

Proportional classification revisited: Automatic content analysis of political manifestos using active learning / Gregor Wiedemann

Abstract: Supervised machine learning is a promising methodological innovation for content analysis to approach the challenge of ever-growing amounts of text in the digital era. Social scientists have pointed to accurate measurement of category proportions and trends in large collections as their primary goal. Proportional classification, for example, allows for time series analysis of diachronic datasets or correlation of categories with text-external covariates. We evaluate the performance of two common approaches for this goal: a method based on regression analysis with feature profiles from entire collections (Hopkins & King 2010), and a method aggregating classifier decisions for individual documents. For both, we observed a significant negative effect on classification performance due to the uneven distribution of characteristic language structures within the text collection. For proportional classification, this poses considerable problems. To fix this problem, we propose a workflow of active learning which alternates between machine learning and human coding. Results from experiments with empirical data (political manifestos) demonstrate that active learning enables researchers to create training sets for automatic content analysis efficiently, reliably and with high accuracy for the desired goal while retaining control over the automatic process.

Keeping an eye on the people. Who has access to MPs on Twitter? / Niels Spierings, Kristof Jacobs, & Nik Linders

Abstract: Twitter is credited for allowing ordinary citizens to communicate with politicians directly. Yet few studies show who has access to politicians and whom politicians engage with, particularly outside campaign times. Here we analyze the connection between the public and Members of Parliament on Twitter in the Netherlands in-between elections in 2016. We examine over 60,000 accounts that MPs themselves befriended or that @-mentioned MPs. This shows that: many lay citizens contact MPs via Twitter, yet MPs respond more to elite accounts (media, other politicians, organized interests,...); populist MPs are @-mentioned most, but seem least interested in connecting and engaging with 'the' people; and top MPs draw more attention, but hardly engage - backbenchers are less contacted, but engage more.

Revisiting the suppression relationship between social learning and self-control on software piracy / George W. Burruss, Thomas J. Holt, & Adam Bossler

Abstract: This study attempted to confirm the existence of a suppression situation among social learning, low self-control and, software piracy measures. Using a cross-sectional study of middle and high school students, structural equation modeling was used to confirm the measurement of a second-order social learning factor, and the

existence of a mediated suppression situation of low self-control through social learning on software piracy. The existence of a suppression situation was confirmed when low self-control was modeled with an indirect effect through social learning: the direct effect of low self-control on software piracy flipped direction from positive to negative, and social learning's direct effect size increased. This suppression situation was only demonstrated when social learning was modeled as a second-order latent factor. Future research of social learning should consider how its indicators are measured and the importance for the use of all social learning subdomains.

A typology of web survey paradata for assessing total survey error / Colleen A. McClain, Mick P. Couper, Andrew L. Hupp, Florian Keusch, Gregg Peterson, Andrew D. Piskorowski, & Brady T. West

Abstract: This paper reviews the existing literature on the collection of paradata in web surveys, and extends the research in this area beyond the commonly-studied measurement error problem to paradata that can be collected for managing and mitigating other important sources of error. To do so, and in keeping with the nature of paradata as process-oriented, we develop a typology of web survey paradata that incorporates information from all steps in the web survey process. We first define web survey paradata, and describe general phases of paradata that run parallel to the steps in fielding a typical web survey. Within each phase, we enumerate several errors within the Total Survey Error (TSE) paradigm that can be examined with paradata, discussing case studies and motivating examples that illustrate innovative uses of paradata across the web survey process. We conclude with a discussion of open questions and opportunities for further work in the area. Overall, we develop this typology keeping technological advancements at the center of our discussion, but with flexibility to continuously incorporate new developments and trends in both technology and study design. Our typology encourages researchers to think about paradata as a tool that can be used to investigate a broader range of outcomes than previously studied.

Straightlining: Overview of measurement, comparison of indicators, and effects in mail-web mixed-mode surveys / Yujin Kim, Jennifer Dykema, John Stevenson, Penny Black, D. Paul Moberg

Abstract: Straightlining occurs when survey respondents give identical (or nearly identical) answers to items in a battery of questions using the same response scale, which may reduce data quality. Despite its potential importance, research examining straightlining does not use a standard measurement technique. Further, while mixed-mode studies are increasing in prevalence, few studies compare straightlining behavior in mail versus web surveys. Our paper has the following goals: (1) describe and evaluate methods for detecting straightlining; and (2) examine effects of education and mode of administration on straightlining in two mail/web mixed-mode surveys. Data for Study 1 are from a 2010 survey of alcohol beliefs and consumption in which 7,200 young adults were sampled from driver's license records in Wisconsin and randomly assigned to mail-web (mail followed by web) or web-mail (web followed by mail) treatments. Data for Study 2 are from a 2013 survey about a public university and its affiliated health

organizations that used an addressed-based sample and randomly assigned households to one of the three experimental groups: mail-only, web-only, and web-mail. We identify and examine five methods for measuring straightlining: simple non-differentiation; mean root of pairs; maximum identical rating; standard deviation of battery; and scale point variation. The overall results replicate previously reported findings of a negative association between education and straightlining behaviors except for the standard deviation of battery measure in Study 1. Controlling for gender, race/ethnicity, and education, mode of administration was not significantly related to straightlining for any of the measures, suggesting straightlining behavior is stable across mail and web forms of self-administration.

