFESSOR CLEMENS STACHL**  
University of St. Gallen



**ASSISTANT PROF. DR. BELLA STRUMINSKAYA**  
Utrecht University



**DR. CATHLEEN M. STÜTZER**  
TU Dresden





# ABSTRACTS

**THURSDAY, 08 SEPTEMBER 2022**

## A1: **PROBABILITY-BASED ONLINE PANEL RESEARCH**

(sponsored by GESIS)

**SESSION CHAIR: OLGA MASLOVSKAYA**

University of Southampton, United Kingdom

### **ESTABLISHING A NEW PROBABILITY-BASED MIXED-MODE PANEL STUDY IN GERMANY: THE SOCIAL COHESION PANEL**

**CORNESSE, CARINA (1); GERLITZ, JEAN-YVES (2,3)**

1: DIW Berlin, Germany

2: RISC Data Centre, Germany

3: University of Bremen, Germany

**RELEVANCE & RESEARCH QUESTION:** Now that a decline in social cohesion is proclaimed by various sides, it is more important than ever to establish a large-scale high-quality data collection infrastructure which allows researchers to assess to what extent society is fragmented and how social fragmentation is changing over time. In order to establish such an infrastructure, the Research Institute Social Cohesion (RISC) and the German Institute for Economic Research (DIW Berlin) cooperate to build the Social Cohesion Panel. This presentation describes its research goals, data collection design, and initial data quality assessment.

**METHODS & DATA:** We use data from the initial recruitment of the Social Cohesion Panel conducted during the second half of 2021 to illustrate the importance of collecting panel data on social cohesion in Germany, both on the household level and the individual level. We also describe our multi-stage sampling approach which involves sampling anchor persons from population registers who then provide information on their household members, which allows us to invite all adult household members to the panel. Moreover, we describe our mixed-mode data collection approach (postal mail contact with PAPI and CAWI options offered concurrently) and assess the recruitment success in terms of response rates and potential biases, with a particular focus on potential covariates of social cohesion.

**RESULTS:** Preliminary results from the ongoing panel recruitment suggest that approximately 20% of the 37,874 sampled anchor persons provide consent to participating in the yearly Social Cohesion Panel data collection waves. Approximately 60% of the recruited anchor persons complete the initial recruitment survey via PAPI and approximately 40% via CAWI. Socio-demographic characteristics are highly accurate at depicting the German population on some characteristics, such as gender, while typical survey biases are found on other characteristics, such as citizenship. Among the additional household members named by the anchor person, approximately 45% could so far be recruited to the panel.

**ADDED VALUE:** Our research contributes to the existing best-practice literature on how to recruit a mixed-mode panel via postal mail and provides novel insights into how this can work in a multilevel survey design where individuals are clustered within households.

### **EFFECTS OF DIFFERENT MODE CHOICE SEQUENCES IN THE RECRUITMENT OF A PROBABILITY-BASED MIXED-MODE PANEL IN GERMANY: INSIGHTS FROM FREDA**

**GUMMER, TOBIAS; CHRISTMANN, PABLO****KUNZ, TANJA; OEHRLEIN, ANNE-SOPHIE; SCHMID, LISA**

GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** Many survey programs such as ESS and EVS have started testing a shift from face-to-face to self-administered mixed-mode designs. For panel surveys, an important decision is how to offer different survey modes during recruitment – especially when considering performance in subsequent panel waves. Recent research in this area has mostly focused on the case of cross-sectional surveys. Thus, we investigate the research question: What effects do concurrent, sequential, and push-to-web mode choice sequences have on key performance indicators, especially the retention rate in subsequent waves?

**METHODS & DATA:** We draw on the probability-based FReDA panel, a self-administered mixed-mode panel on topics of family research. To recruit FReDA, a gross sample of 108,000 persons aged 18-49 and living in Germany was drawn from municipalities' population registers. The recruitment interview was fielded April-June 2021. Here, we implemented a mode choice experiment with three groups: 1) concurrent mode choice (3 contacts: web&mail, web, web&mail), 2) sequential (3 contacts: web, web, web&mail), 3) push-to-web (4 contacts: web, web, web, web&mail). In Group 3, a paper-based questionnaire was only offered with the last (4th) contact. Based on this group, we can simulate a hypothetical scenario (i.e., simulated Group 4) in which only the web mode was offered (3 contacts: web, web, web). We compare the four groups with respect to response rates, recruitment rates, sample composition, data quality, and retention rates in subsequent waves (fielded August and November 2021).

**RESULTS:** Preliminary analyses based on the recruitment interview show that concurrent mode choice achieve higher response rates compared to other groups. Yet, this effect diminishes when retention rates are considered. Regarding sample composition, offering only a web mode results in an underrepresentation of persons of lower education and higher age in comparison to other mode choices. We found no differences in substantive variables across mode choice groups.

**ADDED VALUE:** Our study has practical implications on how to design and operate large-scale panel surveys. Deciding on an adequate mode choice strategy is likely to be relevant not only for improving key performance indicators, but also has implications for survey costs and operations workload.

## INCENTIVE EFFECTS IN PROBABILITY-BASED TWO-PART WEB SURVEYS

LIPPS, OLIVER (1,2); ERNST STÄHLI, MICHÈLE (1); OCHSNER, MICHAEL (1,3); POLLIN, ALEXANDRE (1)

1: FORS, Switzerland  
2: University of Bern, Switzerland  
3: ETH Zurich, Switzerland

**RELEVANCE & RESEARCH QUESTION:** Long face-to-face probability-based social science surveys are increasingly switched to (push-to-) web surveys. However, long self-administrated surveys may have lower response rates and higher breakoff rates. While long surveys can be split into two parts, there is little evidence about the optimal combination of incentives to increase response rates across two parts in probability-based web surveys.

**METHODS & DATA:** We use data from a social science push-to-web survey administered in two parts, using paper as follow-up mode. The sample was drawn at random from the Swiss national population register, which includes socio-demographic variables.

The experiment includes four cash-like unconditional incentives of a nominal value of 10 Sfr: including digital and physical cash, plus a cash lottery and no incentive in part 1, crossed with two lottery incentives and no incentive in part 2. We analyze incentive effects on participation and whether different socio-demographic groups show heterogeneous participation in part 1, and in both parts depending on the combinations of incentives.

**RESULTS:** We find that in part 1 and in both parts combined, the incentives work rather uniformly across the categories of the socio-demographic variables and that in terms of the value of the incentive, the incentives support the theory. Cash in part 1 and cash followed by a lottery incentive in part 2 works best, no incentive in part 1, or digital money with an option to cash on demand followed by a lottery of iPads in part 2 works worst. A cost-efficient solution may be to use a cash lottery in part 1.

**ADDED VALUE:** Using a complex incentive experiment across both parts of a long social science push-to-web survey based on a probability sample from the national population register, we investigate participation and bias by a wide range of possible combinations of part 1 and part 2 incentives.

from the source website owners or write custom web crawlers to collect data directly. The average researcher is not in the position to realize ideas as supporting tools are difficult to use.

The research question is if a general-purpose collection system for structured data from websites can ease access, allowing data from arbitrary sites to be retrieved as table or database without any need of custom programming. This system is developed and the results are shown in the presentation.

**METHODS & DATA:** We propose a templating system to define mappings between the website's visuals, such as URLs and text elements, and their structured data representation as database or table. Based on this separation of the "where" and "what" from the crawling logic, we evaluate methods to support template generation through assistants and to define generic templates for similar websites. We also present a sample crawling engine for processing the templates and actually collecting the data.

**RESULTS:** It shows that a template-based structured data access to websites is possible. It enables quick, repeated and self-service access to data from public websites for research and other projects. For simple websites, we show that template development can be supported by Q&A type creation assistants, allowing also non-technical users to collect data within minutes. For similar websites sharing the same software, such as forums, we demonstrate that generic templates are sufficient to harvest content for later analysis.

**ADDED VALUE:** Simple access to structured Web data is an enabler for various kinds of research. It is vital in order to get training data for machine learning, as well as for any Web-based research on text or numeric data, such as product reviews, forum posts or prices. Getting quick and easy self-service access to Web data without programming lowers the barrier for custom research, allowing for fast data access and prototyping.

## GEOCODING TWEETS USING PROFILE LOCATIONS: INCOMPLEX IDEA, INTRICATE IMPLEMENTATION

NGUYEN, H. LONG; TSOLAK, DORIAN; KARMANN, ANNA; KNAUFF, STEFAN; KÜHNE, SIMON

Bielefeld University, Germany

**RELEVANCE & RESEARCH QUESTION:** Ready-to-use spatial information in the form of GPS coordinates is only available for a tiny fraction of Twitter data, making it difficult to link them to external geographic information, e.g., for the study of regional differences in public opinion. We address this problem by using the free text locations provided by users in their Twitter profiles to determine the corresponding geolocations.

**METHODS & DATA:** Since users can enter any text as profile location, automated identification of real-world locations based on user-provided text strings is highly complicated. Using two relational databases – one housing a growing corpus of over 1 billion German tweets, the other used for geocoding location text strings – hosted on an in-house high-performance computing server, we develop a workflow to efficiently tag tweets with real-world locations.

## B1: WEB DATA

**SESSION CHAIR:** STEFAN OGLESBY data IQ AG, Switzerland

## HARVESTING THE WEB FOR RESEARCH USING TEMPLATE-BASED RETRIEVAL

LANG, ANDRÉ; MÜLLER, STEPHAN

Insius, Germany

**RELEVANCE & RESEARCH QUESTION:** Vast amounts of text and numerical data are available on the Web, but gaining structured access remains cumbersome. While new analytical methods to analyze large datasets emerge, data access is still limited and researchers are bound to either get exports



**RESULTS:** We were able to assign real locations to the tweets sent by nearly half of the users in our corpus. This represents a vast improvement over the 0.2 percent of tweets in our corpus to which Twitter assigns geographic coordinates. Based on the geocoding results, we are not only able to determine a corresponding place for users with valid profile locations, but also the administrative level to which the place belongs. To evaluate the performance of our method, we compare the spatial distribution of our geolocated tweets with the distributions of tweets geotagged by Twitter and the general population in Germany.

**ADDED VALUE:** Enriching Twitter data with this information ensures that they can be directly linked to external data sources at different levels of aggregation, including aggregated regional statistics and survey data. Our procedure provides a solution to a common problem in using big online data for public opinion research and is made open-source for reuse by the scientific community.

## C1: HOW AND WHY MISINFORMATION SPREADS

**SESSION CHAIR:** **BERNHARD CLEMM VON HOHENBERG**  
University of Amsterdam, Netherlands

### **BAD SCIENCE: RETRACTIONS, CITATIONS AND MEDIA COVERAGE**

**ALABRESE, ELEONORA**  
University of Warwick, United Kingdom

**RELEVANCE & RESEARCH QUESTION:** Bad science can be hard to eradicate. This creates the potential for dissemination of misinformation within and outside academia. This work asks whether media coverage can be helpful to the auto-correcting process of science.

**METHODS & DATA:** I use a conditional difference-in-differences strategy to compare retracted papers to control papers that are published in the same journal and year, with similar citation trends before retraction and with comparable media coverage at the time of publication. I then further differentiate between publications with or without media coverage. This analysis combines data on scientific retractions (RetractionWatch) with detailed media coverage (Altmetric) and citations data (Scopus and Scite.ai).

**RESULTS:** I show that retracted articles experience larger citation losses in the presence of media coverage and the remaining post-citations mention more often that the paper is indeed retracted. Journals that generally publish more visible articles are those where retractions happen faster and where citation penalties are larger. The differential effect of media coverage is observed only for hard sciences, suggesting distinct publication practices may impact the visibility of the retraction. I finally show that newspapers are more likely to cover the publication of a paper rather than its retraction, an imbalance that could impact public perception of scholars' trustworthiness.

**ADDED VALUE:** This work adds to the literature on scientific retractions and more broadly on the relationship between science and the media where there is only limited understanding about the role of media coverage in the retraction process. This paper also adds to the literature on misinformation showing that, on one hand, media seems to attenuate misinformation within academia, on the other, it may create misinformation facing a more general audience by often neglecting to update about the status of a previously advertised research.

### **IS POPULISM CONTAGIOUS? EVIDENCE FROM PARLIAMENTARY SPEECHES IN GERMANY**

**HAGEMEISTER, FELIX (1); ESGUERRA, EMILIO (2)**  
**HEID, JULIAN (2); LEFFLER, TIM (2)**  
1: TUM School of Social Sciences and Technology, Germany  
2: LMU Munich, Germany

**RELEVANCE & RESEARCH QUESTION:** The recent success of right-wing populist outfits across the globe arguably poses as existential threat to the liberal democratic world order. Key to understanding this phenomenon and potentially mitigating its spread is to shed light on the mechanisms underlying the spread of populist political ideas and rhetoric. Thus, our paper investigates the contagion hypothesis: does exposure to populists lead politicians to assimilate their rhetoric?

**METHODS & DATA:** We use several thousand digitized speeches from the German Parliament. Germany did not have a successful right-wing populist party at the federal level until the Alternative für Deutschland (AfD) entered the Bundestag as the biggest opposition party in September 2017. We measure similarity to populist rhetoric before and after September 2017 both via a supervised dictionary method and via unsupervised cosine similarity to parliamentary speeches from AfD politicians. We validate our measure using manifestly populist speeches at populist rallies and machine learning methods. In the spirit of a regression discontinuity design, we exploit exogenous variation from the allocation rule for committee members in the German Parliament to identify a causal estimate.

**RESULTS:** We show that exposure to right-wing populist politicians makes non-populist politicians slant their parliamentary speeches towards the populist rhetoric. We find that an additional AfD member in a shared committee of 20 politicians is associated with a 0.375 increase in standardized AfD cosine similarity. Our findings suggest that direct exposure to populism exerts a contagion effect on non-populist politicians. The effect remains robust to including party, month, committee, and speaker fixed effects and does not seem to be driven by shared committee topics or selection effects.

**ADDED VALUE:** Our results are consistent with the Communication Accommodation Theory and add to the literature on the diffusion of social norms and the lingering mainstreaming of populist rhetoric.

## T1: GOR THESIS AWARD 2022 COMPETITION: PHD (sponsored by Tivian)

**SESSION CHAIR:** OLAF WENZEL Wenzel Marktforschung, Germany

### MODERNIZATION OF DATA COLLECTION METHODS

**HAAS, GEORG-CHRISTOPH (1,2)**

1: Institute for Employment Research, Germany  
2: University of Mannheim, Germany

**RELEVANCE & RESEARCH QUESTION:** The overall development of information and communication technologies (ICTs) in recent years lead to an increased usage of novel data collection methods shaping the field of academia, market research, economics political decision making and many other areas. However, little is known about how to best design these new data collection methods. Understanding how design decisions affect the data generation process is crucial for assessing the validity and reliability of measurements and the explanatory power when inferring from a sample to a population. This thesis contains four studies focusing on the effects of novel designs on outcomes related to response burden and data quality.

The first study focuses on the difference in the response burden between the paper and web modes in an establishment survey (response burden study). The second study evaluates how different administrations of a text message survey affect the response rates, nonresponse bias, substantive responses and the propensity to participate in a follow-up survey (SMS study). The third study evaluates the effects of different incentive strategies on installation rates, activating data collection functions, withdrawing data collection consent and retention in a smartphone data collection project (incentive study). The last study evaluates a novel technique called geofencing, that is, using geolocation data to trigger survey invitations over smartphones (geofence study).

**METHODS & DATA:** My thesis papers originate from three different projects, considering different target populations (i.e., German establishment population, Egyptian parents, and general German population), and different modes (web survey, text message survey and app based data collection). Three of the four submitted papers use an experimental design to reach their conclusion.

The response burden study evaluates the difference in response burden between a paper and web mode in a German establishment survey. Response burden was measured with three variables (estimated time to complete the questionnaire, perceived time and burden). To evaluate if response burden is lower in an establishment web survey and whether respondents feel less burdened if they can choose between a paper and a web mode, four mode comparisons were made (Paper-only vs. Web-only, Choice-Paper vs. Paper-only, Choice-Web vs. Web-only, Choice-Paper vs. Choice-Web).

For the SMS study, 1,081 Egyptian parents were randomly assigned to one of two experimental groups: single-sitting and modular. While the single-sitting group received one invitation to an eight-question long text message survey, the modular group received an invitation to a question each day over the course of eight days.

For the incentive study a crossed two factor experimental design was used. First, participants were promised either 10 or 20 Euros conditional on installing the app. Second, participants were promised either one Euro for each passive data collection function that was activated for 30 consecutive days or one Euro per function plus a five Euro bonus if all five data sharing functions were activated for 30 consecutive days.

The geofence study reports on a novel approach to use sensor data to trigger surveys at certain locations and combines survey and smartphone sensor data by using geolocation data to trigger survey invitations. For this purpose, we implemented the geolocation of 410 German job center with a 200 m radius defining the geofences in the IAB-SMART app. If participants dwelled for 25 minutes within one of the geofences, a survey invitation was sent, containing questions about the experience of a consultation meeting in the job center.

**RESULTS:** The response burden study shows that the web mode, whether respondents were offered web as a standalone mode or concurrently with a paper questionnaire, has no negative effect on response burden and a small positive effect on the estimated time to fill out the questionnaire. As there are no substantial differences between the paper and web mode design, the results suggest that the web mode is a suitable alternative or add on for establishment surveys that already use a paper mode.

Results from the SMS study show that compared to the single-sitting design, the modular design achieved a higher number of answered questions but had fewer fully completed answers. Furthermore, the paper finds some differences in substantive responses of behavioral questions between the groups. The study suggests no differences in nonresponse bias between both groups and in the probability to respond to a follow-up survey.

The incentive study found that compared to a 10-Euro incentive, individuals being offered 20-Euro install the app more often. However, the study shows no evidence that installation incentives affect the number of activated functions, number of deactivated functions or retention. Paying respondents a five-Euro bonus incentive if they grant access to all five data sharing functions does not affect the propensity to install the app, keeping data collection functions activated and retention.

The geofence study concludes with six lessons learned on how to improve the design: [1] Collect information that indicates which geofence triggered a survey, [2] Avoid overlapping geofences, [3] Consider the operation times of the locations in the geofence, [4] Consider the number of valid geofences per participant, [5] Availability of the survey invitation, [6] Validate the geofence visit and the event.

**ADDED VALUE:** The web mode, smartphones and the combination of a seemingly unmanageable variety of different data sources offer new possibilities to design and modernize data collection approaches that need to be evaluated in their feasibility and effects on data quality. In my thesis, I tackled some of these new possibilities by evaluating different research designs in each of my four thesis papers. By showing how the data collection process was designed, all four submitted papers make necessary contributions to the academic research literature and enlarge the (online) survey methodologist's toolbox for similar studies. The insights gained from my thesis may be of assistance to researchers designing data collection tools in different contexts of general online research. Each of my papers contributes to a growing body of literature and has different outcome variables. The response burden study, for example, provides important findings for the development and design of web establishment surveys. Results from the SMS study con-

tribute to a growing body of literature on how to apply this mode. The incentive study provides first insights how different incentives strategies affect the participation smartphone studies. And the geofence study, which uses a novel approach to administer surveys, provides a guideline to avoid several design flaws while setting up a geofence study.

## WEB-PUSH STRATEGIES FOR PROBABILITY-BASED MIXED-MODE PANEL SURVEYS

**BRETSCHI, DAVID**

Federal Criminal Police Office, Germany

With declining response rates and rising costs for interviewer-administered surveys, the internet has become a predominant mode of data collection. As part of this development, a rising number of probability-based panels using the internet as the sole or main mode has been established in several countries worldwide. Such probability-based online and mixed-mode panels provide an opportunity to collect high-quality data in a cost-efficient and timely manner. Although mixed-mode panels offer an alternative mode to panelists, and thus can reduce coverage and nonresponse errors, surveyors are typically interested in having as many panelists as possible participate via the least expensive web mode. By pushing panel members to use the web mode rather than a more expensive mode alternative, mixed-mode panels potentially improve the balance of survey errors and survey costs.

The goal of this dissertation is to explore and further develop web-push strategies for probability-based mixed-mode panels. In three separate studies, I investigate how the inclusion strategy of internet users in the mail mode affects data quality in the recruitment of a mixed-mode panel, test strategies to push panel members from the mail mode to the web, and explored why some panel members are willing to switch to the web mode while others are not.

The analyses of this dissertation are based on data from the GESIS Panel, a German probability-based mixed-mode panel combining web-based surveys (web mode) and paper-and-pencil surveys sent via postal mail (mail mode). The modes are assigned in a multi-step recruitment procedure in which internet-using respondents are asked to take part in the surveys via the internet. While respondents who refuse to participate online are allowed to opt for the mail mode, non-internet users are automatically assigned to the mail mode.

The first study of this dissertation focuses on the recruitment procedure of mixed-mode panels to investigate whether offering internet users a mail mode option affects nonresponse bias. This question is important for survey research since internet users responding in the mail mode produce substantially more survey costs than their counterparts using the web mode. This research issue was tested in three analysis steps. The first step suggests that the group of internet users included in the mail mode differs from non-internet users in the mail mode and panelists in the web mode in several characteristics. However, by excluding this group from the analysis in a second step, nonresponse bias was found in only a few estimates compared to a benchmark survey. A third analysis step provided evidence that estimates of the means in variables used by two reproduced studies differ significantly between the full and the reduced data set that did not include the internet users in the mail mode. In contrast, estimates of multivariate analyses were only slightly affected if internet users were not included in

the mail mode, and the original authors would probably have come to the same substantive conclusions based on the reduced data set. Even if offering a mail mode option to internet users is likely to increase recruitment rates of a mixed-mode panel, this study provides preliminary evidence that the higher investment may not pay off. From a total survey error perspective, survey designers could weigh up whether other design options are available which would more efficiently reduce survey errors within a given budget.

The second study addresses whether and how members of an ongoing mixed-mode panel can be pushed to switch the survey mode from mail to the web. It was experimentally tested how the order of presenting the web mode and offering an incentive affect four main outcomes: participants' willingness to use the web mode in the short- and long-term, panel attrition, and survey costs. The results show that a sequential web-first condition convinced significantly more panel members to complete the questionnaire online in a single wave than offering the web and mail mode concurrently but may not motivate more panelists to switch to the web mode permanently. In contrast to the proposed hypothesis, offering prepaid incentives neither improved the web response nor the proportion of mode switchers compared to promised incentives. In sum, 14.4% of all panelists in the mail mode were willing to use the web mode in future waves, and all three web-push strategies tested were able to effectively reduce survey costs without causing differences in panel attrition after five consecutive waves. These findings provide new evidence that a web-push intervention in an ongoing panel study is an effective design option for persuading mail respondents to switch to the web mode. In particular, sequentially offering the web mode combined with a promised incentive shows potential as a cost-efficient web-push strategy.

The third study follows up on the web-push study of this dissertation by addressing the question of why panel members are willing or unwilling to switch from the mail to the web mode when offered the opportunity. The study was particularly interested in whether internet-related characteristics can explain respondents' decisions by measuring indicators of internet use, internet skills, and attitudes toward the internet before a web-push intervention was implemented. The results of this study suggest that internet use and internet skills affect respondents' willingness to switch modes in a single wave. For these short-term switchers, however, none of the internet-related characteristics could explain mode switching in the long term. Overall, this study indicates that internet use and skills are more important in predicting and explaining mode switching than attitudes, such as perceived internet-related risks. These findings may help to develop more effective web-push strategies for mixed-mode panels, for instance, by applying a targeted web-push design where panelists receive treatments depending on predefined characteristics such as certain internet skills or attitudes toward the internet.

The overall findings of this dissertation show that web-push strategies are a promising tool for probability-based mixed-mode panels. However, the use of such strategies in panel studies is still relatively new in survey methodology, and more research is needed to learn how to use this design feature effectively and unleash its full potential. In this regard, the current work provides conclusions and suggestions on how web-push strategies can be further developed and refined.

## SMART(PHONE) SURVEYS

ELEVELT, ANNE (1,2)

1: Statistics Netherlands, The Netherlands

2: Utrecht University, The Netherlands

**RELEVANCE & RESEARCH QUESTION:** Smartphones have a large potential for improving data collection by using research apps and collecting sensor data. This brings opportunities to enhance or extend measurement and to simplify the response task for respondents. Sensor data can (partly) replace survey questions, and these sensors potentially generate better data than respondents can provide themselves. This seems very promising, but many methodological questions arise related to representation and measurement in smartphone surveys; are respondent willing and able to participate and share sensor data, and how useful are the additional data collected via sensors and apps?

In this dissertation we investigated the effect of smartphone surveys in terms of reducing (or enlarging) error components. These errors can be divided into errors in the measurement and the representation. In Chapter 2 we perform a systematic review and meta-analysis to investigate how to improve the effectiveness of the consent to data linkage question. In Chapter 3 we study nonresponse and nonresponse bias at different stages of the smartphone-only version of the Dutch Time Use Survey (TUS). In Chapter 4 we focus on measurement error when collecting GPS data in a smartphone survey. More specifically, we investigate whether and how passive collection of geographical locations (coordinates) proves useful for deriving respondents' functional locations. In Chapter 5 we investigate both representation and measurement in an innovative and experimental study on the use of sensor data in fitness and health research. Chapter 1 provides an elaborate introduction and chapter 6 a summary and discussion.

**METHODS & DATA:** In Chapter 2 we conducted a systematic review and meta-analysis to identify modifiable aspects of the consent to the data linkage request that influence consent rates. A systematic literature search (following the PRISMA guidelines) of six databases yielded 45 eligible manuscripts. An inventory of all conducted experiments in these manuscripts revealed a large variation in the aspect of the consent question covered. We performed a network meta-analysis for the two most-covered aspects (i.e., sponsorship and question wording). All other categories were systematically reviewed.

In Chapter 3 we used data from the smartphone-only version of the Dutch TUS. Respondents from the Dutch LISS panel were asked to perform five sets of tasks to complete the whole TUS: 1) accept an invitation to participate in the study and install an app, 2) fill out a questionnaire on the web, 3) participate in the smartphone time use diary on their smartphone, 4) answer pop-up questions and 5) give permission to record sensor data (GPS locations and call data). At every stage, some respondents fail to participate. In this study we look at all stages to get insight in the complete smartphone survey process.

In Chapter 4, we also studied data from a smartphone-only TUS. Participants of the ongoing Children of Immigrants Longitudinal Survey in the Netherlands were invited to participate in a TUS administered with a smartphone app that also unobtrusively tracked respondents' locations. Respondents reported their activities per 10-min interval in a smartphone diary app ( $n = 1,339$ ) and shared their geographical location data ( $n = 1,264$ ). In Chapter 5 we use data from two different data sources: Data from a cross-sectional study (data source 1) and data from a lab study (data source 2). Both data

sources contain high-frequency acceleration data collected from respondents' smartphones through the open-source JavaScript-based tool "SurveyMotion (SMotion)" developed by Höhne et al. In both studies we asked respondents to do squats (knee bends). We also employed a variety of questions on respondents' health and fitness level and additionally collected high-frequency acceleration data.

**RESULTS:** Our results in chapter 2 show that how researchers ask consent questions matters greatly for consent rates. Providing respondents with arguments for data sharing always increases consent rates compared to not giving an argument. Sponsorship by a university or non-profit organization, higher incentives, using interviewers, position at the beginning of the questionnaire or in the context of a particular survey question, higher study relevance, shorter study duration and the possibility to (later) opt-out all lead to higher consent rates.

Our results in chapter 3 show that cumulative nonresponse is very large, but comparable to traditional offline time use surveys. 42.9% of invited panel members responded positively to the invitation to participate in a smartphone survey. However, only 28.9% of these willing panel members completed all stages of the study. In addition, every stage introduces different selectivity. Younger respondents, who are familiar with smartphones are more likely to participate in the smartphone parts. Lastly, respondents who participate in all stages are different from respondents that do not complete all stages: respondents who participate in all stages work more, and spend less time watching TV than the (partial) non-respondents. This means that there appears to be nonresponse bias on the variable of interest, which is problematic for making inferences.

Our results in chapter 4 show that despite our efforts to align the time use diaries and geographical locations over time there are large differences in the time people appear to be at home, in transit or at school/work. We can only to some extent derive functional locations automatically (i.e. home location), at least for Android users. For iOS users, the results of the automated coding of functional locations are rather disappointing. Measurement error both in location tracking, also called positioning errors, and the time use diaries proves to be a major issue that makes it really hard to align both data sources. Respondents' self-reported information is thus still necessary to establish functional locations.

Our results in chapter 5 indicate that it is feasible to ask respondents to engage in fitness tasks in self-administered smartphone surveys. Most non-compliers give health-related reasons and health-related variables affect compliance propensities: respondents may be willing but not able to do squats. Respondents may be willing, but not able to comply in the squat task: using less physically demanding tasks in future studies may result in (even) higher compliance rates and a more complete picture of respondents' physical fitness level. Finally, we show that we can validate respondents' compliance and performance using smartphone's total acceleration data.

**ADDED VALUE:** This study proves that smartphone surveys are promising tools for social research, but that there is still a lot of work to do. So let's keep dreaming and working to get there. Then hopefully the future will profit from the endless opportunities of smartphone surveys.



## A2: NEW TECHNOLOGIES IN SURVEYS

(sponsored by GESIS)

**SESSION CHAIR: REBEKKA KLUGE**  
 GESIS – Leibniz Institute for the Social Sciences,  
 Germany

### AUTOMATIC CONVERSION AND EXECUTION OF LIMESURVEY SURVEYS WITHIN CHATS

**NEUMANN, ALEXANDER TOBIAS; TÄUBER, THERESA; KLAMMA, RALF**  
 RWTH Aachen, Germany

**RELEVANCE & RESEARCH QUESTION:** Surveys can be used to collect information from a large number of people. Nowadays, a large part of the population is surveyed through online surveys using modern technologies. However, the response rates for online surveys are decreasing because either no survey is started or the survey is abandoned after it has been started. We see the potential of chatbots to increase user engagement by communicating with them in natural language within familiar chat environments. The following paper aims to address this problem.

**METHODS & DATA:** Automatic conversion of surveys from LimeSurvey was developed to use a chatbot in parallel to the conventional online survey to collect answers. The answers are also automatically transferred back to Limesurvey. It was initially trialed with 16 participants. The survey was conducted via Limesurvey as well as via chatbot. Questions were asked regarding the usability and the direct comparison between a bot and an online survey. The answers were also used to conclude the information provided and the level of engagement.

**RESULTS:** The results show that the chatbot offers a user-friendly interface to the user survey. The chatbot also positively influenced the scope of the information content and enabled higher response qualities than conventional online surveys.

Surveys on a larger scale, mainly focusing on smartphone users, are still in progress.

**ADDED VALUE:** The presentation will show how a chatbot can provide user-friendly interfaces for conducting surveys and how a chatbot can be used as a survey tool. With the presented system and a template, the parallel use of a chatbot is not a technical hurdle at all. The survey thus also offers mobile smartphone users the opportunity to conduct user-friendly surveys anywhere.

### SPEAKING OR TYPING? COMPARING VOICE AND TEXT ANSWERS TO OPEN QUESTIONS ON SENSITIVE TOPICS IN SMARTPHONE SURVEYS

**HÖHNE, JAN KAREM (1,2); GAVRAS, KONSTANTIN (3)**  
 1: University of Duisburg-Essen, Germany;  
 2: RECSM-Universitat Pompeu Fabra, Spain  
 3: University of Mannheim, Germany

**RELEVANCE & RESEARCH QUESTION:** The increase of smartphone usage in web surveys, coupled with technological developments, provide novel opportunities for measuring respondents' attitudes and opinions. For example, smartphones allow the collection of voice instead of text answers by using the built-in microphone. This may facilitate answering questions with open answer formats and may result in richer information and higher data quality. New advancements in Automatic Speech Recognition (ASR) and text-as-data methods also enable a proper handling of open answers from large-scale web surveys. However, so far, there is almost no research investigating voice and text answers to open questions.

**METHODS & DATA:** In this study, we therefore compare the linguistic and content characteristics of voice and text answers to four open questions on sensitive topics (e.g., deportation of delinquent refugees). For this purpose, we conducted an experiment in a smartphone survey (N = 1,000) in Germany in July and August 2021 and randomly assigned respondents to an answer format condition (voice or text). Voice answers were collected using the open-source SurveyVoice (SVOICE) tool that resembles the voice function of popular Instant-Messaging Services, such as WhatsApp and WeChat.

**RESULTS:** We initially transcribed voice answers into text using Google's Cloud Speech-to-Text API. In a first step, we compared missing data (i.e., dropouts and item-nonresponse) between the voice and text conditions. Missing data is higher in the voice condition than in the text condition. We then analyze the length (i.e., number of words), lexical structure (i.e., lexical richness, lexical diversity, and readability), sentiments, and topics of voice and text answers. However, the final results are still pending.

**ADDED VALUE:** Our study provides new insights into the linguistic and content characteristics of voice and text answers. Furthermore, it helps to evaluate the usefulness and usability of voice answers for future smartphone surveys.

### SPEECH IN RESEARCH 2.0

**LÜTTERS, HOLGER**  
 HTW Berlin, Germany

**RELEVANCE & RESEARCH QUESTION:** The first approaches using speech in research are in practice for some years, but the usage of speech in interviews still has not yet become a standard research procedure. The pandemic brought an equipment tech boost with more people being equipped with technology usable for speech interactions. Time to show an update of the research opportunities for a post pandemic scenario using speech in digital interviews.

**METHODS & DATA:** The contribution shows the basics of Text-to-Speech (TTS) and Speech-to-Text (STT) technologies necessary to run speech interviews and discusses the dead end idea of smart device research.

Several international studies using voice elements in quant browser questionnaires are presented with their deviant success rates while using speech and transcription services. In total more than 10.000 interviews in about 30 different languages were conducted using representative panels or random social media sampling approaches. The presentation will only describe the overall success rate of these approaches in different countries and languages around the globe.

**RESULTS:** The different studies show a positive increase of the ability in using voice answers in a standardized interview compared to pre-pandemic times. The (non-)willingness to participate is equally spread between device categories. The answering rate for iOS users is significantly lower in terms of the time spent with voice answers compared to Android users.

Nearly all studies show the benefits of using speech instead of open answer boxes for qualitative input in quantitative studies at the price of higher drop-out rates. The adoption of new tech scenarios seems to be age related as younger participants have less issues when talking into a machine. The presentation will share learnings of different approaches of persuasion to participate in a research process with speech.

**ADDED VALUE:** The findings open the door to more digital qualitative research as the setup can be adopted to the needs of any modern study using speech. Today's applications are only offering "first world solutions". The talk also addresses the necessity to have open access to high quality data sets of speech in more languages than offered today by the big tech companies.

## B2: COLLECTING SMARTPHONE DATA VIA APPS AND SENSORS

**SESSION CHAIR:** KATHARINA MEITINGER  
Utrecht University, Netherlands

### HOW TO INCREASE THE ACCEPTANCE OF MOBILE APP AND SENSOR DATA COLLECTION?

**WENZ, ALEXANDER; KEUSCH, FLORIAN**  
University of Mannheim, Germany

**RELEVANCE & RESEARCH QUESTION:** To study human behavior, social scientists are increasingly collecting data from mobile apps and sensors embedded in smartphones and wearable devices. A major challenge of these studies is that participation rates are rather low. While previous research has started to investigate the factors affecting individuals' decision to participate in such studies, less is known about features of the study design which are under the researcher's control and can influence the acceptance of these data collection methods.

In this paper, we report the results from a vignette experiment that examines the effect of five study characteristics on individuals' willingness to download a research app on their smartphone.

**METHODS & DATA:** We collected data from 1,876 respondents in the NORC AmeriSpeak Panel, a probability-based panel of the general population aged 18+ in the United States. In the vignette, we presented the respondents with an app that would administer time-use surveys and passively collect a range of sensor data, including geolocation and physical activity, among others. Five dimensions were varied in the vignette experiment: (1) readability of the data protection and privacy statement (easy vs. difficult), (2) technical support provided for app installation (yes vs. no), (3) type of control that participants have over their data (turn off data collection vs. review data before submission vs. none), (4) monetary incentive (unconditional vs. conditional with incremental amount vs. conditional with fixed amount), and (5) personalized feedback (yes vs. no). Respondents were randomly assigned to eight vignettes. After each vignette, they were asked to rate their willingness to participate in the described hypothetical study.

**RESULTS:** Overall, 42% of respondents would be willing to install the research app. We find that giving respondents control over their data and offering unconditional incentives increases their willingness to install the app. Contrary to our expectation, providing technical support for app installation decreases individuals' willingness. No significant effects were found for the other characteristics.

**ADDED VALUE:** The results can inform researchers' decisions about how to design data collection protocols such that larger parts of the population are willing to engage with app and sensor data collection.

### CHALLENGES OF MEASURING SOCIAL INTERACTION WITH SMARTPHONE APP DATA

**MALICH, SONJA (1); HAAS, GEORG-CHRISTOPHER (1,2)  
KEUSCH, FLORIAN (2); BÄHR, SEBASTIAN (1)  
KREUTER, FRAUKE (3,4); TRAPPMANN, MARK (1,5)**

1: Institute for Employment Research, Germany  
2: University of Mannheim, Germany  
3: University of Maryland, USA  
4: LMU Munich, Germany  
5: University of Bamberg, Germany

**RELEVANCE & RESEARCH QUESTION:** The complex construct of social interaction is usually measured through observational studies, retrospective self-reports, or diaries. However, the measurement can be burdensome for participants and is vulnerable to recall bias. Moreover, individuals increasingly interact with each other via messenger (e.g., WhatsApp) and social network apps (e.g., Instagram, Twitter).

This dimension of social interaction is automatically documented as digital traces in the smartphone's app usage records providing rich information about social behaviors at a fine-grained level. At the same time, these data overcome limitations of traditional survey methods such as response burden and recall bias. Yet, app data comes with its own challenges, and we first must explore, preprocess, and interpret the large and complex data. Therefore, this paper addresses challenges when measuring social interaction with app usage data.

**METHODS & DATA:** We analyze data from the IAB-SMART study, which used a smartphone app to collect survey and sensor data from 623 members of the German Panel Study Labour Market and Social Security (PASS) over a period of six months. Using app usage data, we build various social interac-

tion indicators (e.g., usage duration). We show how these measures are distributed in our data and how means and medians are affected by different operationalizations of app categories, including missing app usages and foreground app usage data collection.

**RESULTS:** We find that app usage indicators are highly skewed and that measures like the mean provide a very limited if not a misleading overview of app data. Measuring app usage in the foreground detection mode leads to an underestimation of the actual usage duration of apps that can be used in the background once activated. As this is work in progress, further results will be added in the conference presentation.

**ADDED VALUE:** We contribute to the current research on extracting interpretable measurements from digital trace data by, first, detecting and pointing out crucial challenges that arise when preparing and analyzing app data. Second, we demonstrate and discuss potential ways of addressing these challenges when measuring social interaction with app data.

## HOW ACTIVE SHOULD RESPONDENTS BE IN SMART SURVEYS WITH PASSIVE SENSOR DATA COLLECTION?

ELEVELT, ANNE (1); BAKKER, JELDRIK (1)  
SCHOUTEN, BARRY (1,2); AKKERMANS, JANNICK (2);  
RODENBURG, EVELIEN (2)

1: Statistics Netherlands, The Netherlands  
2: Utrecht University, The Netherlands

**RELEVANCE & RESEARCH QUESTION:** Smartphones and sensors can be used to extend traditional data collection. Smart surveys combine primary and secondary data collection, and are a hybrid form between traditional types of data (e.g. survey data) and new forms of data (e.g. sensor data and other forms of big data). Smart surveys aim at easing the response task, decreasing the respondent burden and/or improving data measurement accuracy.

Smart surveys face an important question in designing and analysing the combination of survey questions and sensor measurements though: To what extent should respondents be actively involved in sensor data collection? We face a trade-off between respondent burden and data quality here: Sensor data may namely also face measurement errors, and we would like our respondents to adapt those inaccuracies. In this presentation we will talk about this trade-off using three different apps.

**METHODS & DATA:** We will discuss three different research apps, that are currently employed at Statistics Netherlands, where the extent of active respondent involvement plays a prominent role: 1) Household Budget Survey, 2) Travel survey, 3) Time use survey. These three apps combine passive (sensors) and active (diary) data collection.

**RESULTS:** We show how decisions are made about the passive – active data trade – off in the apps. Furthermore, we investigate how active or passive respondents are, what influences passive or active behavior and how the (smart features of the) apps influence data quality.

**ADDED VALUE:** This presentation adds value by discussing three different (already built) research apps that vary in scope, but even more by showing results and thereby going further than just a theoretical discussion. We want to stimulate a discussion about the active-passive data trade-off, which is essential to bring our research apps to a higher level.

## C2: A SHARED REALITY? - INFORMATION EXPOSURE AND POLITICAL OUTCOMES

SESSION CHAIR: VERED ELISHAR MALKA  
The Max Stern Yezreel Valley College, Israel

### MAPPING THE DIGITAL LANDSCAPE OF DELIBERATIVE POTENTIAL

OSWALD, LISA  
Hertie School, Germany

**RELEVANCE & RESEARCH QUESTION:** The state of the online public discourse is a disputed issue. Against the notion of polarized and low-quality discussions, featuring misinformation and hate speech in online environments, the concept of deliberation represents an ideal form of political discussions and offers a constructive angle to examine online environments.

Mapping the online public discourse is empirically challenging. However, as online environments provide the basis for the online public discourse, it is crucial to establish a coherent system to map the deliberative potential of websites.

**METHODS & DATA:** Using web tracking data in combination with survey data from a representative sample of Germany citizens (N = 1282), we map out (1) which websites were relevant for the German online public discourse in 2017, (2) develop a measure of deliberative potential along six dimensions (information, communication, participation, isolation, inclusivity and heterogeneity) while combining computational methods with manual content coding and (3) using latent class segmentation analysis, we explore different classes of websites.

**RESULTS:** Besides a cluster of informational hubs that are used by most of the online public, we find a cluster of public broadcasting and journalistic news outlets that show the highest density of political information that are, however, not characterized by a diverse user base. On the other hand, we find a cluster of niche online forums, that are mostly neglected in current analyses of the online public sphere, hosting in-depth political discussions among tightly knit online communities.

While the mainstream sites in our sample attract a much larger volume of clicks, users spend relatively more time-consuming political information on public broadcasting and online news outlets as well as on niche online forums to discuss politics online.

**ADDED VALUE:** Most previous research focused on specific aspects, such as news media diets or discussions on social media platforms. However, increasingly complex media environments are composed of different arenas with different respective functions for democracy. We therefore argue for a more holistic perspective on the diverse ecosystem of online deliberation while presenting a first quantitative exploration of a deliberative system.

D2:

1: Leiden University, The Netherlands  
2: KU Leuven, Belgium

**SESSION CHAIR:** **STEFAN OGLESBY** data IQ AG, Switzerland

HR RESEARCH COCKPIT 2.0

**HILBER, JÖRG** Constant Dialog AG, Switzerland

Only a few companies do both at the same time: they measure the satisfaction of their employees, and they evaluate and develop the methodological, personal and leadership skills of their staff at the same time.

Thanks to automated end-to-end processes, an online platform enables even small and medium-sized companies to make a methodical quantum leap in the research and development of employee relations:

By allowing all employees to obtain a scientifically valid individual analysis of their personality, their potential, their work-life balance and even their potential burnout risk, companies empower their staff to individually develop their personal and methodological competences and “takes care of themselves”. By means of a concrete practice case, you will be shown how an innovative online research solution provides advanced organisations with what it needs to achieve a significant competitive advantage in the recruitment, development and retention of skilled workers and managers.



## CLOSE, CLOSER, BILENDI DISCUSS - OPPORTUNITIES AND LIMITATIONS FOR DIY-QUAL AND AGENCY USE

ENGEL, FLORIAN (1); WIELPÜTZ, ANDREA (2)  
SCHARPF, CLARA (3); WELTER, CHRISTOPH (3)

1: Bilendi & respondi, Germany  
2: congstar GmbH, Germany  
3: Point Blank, Germany

Many companies face the challenge of understanding their customers and various target groups correctly. The world is changing at rapidly - in the field of market research, the results are expected and needed in ever shorter time, despite decreasing budgets, in order to be able to react quickly to any changes. At the same time, the willingness of people to participate in (online) research studies is decreasing - low acceptance rates regarding the issue of downloading third-party apps or plug-ins, which are often required for conducting qualitative online studies, make it difficult for online access panel providers to recruit accordingly.

Bilendi Discuss can counteract this with its multi-channel approach: individuals can participate for corresponding studies via their preferred "channel". An API interface to WhatsApp, Facebook Messenger, Slack or LinkedIn reaches people in their familiar environment and leads to significantly higher acceptance rates. The feedback from the participants is then collected live and in real time in the Bilendi Discuss platform and, in some cases, already pre-analyzed with AI features. A joint study by Bilendi, congstar and Point Blank investigated what the barriers and drivers are in the use of "self-service" offers from congstar. Both the individual and group modes of the tool were used. In group mode, for example, users were asked to work out a "pitch" as a voice message in several groups.

For Point Blank, this project offered the opportunity to examine the tool with regard to its possible applications on the agency side. In the future, this is conceivable in individual mode, especially for live support of the participants (e.g. at the POS). This makes the tool unique. The group chat function is suitable for preparing a group for a group discussion or as a creativity tool (e.g. for creating collages for mood boards).

## EYE TRACKING AND QUALITATIVE RESEARCH COMMUNITIES – CASE STUDY AND PRACTICAL EXPERIENCES

WAKENHUT, RUTH (1); VENJAKOB, ANTJE (2)

1: Kernwert GmbH, Germany  
2: Oculid GmbH, Germany

**RELEVANCE AND RESEARCH QUESTIONS:** This project employed a combination of digital qualitative methodologies and eye tracking within the context of a research community. As part of a cooperation between dm Drogerie-markt, Oculid and Kernwert it was used to test the feasibility of a mixed method approach to testing newsletter materials. The aim was to link implicit and explicit data collection formats in digital qualitative research in a meaningful way and to gather experience in practical implementation.

**BACKGROUND:** Eye tracking has become an increasingly popular method within UX and market research. The collected data provides ample insight into the attention of participants when interacting with apps, websites, videos or pictures. Until now, such implicit methods were quite complex to implement. Oculid's technology uses the smartphone camera to record the

eye gaze data and is thus very easy to use. This form of eye tracking has mainly been used in the field of quantitative surveys and there is still little experience with its use in qualitatively oriented research communities. Eye tracking data provides exciting insights into the interaction with materials, but leaves questions about expectations and the usage situation unexplored and often cannot adequately answer the "why" of the distribution of attention.

Research communities are a very versatile method that enables an intensive exchange with target groups using a variety of survey tools. So far, the focus has been on explicit formats of questioning and discussion. Implicit methods, especially eye tracking, are hardly used and there is little knowledge of how well this method can be implemented in the context of research communities, especially with small numbers of respondents. In the cooperation study, a newsletter test for dm-drogerie markt was used to examine how the two approaches can profitably complement each other and how the combination can lead to a deeper understanding of the question. In addition, practical questions of feasibility, such as the quality of the collected data and the motivation of the participants, were also in the focus.