Experimental comparison of PC web, smartphone web, and telephone surveys in the new technology era / Hana Lee, Sunwoong Kim, Mick P. Couper, & Youngje Woo

Abstract: Smartphones have become very popular globally, and smartphone ownership has overtaken conventional cell phone ownership in many countries in recent years. With this rapid rise in smartphone penetration, researchers are looking at ways to conduct Web surveys using smartphones. This is particularly true of student populations where smartphone penetration is very high and Web surveys are already the norm. However, researchers are raising concerns about selection biases and measurement differences between PC and smartphone respondents. Questions also remain about comparisons to traditional interviewer-administered approaches. We designed an experimental comparison between a PC Web survey, a smartphone Web survey and a computer-assisted telephone interview (CATI) survey. This study was conducted using an annual survey of students at a large university in South Korea. The CATI (interviewer-administered) survey had a higher response rate, lower margins of error, and better representation of the student population than the two Web (self-administered) modes, but at a higher cost. The CATI survey also had lower rates of item nonresponse. More significant differences were found between the modes for sensitive questions than for nonsensitive ones. This suggests that CATI surveys may still have a role to play in surveys of college students, even in a country with high rates of mobile technology adoption.

Where should I start? On default values for slider questions in web surveys / Mingnan Liu & Frederick G. Conrad

Abstract: Web surveys have expanded the set of options available to questionnaire designers. One new option is the make it possible to administer questions that respondents can answer by moving an onscreen slider to the position on a visual scale that best reflects their position on an underlying dimension. One attribute of sliders that is not well understood is how the position of the slider when the question is presented can affect responses – for better or worse. Yet the slider's default position is under the control of the designer and can potentially be exploited to maximize the quality of the responses (e.g., positioning the slider by default at the midpoint on the assumption that this is unbiased). There are several studies in the methodology literature that compare data collected via sliders and other methods but relatively little attention has been given to the issue of default slider values. The current article reports

findings from four web survey experiments (n=3744, 490, 697, and 902) that examine whether and how the default values of the slider influence responses. For 101-point questions (e.g., feeling thermometers), when the slider default values are set to be 25, 50, 75, or 100, significantly more respondents choose those values as their answers which seems unlikely to accurately reflect respondents' actual position on the underlying dimension. For 21- and 7-point scales, there is no significant or consistent impact of the default slider value on answers. The completion times are also similar across default values for questions with scales of this type. When sliders do not appear by default at any value, i.e., the respondent must click or touch the scale to activate the slider, the missing data rate is low for 21- and 7-point scales but relatively higher for the 101-point scales. Respondents' evaluation of the survey difficulty and their satisfaction level with the survey do not differ by the default values. The implications and limitations of the findings are discussed.

## Reports and communications

Be aware! If you start using Facebook problematically you will feel lonely. Phubbing, loneliness, self-esteem, and Facebook intrusion. A cross-sectional study / Agata Błachnio & Aneta Przepiorka

Abstract: Smartphones are an integral part of people's life. The aim of the study was to expand the knowledge on the individual determinants of "phubbing." Two dimensions of phubbing – communication disturbance and phone obsession – were taken into consideration. We tested the model of relations between phubbing, self-esteem, loneliness, and satisfaction with life. We administered the Phubbing Scale, the Facebook Intrusion Scale, the Loneliness Scale, the Satisfaction With Life Scale, and the Self-Esteem Scale. The participants in the online study were 597 Polish users of mobile phones, with a mean age of  $M = 21.22$  ( $SD = 6.52$ , range: 16-78). The results showed Facebook intrusion to be a cause of phubbing. Women scored higher than men on both dimensions of phubbing. A low level of self-esteem and satisfaction with life predicted Facebook intrusion. Additionally, a low level of loneliness was a predictor of Facebook intrusion, which in turn was a predictor of loneliness. The results demonstrate the multidimensional nature of phubbing and suggest new directions for future studies.

A sequential analysis of the welfare effects of mobile phones in Africa / Jeffrey James

Abstract: The main purpose of this paper is to assess the welfare effects of situations in which either mobile phone devices or SIM cards (or both) are not owned by relatively poor inhabitants of African countries. The task is pursued in a sequential analytical framework where effects at different stages of the process influence the welfare impact at later stages. Much of the analysis is conducted in different institutional circumstances from those found in the West (notably sharing and renting). Perhaps the main result of the analysis – backed by ample empirical evidence – is that the fewer are the alternatives to mobile phones as forms of communication, (e.g. public transport), the greater tend to be the gains from this technology. In the particular case of leapfrogging, the fewer are fixed-line phones, the more do mobiles yield gains to poor users, whether

these be individuals or actual countries. It is thus the context in addition to the technology, that determines the differential welfare gains.