**METHODS & APPROACH:** The study consisted of three steps: In a qualitative pre-task phase, ethnographic data was collected on the Kernwert platform and general questions were asked about the use of the dm newsletter and overall expectations. In a second step, the participants tested a dm newsletter via eye tracking. To conclude, tasks were again answered on the Kernwert platform in order to be able to track the participants' impressions and memories and to provide additional opportunities for open feedback after the eye tracking test. The study was conducted over 4 days in June 2022 with 31 people from the dm customer forum.

## T2: GOR THESIS AWARD 2022 COMPETITION: BACHELOR/MASTER

(sponsored by Tivian)

**SESSION CHAIR:** OLAF WENZEL Wenzel Marktforschung, Germany

## MOTIVATIONAL METHODS TO REDUCE POSSIBLE RESPONSE BIASES OF ONLINE SURVEY PARTICIPANTS IN THE CONTEXT OF MARKET RESEARCH

NGUYEN, TRUONG TRUNG HIEU

University of Hohenheim, Germany

**RELEVANCE & RESEARCH QUESTION:** Data from the Association of German Market and Social Research Institutes (2021) show that 2020 is the seventh consecutive year in which online surveys are the most widely used survey type in quantitative studies. Despite this increasingly widespread use, there are still concerns about the quality of data collected online (see e.g. Bauer et al., 2011). A significant source of error in online surveys is that respondents may not choose the answer choices that best apply to them, but rather exhibit a constant pattern of responses (Bogner & Landrock, 2015;

Pospeschill, 2010). The resulting deviation of reported values from actual, true values significantly damages the validity of studies (Bogner & Landrock, 2015). According to Krosnick (1991), the occurrence of response biases is due to the satisficing behaviour of respondents. In order to reduce the cognitive effort associated with answering questions, they may perform some components of the response process, be it information retrieval or judgment, less thoroughly or neglect them completely (Krosnick, 1991; Tourangeau et al., 2000). According to Krosnick (1991), the probability of satisficing is negatively related to the motivation of respondents. Motivational methods have been developed in the relevant literature (see e.g. Ward & Meade, 2018), but their contribution to reducing a variety of response biases in the context of online market research is yet to be tested. Against this background, the Master's thesis aims to answer the following research question: "To what extent do methods to increase the motivation of online survey participants counteract possible response biases in the context of market research?"

**METHODS & DATA:** A field experiment was conducted with 432 subjects (72.7% female) aged 18 to 74 years ( $M = 28.3$ ,  $SD = 8.9$ ). This convenience sample (Leiner, 2016) was recruited via social media as well as via a survey mailing list. All subjects were asked to participate in a survey of a fictitious market research institute on the topic of private labels. A single-factor design was chosen. Test persons were randomly assigned to the control group or one of the three experimental groups using a random generator. In contrast to the control group, the three experimental groups were each exposed to a stimulus, i.e. one of the developed motivational methods.

These include (1) the monetary performance-based incentivisation (hint to a raffle of vouchers among serious participants), (2) the self-commitment to careful survey participation, and (3) the salient presentation of consequences of careless answering using text and pictures (an explanation that without the serious participation in the survey, companies would not be able to adapt their products to the wishes and needs of consumers, and pictures showing customers' dissatisfaction with purchased products).

Following Ryan and Deci (2000), it is hypothesized that the aforementioned methods increase different types of motivation, namely (1) the external regulation, (2) the introjected regulation, and (3) the autonomous motivation, and therefore exhibit different effectiveness against response biases, with the third method demonstrating the largest effect, followed by the second and first methods. Subjects' answering behaviour was measured after the treatment (posttest-only). Since the nine response biases studied are to be expected in the case of different question types, several question blocks were developed. Given Krosnick's (1991) assumption that the probability of satisficing increases in the course of the interview, the order of the question blocks was randomised. The extent of response biases was generally operationalised by the absolute frequency of the response option in question being selected. For example, to determine the acquiescence bias, the frequency that a subject agreed with (1) one statement (Menold & Kemper, 2014) and (2) both statements of an opposing item pair (DeSimone et al., 2015) was collected.

On the other hand, to explore, for example, the bias to give non-substantive or qualitatively inferior answers to cognitively challenging open-ended questions, the number of named private brands that spontaneously came to mind was counted. Both a pretest and a pilot test were conducted before the main study. Collected count data were assessed using (zero-inflated) Poisson and negative binomial regression analyses. Control variables were gender, age, private label purchase frequency, and the rank of the question block developed to capture the response bias in focus within the survey.

**RESULTS:** No significant differences can be found between the control group and the experimental groups with regard to the defined indicators. These findings suggest that the elaborated methods do not contribute to a reduction of response biases of online survey participants.

**ADDED VALUE:** The study has contributions to online (market) research as well as to methodological research. First, it considers the impact of different motivational methods on a variety of possible response biases in the context of online market research and provides initial indications that these methods should be implemented differently in the future. It may also be worthwhile to focus on other behaviour change techniques. Data collected show that the use of such methods does not influence respondents' satisfaction with the survey at all.

Secondly, the study suggests how the effects of certain methods on the extent of different response biases should be investigated. It is necessary that different blocks of questions to capture different response biases are developed and randomised in the course of the survey. In the evaluation, the rank of the respective question block is to be controlled. Furthermore, the study demonstrates how response biases can be operationalised, including biases that have received little attention in research so far, such as heaping at round numbers (indicator: number of zeros in the decimal point range of stated prices that subjects are willing to pay for a private label product) or the bias to give non-substantive or qualitatively inferior answers to cognitively challenging open-ended questions (number of named brands in the question about unaided brand awareness).

Prior to the main study, a pilot test was conducted in which only highly motivated subjects recruited from the circle of acquaintances participated. The pilot test aimed to identify items that were unsuitable for measuring a certain response bias. For example, items to which even highly motivated respondents all agree can not be used to determine the acquiescence bias. Within the framework of the study, it was decided not to define a threshold value for each response bias based on the collected count data, above which subjects are considered to have the respective bias. Instead, the count data was evaluated using (zero-inflated) Poisson and negative binomial regression analyses.

## THE DIRICHLET DUAL RESPONSE MODEL: AN ITEM RESPONSE MODEL FOR CONTINUOUS BOUNDED RESPONSES COLLECTED VIA DUAL RANGE SLIDERS

KLOFT, MATTHIAS

Philipps-University Marburg, Germany

**RELEVANCE & RESEARCH QUESTION:** Online surveys enable researchers to easily collect continuous response data, e.g., via range slider items (RS1). Although such continuous response scales are frequently used, e.g., in personality research, they come with the major drawback of forcing respondents to condense a range of attitudes and behaviors into a single response value. The variability component is usually not considered and valuable information is lost. Dual range sliders (RS2) present a possible solution for approximating this variability in attitudes and behaviors by means of response interval widths.

In this thesis I develop an item response theory (IRT) model for data collected via the RS2 format. For this purpose, I extend the beta response model (BRM; Noel & Dauvier, 2007), an IRT model for RS1 data, to the Dirichlet dual

response model (DDRM). In contrast to the widely used normal distribution, the use of a Dirichlet distribution offers the advantage of incorporating the natural dependencies between response values and scale bounds. This is especially important for the analyses of interval responses because the possible width of a given response always depends on its location.

The first aim of the thesis is to evaluate the proposed model in the context of a Extraversion online survey. The model fit is assessed on the basis of posterior predictive checks, leave-one-out cross-validation and the evaluation of parameter estimates.

The second aim is to investigate the usefulness of the RS2 format. On the one hand, the response interval locations should be suitable to measure the magnitude of a given latent trait equivalently to the RS1 format. Therefore, the corresponding person parameters of the BRM and DDRM should be highly correlated ( $r > .7$ ), which would present evidence for the convergent validity of both item formats. On the other hand, the response interval widths are assumed to approximate the variability in the latent trait of interest and should therefore measure on a dimension that is mostly uncorrelated to the magnitude dimension. Consequently, the corresponding person parameters of the DDRM that concern the locations and widths of the response intervals should exhibit at most a small correlation [ $|r| < .3$ ].

The third aim of the thesis is concerned with the perceived usability and acceptance of the RS2 item format in comparison to the RS1 format.

**METHODS & DATA:** For the purpose of model development and evaluation, I conducted an online survey containing 222 self-selected participants who answered two Extraversion scales with each the RS2 format and the RS1 format respectively. The BRM and DDRM were jointly fit in a Bayesian hierarchical model with Stan. The survey also included three questions concerning the suitability of each item format and the respondents' preference for either one of them.

**RESULTS:** While the proposed model showed reasonable fit regarding the lower and upper values of response intervals there was still some misfit regarding the means and widths of the response intervals. Nonetheless, respondents could be sufficiently differentiated regarding their response interval locations and widths.

The correlation between location person parameters of the BRM and DDRM suggests that the RS2 interval locations measured the magnitude of Extraversion and can be used in place of the RS1. Additionally, the low correlation between both DDRM person parameters presents evidence for the measurement on two distinct latent dimensions.

Respondents rated the RS2 as less suited for answering compared to the RS1 and likewise more respondents preferred the latter format. Nonetheless, roughly a third of participants preferred the more complex format, i.e., there was still substantial acceptance of the RS2, which could possibly be raised by carefully choosing items or applications that are suited for the RS2 format.

**ADDED VALUE:** In this thesis I demonstrated that the RS2 in combination with the DDRM could be a useful item format to jointly measure magnitude and variability of a latent trait. First, a high correlation between the person parameters for Extraversion in the BRM and DDRM suggests that the RS2 can be used to measure the magnitude of a latent trait equivalently to the RS1. Second, there is evidence that the RS2 does measure on a second dimension, which is assumed to reflect the respondents' variability in the la-

tent trait. However, the respective parameter estimates of the DDRM must be interpreted with caution because there is still a miscalibration of the model regarding the response interval widths.

Additionally, the DDRM was able to compensate for some of the inherent correlation between locations and widths of the empirical response intervals. Apart from psychometric properties of the item formats, I found that a substantial portion of participants preferred to answer with interval responses.

If the remaining miscalibration of the DDRM can be resolved and the RS2 format is used with care, the combination of DDRM and RS2 could become a viable measurement tool for future research concerning respondents' variability in latent traits or uncertainty in answering.

## POSTERS

## FOLLOW ME: SOCIAL MEDIA USERS AND FACTORS AFFECTING AGENDAS DURING ELECTION

**ARIEL, YARON; ELISHAR-MALKA, VERED; WEIMANN-SAKS, DANA**  
Academic College of Emek Yezreel, Israel

**RELEVANCE & RESEARCH QUESTION:** Controlling media agendas and public agendas are essential during election periods. Therefore, it is not surprising that agenda-setting theory often has studied these periods. Iyengar et al. (2008) have highlighted the significant role people's perceptions of current issues have in determining their selective exposure patterns to campaign information. Selective exposure is the idea that people will expose themselves to content and platforms according to their needs and inner worlds and avoid messages that might contradict these (Messing & Westwood 2014). Roessler (2008) has noted that studies concerning the individual-level effects of agenda-setting are rare compared to the extensive studies of agenda-setting's aggregate-level effects. Essentially, belonging to a specific group or community may change or mediate individuals' media agendas. Therefore, we inspect whether voters' agendas vary as a function of their voting intentions? And do voters' agendas vary due to their following patterns on contenders' social media accounts?

**METHODS & DATA:** Based on data gathered a week before the March 2021 election for the Israeli parliament. The sample (N=543) was obtained from an online panel based on the Central Bureau of Statistics data. The mean age was 43.1 (SD= 14.7); 48.8% were men, and 51.2% were women.

**RESULTS:** Regarding voting intentions, 22.1% reported voting for the 'Likud' (Central-Right party) and 21.5% for 'Yesh-Atid' (Central-Left party). On social media, 40% of respondents reported following political candidates. Of those, 56% followed Likud leader (Prime Minister Benjamin Netanyahu) on social networks, and 38% followed 'Yesh-Atid' (opposition leader Yair Lapid). On the one hand, no significant correlation was found between the intention of voting for 'Likud' or 'Yesh-Atid' and the perceived importance of issues on the public agenda. On the other hand, we found a significant correlation between the exclusive followers of the 'Likud' leader or the 'Yesh-Atid' leader and the perceived importance of issues on the public agenda.

**ADDED VALUE:** This research contributes to our understanding of the possible effects of following patterns of politicians on online social networks. It implies that the exclusive following contributes more to the perceived agenda than other effects measured concerning exposure to traditional media or digital media.

## TOP OF MIND: HOW TO ASK IN ONLINE QUESTIONNAIRES

**BARTOLI, BEATRICE (1); CROCE, SERAFINA (2); FACHIN, PAMELA (2)**

1: Demetra Opinioni.net, Italy

2: RAI Pubblicità S.p.A.

**RELEVANCE & RESEARCH QUESTION:** Top of mind is a question set often used in market research: the first brand remembered is asked followed by other brands mentioned spontaneously. Rai Pubblicità, with Demetra's methodological advice, decided to test which is the best way to ask TOM question in an online context, in order to gather Brand KPI and Uplift as more reliable as possible.

**METHODS & DATA:** Four different ways to ask the TOM question set are been tested:

- Wide text box: all brands are written spontaneously in one sole space. This is the method that Rai Pubblicità used still now.
- One space in the first page (TOM) and other spaces (other brands) in the following page. The question in the second page was: "If you remember other car brands, write it down in the following spaces"
- One space in the first page (TOM) and other spaces (other brands) in the following page. The question in the second page was: "Write in the following spaces other car brands that occur to you"
- Sole page with spaces that showing up when the previous is written.

The survey was carried out using the same questionnaire on two different online panel (Opinione.net and another provider used by Rai Pubblicità). The questionnaire was about cars and was computerised using two different platforms. For each group was reached 100 completes per panel (800 responses in total).

**RESULTS:** Results analysis shown that the best way to ask the question set is the one with the TOM in first page and other brands request in the following page (methods 2 and 3). This method leads to more brands mentioned (t-test pvalue: <0.05). Also the question text in the second page influences data quality: the question in the third option leads to mention more brands than the other one (t-test value: <0.05).

**ADDED VALUE:** Our experiment starts from a real need and allow us to understand in an empirical way what is the best method to ask a set of questions widely used in market research. Using the same questionnaire in two different panels makes the study more stable and the results more reliable.

## VALIDATING THE SURVEY ATTITUDE SCALE (SAS): ARE MEASUREMENTS COMPARABLE AMONG DIFFERENT SAMPLES OF HIGHLY QUALIFIED FROM GERMAN HIGHER EDUCATION?

**FIEDLER, ISABELLE (1); EULER, THORSTEN (2);  
JUNGERMANN, NIKLAS (2); SCHWABE, ULRIKE (1)**

1: German Centre for Higher Education Research and Science Studies,  
Germany

2: University of Kassel, Germany

**RELEVANCE & RESEARCH QUESTION:** Besides others, general attitudes towards surveys are part of respondents' motivation for survey participation. There is empirical evidence that these attitudes predict participants' willingness to perform supportively during (online) surveys (de Leeuw et al. 2017; Jungermann et al. 2022). Hence, the Survey Attitude Scale (SAS) differentiates between three dimensions: (i) survey enjoyment, (ii) survey value and (iii) survey burden (de Leeuw et al. 2010, 2019). Based on de Leeuw and colleagues' (2019) work, we investigate into the question whether the SAS measurements can be compared across different online survey samples of highly qualified population.

**METHODS & DATA:** To validate the SAS, we implemented its nine item short-form, adopted from the GESIS Online Panel (Struminskaya et al. 2015) at four different online surveys for German students, graduates and PhD students: (1) the HISBUS Online Access Panel (winter 2017/2018: n=4,895), (2) the seventh online survey of the National Educational Panel Study (NEPS) - Starting Cohort "First-Year Students" (winter 2018: n=5,109), (3) the third survey wave of the DZHW graduate panel 2009 (2019, n=664) and (4) a quantitative pre-test among PhD students within the National Academics Panel Study (Nacaps; spring 2018: n=2,424). The GESIS Online Panel functions as reference data for benchmarking. We first use confirmatory factor analysis (CFA) to validate the SAS. Thereafter, we perform multi-group CFA using an integrated dataset to ensure measurement invariance, evaluating it hierarchically on four levels (Chen 2007; Ender 2013).

**RESULTS:** First, the CFA results indicate that the latent structure of the SAS is reproducible in all four samples. Factor loadings as well as reliability scores support the theoretical structure adequately. For measurement equivalence our empirical findings secondly support construct and metric invariance among the four samples; however, scalar and strict invariance are not supported.

**ADDED VALUE:** Since de Leeuw and colleagues' (2019) analyses are based on general population surveys, we extend the picture specifically for young highly educated respondents. This is relevant, because higher education research also suffers from declining response rates and lacks empirical knowledge whether instruments designed for the general population also work for this specific group of highly qualified.

## NONRESPONSE OF REFUGEES IN WEB SURVEYS

**HEINRITZ, FLORIAN**

Leibniz Institute for Educational Trajectories, Germany

**RELEVANCE & RESEARCH QUESTION:** The use of mobile web surveys makes it possible in particular to interview mobile groups such as refugees in multiple languages. Since refugees have been of great interest due to the increase in refugee numbers in the middle of the last decade and again due to the war in



Ukraine, mobile web surveys can be a quick and easy way to cover them over a longer period of time and to interview them repeatedly. However, as with any survey, not all target persons will be reached, even though the vast majority of refugees owns a smartphone. Therefore, my poster will explore the question which refugees do not participate in mobile web surveys compared to traditional surveys (e.g. face-to-face or telephone interviews).

**METHODS & DATA:** To answer this research question, data from the German study "ReGES - Refugees in the German Educational System" are used. This longitudinal study used different modes, so that odd ratios are used to analyze which refugee-specific factors influence whether respondents from the initial face-to-face interview participate in the subsequent telephone, face-to-face, or web interviews.

**RESULTS:** The results show that, in general, follow-up participation is lowest for web interviews. Overall, it can be seen that compared to face-to-face or telephone interviews, education has a very strong effect on follow-up participation in web interviews, where more highly educated refugees are more likely to participate. This is linked to the fact that illiterate people participate in many web surveys less frequently. In addition to these refugee-specific factors, brief analyses will also be presented on whether participation in web surveys also depends on the respondents' behavior of Internet use.

**ADDED VALUE:** These results show that for target groups for whom web surveys actually seem ideal (easy accessibility despite high mobility; almost all refugees have a smartphone and therefore low coverage error; simple possibility of multilingual surveys), the nonresponse error should not be underestimated, precisely because this makes participation in web surveys selective. Based on the differences in Internet usage behavior between respondents and nonrespondents, additional lessons can be learned about how to reach more nonrespondents.

### CLIENT-SIDE RESEARCHERS VERSUS OUTSIDE CONTRACTORS: HOW DO IN-HOUSE MARKET RESEARCH PROFESSIONALS COLLABORATE WITH EXTERNAL SURVEY AGENCIES?

JABLONSKI, WOJCIECH

Netherlands Interdisciplinary Demographic Institute, The Netherlands

**RELEVANCE & RESEARCH QUESTION:** Survey market research agencies are important stakeholders for in-company research professionals. Marketing research departments commonly follow a "do-it-together" or "partial DIY" approach rather than relying solely on outside market research providers or conducting the research fully in-house. Some of the quantitative research tasks take place in-house while others are outsourced to vendors.

In this presentation, we focus on areas for potential improvements in client-agency collaboration as seen by research executives who outsource market research services for their companies.

**METHODS & DATA:** We conducted qualitative study (in-depth interviews) in 2018, contacting 39 professionals employed by various companies based in the European Union. Participants were recruited from among senior professionals or heads of customer insight or market research departments. Companies were selected so that a variety of economic conditions were represented, and the structures of informants' organizations reflected, as much as possible, the average spend on market research by company type.

**RESULTS:** Respondents agree that the major problem in client-agency collaboration is the inability of agency researchers to envision the research process as a whole. There are two aspects to this problem.

One is that researchers lack the business-specific knowledge at the level of a particular client or even the entire field of business. As a result, they might not be able to transform research outputs into actionable insights.

The other is that research agency staff is not involved enough in the process of socializing research results within business organizations. In-house marketing research managers are most often believed by the agency to be their end clients. However, in a vast majority of situations, it is the marketers and C-level executives who ultimately receive the results.

**ADDED VALUE:** Although research agencies will always be outside the client organization, their engagement in the process and their familiarity with internal research processes can be increased.

For instance, agency researchers dedicated to a particular project could, to some extent, work from the client's office, thus improving engagement with in-house research staff and internal stakeholders. Additionally, agency researchers could be exposed to the specifics of the particular field of their client.

### RESPONDENTS' IDENTIFICATION WITH A PANEL STUDY: DOES IT HELP TO IMPROVE DATA QUALITY?

JUNGERMANN, NIKLAS (1); SCHWABE, ULRIKE (2);  
FIEDLER, ISABELLE (2); EULER, THORSTEN (2)

1: University of Kassel, Germany

2: German Centre for Higher Education Research and Science Studies,  
Germany

**RELEVANCE & RESEARCH QUESTION:** The analytic potential of panel surveys can only be fully utilised if systematic panel attrition as well as item-nonresponse on repeated measurements is as low as possible (Lynn 2018). Therefore, there are numerous efforts to tie respondents to a specific study (e.g. incentives, social media activities) to strengthen what we call "panel study identification".

We assume that the stronger respondents identify themselves with the study, the more likely they are to perform cooperatively during the survey and the more likely they are to participate again in subsequent waves. Even though this assumption seems very plausible, there is little empirical evidence to date. Our contribution addresses this research gap.

**METHODS & DATA:** We use data from two different online panel surveys: the GESIS Online Panel for the general German population (GESIS 2021, Bosnjak et al. 2017) and the Nacaps survey for a specific and highly qualified target group of doctoral candidates and doctoral holders (Briedis et al. 2020). Both surveys include "several items pertinent to survey participation focusing on commitment and compliance, habit, social embedding, and self-congruity" (Struminskaya et al. 2015).

We analyse these items with respect to (i) how strongly several subgroups identify with the study, and (ii) how strongly this panel study identification correlates with cooperative behaviour before and during answering the questionnaire (e.g. unit and item nonresponse).

**RESULTS:** Overall, our results show quite interesting patterns between the seven items for panel study identification as well as between the two panel studies. The items correlate very differently with each other and also with the respective indicators for data quality.

**ADDED VALUE:** Our study contributes to the understanding of unit and item nonresponse by providing evidence for two rather different panel surveys. Results indicate that investments in respondents' identification with a panel study are worthwhile, as it affects respondents' participation and answering behaviour positively. However, possible negative effects if respondents' identification is too high are discussed. To date, we do not know how stable or variable panel identification is over the course of a panel, as we have not analysed repeated measurements for panel identification yet.

## PILOTING EXPERIMENTAL TESTS OF MACRO-MICRO-LEVEL EFFECTS IN AN ARTIFICIAL ONLINE STATE: INCREASING THE EXTERNAL VALIDITY OF BEHAVIOURAL MEASURES

GOERRES, ACHIM; KEMPER, JAKOB

University of Duisburg-Essen, Germany

**RELEVANCE & RESEARCH QUESTION:** Political science frequently aims to measure concepts using online survey measures. However, political scientists point to methodological shortcomings of survey measures and argue the use of (experimental) behavioural measures collected via behavioural games. While these experiments have high internal validity, they frequently lack external validity. By introducing a fictitious online state, the behavioural measurements are conducted in a more realistic setting, increasing external validity.

Some correlates of interest cannot be experimentally manipulated in the real world, or only at prohibitive cost or at the expense of ethical research conduct. With this in mind, our research question is: Can we artificially manipulate the levels of income in an artificial state and causally estimate effects on political solidarities?

**METHODS & DATA:** Participants take on the role of a citizen in a fictitious online state and are randomly assigned to low, medium and high income conditions. Participants interact with each other as citizens of the state (e.g. vote, pay taxes, donate). This enables us to measure participants' economic and political behaviour. Participants' behaviour affects their actual financial payout. The main causal effects analysed are whether absolute levels of and relative changes in income inequality affect political solidarities, the individual willingness to support public redistribution in favour of other social groups.

Programming of the technical platform for the study will be completed by March 2022. We plan to conduct pre-tests in April 2022 (N / 200).

**RESULTS:** The poster will present the technical implementation of the study platform, which allows real-time interaction of participants in an online environment across sessions spread over several days.

We expect higher levels of income to be associated with lower levels of political solidarities. We will conduct multilevel modelling to estimate the effects of the treatment condition between the experimental groups, because participants will be clustered within sessions.

**ADDED VALUE:** If the study demonstrates promising signs of valid measurements, it would open up a completely new avenue for online research on the link between macro-level characteristics of societies and states, such as income inequality, and micro-level social, economic and political behaviour, such as political solidarities.

## SETTING UP AN ONLINE ACCESS PANEL OF PEOPLE OF IMMIGRANT ORIGIN IN GERMANY

LIETZ, ALMUTH; MAYER, SABRINA; DOLLMANN, JÖRG  
SIEGEL, MADELEINE; KÖHLER, JONAS

German Center for Integration and Migration Research, Germany

**RELEVANCE & RESEARCH QUESTION:** A multitude of different, often commercial, access panels offer researchers new opportunities, e.g., to quickly survey appropriate samples in the context of external events and crises or to track long-term attitudinal trends. However, large segments of the population, such as individuals who migrated to the host country themselves or who have at least one parent born abroad, or ethnic minorities are usually underrepresented in these infrastructures. This hinders the study of reactions of immigrant-origin groups towards specific external events, such as responses and threat perceptions following racist violence.

**ADDED VALUE:** The German Center for Integration and Migration Research (DeZIM) aims to counteract this trend and is building a more integrated data infrastructure in the form of a non-commercial online access panel that is representative for several major groups of people of immigrant-origin as well as the native population in Germany.

**METHODS & DATA:** The setup for the DeZIM.panel started in early 2021. To date, three regular waves have already been conducted: the first panel wave from the end of November 2021 to the end of January 2022, the second wave from the end of March to the beginning of May 2022, and the third wave from the end of June to the beginning of August 2022. The sampling design is based on a two-stage cluster sampling procedure. First, municipalities, then personal addresses were randomly drawn from population registration offices. Subsequently, individuals were classified using onomastic methods. The DeZIM.panel is designed as multi-topic survey with constant core modules, and further, provide researchers to hand in their own research questions. Regarding panel management, we place great emphasis on keeping the panel readiness high and minimizing panel attrition. For this purpose, we use e.g. questionnaires in several languages, feedback routines as well as incentives. Data is provided by an in-house research data center.

**RESULTS:** Our poster will provide an overview of the general setup of the DeZIM.panel. We intend to share best practices and discuss the challenges and potential biases within the panel.

## DEVELOPMENT AND VALIDATION OF A GENERALIZED ONLINE SELF-DISCLOSURE SCALE

LUZSA, ROBERT; MITTERHUBER, LISA; MAYR, SUSANNE

University of Passau, Germany

**RELEVANCE & RESEARCH QUESTION:** Online social networking websites offer new ways for users to disclose themselves, that is, share personal information with others. Previous research measured self-disclosure primarily by examining the scope of information users share on specific platforms. However, focusing on individual platforms makes it difficult to generalize results, and focusing on scope of information ignores additional dimensions of online self-disclosure, such as the extent to which users are willing to share information publicly (vs. only with known contacts).

Such additional dimensions can be derived from previous research on online social networking and from psychological theories on general social self-disclosure (e.g., social penetration theory; Altman & Taylor, 1973). The present study reviews this state of research to propose and empirically test a generalized, multidimensional online self-disclosure scale.

**METHODS & DATA:** In an online-questionnaire, 153 participants (45 males, Mage = 25.78, SDage = 7.93, mostly students) answered 44 items adapted from literature that measured different aspects of online self-disclosure (e.g., frequency of information sharing, types of information shared, preferred level of public accessibility). Afterwards, participants indicated self-disclosure intentions for nine concrete situations (e.g., sharing party photos). Sub-scales of self-disclosure were identified via principal component analysis with Varimax rotation. The number of sub-scales was determined via parallel analysis (Horn, 1965; Revelle, 2020). Multiple linear regression of situation-specific self-disclosure intentions on sub-scale means was conducted to estimate criterion validity.

**RESULTS:** Four sub-factors of self-disclosure explaining 63.31% of variance were identified: "profile richness" (8 items, Cronbach's  $\alpha = .90$ ), "public accessibility" (5 items,  $\alpha = .88$ ), "disclosure of emotions" (5 items,  $\alpha = .86$ ), and "disclosure duration" (4 items,  $\alpha = .70$ ). However, situation-specific sharing intentions were only significantly predicted by profile richness, that is, how much information participants include in their profiles ( $\beta = .38^{***}$ ), and by their tendency to disclose information publicly ( $\beta = .28^{***}$ ).

**ADDED VALUE:** The study confirms that online self-disclosure is a multidimensional construct characterized by scope and public accessibility of disclosed data and further aspects. Future research should consider this multidimensionality and further validate it, for example by linking self-reported self-disclosure to real world behavioral data or privacy attitudes.

## THE IMPACT OF MONETARY INCENTIVES ON RETENTION RATES IN A PANEL STUDY WITH MIXED WEB AND MAIL MODES

NATTER, LISA MARIE

Max Planck Institute of the Study of Crime, Security and Law, Germany

**RELEVANCE & RESEARCH QUESTION:** Response rates have been falling for decades, and incentives have been increasingly used to counter this trend. Yet, there have not been many experimental studies testing the effectiveness of incentives in mixed-mode (web/mail) surveys, nor in the context of

panel surveys where a high retention rate is of particular interest. We investigate the effects of a prepaid monetary incentive (5 €) on the retention rate in the second wave of a mixed-mode panel survey.

**METHODS & DATA:** We used data from a mixed web/paper panel survey on social capital and insecurity perceptions in urban neighborhoods of two large German cities in autumn 2020 and 2021 ( $N = \text{ca. } 4000$ ). At the first contact of the second wave, participants were randomly allocated to a group receiving an unconditional monetary incentive or to a control group. Based on their mode preferences in the first wave, participants received either only a web invitation or also a paper questionnaire with the first letter, but could choose between both modes during the survey.

We assume that incentives lead to higher and faster responses, and reduce social selectivity. We also expect that incentives affect both web and paper group equally. To test our hypotheses, we run regression and survival analyses.

**RESULTS:** First results show that incentives increase the retention rate by ca. 15 per cent points overall and have a much stronger effect on younger respondents who are more reluctant to participate anyway. Incentives also lead to faster responses (62% vs. 50% after 14 days).

**ADDED VALUE:** This study contributes to the question whether monetary incentives can be used to boost retention rates in panel surveys and whether they equally work in web and paper modes and thus help maximize the effectiveness of approach strategies. Additionally, we can use socio-demographic and attitudinal variables from the first wave to investigate factors influencing survey participation and the differential effects of incentives.

## STUDYING BEHIND BLACK TILES

RIEDEL, ANNA; PRAETORIUS, BARBARA

HTW Berlin, Germany

**RELEVANCE & RESEARCH QUESTION:** Studying under corona conditions has been a challenge for both lecturers and students in the past two years. A large number of different lecture methods could be observed. They range from pure self-learning along semester learning plans with literature lists to webinars or video conferences (mostly quasi-anonymously in front of black tiles) in an attempt to directly simulate classroom teaching to various other more or less digital teaching methods, for example sets of slides with audio recording or instructional videos for self-learning. This undoubtedly meant additional work for the teachers - but what is the situation on the other side of the "black tiles"? Which are the most important challenges students have to face and are there any differences between male and female students and other genders?

**METHODS & DATA:** The women's representatives of the HTW Berlin therefore conducted two surveys. One in the first "corona semester" in May 2020 ( $n = 1996$ ) and another one in 2021 ( $n = 542$ ) comparing the results. In addition to sociodemographic characteristics such as gender, degree program and subject area, the questionnaire included five challenges and the opportunity to formulate individual concerns and suggestions.

The five challenges were asked choice-based as follows:

1. I need an undisturbed environment
2. I need financial support (to bridge an emergency)

3. I need work equipment
4. I was not granted preferred occupancy
5. I have problems participating in digital courses.

**RESULTS:** The result is a spotlight on the learning situation of students under corona conditions in 2020 and 2021 with focus on gender. The majority of the participants (55%) stated that the overall situation has improved or remained the same year-on-year, around a third observes a deterioration. (Details and numbers will follow in the poster.)

**ADDED VALUE:** The survey confirms the assumption that the home environment often does not allow sufficiently undisturbed studies. The HTW survey identified this aspect as the most important challenge while studying under corona conditions, with women being more affected than men [+4,7 percentage points yoy].

### COMPARING ESTIMATES OF PROBABILITY AND NON-PROBABILITY SURVEYS AGAINST POPULATIONS BENCHMARKS FROM THE GERMAN MIKROZENSUS

**ROHR, BJÖRN; FELDERER, BARBARA; SILBER, HENNING**  
GESIS, Germany

**RELEVANCE & RESEARCH QUESTION:** Non-probability surveys are widely used in the social sciences, although their possibility to generalize to the general population is often questioned. Empirical studies which compare non-probability and probability surveys often conducted univariate or bivariate benchmark comparisons, to evaluate the accuracy of the respective non-probability-based estimates (e.g., Yaeger et al. 2011). However, with respect to multivariate comparative analyses there is less empirical evidence.

**METHODS & DATA:** In our comparative study, we compare demographic and political variables between five German online non-probability surveys (n1f15800, n2f8750, n3f8250, n4f3508 & n5f 1300) and the probability-based GESIS Panel, German Internet Panel and the ALLBUS (n6f4700, n7f5550 & n8f3400). Additionally, we compare the eight surveys against populations benchmarks from the German Mikrozensus. The univariate bias is evaluated using different measures derived in the methodological literature.

In the bivariate comparison, we contrast the correlation matrices and show in which cases, and to which extent, the surveys correlations differ from the benchmarks or one another. Last, we compare regression coefficients of OLS- and logistic regressions with identical independent variables across the eight samples.

**RESULTS:** First results show interesting differences between the eight surveys. In the univariate comparison, we found differences of varying degree. In the bivariate analyses, many estimated correlations in some non-probability surveys differed from the benchmarks, while the probability surveys showed less bias. Finally, in the multivariate analyses, the differences across the eight surveys were less emphasized but still tendentially in favor of the probability sample.

**ADDED VALUE:** In contrast to most previous research on this topic, our research uses three different comparison types, which allows us to investigate the common claim that models and complex relationships between

variables are less affected by the sampling design than univariate statistics. Also, we investigate the accuracy of multiple surveys using various measures from the previous literature. Lastly, we put greater emphasize on easy-to-follow visualization. Altogether, based on our preliminary results, we found that accuracy is still at risk when using non-probability surveys for univariate point estimation or bivariate correlations. Regression models on the other hand seem to be less affected.

### COMPARING “CHECK ALL THAT APPLY” AND “FORCED CHOICE” FORMATS ON SMARTPHONES AND COMPUTERS

**SCHICK, LUKAS; HADLER, PATRICIA; NEUERT, CORNELIA**  
GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** The increasing number of respondents using smartphones for survey participation makes it necessary for researchers to consider different devices when designing their online surveys. Items with dichotomous response options can be presented in a “forced choice” (FC, “yes”/ “no”) or in a “check all that apply” (CATA) format. Since the screen size differs between computers and smartphones, the forced-choice format can be displayed either as a grid question or in an item-by-item design. Prior research has shown that less items are selected in CATA than in FC. However, the question formats may have a different impact on response behavior depending on the device being used. This study compares differences in the number of selected items between the question formats by the device being used.

**METHODS & DATA:** Data were collected from a non-probability online access panel with respondents from 3 countries (UK, n=264; Germany, n=264; Poland, n=264) as part of a cognitive online pretest. Respondents answered a question with 7 items about their health problems in the last 12 months either in a CATA, item-by-item, or grid (“yes/no”) format. The survey applied a responsive design and respondents using smartphone devices were only shown a CATA or item-by-item design. A regression analysis was performed to determine if the device moderates the effect between the selected items and the question format. Socio-demographic variables were included to control for the self-selection effect.

**RESULTS:** The comparison of means showed that the item-by-item format resulted in significantly more reported health problems than the CATA format regardless of the device used. In addition, compared to the CATA format, the grid format resulted in a higher number of reported health problems among respondents who answered on a computer. The regression analysis revealed that the effect of the question format on the number of selected items does not depend on the device used.

**ADDED VALUE:** The results provide information on the implementation of item batteries with dichotomous response options in online surveys.



## CHARACTERISTICS OF THE MEASUREMENT AND CODING OF QUALITATIVE DATA COLLECTED ONLINE

WETZELHÜTTER, DANIELA

University of Applied Sciences Upper Austria, Austria

**RELEVANCE & RESEARCH QUESTION:** With the [further] developments of information technology (IT) the research field of qualitative social research is changing. The possibility to generate a large number of data sets quickly and inexpensively by means of online surveys is increasingly used to inquire about qualitative aspects in a supposedly "simple" way in written form. That is, respondents are increasingly faced with the task of formulating and writing down answers themselves. This "task" not infrequently results in larger quantities of paraphrased statements – i.e., partly concise, abbreviated answers ["SMS style"], while formulated sentences or paragraphs occur comparatively rarely.

Following the logic of the survey process the characteristics of these answers are crucial for the training of coders and finally for the quality of the coding. However, the number of letters or words of an answer does not automatically suggest response quality.

The focus of interest is therefore – in order to be able to prepare the training of coders according to the characteristics of qualitative data collected online – the answer to the question "How to distinguish "easy" from "difficult" to code statements?".

**METHODS & DATA:** The analyses conducted for the answer are based on data collected online on the topic of "student participation at the university". More specifically, on 667 open-ended responses (out of a total of 1916 respondents) to the question, "How would you describe your participation opportunities at JKU?" (Johannes Kepler University). Responses averaged 14 words with a range of 236 words. The heterogeneity in response behavior is reflected in the coding results of 13 coders\*, who generated between approximately 800 to 1400 codes.

**RESULTS:** The comprehensiveness of responses increases with processing time, motivation, interest in politics and non-use of a smartphone. The coding behavior (number of codes) is accordingly variable and the inter-coder reliability also varies at a high level as the word count of the response influences it. Likewise, the "closeness" of the coder to different topics is evident.

**ADDED VALUE:** The results show that the training of the coders must be specially oriented for the coding of open statements of an online survey.

## DESCRIPTION AND IMPLEMENTATION OF AN EXPERIMENT WITH RANDOMLY ASSEMBLED USER GROUPS INVESTIGATING THE EFFECT OF APP PUSH NOTIFICATION FREQUENCY

WOHLLEBE, ATILLA (1); BLASCHKE, FLORIAN (2)

- 1: WR Institute of Applied Sciences, Hamburg, Germany
- 2: MATE Hungarian University of Agriculture and Life Sciences – Kaposvár Campus, Hungary

**RELEVANCE & RESEARCH QUESTION:** In the context of mobile apps, push notifications are increasingly used to catch the attention of users. In this context, the frequency of notifications can disturb the user and eventually lead to app uninstallation. Researching the influence of the frequency of

push notifications is therefore of great practical relevance. However, previous research mainly employs surveys in this context to learn users' frequency tolerance. This work presents an experiment-based approach that can concretely quantify the effect of the frequency of push notifications on uninstalls.

**METHODS & DATA:** To quantify the effect of the push notification frequency, a number of 17,500 mobile app users is randomly divided into five different groups and receives different numbers of push notifications per group over a period of several weeks. Subsequently, it is evaluated how the uninstalls and the open rate of the notifications have developed over time in the different groups.

**RESULTS:** The results show that the frequency with which push notifications are sent to app users has a significant effect on the open rate of push notifications and on uninstalls of the app. Each more message per week lowers the open rate by 12.67 percent and increases uninstalls by 2.50 percent. The frequency of notifications has a massive impact on app user behavior.

**ADDED VALUE:** This work transparently presents the experiment conducted under scientific conditions. In particular, it provides practitioners and applied research with a proposal for directly measuring the effect of the frequency of advertising messages on user and customer behavior in marketing without having to use assumed user behavior from surveys.

## A3.1: QUESTION FORMAT AND SURVEY INVITATION METHODOLOGY

(sponsored by GESIS)

SESSION CHAIR: JAKOB KEMPER

University of Duisburg-Essen, Germany

## OPTIMISING STANDARDISED SURVEY QUESTIONS FOR MEASURING POLITICAL SOLIDARITIES AND RELATED CONCEPTS IN ONLINE SURVEYS

GOERRES, ACHIM; HÖHNE, JAN KAREM

University of Duisburg-Essen, Germany

**RELEVANCE & RESEARCH QUESTION:** Politically relevant concepts, such as political solidarities, are latent and thus measured indirectly via individual political attitudes. A common measurement method is to conduct online surveys consisting of standardised questions asking about these attitudes. However, the design of standardised questions can induce systematic measurement error, decreasing data quality.

For example, the World Values Survey (WVS) and the European Social Survey (ESS) regularly employ a question on generalized social trust. While the WVS uses a dichotomous scale, the ESS uses an end-labelled, eleven-point scale. Even though there might be good conceptual reasons for employing both scales, it remains unclear which scale results in higher data quality.

**METHODS & DATA:** In this study, we systematically reviewed established social surveys for standardised questions for measuring political solidarities and related concepts, such as governmental scope and social trust. We then methodologically inspected the collected questions and developed improved versions that follow state-of-the-art question design strategies for online surveys. In order to evaluate data quality in terms of criterion validity of the original and improved questions we conducted an experiment in an online survey in Germany (N = 1,513) in July and August 2021. We used cross-quotas, such as age and gender, and passively collected client-side response times to draw conclusions about response effort.

**RESULTS:** Interestingly, the results indicate no major differences in criterion validity between the original and improved questions. This points to the fact that commonly used measures of political solidarities and related concepts do a good job. However, the response time analyses suggest major differences in response effort between the original and improved questions. Specifically, compared to the improved questions, the original questions require significantly higher response effort.

**ADDED VALUE:** This study provides new insights into data quality and response effort of established standardised questions for measuring political solidarities and related concepts in online surveys. It helps improving substantive survey interpretations drawn from these measures.

### CAPTURING THE INTERACTION BETWEEN QUESTION ORDER EFFECTS AND VISUAL LAYOUT: RESULTS FROM AN ONLINE EXPERIMENT

**STEFKOVICS, ADAM; KMETTY, ZOLTAN**  
Harvard University, USA

**RELEVANCE & RESEARCH QUESTION:** Question order effect refers to the phenomenon that previous questions may affect the cognitive response process and respondents' answers. Previous questions generate a context or frame in which questions are interpreted. At the same time, in online surveys, respondents are required to visually process the questions, therefore visual design may also shift responses. Past empirical research has yielded considerable evidence supporting the influence of question order, but few studies have investigated how question order effects interact with visual design. Our main research question was whether question order effects are different on item-by-item formats compared to grid formats.

**METHODS & DATA:** The study uses data from an online survey experiment conducted on a non-probability-based online panel in Hungary, in 2019. We used the welfare-related questions of the 8<sup>th</sup> wave of ESS. We manipulated the questionnaire by changing the position of a question that calls forth negative stereotypes on such social benefits and services. We further manipulated the visual design by presenting the questions in one page (grid) or in separate pages (item-by-item). 1100 respondents were randomly assigned to one of the six experimental groups.

**RESULTS:** The results show that placing the priming questions right before the target item significantly changed respondents' attitudes in a negative way, but the effect is significant only when questions are presented on separate pages. A possible reason behind the observed question order effects on the item-by-item format may be that respondents engage in a deeper cognition when questions are presented separately.

**ADDED VALUE:** With the increasing use of mixed device online surveys, item-by-item and grid formats are often mixed. Our study contributes to the literature by providing further evidence on the measurement inequivalence between the two formats.

## A3.2: NONRESPONSE AND DATA QUALITY

(sponsored by GESIS)

**SESSION CHAIR: FABIENNE KRAEMER**  
GESIS – Leibniz Institute for the Social Sciences, Germany

### NONRESPONSE-RELATED QUALITY INDICATORS OF WEB PROBING RESPONSES AND BIAS IN CROSS-CULTURAL WEB SURVEYS

**NABER, DÖRTE (1); PADILLA, JOSÉ-LUIS (2)**

1: GESIS – Leibniz Institute for the Social Sciences, Germany  
2: University of Granada, Spain

**RELEVANCE & RESEARCH QUESTION:** The growing use of web surveys is a challenge for the traditional methods of pretesting survey questions in cross-cultural research. Qualitative methods like "Web Probing" allow researchers to obtain evidence of the response processes while respondents are answering the web survey questions and integrate such evidence with quantitative data: responses, demographics, etc.

To make sure that the "Web Probing" method yields high quality data, quality indicators have to be considered of which "nonresponse" is the most popular one. Behr et al. (2017, 2020) proposes a widely used definition of nonresponse for open-ended answers including seven nonresponse categories.

However, further nonresponse categories and nonresponse-related indicators might be necessary to analyze the data quality of Web Probing responses. We will present an innovative approach to the coding of nonresponse and further nonresponse-related quality indicators and illustrate how different definitions can affect the conclusions drawn from the analysis of quality indicators.

**METHODS & DATA:** We will illustrate the approach by using Web Probing data from an experiment that aimed to test two different sequences of three commonly used probing techniques (category-selection probe, specific probe, and comprehension probe) crossed with two country groups.

1114 panelist respondents, 559 from Germany and 555 from Spain, were randomly assigned to the two probe sequences, either starting with the category-selection probe as first probe followed by the specific and the comprehension probe or starting with the comprehension probe followed by the specific and the category-selection probe. Before these probes, all participants responded to the Spanish, respectively the German version of a target survey question on subjective happiness.

**RESULTS:** We will focus on the “new” definition and coding of non-response-related data quality indicators: “nonresponses”, “borderline nonresponses” and “mismatching answers”. Particularly, we will present the different outcomes produced by different definitions of nonresponse-related quality indicators leading to different conclusions regarding the data quality of the respective probing techniques in several respondent groups of interest.

**ADDED VALUE:** We will discuss on how our findings contribute to a more comprehensive understanding of sources of bias in cross-cultural web survey research using nonresponse-related quality indicators.

### QUANTIFYING NONRESPONSE AND MEASUREMENT UNCERTAINTY IN SURVEYS BASED ON A REPLICATION OF THE EUROPEAN SOCIAL SURVEY

**SZEITL, BLANKA (1,2); RUDAS, TAMÁS (3)**

- 1: University of Szeged, Hungary
- 2: Centre for Social Sciences, Hungarian Academy of Sciences Centre of Excellence, Hungary
- 3: Eötvös Loránd University, Hungary

#### RELEVANCE & RESEARCH QUESTION:

**KEYWORDS:** DATA QUALITY, SURVEY METHODOLOGY, TOTAL SURVEY ERROR  
In the theory of total survey error, the deviation between a value observed in a survey and the theoretical value characterizing the population is modeled. In this presentation, another way of thinking about the precision of values found in surveys is discussed: how much the values observed in a first and the second replication of a survey differ. This difference is decomposed into nonresponse and measurement uncertainty. The first of these is related to the fact that the completed samples of the first and the second replications are different, while the second one is related to the same individuals giving different responses in the two replications.

#### METHODS & DATA:

**KEYWORDS:** UNCERTAINTIES, DATA QUALITY, ONLINE SURVEY  
The magnitudes of the nonresponse and measurement uncertainties are presented based on two replications of the European Social Survey in Hungary. During the analysis, the two surveys are compared. However the analyzed data is a face-to-face survey, the presentation shows why it is also relevant in the case of mixed-method or online surveys as well.

#### RESULTS:

**KEYWORDS:** RTM, UNCERTAINTIES  
The first finding is that the total deviation of the responses obtained in the two surveys can be decomposed exclusively into nonresponse uncertainty (NU) and measurement uncertainty (MU). The second finding is that while NU is relevant only in multivariate analysis, MU affects both univariate and multivariate analyses. In the case of MU, the two surveys resulted in the same distributions at the sample level however, respondents seemed to be inconsistent overall in their answers at the individual level. This phenomenon may be attributed to regression to the mean (RTM). In multivariate analysis, the two surveys did not give the same result, even at the sample level, and the correlation matrices of the first replication of the survey and the second replication of the survey differed significantly.

#### ADDED VALUE:

**KEYWORDS:** UNIQUE RESEARCH, REPLICATION OF SURVEY, ESS  
Replications of surveys are rare, and uncertainties are key properties regarding data quality. This research uniquely defines uncertainties in surveys from a methodological point of view.

### BARRIERS TO TRANSITIONING TO ONLINE DATA COLLECTION IN SOCIAL SURVEY: FINDINGS FROM GENPOPWEB2 PROJECT

**MASLOVSKAYA, OLGA**

University of Southampton, United Kingdom

**RELEVANCE & RESEARCH QUESTION:** When Covid-19 pandemic started, some researches expected that many ongoing cross-sectional face-to-face social surveys would transition quickly to online only or web-first data collection. However, we are now more than two years into the pandemic and this is not what we observe. Many high quality cross-sectional face-to-face surveys, including those contributing to Official Statistics, either moved to telephone interviewing or paused data collection. This paper addresses issues associated with transitioning to online data collection during Covid-19 pandemic. Specifically, it addresses the following two questions: What are the barriers for transitioning to online data collection? How would the learning from covid-19 experience shape the future of online data collection?

**METHODS & DATA:** GenPopWeb2 is a network of UK-based academic and non-academic partners to share knowledge in the area of transitioning to online data collection in social surveys. The network ran various knowledge exchange events where experts in the field presented their findings and discussed issues associated with transitioning to online data collection. This paper summarises all the experiences and findings shared during these events which can be used as best practice guides for survey practitioners in the absence of literature addressing these issues in a timely manner.

**RESULTS:** The results suggest that post covid-19 pandemic traditional face-to-face surveys are here to stay. Online data collection is not going to take over all social surveys but will continue to be used in appropriate contexts. It is important to further investigate barriers to transitioning to online data collection. Innovations trialled during the pandemic will be used wider after evidence suggesting their effectiveness has been obtained.

**ADDED VALUE:** Online data collection is a fast-moving area and it is important to share experiences and knowledge and best practice in a timely manner before academic papers become available. This can help more surveys to move online more successfully using the lessons learnt during the pandemic. This presentation reports on the main findings about barriers to transitioning to online data collection in social surveys obtained during the GenPopWeb2 project.

C3:

## DO ONLY POPULISTS GO DIRTY? GERMAN ELECTORAL CAMPAIGNS ON FACEBOOK

1: University of Siegen, Germany  
2: Technical University of Chemnitz, Germany

**METHODS & DATA:** The proposed research builds on extensive monitoring of 7475 campaign-related postings by the seven main political parties on Facebook. This dataset contains 7475 postings of parties and candidates running for the chancellorship and covers July 1 to September 26, 2021. The posts were hand-coded by political issues and by kinds of campaign tactics.

**RESULTS:** Our results show an apparent coincidence between negative campaigning, misinformation, and populist policies such as migration and immigration, EU-related policies, and anti-corona measures, especially vaccination. Not only did the populist AfD adopt negative campaigning and spread fake news on Covid-19, but also the Christian Union and the Social Democrats. Targets of such subversive campaign strategies were mainly the voters of the Greens and the SPD, who then also started attacking their competitors. That said, we assess that negativity is a technique of populists and other parties and discuss this on a broader scope of platform architecture and campaign dynamics.

```

    } else {
        $
        $
        $
    } else {
        re
    }
return

```

```
explode($separator, $string, 2, 1), 2));
```



## D3: THE TRANSPARENT CONSUMER-CITIZEN AND FAIR DATA EXPLOITATION

**SESSION CHAIR: SUSAN SHAW**  
GIM Suisse AG, Switzerland

### GPS-TRACKING MIT EINER SMARTPHONE APP

**FISCHER, BEAT**  
intervista, Switzerland

Dank GPS-Tracking mit einer Smartphone-App kann das Mobilitätsverhalten einer Person sehr detailliert getrackt werden. Die gewonnen Informationen zu Etappen, Wegen, Verkehrsmittelnutzung und Mobilitätszwecken bieten einen echten Mehrwert in vielen Forschungsbereichen. Bei diesem Referat erläutert Beat Fischer die Methodik, gibt Einblicke in die Data Science dahinter und zeigt Case Studies mit Daten aus dem Schweizer Footprints-Panel.

### SOCIAL LISTENING MIT KI INTELLIGENT AUSWERTEN

**FORTHMANN, JÖRG**  
IMWF Institut für Management- und Wirtschaftsforschung, Germany  
Die Marktforschungslegende Ray Pointner hat postuliert: „Listening is the new asking.“ Das IMWF beobachten die Kommunikation zu 27.000 Marken Unternehmen in über 400 Millionen Internetquellen. In Online-Nachrichten, Foren, Blogs, Communities, Twitter, Facebook und so weiter.

Jeden Tag sammeln wir auf diesem Weg Abermillionen von Aussagen, und um 00:00 Uhr schicken wir diese Daten auf die Amazon-Serverfarm, wo 37 Instrumente der künstlichen Intelligenz diese Aussage analysieren. Dabei ermitteln wir nicht nur quantitative Daten, also wie viele Veröffentlichungen es in welchen Kanälen gab. Sondern wir beschäftigen uns extrem intensiv mit der Fragestellung, worüber gesprochen wird. Und das in 130 Sprachen.

Diese inhaltliche Erkenntnis ist extrem wichtig für Unternehmen, die zum Beispiel ihr mediales Umfeld oder ihre Lieferketten monitoren wollen. Früher haben wir dafür die händische Kodierung genutzt. Heute können wir in einer Nacht von 00:00 bis 6:00 morgens mehrere Millionen Aussagen vollautomatisch mit Hilfe der künstlichen Intelligenz analysieren.

Typische Ergebnisse sind zum Beispiel:  
Über welche Themen wurde gesprochen?  
Welche Themen sind im Kommen?  
Welche Themen könnten kritisch sein?  
Wie sind die aktuellen Reputationswerte?  
Wie sind die Imagewerte und vieles mehr?

Die benötigte Rechenkapazität für die künstliche Intelligenz ist so groß, dass wir zu den Top-Ten-Kunden der Amazon-Serverfarm in Europa gehören, was so ein bisschen den Eindruck vermittelt, welche gigantische Rechenkapazität in Anspruch genommen wird, um diese flächendeckende Inhaltsanalyse zu tätigen.

Der erfreuliche Effekt ist, dass die Kunden aus der Kommunikation der Menschen am nächsten Morgen bereits zeitnah Erkenntnisse für PR, Marketing, Vertrieb oder Compliance haben. Ein namhafter Kunde dieses Services ist E.ON. Der Energieversorger möchte zeitnah einen tiefen Einblick darüber gewinnen, wie über seine Leistungen gesprochen wird – um den Erfolg eigener Kampagnen nachzuvollziehen und kritisches Echo frühzeitig aufzufangen.

### ETHIK IM UMGANG MIT DATEN UND MODELLEN: WELCHE PRAKTISCHEN HERAUSFORDERUNGEN BRINGEN DATA SCIENCE PROJEKTE FÜR MARKTFORSCHERINNEN?

**BRÄUNLICH, CHRISTOPH**  
BSI Software, Switzerland

Jüngste, öffentlich wirksame Vorfälle bei der Anwendung von KI zeigen, dass durch den Einsatz solcher Systeme Personen unfair behandelt werden können. Dies führt bei Unternehmen, die sich mit Data Science und KI auseinandersetzen, zu einem Bedürfnis nach einer Hilfestellung, um die eigenen Daten und Modelle verantwortungsvoll und wertebewusst zu entwickeln. Das Data Fairness Label von SWISS INSIGHTS hilft Data Scientists dabei, sich mit zwei dynamischen Fragebogen strukturiert mit Modellen und Datensätzen zu befassen und ihre Prozesse transparent zu dokumentieren. Dabei werden ethische Fragestellungen aufgedeckt, z.B. welche Verzerrungen in Datensätzen vorliegen.

Das Data Fairness Label gibt keine Entscheide vor und macht keine ethische Wertung. Es erlaubt aber, die aufgedeckten Fragestellungen zu erkennen und gemäss dem unternehmenseigenen Code of Conduct zu beantworten. Interessante oder kontroverse Fragestellungen werden in regelmässig stattfindenden Community Meetings besprochen. So sorgt das Label dafür, dass die Nutzung von Daten und die Anwendung von datengetriebenen Modellen transparent, nachvollziehbar und in diesem Sinne fair gestaltet wird.

Das Label wird in Einklang mit den gesetzlichen Bestimmungen der Schweiz und der EU entwickelt. Die Community befasst sich neben bestehenden auch mit zukünftigen Gesetzen wie dem Gesetzesentwurf über Künstliche Intelligenz der EU.

SWISS INSIGHTS hat langjährige Erfahrungen im Bereich der Selbstregulierung. Wie bereits im angestammten Bereich der klassischen Markt- und Sozialforschung werden heikle Themen auch beim noch jungen Data Fairness Label in der Community behandelt. Kritische Fragen wie beispielsweise in welchen Fällen die Selbstregulierung funktioniert oder wie Greenwashing verhindert werden kann, werden in der Community diskutiert und die Regeln auf dieser Basis gemeinsam immer wieder weiterentwickelt und verfeinert.

In diesem Vortrag stellen wir die Überlegungen bei der Entwicklung des Data Fairness Labels vor. Wir besprechen Beispiele von ethischen Fragestellungen, die von der Benutzung des Labels aufgedeckt werden können und beschreiben, wie das Label in ein Unternehmen integriert werden kann.

## A4: **RESPONDENT BEHAVIOR AND DATA QUALITY I** (sponsored by GESIS)

**SESSION CHAIR: BENJAMIN KÜFNER**  
Institut für Arbeitsmark und Berufsforschung, Germ.

### **WIDTH IS THE LIMIT – INVESTIGATING THE RESPONSE BEHAVIOR AND DATA QUALITY IN A LAYOUT EXPERIMENT WITHIN A PANEL SURVEY**

**SCHWERTFEGER, MAIKEL (1); STADTMÜLLER, SVEN (1)  
STRUMINSKAYA, BELLA (2); WEISS, BERND (1)**

1: GESIS – Leibniz Institute for the Social Sciences, Germany  
2: Utrecht University, Netherlands

**RELEVANCE & RESEARCH QUESTION:** Questionnaires that are not optimized for mobile devices force smartphone participants to zoom and scroll excessively. Surprisingly, even many non-optimized surveys have a high proportion of smartphone users. Consequently, smartphone participants have to put additional efforts into answering these surveys, which can lead to undesired effects on response behavior and a decrease in data quality. A mobile-first survey layout can solve this problem by preventing zooming and horizontal scrolling on all devices.

However, layout changes in ongoing longitudinal surveys may affect the comparability between survey waves. Therefore, we investigate how a layout change from desktop-first to mobile-first affects the response behavior and data quality in self-administered surveys.

**METHODS & DATA:** We conducted a cross-sectional layout experiment in the GESIS Panel, a probability-based mixed-mode (online and mail) panel in Germany with about 5000 participants. Half of the sample received the questionnaire in the familiar desktop-first layout, while the other half received the same questions in a newly developed mobile-first layout. In this presentation, we compare the response behavior and data quality of both layout groups across modes (mail vs. online) and devices (PC vs. tablet vs. smartphone). The response behavior and data quality outcomes include item nonresponse, survey breakoffs, and different forms of satisficing behavior, namely, straightlining, nondifferentiation, primacy bias, selection of “don’t know”, number of answers in multiple-choice questions, and number of characters in open answers.

**RESULTS:** Preliminary results suggest that the mobile-first layout increases data quality. More precisely, we found that mail, PC, and tablet participants show significantly lower item nonresponse in the mobile-first layout condition. Also, PC participants in the mobile-first condition exhibit less straightlining and nondifferentiation. Prior to the conference, we will conduct further analyses focusing on survey breakoffs and the above-mentioned forms of satisficing behavior.

**ADDED VALUE:** Our layout experiment is the first of its kind, comparing a desktop-first and mobile-first layout in a well-established panel survey. We analyze response behavior and data quality for each mode (mail vs. online)

and device (PC vs. tablet vs. smartphone). The results allow targeted statements on whether layout changes in longitudinal surveys are advisable and which mode and device groups benefit most from them.

### **NONCOMPLIANCE WITH ATTENTION CHECKS IN WEB SURVEYS: CAN WE TRAIN FALSE-POSITIVES TO BECOME COMPLIANT?**

**ROSSMANN, JOSS; BURGER, AXEL; GUMMER, TOBIAS; SILBER, HENNING**  
GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** Implementing attention check items in web surveys aims at ensuring response quality by means of detecting careless responses and inattentive respondents. Yet, recent evidence suggests that the effectiveness of these measures is challenged by false-positives due to noncompliance. The objectives of the current study were twofold: First, we aimed at providing further evidence on the occurrence of false-positives and false-negatives in attention checks. Second, we set out to present novel insights on whether noncompliant respondents can be trained to follow the instructions of an attention check.

**METHODS & DATA:** To answer our research questions, we designed a 3-group experiment, which we implemented in a web survey with a sample drawn from a German non-probability online panel in March 2020 (N=2,185; ff730 per experimental group). In the second half of the questionnaire, all respondents received an attention check and a follow-up question on whether they noticed the request and complied with the instruction. The experiment aimed at assessing the effect of the training: In the first half of the questionnaire, respondents either received a preceding attention check with follow-up question, only a follow-up question without preceding attention check, or neither an additional attention check nor a follow-up question as a control condition.

**RESULTS:** Preliminary analyses showed that about 10 percent of the respondents failed the attention check in the second half of the questionnaire. Regarding the training, we found that neither exposure to a preceding attention check and follow-up question nor to the follow-up question without check substantially affected the overall number of respondents who failed the attention check in the second half.

Our analyses also showed that false-negatives and false-positives were an issue – they amounted to about 7 percent of the sample. Further, our results suggested that the training effect on noncompliant respondents (false-positives) was rather limited and comparable to that on truly inattentive respondents.

**ADDED VALUE:** In our presentation we will provide further findings on the issue of false-positives and false-negatives and give more detailed insights on whether training respondents is a promising means to improve the effectiveness of attention checks.

B4:

**ADDED VALUE:** Our approach transforms a vague target group description of influential stakeholders into a precise dataset suitable for operational and planning purposes. Our clients use analyses like this to e.g., decide on preparatory talks or inform and communicate before and during project launches. By understanding key stakeholders and their networks, they can increase a project's efficacy, acceptance and support.

## C4: **METHODOLOGY**

**SESSION CHAIR: LISA OSWALD**  
Hertie School, Germany

### **STIMULUS VALIDITY IN POLITICAL COMMUNICATION RESEARCH**

**CLEMM VON HOHENBERG, BERNHARD**  
University of Amsterdam, Netherlands

**RELEVANCE & RESEARCH QUESTION:** Studying key topics of political communication such as persuasion, misinformation or polarization requires selecting or constructing informational stimuli. For example, to examine factors influencing belief of misinformation in a survey experiment, a study designer must choose a set of news stories for subjects to read. Often, the relation between such stimuli and the population of possible stimuli – i.e., whatever the stimulus is supposed to represent conceptually – is unclear or not justified. This brings up the question of stimulus validity: Would the results be the same if the researcher had selected or constructed a somewhat different stimulus?

**METHODS & DATA:** I re-analyze and replicate four studies to show how stimulus validity can be threatened. Two studies rely on an approach I call the “information selection” design: Allcott and Gentzkow (2017) select about thirty true and false headlines and ask subjects whether they believe them (and similarly, Clayton et al. 2019). I rerun the original analyses many times, but randomly drop a subset of the selected stimuli each time.

The “information construction” design requires to construct two (or more) treatment texts that differ on the concept of interest. Crawford et al. (2012) expose subjects to one of two articles that either align with a conservative or a liberal position, and ask for an evaluation (second study by Levendusky and Malhotra 2016). I replicate both of these studies, but add an alternative, stronger, treatment that has no less ground truth.

**RESULTS:** The re-analyses of the two “information selection” studies, I shows that the original significant effects do not survive the stimulus variation in a majority of cases. For the two “information construction” studies, my replications illustrate how effects vanish when comparing the alternative treatment to control. In conclusion, results would have been different had the authors picked different, but conceptually no less justified stimuli.

**ADDED VALUE:** This project raises awareness of the importance of getting experimental/survey stimuli right. The robustness and validity of conclusions are at risk if researchers do not (a) define the target population of information weell (b) justify how they select/construct their stimuli.

### **A CLOSER LOOK AT FACE-SAVING RESPONSE OPTIONS TO REDUCE VOTE OVERREPORTING: DISENTANGLING SOCIAL DESIRABILITY BIAS, MEMORY FAILURE, AND RESPONSE ORDER EFFECTS**

**KLUGE, REBEKKA (1); KRAEMER, FABIENNE (1); SILBER, HENNING (1); BOSNJAK, MICHAL (2,3); KOSSMANN, JOANNA (2) STRUMINSKAYA, BELLA (4), WEISS, BERND (1)**

- 1: GESIS – Leibniz Institute for the Social Sciences, Germany
- 2: Leibniz Institute for Psychology (ZPID); Germany
- 3: University of Trier, Germany
- 4: Utrecht University, Netherlands

**RELEVANCE & RESEARCH QUESTION:** Face-saving response options for non-voters are designed to counteract vote overreporting due to social desirability (SD). They allow non-voters to select answers such as that they usually vote but did not this time. When implementing face-saving options, Morin-Chassé et al. (2017) found a reduction of overreporting by five percentage points in Germany. However, this research did not investigate whether the reduction was due to reduced SD, improved respondents’ memory due to the additional information, or response order effects. Our work intends to fill this gap.

**METHODS & DATA:** We used longitudinal data (2020-2021) from a German online access panel (nff2,500). Our experiment varies (a) the type of voting item responses (face-saving vs. standard) and (b) the order of responses (abstention vs. voting appears first). Respondents’ individual tendency to answer in a socially desirable manner was measured using the SDS-17. The voting turnout question was asked three times: 3 years, 3.5 years, and two months after the last federal German election to investigate memory effects. We used mixed-effects logistic regression models for all significance tests with dummy variables for the experimental groups.

**RESULTS:** We surveyed the first wave in October 2020, the second in March 2021 (3 and 3.5 years after the 2017 German federal election), and the third in November 2021 (two months after the 2021 election). Overall, we found no evidence for response order effects or for a decrease in overreporting when respondents received the face-saving items. The differences in voter turnout between the different versions were not significant.

However, respondents were significantly more likely to report voting two months after the last federal election compared to 3 years after the last election. Respondents who provided more socially desirable answers according to the SDS-17 were significantly more likely to report having voted. When considered separately, this significant effect remains only for respondents who received the face-saving items. We will discuss these results in detail in our presentation.

**ADDED VALUE:** The experiment provides empirical evidence on whether the face-saving response options reduce vote overreporting and whether their application in self-administered online surveys is reasonable.



## D4: PRACTICAL APPLICATION OF AI FOR BETTER INSIGHTS

**SESSION CHAIR:** YANNICK RIEDER  
Janssen-Cilag GmbH, Germany

### INSIGHTS BEYOND HUMAN INTUITION: COMPREHENSIVELY MINING SURVEY DATA

**SCHNIEDERMEIER, MARTIN (1); WITTENBURG, GEORG (2)**  
**SCHMID, SOPHIA (1)**

1: Kantar Public, Germany  
2: Inspirient, Germany

**RELEVANCE:** Business process automation and automated / intelligent data processing have recently seen a steady stream of new applications across industries, ranging from automated processing of client inquiries with chatbots to automated price adjustments in e-commerce. For the social&market research community, this wealth of new methods and experience allows us to rethink how we approach one of our core business activities: the analysis of survey data.

Automation of data-centric business processes may reach +80% of the tasks currently done by hand-but can similar results be achieved for the analysis of survey data, given the complexities of statistical methods&their heavy dependence on preconditions? Very much so, in fact, Artificial Intelligence and automation approaches so far have only focused on small elements of the research process, e.g., coding of natural language answers. At the same time, end-to-end automated analysis of survey data would enable a whole range of new capabilities, incl. near-real-time quality checks of interviews, provision of interim results and "early alerts",and immediate availability of final results just at the end of fieldwork. Furthermore, it is in the interest of researchers to standardize laborious, often repetitive tasks such as data cleansing and basic statistics to shift their focus towards the interpretation of results and consultancy.

**METHODS:** Automated reasoning systems (i.e.,decision support systems / expert systems) offer a way of capturing expert-level reasoning steps like the ones employed as part of survey analytics. Historically, these systems have seen first commercial use for medical diagnostic support in the 1980s, but have evolved since then to better reason under uncertainty and present results in a more intuitive way.

We adapted one of these systems, the Inspirient Automated Analytics Engine, by extending its classification capabilities to key questions encountered when analyzing a survey dataset. This includes automated classifiers for differentiating between socio-demographic and response dimensions; for detecting anomalous patterns in survey metadata, e.g., speedsters and straight-liners; and for appropriately applying bi- and multivariate analysis methods. Moreover, the system will do all possible analyses to capture insights that might otherwise be missed when faced with time constraints in

data analysis. As a result, the system is now able to autonomously produce quick outputs such as comprehensive contingency tables, supporting charts, and reports on survey quality.

**ADDED VALUE:** Automating the analysis of survey datasets to a certain degree is of great value to make the research process more efficient. For one, we can now continuously monitor survey data as it is being collected in order to correct any quality issues as they occur. Also, the efficiency gains help us to deliver quick results without delay after the fieldwork concludes and even preview results before. More complex analyses such as regression analyses are more widely applied to our surveys, given the reduced cost of running them.

Finally, we found that automated data analysis can capture more than the human eye, e.g., by highlighting an obscure pattern in dimensions that might otherwise be overlooked, thus helping us to deliver broader, more comprehensive results.

### TODAY'S DYNAMIC HEALTHCARE ENVIRONMENT DESERVES BRAVE NEW THINKING – THE ROLE AND PROFILE OF PMR – HOW IS IT CHANGING – VIEWS FROM A COLLECTION OF GLOBAL PHARMA INSIGHT CLIENTS USING AN ON LINE SWARM AI

**CHAMBERLAIN, CAROLYN**  
Blueprint Partnership, United Kingdom

**RELEVANCE & RESEARCH QUESTION:** The role and profile of PMR – how it is changing and how we need to adapt. We'll be using leading edge on line Swarm AI technology with a group of 10 Pharma clients to arrive at key answers.

**OBJECTIVES OF THE PAPER:** We recruited 10 global Pharma insights buyers to participate in a Swarm AI session where we asked them key questions surrounding the future of PMR, how it is evolving, their predictions on the future, value to medical, clinical and commercial teams; including the rise of Data analytics and AI. The group of 'experts' worked together to answer at an individual level; and then worked together to arrive at a negotiated answer. We'll share all of the findings with the delegates:

**TAKEAWAY1:** SWARM is a digital tool applying the power of AI to groups interacting online to optimise insights, forecasts and assessments. It leverages true collaboration to arrive at shared decisions and preferences, revealing optimal solutions. Traditional approaches tend to identify the 'average' or the plurality/majority answer. With SWARM, participants work together in an interactive dynamic system and their decision is derived from how they behave as a system, taking into account the relative level of certainty of each participant;

**TAKEAWAY 2:** Swarms make better predictions, leveraging the ability of the full group. So we'll test this and provide agile answers based on the group of insight buyers/experts;

**TAKEAWAY 3:** To take the research a step further, we'll integrate the views from Data Analytics Manager at Janssen and share her expert thoughts on the data, her views on the future of PMR and the value of Data Analytics both now and in 2030.

**METHODS & DATA:**

- leading edge Swarm AI platform

**RESULTS (TOP LINE):**

- Looking forward to 2030, business insights and data science is in a strong position, but PMR is on the decline

**DRIVING FORCES:**

- Lack of agility and poor quality PMR when timelines are condensed
- Alternative data sources
- Regulatory challenges

**SO, WHERE IS OUR INDUSTRY HEADING?**

- Mixed methods will be used to generate insights and data analytics/ data science will be an important component of BI
- The message from our industry counterparts was clear “PMR alone is not enough”
- BI experts also predict qualitative PMR will maintain its value, much better than quant
- To deliver real insights mixed-methods / omni-analytics will be required
- Data analytics is an evolving discipline in pharma BI but by ff2025 it is set to soar
- What else can agencies do to strengthen their position in an evolving field?

**ADDED VALUE:** Our paper includes validated AI technology (swarm). All delegates will see the results of the swarm and will be able to view the swarm and answers to key business questions re the future of PMR. As a final layer, they will hear us dissect the results and they will gain incremental insights from Data Analytics and explore what these means for our industry going forward. We'll also capture how the swarm tool was received by all participants.

This paper is relevant for both MROs and industry Cos. Innovative, engaging, fresh and relevant.

**FRIDAY, 09/SEPTEMBER/2022****A5: RESPONDENT  
BEHAVIOR AND  
DATA QUALITY II**

(sponsored by GESIS)

**SESSION CHAIR: FLORIAN HEINRITZ**

Leibniz Institute for Educational Trajectories, Germany

**DO RESPONSE EFFECTS CHANGE OVER TIME?  
EXPERIMENTAL RESULTS FROM SIX WAVES OF  
A GERMAN ONLINE PANEL SURVEY****KRAEMER, FABIENNE (1); SILBER, HENNING (1)  
STRUMINSKAYA, BELLA (2); BOSNJAK, MICHAEL (3,4)  
KOSSMANN, JOANNA (3); WEISS, BERND (1)**

1: GESIS – Leibniz Institute for the Social Sciences, Germany

2: Utrecht University, Netherlands

3: ZPID - Leibniz Institute for Psychology, Germany

4: University of Trier, Germany

**RELEVANCE AND RESEARCH QUESTION:** Taking shortcuts in the cognitive response process (i.e., satisficing) is a threat to data quality. Previous research (e.g., Schonlau & Toepoel, 2015; Sun et al., 2019) provides mixed evidence on whether satisficing increases across time in panel studies, which would impair the quality of survey responses in later waves. Moreover, as most previous studies are non-experimental, little is known about the mechanisms behind possible increases.

**METHODS AND DATA:** We conducted a randomized experiment to investigate the prevalence of satisficing and its underlying mechanisms in a panel study. Participants of a German non-probability online panel (n=1,397; in 2020-2021) were randomly assigned to two groups and either received question design experiments in all six panel waves (conditioned) or only in the last wave of the study (unconditioned).

This design allows us to study satisficing over time and examine its causes: either an increase in general survey experience (unconditioned group) or the growing familiarity with specific questions (conditioned group). To measure different types of satisficing, the six experiments manipulated (1) the order of response categories, (2) whether a question included a 'don't know' option or not, and (3) whether a question was displayed in the agree/disagree or the construct-specific response format.

**RESULTS:** We found all three forms of satisficing in our data: primacy effects, acquiescence, and saying 'don't know'. The response effects were significant in most of the six waves with effect sizes ranging up to 27.7 percentage points. However, there seems to be no clear pattern of increase or decrease in satisficing over time.

Additionally, we did not find a significant difference in satisficing between conditioned and unconditioned respondents, indicating that neither familiarity with specific questions, nor general survey experience accounts for

the extent of satisficing in the study. We will include additional data collected with a greater panel interval (every three months compared to monthly) to investigate the effect of time between the waves on the extent of satisficing (available 01/2022).

**ADDED VALUE:** Our experimental results contribute to the understanding of the prevalence of satisficing in panel studies.

## PANEL CONDITIONING – MEASURING THE EFFECT OF PREVIOUS SURVEY PARTICIPATION ON SURVEY ESTIMATES

JESSOP, CURTIS

NatCen, United Kingdom

**RELEVANCE & RESEARCH QUESTION:** Conditioning effects have long been a concern for longitudinal research – to what extent does participation in a research study affect a respondent's behaviour and attitudes and therefore the outcomes of future research? In recent years probability and non-probability online panels have become more prevalent as survey data collection vehicles, with respondents typically invited to take part in multiple surveys per year. In that context data users may be concerned about the representativeness of those samples if, as a result of participation in previous waves, panel members' attitudes or behaviours have been changed. This paper will present evidence looking at to what extent levels of previous survey participation is associated with survey estimates in a probability-based online panel in the UK.

**METHODS & DATA:** Previous analysis on a small number of variables using data from the NatCen Panel has suggested that the year of recruitment to the panel may be associated with results for some variables but not others. This paper extends that analysis: measuring differences in estimates by year of recruitment across a wider range of variables, but also looking within those samples to see if the actual number of waves participated in is associated with answers given, controlling for other characteristics that might affect both rates of participation and survey estimates.

**RESULTS:** Analysis is still in progress – final empirical results will be available in January 2022.

**ADDED VALUE:** Findings from this study will be of use to both panel operators and data users, providing guidance to the former on appropriate levels of activity for panel members before results may be affected and refreshment may be required, and for the latter on whether or not a panel methodology may be appropriate and whether or not data may have been affected by previous participation.

## B5: ACCELEROMETER DATA

SESSION CHAIR:

ALEXANDER WENZ

University of Mannheim, Germany

### FOR WHOM IS IT WORTH IT? COMPARING ACCELEROMETER AND SURVEY DATA FOR SOCIODEMOGRAPHIC SUBGROUPS

MEITINGER, KATHARINA (1); TOEPOEL, VERA (1)

DE HOLLANDER, ELLEN (2); WENDEL-VOS, WANDA (2)

1: Utrecht University, Netherlands

2: RIVM, Netherlands

**RELEVANCE & RESEARCH QUESTION:** Physical activity (PA) and sedentary behavior are important life style factors that affect public health. Many countries measure PA at a national population level to monitor prevalence and changes over time to inform public health policy with subjective self-reports using questionnaires such as the European Health Interview Survey, Eurobarometer, Global Physical Activity Questionnaire and the International Physical Activity Questionnaire. However, previous research showed that self-report surveys have poorer measurement qualities than accelerometers (van Nassau et al., 2015). Accelerometers have been proven successful in cohort and intervention studies, but have rarely been included in population monitoring instruments due to costs. This presentation evaluates for which socio-demographic subgroups it is worth to use accelerometers in addition to survey data. We focus on respondent willingness to wear the accelerometer (on weekdays and weekend days), whether adherence to PA guidelines is similar in self-report and accelerometer data, and if over/underestimation in self-report data is related to socio-demographic subgroups.

**METHODS & DATA:** A representative sample of the Dutch population was asked to complete an online questionnaire and to wear an accelerometer for seven days. Fieldwork started March 18th 2019 and ended on October 31st 2019. Respondents received the accelerometer type UKK RM42. Sample size is 1,018 Dutch respondents.

**RESULTS:** Our results show that sex, age, and self-rated health are significant predictors for the willingness to wear an accelerometer. In addition, a higher BMI and age for respondents in the age group of 51-65 years old increases the odds to overestimate PA. At the same time, underestimation of PA decreases for certain age groups, as well as medium level education and having a chronic disease.

**ADDED VALUE:** This presentations sheds light on the discrepancy between survey and accelerometer data for demographic sub-groups. This provides guidance for social science researchers for which socio-demographic subgroups accelerometers should be used to augment or replace surveys. This is important since using accelerometers for the entire population is likely too expensive and complicated in terms of logistics.

## GUESS WHAT I AM DOING: IDENTIFYING PHYSICAL ACTIVITIES FROM ACCELEROMETER DATA BY MACHINE LEARNING AND DEEP LEARNING

**MULDER, JORIS; HÖCÜK, SEYİT; KUMAR, PRADEEP**  
Centerdata – Tilburg University, Netherlands

**RELEVANCE & RESEARCH QUESTION:** Accelerometers or actigraphs have long been a costly investment for measuring physical activity, but nowadays they have become much more affordable. Currently, they are used in many research projects, providing highly detailed, objectively measured sensory data. Where self-reported data might miss everyday life activities (e.g. walking to the shop, climbing stairs) accelerometer data provides a more complete picture of physical activity. The main objective of this research is identifying specific activity patterns using machine learning techniques and the secondary objective is improving the accuracy of identifying the specific activity patterns by validating activities through time-use data and survey data.

**METHODS & DATA:** Activity data was collected through a large-scale accelerometer study in the probability-based Dutch LISS panel, consisting of 5.000 households. 1200 respondents participated in the study and wore a GeneActiv device for 8 days and nights, measuring physical activity 24/7. In addition, a diverse group of 20 people labeled specific activity patterns by wearing the device and performing the activities.

These labeled data were used to train supervised machine-learning models (i.e. support vector machine, random forest) detecting specific activity patterns. A deep learning model was trained to enhance the detection of the activities. Moreover, 450 respondents from the accelerometer study also participated in a separate time-use study in the LISS panel. Respondents reported their daily activities on a smartphone, using a time-use app. These reported activities were used to validate the detected activities.

**RESULTS:** Activity patterns of specific activities (i.e. sleeping, sitting, walking, cycling, jogging, driving) were successfully identified using machine learning. The deep learning model increased predictive power to better distinguish between specific activities. The time-use data proved to be useful to further validate certain hard to identify activities (i.e. cycling).

**ADDED VALUE:** Machine learning and deep learning can identify specific types of activity from an accelerometer signal and they can be validated by time-use data. Gaining insight in activity behavior can be useful in health and activity research.

Also, the machine learning models of this research have successfully been applied to an accelerometer and time-use project from The World Bank, fielded in Malawi.

## USING ACCELEROMETERS IN NATIONAL MONITORING OF PHYSICAL ACTIVITY: A FEASIBILITY STUDY

**TOEPOEL, VERA (1); LUITEN, ANNEMIEKE (2)  
ELEVELT, ANNE (2); DE WOLF, INGE (3)**

1: Utrecht University, Netherlands  
2: CBS, Netherlands  
3: Amsterdam Public Health, Netherlands

**RELEVANCE & RESEARCH QUESTION:** Lack of Physical Activity (PA) has been identified by the World Health Organization as fourth leading causal factor for death. National organizations typically measure PA in the population through surveys, however, surveys might not be the best method. Measuring PA is difficult because it requires remembering activities, estimation about intensity and duration of specific types of activities, complex calculations (in total, on average, usual) and intensity of PA is a relative issue.

Furthermore, questions on PA are susceptible to social desirability bias. Accelerometers – both research grade as consumer owned like smartwatches and Fitbits- can be used to augment or replace surveys. This presentation investigates how the use of accelerometers relates to survey measures when it comes to Total Data Error.

**METHODS & DATA:** Data come from the Dutch LISS Panel, a probability-based online panel consisting of about 8000 individuals. The panel was asked to complete the Dutch National Survey on Physical Activity, as well as questions on ownership on activity trackers, donation of activity tracker data, and willingness to wear a research-grade device in a follow-up. Survey data were collected in October 2021, the follow-up study where participants wore the research-grade accelerometer ActivPal for a week, will be conducted between November 2021-Februari 2022.

**RESULTS:** Results show that about half of the participants abide to the norms of Physical Activity as determined by the World Health Organization. About half of the panel owned an activity tracker such as smartwatch of Fitbit. About half of that group was willing to donate their data. In our presentation we will focus on predictors of device use and physical activity based on covariates from the panel (analyses still to be done). In addition, we will report on the results of the accelerometer, and look at validity between survey data, research-grade accelerometer and personally owned activity trackers.

**ADDED VALUE:** This presentation shows how to use different types of sensor data to augment or replace survey questions. It informs on hybrid data opportunities in social research.



## C5: SOCIETAL ISSUES: CORONA, CLIMATE, GENDER

**SESSION CHAIR:** PIRMIN STÖCKLE  
Vocatus AG, Germany

### CLIMATE CHANGE AND CORONA: CONCERNS, ATTITUDES AND BEHAVIORS OF GERMAN HOUSEHOLDS

**BERNARD, RENÉ; TZAMOURANI, PANAGIOTA**  
Deutsche Bundesbank, Germany

**RELEVANCE & RESEARCH QUESTION:** The Corona pandemic represents an unprecedented shock to private households' every-day life, economic resources, as well as beliefs and perceptions of social problems. Yet, little is known about how the Corona crisis has affected peoples' concerns about climate change. We document how German households' perception about climate change has evolved since the onset of the pandemic. Furthermore, we study how households' concerns about the Corona pandemic, the economic environment, and their personal future financial situation, as well as income and job losses influence their awareness of climate change.

**METHODS & DATA:** We use the Bundesbank Survey on Consumer Expectations (BOP-HH), a representative online survey of households with internet access living in Germany. The survey is carried out monthly, with a sample size of about 2500 respondents in each wave.

We have designed a special survey module on climate change that was fielded in several waves. In addition, we draw from a rich set of covariates, including economic expectations and perceptions about Corona, which were elicited in the core part of the survey. In our analysis we use regression as well as latent variable models.

**RESULTS:** Climate change scores high on peoples' perception as a problem of current affairs, almost as high as the Corona pandemic, and higher than the economic situation since the reopening of the economy after the first lockdown. Climate change concerns are strongly related to sociodemographic characteristics of households, with females, the youngest and oldest groups, those living in the cities, and in West Germany being more concerned. Corona concerns are positively related to climate change concerns. However, we find climate concerns decline with households' concerns about their future income situation and the general economic outlook.

**ADDED VALUE:** Understanding the determinants of concerns of the public with respect to climate change is essential in designing effective policies aimed at mitigating climate change. We document these concerns and provide new evidence on how they are shaped by sociodemographic characteristics, and economic preferences and beliefs against the background of the Corona pandemic.

### THE PSYCHOMETRIC DIFFERENCES OF CLIMATE CHANGE ACTIVISTS AND DENIERS ON TWITTER

**SANFORD, MARY**  
University of Oxford, United Kingdom

**RELEVANCE & RESEARCH QUESTION:** We investigate an obstacle to environmental communication: potential biases in psychometric frameworks of climate change communication. We do so by analysing emotion, social affiliation, time, and agency in tweets posted by climate change activists and deniers on Twitter. The research questions are:

1. To what extent do climate change activists and deniers differ with respect to their use of key psychometric features in climate change discourse?
2. What impact do these features have on retweet popularity for activists and deniers in climate-related discourse?

**METHODS & DATA:** We collect all tweets between November 2015 and November 2020 by 50 climate change activists and 50 deniers. Our method pipeline includes the following: 1) validate the posts to ensure there are no bots, retweets, or duplicates, 2) employ keyword search to identify climate-related posts; 3) use the Linguistic Inquiry and Word Count (LIWC) dictionary to score the posts for the features of interest; 4) build regression models to investigate the importance of the features on retweet popularity, and 5) conduct an experiment testing the impact of specific framings (positive versus negative emotion, informed by the Twitter regression results) on reported action intent via mood.

**RESULTS:** Activists and deniers have different psychometric profiles, specifically for agency and emotion. The regression analysis show that both activists and deniers were retweeted more when they used more negative emotion.

The experiment reveals a suppression effect of mood mediating the pathway between information intake and reported action intention: when mood is left out of the model, positive information framing leads to higher reported action intent, but when we include mood as a mediator, the relationship turns negative. This result suggests that mood responses to online information is critical for mediating offline behavioural responses, but also that there is another mechanism governing the direct effect that we have yet to identify.

**ADDED VALUE:** The social media component of the analysis shows how activists and deniers differ psycholinguistically when discussing climate change on Twitter, and how these differences affect retweet popularity. The experiment illustrates how online information framing impacts offline action intention, and sheds light on the mechanisms which govern these pathways.

## THE DURABILITY OF PREJUDICE: THE ROLE OF STEREOTYPES IN HUMAN-AI INTERACTION

WINTER, JONATHAN

European University Institute, Italy

**RELEVANCE & RESEARCH QUESTION:** Recent technological advances in Artificial Intelligence (AI) are reshaping our social environment as we increasingly interact with AI-enabled virtual agents on a daily basis. The nature and features of these interactions therefore constitute an important area of research for social scientists. This study proposes to contribute to this new and growing scholarship. Drawing on the literature on gender and racial stereotypes, it tests whether the gender and racial appearances of bots (AI-enabled virtual agents) affect how humans interact with bots in a competitive setting.

**METHODS & DATA:** The dataset obtained and analyzed in this study is from Chess.com, one of the largest online chess platforms. The data relates to chess matches between human players and over 100 different bots, which vary in their gender and racial appearances. Over 5.7 million such chess matches were analyzed.

**RESULTS:** Results suggest that human players prefer to compete against bots with a gender appearance of men rather than bots with a gender appearance of women. This preference persists when the rating of players as well as the rating of bots are controlled for. Furthermore, and consistent with the literature on racial stereotypes, results show that players overestimate the competence of bots with a white racial appearance and underestimate the competence of bots with different racial appearances.

**ADDED VALUE:** The value of these results is twofold. First, they provide a novel insight into the durability of stereotypes by demonstrating that these stereotypes persist in effecting behavior even when they are clearly devoid of any information value. Stereotypical beliefs appear to adversely affect human judgment even when they are clearly and demonstrably wrong. Secondly, results from this study help inform our still limited understanding of what our future hybrid human-AI society might look like.

As we increasingly interact with bots in various commercial, occupational, and recreational settings, it is important to be aware that these interactions are often shaped and affected by our pre-existing human biases and prejudices.

## D5: **ONLINE RESEARCH OF THE FUTURE: DO'S AND DON'TS ON THE WAY TO ROBUST RESULTS.**

– ONLINE-FORSCHUNG DER ZUKUNFT.  
DER WEG ZU BELASTBAREN ERGEBNISSEN.

**SESSION CHAIR:** HARTMUT SCHEFFLER

Berater für Marktforschung und Markenführung,  
Germany

### SMART DATA VS. BIG DATA: RELEVANZ REPRÄSENTATIVER STICHPROBEN IN DER REICHWEITENFORSCHUNG

NIEDERAUER-KOPF, KERSTIN

AGF Videoforschung GmbH, Germany

Die AGF misst seit 1988 täglich und sekundengenau die TV- respektive Bewegtbildnutzung in Deutschland. Dafür baut die AGF seit Jahren auf einen repräsentativen panelzentrierten Ansatz, der sukzessive in einem hybriden Modell auf verschiedenen Ebenen um große anonyme Messdatenbestände angereichert wird. Repräsentative Panels sind von zentraler Bedeutung, wenn es darum geht, die Grundgesamtheit valide abzubilden und Verzerrungen zu vermeiden.

Dank dieses aufwendigen Forschungsansatzes hat die AGF auch einen Überblick darüber, welche Tücken in der ausschließlichen Nutzung großer anonymer Gerätedatenbestände liegen können und wie wichtig es für eine gute Entscheidungsfindung ist die Nutzung der Menschen hinter den Geräten realitätsgetreu abzubilden.

### CAWI-ERHEBUNGEN ALS WICHTIGER MIXED-MODE- BAUSTEIN DER AGMA-REICHWEITENSTUDIEN

SUNNUS, JÖRG

Media-Micro-Census GmbH, Germany

Die agma erforscht seit fast 70 Jahren die Mediennutzung in Deutschland. Unsere Veröffentlichungen umfassen die aktuellen Nutzungsdaten für die Mediengattungen Tageszeitungen, Zeitschriften, Kino, Lesezirkel, Internet, Out of Home, Radio / Audio und Fernsehen. Die zunehmenden Herausforderungen bei der Sicherstellung der Erhebungsqualität und der repräsentativen Abbildung der Bevölkerung haben zu massiven Veränderungen in den Studiendesigns geführt. Mixed-Mode-Bausteine haben sich dabei nachhaltig bewährt.

Seit mehreren Jahren steigt die Zahl der Online-Interviews deutlich. Von 2019 bis 2021 sind rund 100.000 CAWI-Fälle in die agma-Studien eingeflossen, allein 2022 werden es bereits mehr als 50.000 sein. Die traditionell hohen agma-Ansprüche an die Datenqualität gelten selbstverständlich auch für diese Erhebungsmethode. Die zudem hohen Studienkomplexitätsan-

**METHODS & DATA:** We analyzed over 25 million records of paradata generated by more than 100 000 respondents that took part in several mixed device web questionnaires of Statistics Netherlands. The median completion time ranged from a 'short' 8 minute questionnaire to a 29 minute long one.

**RESULTS:** To explain the questionnaire duration, a mixture of question characteristics, respondent characteristics and the type of device was used. For each of these characteristics results are available. Some are intuitive, but we also found some counterintuitive results.

**ADDED VALUE:** Taken together, we developed a way of estimating how long it will take to complete a certain question for respondents with specific characteristics on the device of their own choosing. This has the useful application to automatically flag possible troublesome questions before fielding the questionnaire and give both researchers and questionnaire developers a quantitative tool to work with.

## COLLECTING RETROSPECTIVE DATA IN WEB SURVEYS: ALTERNATIVES TO EVENT HISTORY CALENDARS

**BAUER, IRINA**

GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** Survey researchers are often interested in biographical data or events occurring before data collection. Research showed that using so-called event history calendars in interviewer-administered surveys can guide respondents through the process of retrieving the required information and thus enhance data quality. Yet, with the increasing use of self-administered [web] surveys an adaption of these instruments developed and tested for interviewer-administered surveys is required. With the rise of smartphones as devices for survey participation, these instruments also need to be displayable on smaller screens – which is hardly the case with the instruments used so far. With the present study, I will test different alternatives to event history calendars, when asking retrospective questions.

**METHODS & DATA:** Two web surveys of 5 minutes length will be conducted among 3,800 respondents of an open access panel in Germany. The first wave was fielded in November and respondents were asked for information about their occupational trajectories over the past two years. They were randomly assigned to one of two layout versions (loop vs. table). The respondents will be re-interviewed in January 2022. In the second wave, they are randomly assigned to one of four groups with different characteristics likely to help respondents recall information about their occupations since the last interview.: 1) date of last interview, 2) data from previous survey, 3) date and data combined, and 4) no information. I will compare the experimental groups with respect to the number of reported episodes, indicators of data quality, and survey assessment.

**RESULTS:** Since the second wave of data collection will be conducted in January 2022, no results can be reported yet. I expect that presenting the occupations in a table and providing data from the previous wave will result in more reported episodes and better data quality.

**ADDED VALUE:** The findings of this study will contribute to a better understanding of how episode data can be collected in web surveys in a way, that is both easy for the respondents to use and also easy to implement for survey practitioners.

## A6.2: MIXED MODE AND MODE TRANSITION I

(sponsored by GESIS)

**SESSION CHAIR: DAVID BRETSCHI**

Federal Criminal Police Office, Germany

### WEB, PAPER OR MIX? EFFECTS OF SINGLE- AND MIXED-MODE DESIGNS ON ESTABLISHMENT SURVEY PARTICIPATION AND COSTS

**KÜFNER, BENJAMIN {1}; SAKSHAUG, JOSEPH W. {1,2,3}; ZINS, STEFAN**

1: Institute for Employment Research, Germany

2: LMU Munich, Germany

3: University of Mannheim, Germany

**RELEVANCE & RESEARCH QUESTION:** The IAB-Job Vacancy Survey is a voluntary nationally-representative establishment survey that quantifies the size and structure of job vacancies and other worker flows in Germany. Since 2011, it has been carried out using a concurrent mixed-mode design, with establishments receiving paper questionnaires and the option of online completion. This mode design is facing increasing costs and declining response rates. To counteract these trends, a more pronounced push-to-web strategy offers a promising alternative. However, the effects of different self-administered survey modes in establishment surveys are less clear than for household surveys. This leads to the research question, which self-administered mode design works best in terms of response rates and costs in an establishment survey.

**METHODS & DATA:** To test an implementation of a mode design switch, a large-scale experiment comparing four self-administered mode designs was conducted with 155,000 establishments in the 4th quarter of 2020: Just Online, Just Paper, Sequential Mixed Mode with online invitation followed by paper questionnaire for nonrespondents, and the standard concurrent mixed-mode design. Further, we experimented with a pre-due-date reminder as an additional response enhancement measure motivating establishments to respond earlier. Response rates and costs per respondent are computed for each experimental group separately.

**RESULTS:** The preliminary results indicate that response rates do not differ substantially between concurrent mixed-modes, sequential mixed-modes and single web modes. The single-mode paper & pencil group has substantially lower response rate than the aforementioned three groups. The impact of establishment size on response rates does not differ between the different mode designs. The web single-mode and sequential mixed-mode designs lead to lower costs per respondent compared to the concurrent mixed-mode and single-mode paper & pencil design.

**ADDED VALUE:** This study offers guidance to other voluntary establishment surveys, who may be considering an expanded use of web data collection.



## MIXED OR SINGLE WEB-MODE? RESULTS OF A FIELD EXPERIMENT IN EARLY EDUCATION AND CARE SURVEYS IN GERMANY

SCHACHT, DIANA D.

DJI e.V., Germany

**RELEVANCE & RESEARCH QUESTION:** Mixed-mode survey designs have become increasingly popular. In Germany, there is particular interest in using the web as a survey mode, but there are few large randomised studies examining the effect of offering the web mode within a mixed-mode design compared to self-administered web surveys. This experimental study is the first to examine the response rates and quality of information collected from five self-administered early childhood education and care surveys, in which either (a) the option of responding by mail or web (simultaneous mixed-mode) or (b) responding by web (web questionnaire only) was randomly offered.

**METHODS & DATA:** The experimental design was implemented in surveys of individuals, namely directors (n≈3,900), pedagogical staff (n≈8,700) and family day-care workers (n≈8,700), as well as in institutional surveys of youth welfare offices (n≈380) and childcare providers (n≈1,900). The self-administered web and paper questionnaires were collected from April to September 2020.

**RESULTS:** Overall, the results show that the different target groups in 2020 preferred different survey modes when given the choice between participating in a web and a mail survey (simultaneous mixed mode). For the surveys of individuals and youth welfare offices, mail questionnaires were preferred, while childcare providers participated more often via web option in the concurrent mixed-mode. The survey mode significantly correlates with selected population characteristics, e.g. gender, age or size of institution.

In addition, providing a concurrent mixed-mode, as opposed to providing only the web option, resulted in a higher response rate. On average, the response rate was 16% higher in the case of a concurrent mixed-mode for the five surveys. However, the web participations showed a lower number of unanswered questions compared to the mail questionnaires.

**ADDED VALUE:** In summary, the empirical results show the advantages and disadvantages of a simultaneous mixed-mode as opposed to a single web-mode survey for target populations in the early education and care research (ECEC) field.

## FROM CAPI TO WEB-CATI IN THE ENGLISH LONGITUDINAL STUDY OF AGEING: NONRESPONSE IN LONGITUDINAL SAMPLES AFTER CHANGING SURVEY MODES

ADDARIO, GIANFRANCO

NatCen Social Research, United Kingdom

**RELEVANCE & RESEARCH QUESTION:** The COVID-19 outbreak has brought disruptions on in-person data collection, forcing a large number of studies, which traditionally relied on face-to-face interviewing, to shift their fieldwork towards remote data collection, such as telephone or web. Longitudinal studies were in a privileged position with this shift, as they had access to a large number of contact details that allowed the operationalisation of new modes.

The English Longitudinal Study of Ageing was one of them: We conducted two mixed-mode Web-CATI surveys in order to study how the COVID-19 outbreak has changed the lives of the 50+ population of England. Although both ELSA COVID-19 surveys resulted in high response rates, little has been done to understand how different subgroups in ELSA responded to a change in survey mode. In this presentation we aim to understand whether elements such as sample composition, longitudinal participation in the study and attrition differed between the regular face-to-face waves of ELSA and the two ELSA COVID-19 Web-CATI waves. In our analysis, we will dedicate special attention to subgroups that have traditionally showed difficulties with adapting to online and telephone modes (due to digital exclusion, the existence of limiting health conditions, linguistic barriers, or age).

**METHODS & DATA:** Our analysis will focus on participation in face-to-face ELSA waves (wave 1 to wave 9) and participation in the two waves of the ELSA COVID-19 substudy. Our analysis will explore differences for key demographic subgroups as well as differences across different cohorts of participants.

**RESULTS:** The analysis has not been completed yet.

**ADDED VALUE:** While there is rich literature assessing changes in survey modes in cross-sectional studies, little has been done to study the effect of changing modes on longitudinal samples. We believe that the analysis of nonresponse in the ELSA COVID-19 study can offer important evidence to survey researchers who are considering adopting new modes in longitudinal studies.

## FROM MIXED MODE TO ONLINE. LEARNING FROM MOVING A CROSS-SECTIONAL POSTAL SURVEY OF 16-YEAR OLDS ONLINE

SCHUBOTZ, DIRK; MCKNIGHT, MARTINA; LLOYD, KATRINA; DEVINE, PAULA

Queen's University Belfast, United Kingdom

Young Life and Times (YLT) is an annual cross-sectional social attitude survey of 16-year olds in Northern Ireland. The survey was established as a postal survey in 2003. Optional online completion was introduced in 2004, but until 2018 the proportion of 16-year olds opting for online completion never exceeded 10%. A successful split survey mode experiment was undertaken in 2019. The COVID pandemic meant that we were pushed before we could jump to an all online survey. In this presentation we reflect on the learning of the mode switch to online completion and address some common concerns with regard to accessibility and socio-economic status.

**METHODS & DATA:** The 2020/21 YLT survey was undertaken as an online survey. Data was collected on a range of social issues that affect young people's lives. In this presentation we reflect on concerns in relation to accessibility of online surveys, comparing background socio-economic variables with those of previous postal survey participants. However, we also relate to time-series data collected since 2003 on community relations to assess any evidence that might suggest that a change in mode effect has impacted on the time series data.

**RESULTS:** We found no evidence that a move from a postal survey to an online survey has resulted in a smaller proportion of disadvantaged young people taking part in YLT, although the proportion of respondents in rural areas, where online provision can be patchy, is an issue of concern.

The incentivised online mode appears to have redressed the gender imbalance with an increase in male respondents taking part compared to previous years.

Respondents have expressed a preference for mixed mode completion. There is no evidence that the mode switch has resulted in out-of-sync data as far as the good relations time series is concerned.

**ADDED VALUE:** An incentivised online mode may be the most appropriate survey. Compared to postal surveys, they are more flexible to set up, produce cleaner data and reduce the time to process data. However, for accessibility reasons, it may be appropriate to offer a postal or phone completion alternative.

## C6: ACCESS TO AND SPREADING OF DIGITAL INFORMATION

**SESSION CHAIR: JONATHAN WINTER**  
European University Institute, Italy

### DIGITAL INEQUALITIES AND PUBLIC HEALTH DURING COVID-19: MEDIA DEPENDENCY AND VACCINATION

**BLANK, GRANT (1); REISDORF, BIANCA C. (2)**

1: University of Oxford, United Kingdom  
2: University of North Carolina, USA

**RELEVANCE & RESEARCH QUESTION:** The COVID-19 pandemic has been unusual in that information about the transmission of the virus came out slowly and recommended practices changed over time. This made communication media, like the Internet, unusually important. Despite the potential public health implications of lack of Internet access, skills, and limited Internet use, few prior studies have considered how digital inequalities influence information flows. Building on three research streams – vaccine hesitancy, information-seeking, and digital inequalities – we examine how digital inequalities, health information media, and mass media affect COVID-19 vaccine hesitancy. Our research question is: How do digital inequalities and health information sources affect COVID-19 vaccine hesitancy?

**METHODS & DATA:** We use representative survey data from the USA to build a structural equation model. Our dependent variable is vaccine hesitancy. We control for demographics, conservative and liberal mass media use, political opinions, and worry about COVID-19.

**RESULTS:** Digital inequalities have an effect on vaccine hesitancy. The effect is indirect: People who are more active online are more likely to use health media. In turn, people who use more health media are more likely to be receptive to vaccination for COVID-19.

**ADDED VALUE:** Our model provides two novel contributions. First, we show that digital inequalities play an important role in public health. They lead to

increased health information-seeking, which reduces vaccine hesitancy. Second, our model presents strong evidence supporting a more comprehensive approach to vaccine hesitancy beyond factors like socio-demographics and prior health beliefs to include broader factors like sources of health information. Where and how people find information on public health issues seems to be as important as demographics.

### SPREADING ONLINE RUMORS DURING A GLOBAL PANDEMIC: THE ROLE OF KNOWLEDGE, TRUST, AND EMOTIONS

**WEIMANN SAKS, DANA (1); ARIEL, YARON (1)  
ELISHAR MALKA, VERED (1); WEIMANN, GABRIEL (2)**

1: Yezreel Valley Collage, Israel  
2: Haifa University, Israel

**RELEVANCE & RESEARCH QUESTION:** COVID-19 global pandemic has brought severe social, economic, and political implications and challenges into our lives. One of the phenomena associated with such emergencies and crises is rumors spreading. Social networks have become a popular arena for spreading and sharing rumors in various contexts, including during the COVID-19 epidemic.

**METHODS & DATA:** The current study tries to predict under which circumstances and psychological mechanisms people might spread COVID-19 related online rumors. We examined three potential factors that might influence people's behavior of spreading those rumors: the participant's thoughts and beliefs about the rumor (Cognitive component), Users' trust in the information they are exposed to in the media (Trust component), and the Emotional response because of media exposure to information regarding the epidemic (Emotional component).

**RESULTS:** Positive correlation was found between the cognitive component and the behavioral component. The 95% confidence interval (CI) for the direct effect between the cognitive component and the behavioral component with 5,000 resamples did not include 0 (95% CI, 0.717–0.901).

In addition, results have also revealed a mediated route of influence through the trust component. Results have not identified the emotional component as a mediator between the cognitive and the behavioral components. The CI for the indirect effect of the cognitive component on the behavioral component through the emotional component included 0 (95% CI, –0.019 to 0.032) with 5,000 resamples, but the indirect effect of the cognitive component on the behavioral component through the trust component did not (95% CI, 0.005–0.051) [F(3, 496) = 122.84; p < .001].

**ADDED VALUE:** The study's findings reveal that in the quest to control the spread of information, especially online rumors, which might dramatically affect people's behavior, focusing on the cognitive component might be more effective than focusing on the emotional one. In other words, influencing what people think and believe about spreading rumors might prove much more important than focusing on the emotional reactions of those exposed to the rumors and might spread them to many other people.

## INFORMATION DISSEMINATION OF EXTREMIST ON FACEBOOK

VASILIU, VLAD {1}, WEIMANN, GABRIEL {2}; ARIEL, YARON {1}

1: Max Stern Academic College of Emek Yezreel, Israel

2: Haifa University, Israel

**RELEVANCE & RESEARCH QUESTION:** Social media has been at the forefront of information dissemination. While some of the spreadable content on social media does not make any impact, other became viral, popular or both. Organizations and individuals affiliated with extremist ideology utilized social media information dissemination abilities to different degrees of success. The current study examined the predictors of virality and popularity content of extremist ideology groups using analysis of activity metrics and content analysis.

Hypotheses asserts that the maximal rate of activity metrics and the number of followers can predict whether the content becomes viral or not (H1); and that correlations exist between information dissemination (as virality, popularity, both or none) and content features such as expression (H2), advocacy and justification (H3), use of intimidation and emotion (H4), attempt to recruit (H5), provision of useful information and support or opposition (H6).

**METHODS & DATA:** The data for this study gathered by using a dedicated software program that scanned 15 Facebook accounts by organizations and individuals affiliated with extremist ideology. The corpus included 23, 494, 227 samples of 35, 879 posts throughout seven months. The posts were divided according to the discrepancies discussed between virality and popularity. Part of the analysis were conducted on the whole sample, the quantitative content analysis used sub-sample of 200 posts to examine the nature of the content according to the goals of the organization such as calling for activists participation in the organization, fundraising, donations, advocacy, and support of the organization videos as well as intimidation.

**RESULTS:** Hypothesis H1 was tested using logistic regression and confirmed. The rest of the hypotheses (H2-H7) were examined using a Chi-squared correlation (χ²) test. Hypotheses H2, H3 were confirmed while hypotheses H4, H5, and H6 were refuted.

**ADDED VALUE:** This research focuses on content disseminated by extremist organizations and extremist private individuals in the social networks. The mapping of popular and viral content and the dependencies found between their various activity metrics enabled the construction of a model for predicting how content behaves.

## A7.1: REPRESENTATIVITY I

(sponsored by GESIS)

SESSION CHAIR: CARINA CORNESSE

DIW Berlin & RISC, Germany

### BLENDED CALIBRATION – HOW TO CREATE POPULATION-REPRESENTATIVE SURVEY RESULTS FOR A RELIABLE REGIONALISATION

KERN, FRANZISKA {1}; KROTH, JULIA {1}; GILBERT, REINER {2}

1: infas 360 GmbH, Germany

2: infas Institut für angewandte Sozialwissenschaft, Germany

**RELEVANCE & RESEARCH QUESTION:** Online surveys are easy to conduct and relatively cheap. Big cases of numbers are easily feasible. But it is well known that target groups of online surveys can hardly represent the total population of interest. Combining non-probability samples with probability samples addresses this problem. How can both samples be combined in a way that the total sample corresponds to the parameters of the total population?

**METHODS & DATA:** Data from an online survey with about 10,000 respondents were combined with a probability sample (dual frame, approx. 1,000 participants, conducted by the infas Insitute) using an innovative weighting method. First, the selection probability of the telephone survey was equalized and calibrated against known benchmarks from the micro census. Then, the samples were merged and again weighted on the known parameters. Afterwards, characteristics that distinguish both samples were identified, and the non-probability sample is adjusted to the representative values of the probability sample.

Characteristics that typically differ between the two samples are e.g. the frequency of using landline, internet, and social media platforms. In the blended sample these characteristics were adjusted to the values of the representative probability sample by calculating a weighting factor for each respondent which is applied to all questions. Moreover, the data of the online survey was enriched with over 700 microgeographic characteristics for further regionalisation measures. This was possible as respondents voluntarily indicated their addresses in the survey.

**RESULTS:** As a result, the combined "calibrated" sample comprised 11,000 cases that were adjusted to the characteristics of the total population. The online bias of the non-probability sample was therefore reduced, and the data can be used as population-representative. The microgeographic characteristics made it possible to regionalise the representative survey results up to address level.

**ADDED VALUE:** Big probability samples are usually very expensive whereas online samples are less costly but not representative. These problems are solved by applying the method of blended calibration. In the end the sample has a much higher number of cases with characteristics of a representative probability sample and the possibility of regionalised results but at much lower cost.

## COMBINING PROBABILITY AND NON-PROBABILITY SAMPLES FOR ANALYTIC INFERENCE: A BAYESIAN APPROACH

SALVATORE, CAMILLA (1); BIFFIGNANDI, SILVIA (2) SAKSHAUG, JOSEPH W. (3); WISNIEWSKI, ARKADIUSZ (4) STRUMINSKAYA, BELLA (5)

1: University of Milano Bicocca, Italy

2: University of Bergamo, Italy

3: German Institute for Employment Research, Germany

4: University of Manchester, United Kingdom

5: Utrecht University, Netherlands

**RELEVANCE & RESEARCH QUESTION:** Survey data can be used in order to study the relationship between variables using regression models. However, due to the high costs of probability sample (PS) surveys, many research organizations can only afford a small size PS or, they can only rely on non-probability web surveys (NPS). In the former case, model estimates will suffer from high variance. In the latter case, results are hardly generalizable to the population of interest. In this scenario, the integration of both sample types is relevant to overcome the respective disadvantages, reducing the overall survey costs. We propose a methodology to supplement a small probability sample with a larger non-probability one that allows improve inference about model parameters.

**METHODS & DATA:** In order to combine the information coming from the two samples, we consider the Bayesian framework where inference is based on the PS and the available information from the NPS is supplied in a natural way through the prior. We focus on the logistic regression model, and we conduct a simulation study to compare the performance of several priors in terms of mean-squared error (MSE) according to different selection scenarios, selection probabilities, and sample sizes. In contrast to previous studies which generally assume a missing at random (MAR) selection mechanism, we do not make such an assumption and we also evaluate the framework in the not missing at random (NMAR) case. Finally, we present a real data analysis considering an actual probability-based survey and several parallel non-probability web surveys from different vendors which reflect different selection scenarios.

**RESULTS:** Incorporating biased non-probability data result in posterior estimates that have more bias, but generally, less variance than the non-informative priors. Overall, the informative priors reduce the MSE or, in the worst-case scenario, perform equivalently to the non-informative ones. According to the different scenarios, we suggest in which case the proposed informative priors are beneficial.

**ADDED VALUE:** This study provides an innovative Bayesian data-integration approach which allows to improve estimates about model parameters with practical implications in the reduction of survey costs.

## EFFECTS OF DIFFERENT RESPONSE TIME OUTLIER DEFINITIONS IN PROBABILITY AND NONPROBABILITY ONLINE PANELS

HADLER, PATRICIA; KUNZ, TANJA

GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** When it comes to collecting paradata in web surveys, response times certainly get the most attention. The reason for their popularity and widespread use is that timestamps can be easily captured in most survey software. These timestamps serve as the basis for a variety of different response time measurements (e.g., time spent per question, time to first click), which in turn can be used for very different purposes (e.g., to identify problematic questions during survey pretesting or satisficing behaviors in real time or after survey completion).

The analysis of response time data usually requires the detection and treatment of outliers during data preparation. In our study, we provide a systematic overview of the effects of different methods for defining response time outliers and highlight differences between probability-based and nonprobability-based samples.

**METHODS & DATA:** We used data from two types of online panels in Germany: the GESIS Panel (n=3,409) as a probability-based mixed-mode panel and the respondi Panel (n=2,202) as a nonprobability online panel. We compared eight methods for defining response time outliers; a total of nine survey questions were selected for examination. We used page-by-page timestamps for our analyses using the Universal Client-Side Paradata (UCSP) script (Kaczmirek & Neubarth, 2007). We examined the share of detected outliers per method, the overlap of detected outliers between methods, and the effect on mean response times.

**RESULTS:** Results show that different methods vary markedly in the share of outliers they detect. Moreover, methods that exclude more outliers do not always have a larger impact on the mean response time. There are only small differences between the share of detected outliers found in probability and nonprobability panels. However, the impact of excluding outliers on mean response times is larger in nonprobability panels.

**ADDED VALUE:** Our study allows conclusions about the optimal method for defining response time outliers and illustrates the differences between probability and nonprobability online panels.



## A7.2: **RECRUITMENT PROCESSES FOR ONLINE SURVEYS**

(sponsored by GESIS)

**SESSION CHAIR: WOJCIECH JABLONSKI**

Netherlands Interdisciplinary Demographic Institute,  
Netherlands

### **POLARIZING ADS FOR RECRUITING SURVEY PARTICIPANTS: A COMPARATIVE STUDY OF FACEBOOK ADS AND THEIR EFFECTS ON SAMPLE COMPOSITION**

**ZINDEL, ZAZA; KÜHNE, SIMON**

Bielefeld University, Germany

**RELEVANCE & RESEARCH QUESTION:** A growing number of research projects are turning to social networks such as Facebook to recruit (rare) populations for online survey participation. These social media platforms are based on an advertising revenue model that researchers can leverage by purchasing advertisements to recruit survey participants. However, researchers have only limited control over the algorithms that allocate ads to users. Moreover, the goals of survey researchers (e.g., obtain representative survey data) do not necessarily match those of social media platforms or advertisement management systems (to maximize interaction and profit).

Consequently, ad allocation algorithms may lead to polarized response patterns that favor users with very strong opinions on certain survey topics. Thus far, survey research lacks insights into 1) how the advertising algorithms allocate ads to users and 2) how different ad designs affect the composition of survey participants.

**METHODS & DATA:** Our presentation covers multiple Facebook advertising experiments conducted as part of various web survey projects in 2020-2021. We contrast different advertising texts, images, and campaign options. We examine whether polarizing features of ads, such as ad design and general conditions, such as unmoderated discussions and negative reactions, influence the survey data.

**RESULTS:** Preliminary findings show that certain polarizing ad topics lead to intense discussions in the comments column below the ads, some of which can also be found in open-ended questions in survey data. Final results will be presented at the conference, offering further insights into the polarizing dynamics of ads.

**ADDED VALUE:** This talk provides valuable insights into data quality hurdles such as sampling errors in survey data generated in this way. Moreover, our examples can serve as a starting point for further research.

### **WHO'S VOICE WILL BE HEARD? – BUILDING THE NEW PROBABILISTIC PANEL “PUBLIC VOICE” IN GERMANY**

**BOHLENDER, ANNE**

Kantar Public, Germany

**RELEVANCE & RESEARCH QUESTION:** Our daily work with clients from public institutions indicates that cost and time constraints increasingly seem to drive interest in self-recruited online access-panels in Germany. But for many research questions the source of the sample matters a lot, especially when statements about the general population should be made. One solution can be a probability-based mixed mode panel. Such panels are available in the US and in several countries in Europe, including Germany and the United Kingdom. Most are academic but there are several that have been developed by non-academic institutions. How can such a probabilistic panel be built by a commercial research agency in Germany?

In this contribution I want to share information about building a new probabilistic mixed mode panel in Germany (“Public Voice”) and highlight some aspects that might differ when creating such a panel as a commercial research agency instead of an academic institution (i.e., no access to register data).

**METHODS & DATA:** Public Voice was built using two recruitment methods, push-to-web (sequential mixed-mode: online/paper) and phone-to-web, starting with first small pilot waves in June 2021.

Using data from these first recruitment waves in Germany, we plan to compare data quality in terms of response rates and sample composition for:

- Two recruitment modes: push-to-web vs. phone-to-web
- Two incentive options within push-to-web: cash vs. voucher

**RESULTS:** As the recruitment wave is still running, full results will be available at the end of January. First results indicate that there are fewer differences than anticipated in the composition of the panel joiners between push-to-web and phone-to-web recruitment. Whilst there are some differences in terms of response rates for cash vs. voucher incentives.

**ADDED VALUE:** This contribution adds to the existing experiences with building probabilistic panels in Germany, showing how different recruitment modes that are open to commercial research agencies might influence panel composition.

### **THE HIGH FREQUENCY ONLINE PERSONAL PANEL (HOPP): REFLECTING ON ORGANIZATIONAL PROCESSES IN AN ONLINE DATA COLLECTION**

**VOLKERT, MARIEKE (1); HAAS, GEORG-CHRISTOPH (1,2)**

1: Institute for Employment Research, Germany

2: University of Mannheim, Germany

**RELEVANCE & RESEARCH QUESTION:** Within a month, we established a high frequency online personal panel (HOPP) to meet the demand for fast data collection during the corona crisis. Our situation did not allow us to hire a professional data collection institute or build our panel upon an existing data collection. Instead, we set up our own infrastructure with a limited set of resources. We succeeded in conducting a high frequency data collection. However, we fell short on our objective to timely publish our data as a sci-

tific use file (SUF). Guided by the question “Which steps in the online survey lifecycle kept us from weekly updating the SUF?”, we identify bottlenecks by reflecting on our organizational process and come up with possible solutions.

**METHODS & DATA:** Our reflections and insights are based on the HOPP study. HOPP is based on a probability sample drawn from on the integrated employment biographies (IEB) at the Institute for Employment Research. The first wave was conducted in May 2020 and the seventh and last high-frequency wave in March 2021. All waves were conducted in a monthly or bimonthly interval. As the corona crisis is still present, follow-up surveys are conducted without the high frequency character.

**RESULTS:** We focus on the organization between questionnaire development, programming, and data editing. Our reflection identifies bottlenecks affecting data collection frequency, that is, the distance between conducting survey waves, and timeliness of data publication, that is providing a timely and comprehensive data product. To increase data collection frequency, it is best to optimize organizational processes between questionnaire development and programming. However, to increase timeliness of data publication, it is necessary to optimize processes between questionnaire development, programming, and data editing.

**ADDED VALUE:** Our presentation provides helpful insights into optimizing bottleneck processes in online data collections. We find that our insights cannot be found in textbooks or journals and that knowledge addressing those bottleneck processes is passed within institutes or hard earned through experience. We seek to narrow this gap and start a wider discussion on how to optimize the organization between crucial tasks of the online panel survey lifecycle.

## C7: STRATEGIC ELECTION CAMPAIGNING

**SESSION CHAIR: WIEBKE DREWS**

Universität der Bundeswehr München, Germany

### STRATEGIC SOCIAL MEDIA USE IN POLITICAL CAMPAIGNING: AN INDIVIDUAL LEVEL ANALYSIS LINKING CANDIDATE SURVEYS WITH FACEBOOK AND TWITTER COMMUNICATION

**DARIUS, PHILIPP (1); STIER, SEBASTIAN (2)**

1: Hertie School, Germany

2: GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** An abundance of research has studied the use of social media of election candidates. One stream of research relies on data from platforms such as Twitter and Facebook in combination with publicly available official information. Other studies have used candidate surveys to investigate the role of political candidates' individual-level characteristics and usage motives. However, these kinds of literature do not yet speak to each other due to a lack of studies that integrate both types of research designs. This study tests existing theoretical explanations in a combined analysis of a candidate survey and social media data.

**METHODS & DATA:** In this study, we link candidate surveys with the actual social media behavior of election candidates. Concretely, we combine the candidate survey of the 2017 German Longitudinal Election Study (GLES) (N= 803) and more than 80,000 Facebook posts and tweets created by the same set of candidates during a period of three months before the 2017 German federal election. The candidate survey contains an extensive set of items which we group into three theoretical explanations of social media use and test in logistic and negative binomial regression models. (1) Resources and campaign capacities; (2) political strategy, e.g., attitudes towards the own party, individualized campaign goals, and perceptions of media coverage; and (3) social media-specific usage motives, i.e., strategic functions attributed to Facebook and Twitter.

**RESULTS:** The results show that the availability of campaign resources and strategic considerations have varying effects on the adoption of and activity on social media. A principal component analysis of survey items reveals party-focused and individual-focused usage motives that are the strongest survey-based predictor of actual social media activity.

**ADDED VALUE:** Taken together, the study demonstrates that publicly unavailable individual-level measures can improve the understanding of election campaigning on social media. Moreover, the results emphasize the role of individual media use motives for candidates in election campaigns. Consequently, the work underlines the importance of linking online data with survey data or other data sources to advance online and political science research.

### MAXIMIZING THE AUDIENCES: PORTUGUESE PARTIES' FACEBOOK PRESENCE IN 2019

**CARDOSO, DANIEL (1,2); BACAKSIZLAR TURBIC, N. GIZEM (3)  
MARTINS ROSA, JORGE (2); TORRES DA SILVA, MARISA (2)**

1: Lusófona University, Portugal

2: ICNOVA, Universidade NOVA de Lisboa, Portugal

3: GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** 2019 was a double electoral year in Portugal, with both European and National elections. These marked the rise of new political parties with parliamentary representation. As part of a more encompassing research project about social media and political participation, we collected that year's posts from the official Facebook pages of parties in parliament. We investigate if the content of the more viral posts reveals global thematic trends that shaped the year's political agenda, but also specific strategies from each party. In particular, whether the party's history, relative size or political alignment can be correlated with distinct strategies and/or with positive or negative sentiments.

**METHODS & DATA:** The raw data, consisting of posts and engagement metrics from 11 official pages, gathered with Facepager, was subject to a series of quantitative analyses to detect general trends. From a total of 6,905 posts, we have selected a subset of the 20 with highest shares per page, which were manually coded for content analysis using a self-developed coding scheme, and automated sentiment analysis.

**RESULTS:** The main topics found were: Self-Promotion, Fundamental Rights, International Politics and National Politics. National Politics and Self-promotion are the most frequent overall. Differences between parties emerge, revealing classical ideological cleavages and identity-signalling strategies.

The left prioritizes Fundamental Rights and economic issues in a social perspective centred on employment rights, while the right shifts the focus to economic liberties, pushes back against taxation and for securitarian initiatives. Newer and fringe parties tend to define themselves around single issues (e.g. Animal Rights). Right-wing parties also emphasize a narrative of Corruption and Ethics and Confrontation with Opponents, presenting themselves as Alternatives. Confrontational posts were evaluated for incivility or hate speech.

**ADDED VALUE:** Studies about the presence of political parties on social media exist, but work focused on Portugal is very scarce. Mixed-method approaches combining purely quantitative metrics with in-depth insights of content analysis are sparser. We here both present a picture of the Portuguese political panorama within the Facebook platform and contribute to the wider scientific discussion of the role of social media in politics in the European Union.

## WHAT MATTERS FOR KEEPING AND WINNING SUPPORT IN THE COURSE OF A TELEVISED DEBATE?

**WALDVOGEL, THOMAS; WAGSCHAL, UWE; WEISHAUPT, SAMUEL**  
Albert-Ludwigs-Universität Freiburg, Germany

**RELEVANCE & RESEARCH QUESTION:** What matters for keeping or winning support in the course of a televised debate? Our contribution addresses this question with real-time response and panel survey data from more than 5.000 respondents recruited in the run-up to the 2021 German national election. Our paper thus provides the first analysis of a TV triell in Germany based on a large-N-sample and extends existing findings on TV duels in the run-up to federal elections.

**METHODS & DATA:** We present real-time response and panel survey data from more than 5.000 respondents collected with the Debat-O-Meter, an Internet-based web application for mobile devices that allows us to evaluate the effects of televised political debates on large-scale audiences following the discussions in the setting of their private homes. It consists of a real-time response (RTR) measurement system and modules for instructing the audience at home and for collecting survey data.

**RESULTS:** We exploit our large and diverse sample and investigate the effects of a variety of variables on changes in candidate preferences. Our findings suggest, first, that in-party identity boosts support on candidate preference. With regard to outparty-identification, a weak identity is not an effective barrier to candidate preference support; only moderate and strong party affiliations show a consistent negative effect. Second, ratings of candidates' issue-specific statements on policy issues show a very strong effect. Third, we do not find effects of changes in valence perceptions. Fourth, the perception of being the winner of the debate is a strong predictor for support in candidate preference.

**ADDED VALUE:** Using the Debat-O-Meter to investigate large samples in a "natural" setting outside the lab, we exploit the heterogeneity of our study participants and are able to investigate effects of sociodemographic, socio-psychological and political variables on the effect of televised debate reception on political attitudes in more detail as it has been done before. Moreover, we present the first large-N study of a TV Triell in Germany, with results that extend previous findings, most of which were derived from the duel format.

## A8.1: REPRESENTATIVITY II

(sponsored by GESIS)

**SESSION CHAIR: FLORIAN KEUSCH**  
University of Mannheim, Germany

### ANALYZING VOTING BEHAVIOR WITH DIFFERENT SURVEY SAMPLES: RESULTS FROM A LARGE-SCALE COMPARISON OF A NONPROBABILITY AND A PROBABILITY SURVEY IN THE GLES (GERMAN LONGITUDINAL ELECTION STUDY).

**BUCHNER, HANNAH**  
GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** The popularity of nonprobability online surveys in social and political science is steadily increasing. Since these survey data rely on samples drawn from commercial opt-in online panels that consist of self-selected respondents, it is often questioned whether research based on such survey samples yields comparable results to research that uses data from probability-based surveys. These rely on a random selection of respondents. The present study compares a nonprobability and a probability sample to answer the research question of whether results from both samples are comparable in the analysis of voting behavior.

**METHODS & DATA:** We use two surveys of the German Longitudinal Election Study (GLES) that were fielded prior to the German federal election 2017, one based on a nonprobability and one based on a probability sample. Both feature comparable survey items and overlapping field periods. We compare the two samples (1), regarding the accuracy of estimates of characteristics with available external population benchmarks (e.g. age & turnout); (2), in terms of their distribution in a set of over 100 variables, covering a large range of measures of political attitudes and political behavior (e.g. political interest) and (3), concerning differences in multivariate analyses through a multimodel comparison with voting intention as dependent variable.

**RESULTS:** We show that (1) the probability-based survey sample performs slightly better for estimating characteristics with available external benchmarks. Concerning the (2) comparison of distributions and the (3) multivariate comparisons, we find no conclusive evidence for the type of sample affecting distributions of variables, as well as the multivariate model's goodness of fit and the main effects of the calculated models.

**ADDED VALUE:** This study provides new insights into the usage of nonprobability survey samples for studying voting behavior. Further, it exceeds previous research by applying a multimodel comparison and thus quantifying differences between probability and non-probability survey samples.

### STOP CHASING THE TAIL! A NEW FRAMEWORK FOR THE ANALYSIS OF REPRESENTATION BIAS

**OCHSNER, MICHAEL**  
FORS, Switzerland

**RELEVANCE & RESEARCH QUESTION:** Representation of a set of respondents is a key feature of any survey or data set if inferences to a population are to be drawn, be it a face-to-face survey, a telephone survey, a web survey or

data scraped from the web. However, the easy availability of respondents (online panels) and data (Tweets, posts, usage data) on the web has increased the importance of understanding “representation” of a specific data set. In this presentation, I will challenge current practices and suggest an alternative framework for the analysis of representation bias.

**METHODS & DATA:** Starting from the seminal work by Kruskal and Mosteller (1979), I will argue that identifying bias at different stages in the survey life cycle using the Total Survey Error paradigm (TSE) is like chasing the tail. We run in circles but do not find what actually interests us: the actual risk for bias for an estimate. I therefore suggest turning the concept of TSE upside down (or actually upside up again): My proposed framework for the analysis of risk of representation bias starts from the total survey error, i.e., from the statistic of interest. It thus investigates the risk for representation bias from the point of view of the data users. The framework rests on two dimensions: types of variables (variables of participation; control variables; variables of interest) and types of analysis (distributions; correlations; multivariate models).

**RESULTS:** Using a complex survey experiment consisting of five different designs (f2f and web/paper) for the European Values Study 2017, I apply the framework to investigate differences in the risk for bias across designs. I find that the different designs come with similar levels of risk for representation bias. At the same time, bias strongly depends on the type of analysis applied: distributions might be biased but multivariate models come with less risk.

**ADDED VALUE:** Current practices of representation analysis are unsatisfactory. Often-used indicators, such as R-indicators or Coefficients of Variance come with assumptions that rarely hold, thus leading to questionable advice for practitioners. My presentation will raise awareness of such problems and suggest a viable alternative.

(ESS). The main research question was whether a self-completion survey can replace face-to-face surveys if the data collection is conducted on the same stratified random sample and combines online and offline response options.

## METHODS & DATA:

**KEYWORD:** EFFECTIVENESS, RESPONSE RATES, SAMPLE COMPOSITION

We present the steps for conducting a PtW data collection and we analyze the effectiveness of the method in terms of response rates, timeliness, item nonresponse, and sample composition. The resulted successful sample is compared with the 9th wave of the ESS and with the Microcensus data from 2016. The result is also evaluated regarding the distribution of responses to sensitive attitude questions.

## RESULTS:

**KEYWORD:** SAMPLE COMPOSITION, BIASES, FACE-TO-FACE DATA

The main finding of the study is that the PtW survey resulted in a similar response rate relative to face-to-face surveys (around 40 percent), but the sample composition was different: however it further strengthened problematic dimensions (biases regarding settlement-level and education), it balanced the sample regarding age groups. It means that after proper preparation and post-stratification the PtW survey with a random sample can partly replace face-to-face data collections. Regarding the distribution of responses to sensitive attitude questions the PtW sample is significantly different from those obtained from the face-to-face sample.

## ADDED VALUE:

**KEYWORD:** ALTERNATIVE SURVEY METHOD, CONCRETE EXPERIENCE, DATA QUALITY

The Push-to-Web method is a potential new way of collecting survey data. It can combine face-to-face and online methods. In our study, we present a concrete experience of the PtW survey method regarding the quality of the collected data.

## CONCURRENT DESIGN VS. PUSH-TO-WEB: SURVEY PARTICIPATION IN A MIXED MODE GENERAL SOCIAL SURVEY

**ASIMOV, ALEXANDRA; BLOHM, MICHAEL**

GESIS – Leibniz Institute for the Social Sciences, Germany

**RELEVANCE & RESEARCH QUESTION:** Due to rising costs and declining response rates, surveys of the general population are considering moving from face-to-face to self-administered survey modes. Although web mode is more cost effective than mail mode, a web only survey for a cross-sectional general social survey in Germany is difficult due to coverage and response rate. Therefore, to conduct a self-administered survey in the general population, a mixed mode design (including the mail and web mode) is preferred. There are generally two different mode choice sequences: concurrent and sequential (push-to-web). The mode choice sequence can have an impact on the probability of participation. This study examines response rates and nonresponse-bias for the different mode choice sequences and compare them to previous face-to-face surveys. From this, we infer the extent to which the survey participation of a mixed-mode design fit the time series of a face-to-face survey.

**METHODS & DATA:** We use data from the German general social survey (ALLBUS). In 2021, this survey was conducted for the first time in self-administered mixed mode design (web and mail). In the regular ALLBUS target persons were contacted in concurrent design, while an experimental group

## A8.2: MIXED MODE AND MODE TRANSITION II

(sponsored by GESIS)

**SESSION CHAIR: TOBIAS GUMMER**

GESIS – Leibniz Institute for the Social Sciences, Germany

## “PUSH-TO-WEB” SURVEY, AS A COMBINATION OF FACE-TO-FACE AND ONLINE SURVEY

**MESSING, VERA (1); SÁGVÁRI, BENCE (1); SZEITL, BLANKA (1,2)**

- 1: Centre for Social Sciences, Hungarian Academy of Sciences Centre of Excellence, Hungary
- 2: University of Szeged, Hungary

## RELEVANCE & RESEARCH QUESTION:

**KEYWORD:** PUSH-TO-WEB SURVEY, ESS, SELF-COMPLETION

In this study, we present the results of a Push-to-Web survey (PtW) conducted in Hungary within the framework of the European Social Survey



was contacted in push-to-web design. We will analyze survey participation of the two mode choice sequences with information from the population registers: gender, age, and nationality as well as other frame information like region, and municipality size. In addition, we will compare the two mode choice sequences with previous ALLBUS surveys (face-to-face). A direct comparison with a face-to-face mode was not possible due to the Covid-19 pandemic.

**RESULTS:** Preliminary results show that push-to-web leads to a lower response rate than a concurrent design. The differences between the two mode choice sequences and the survey participation in terms of the socio-demographic variables are small. Compared to previous ALLBUS surveys, there are differences in the probability of participation for gender and municipality size. The effect of nationality is amplified in the self-administered survey.

**ADDED VALUE:** We compare different mode choice sequences and their effects on survey participation to provide recommendations on mode choice sequence for general cross-sectional social surveys in self-administered mixed mode design.

## MODE TRANSITION FROM TELEPHONE MODE TO PROBABILITY PANEL: A CASE STUDY

**TURAKHIA, CHINTAN; SU, JENNIFER; BERTA, KYLE**  
SSRS, USA

**RELEVANCE & RESEARCH QUESTION:** Traditional random digit dial (RDD) have long been the chosen mode of data collection to provide reliable, robust, and timely public opinion data, but these surveys are now faced with many challenges including declining response rates over time, risk of social desirability bias, interviewer effects, house effects, and increasing costs. A combination of these challenges can threaten the validity of a telephone poll and data trends.

The pandemic has accelerated the adoption of online and mixed-mode data collection methodologies, particularly for probability-based online panels. An AAPOR task force report on transitioning from telephone to mixed mode acknowledges that with this change in environment, an increasing number of surveys are transitioning from telephone only to self-administered modes such as online. However, the empirical literature is just beginning to provide guidance to survey researchers about best practices for these transitions, and there remain many unknowns.

What are the issues involved in transition from Random Digit Dial based phone mode to probability panel based on-line mode? We provide methodological guidance in this paper.

**METHODS & DATA:** We present a case study on transitioning from an RDD-based telephone methodology to an online probability panel. We provide a demographic comparison of an RDD poll and a probability panel poll and discuss strategies to reduce non-response bias, particularly among hard-to-reach groups. Finally, we examine adjustments that may be needed when transitioning from telephone only to a mixed-mode web panel.

**RESULTS:** Our research suggests that transition from phone to web mode can enrich the data quality by way of improved representation of hard-to-reach population and improved survey response rate. In addition, we are also able to improve the turn-around time for time-sensitive polls.

**ADDED VALUE:** In addition to sharing substantive data, we wish to broaden this knowledge base on mode conversion by providing some best practice guidance and strategies to reduce non-response bias.

## C8: MEDIA USE IN TIMES OF CRISIS

**SESSION CHAIR: OTTO HELLWIG**  
Bilendi & respondi, Germany

### STOP SPREADING DISCONTENT: THE EFFECTS OF SOCIAL MEDIA ON DISCONTENT TOWARDS GOVERNMENT INTERVENTION DURING COVID-19 IN EUROPE

**CONSOLINI, MICHELE; MASCHERINI, MASSIMILIANO**  
Eurofound, Ireland

**RELEVANCE & RESEARCH QUESTION:**  
SOCIAL MEDIA; POLARISATION; DISCONTENT; GOVERNMENT INTERVENTIONS

COVID-19 pandemic required prompt and strong interventions from world-wide governments. Some people hailed lockdowns, while others bashed mandatory masks and vaccines. This resonated loudly on social media platforms. Social media news have a polarising effect on people's opinion, reinforcing filter bubbles (Spohr, 2017). Similarly, social media spread more misinformation on symptoms, treatments and government intervention (Dahani & Franz, 2020). Thus, our research question is "to what extent social media news consumption impact discontent towards democracy, government and government interventions?"

**METHODS & DATA:**  
E-SURVEY SERIES; ONLINE PANEL

Weighted regressions were carried out. We predicted political discontent, trust in institutions and support on government intervention by preferred media outlet, time spent on social media, interpersonal trust and employment status, alongside demographics. Time series analyses were carried out as soon as Round 5 became fully available.

In April 2020 Eurofound launched its "Living, Working and Covid-19" online survey series. Five survey rounds have been completed, with the latest fielded in spring 2022. The online survey series presents both panel and cross-sectional aspects. More than 190,000 observations have been collected throughout the rounds.

**RESULTS:**  
TRUST AND DISCONTENT; NEWS SOURCE; SOCIAL MEDIA  
Social media as preferred source and time spent on social media are predicting discontent, whereas other media outlets have a less negative or not significant effect. A similar trend is observed with institutional trust as dependent variable. Women show less discontent than men, so do employed respondents than unemployed. Data from Round 4 shows a higher level of dissatisfaction with government's measures to tackle COVID-19 among whom preferred news outlet is social media and blogs. Trust in government strongly predicts satisfaction.

**ADDED VALUE:**

PANEL; ROUNDS; PAN-EUROPEAN

The panel structure allowed us to capture opinion on vaccines and trust in institutions amid a volatile period, thus drawing a clear picture of key moments the past year. We managed to collect data right before and after vaccine rollouts and easing restrictions, thus giving a timely opinion on the matters. Finally, the online survey series is the first pan-European data on the topic since Spring 2020.

**PANDEMIC SOCIAL MEDIA HATE SPEECH ANALYSIS**

LÜTTERS, HOLGER (1); LANG, ANDRE (2)

1: HTW Berlin, Germany

2: Insius, Germany

**RELEVANCE & RESEARCH QUESTION:** Hate speech has been a rising issue not only in social networks, but also in a larger scale against persons of public interest. During the SARS-CoV-2 pandemic, the amount and aggressiveness has been rising to a new level, threatening prominent public health experts and virologists who become victims of their own activities in social media. Their reactions range from reporting incidents to the police to backing out of public activity. Social Media Hate Speech has therefore become a threat to the public discussion in a democratic society.

The research question is what kind, source and volume of hate speech is directed against the top public persons in the field of SARS-CoV-2 pandemic management in Germany.

**METHODS & DATA:** Most top-level health experts and politicians are active on Twitter, receiving hate speech there. The social media data of the so called "Covid heroes" (Lütters et al. 2021) is analyzed by collecting their tweets including the large number of responses. We collect all tweets directed at or replying to them in the 4th epidemic wave in 2021.

The collected tweets are analyzed for (1) hashtags and (2) other verbal expressions of hate and clustered for the different types of hate speech, such as dehumanization/demonization or violence, and intensity, which can be ranging from disagreement to death threats.

**RESULTS:** We provide an overview over the hate speech extent and intensity in a crisis. We also try to find different hate patterns regarding each of the persons involved, depending on their activity type (virologist, politician) and their supposed point of view (cautious, hesitant, leading, challenging).

**ADDED VALUE:** As the current crisis puts our society to the test, it is most vital to know more about hate speech as one of sources negatively affecting public discussion and the active body of researchers doing their personal best under the public eye. The current highly polarized setting, discussing compulsory vaccinations and lockdowns with the main agents being in strong public focus, proves a unique chance to examine the phenomenon hate speech in detail and draw conclusions on what to expect in the future.

**HANDLING LIFE UNDER FIRE IN A MULTI-MEDIA ENVIRONMENT: ISRAELI CIVILIANS USE OF SECOND SCREENS DURING OPERATION "GUARDIAN OF THE WALLS."**

ELISHAR MALKA, VERED; WEIMANN SAKS, DANA; ARIEL, YARON

The Max Stern Yezreel Valley College, Israel

**RELEVANCE & RESEARCH QUESTION:** The phenomenon of using smart-phones and other portable devices as 'second screen' while watching television – has attracted significant attention over the last decade. However, although media usage is a major part of any crisis, especially when civilians are directly affected, no study has examined second screen use in times of war.

The current study examined the role that second screen usage played in the lives of Israeli citizens during the 12 days of operation "Guardian of the Walls." Focus was given to the correlations between users' level of concern due to the war and their immediate degree of actual threat (based on their relative proximity to the war zone) and their second screen usage patterns.

**METHODS & DATA:** Data for this study was gathered from a total of 411 participants (51% women, 49% men), ranging in age from 18 to 74 years ( $M = 42.96$ ,  $SD = 15.75$ ). All participants were native Hebrew speakers, non-religious (71.5%), and married (56.2%). We obtained the sample from an online panel representing the distribution of the Jewish-Israeli population-based on figures obtained from the Central Bureau of Statistics.

**RESULTS:** Findings indicate that the higher the actual threat level media users face, the more often they used their second screens throughout the war. Furthermore, the volume of users' second screen usage was rising as their level of concern and their cognitive needs increased. As the degree of actual threat increased, users' cognitive needs increased, as did their second screen usage.

**ADDED VALUE:** The current study contributes to our understanding of the media's role during times of war from the point of view of civilians under threat. It indicates that as technology enables us to stay constantly connected and not limit ourselves to a single platform, people are likely to use the full variety of options available to get updates, understand the situation better, and make more informed decisions concerning their safety and well-being under threat.