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Book Review

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Callegaro, Mario, Katja Lozar Manfreda, and Vasja Vehovar. 2015. *Web Survey Methodology*. London, UK: SAGE Publications Ltd, ISBN 978-0-85702-860-0, 318 pp., £22.51.

The book *Web Survey Methodology* by Mario Callegaro, Katja Lozar Manfreda, and Vasja Vehovar introduces readers to the fundamental concepts of web surveys. It covers key concepts and findings in the literature on questionnaire design, sampling, recruitment, fielding, nonresponse, data preparation, post-survey adjustments, paradata, survey software, and cost issues. The book gives practical advice on conducting web surveys and points out critical aspects and new developments in the field of web survey methodology.

The book's approach differs from that of other books on web surveys, such as Tourangeau et al. (2013), for example; Callegaro et al. do not structure their book around the Total Survey Error (TSE) framework (Groves et al. 2011), but base the chapters on the web survey process. Therefore, the book *Web Survey Methodology* goes beyond the topics of error sources or design effects (also see Couper 2008) by including subjects such as field management, cost, and legal issues. Consequently, the book *Web Survey Methodology* is a valuable addition to the literature on web survey methodology and should satisfy readers who are interested in carrying out their own web survey.

The book contains eight chapters. The first chapter is a general introduction on the topic of web survey methodology. This is followed by three chapters on the key steps of the web survey process: prefielding, fielding, postfielding. The last part consists of three chapters on selected advanced topics and future developments in the field of web surveys. The book ends with a conclusion on how web surveys have changed and will continue to change the field of survey methodology.

Chapter 1 sets the scene for the entire book by providing definitions and typologies. Despite the fact that it is common practice to use the terms online survey, Internet survey and web survey interchangeably, the authors do a good job of clarifying and differentiating these terms from each other. For example, the concept of web survey is described here as HTML content with a unique web address which enables users to enter data on a web form. The generated content is then transferred to a researcher's server (p. 12). This is followed by an overview of advantages and limitations of the web survey method from a researcher's, practitioner's and do-it-yourself user's perspective. While web surveys have variable cost and measurement advantages, they are also limited by the absence of a sampling frame of email addresses or IP addresses (which makes contacting the general population demanding). The chapter concludes with a description of different types of web

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surveys, such as business surveys, online panels, website evaluations, and so on. In this context, the authors highlight the relationship between the different types and purposes of web surveys and the characteristics of the sample population. For instance, website evaluations measure the characteristics of the websites' visitors and the analysis focus is on website usage. Thus the sample consists of respondents who have visited the website, and this is the reason why the sample is not representative of the general population. The issue of sample composition becomes apparent in several chapters and sections throughout the book where differences between nonprobability and probability-based surveys are emphasized (see, for example Chapter 2).

Chapter 2, the most elaborate chapter, looks into the prefielding stage which covers issues related to survey mode choice, sampling, questionnaire design, technical implementation, nonresponse strategies, and general field management. In this chapter, the authors provide practical guidance to aid researchers in their decision in favor of or against collecting data in the web mode. The guiding questions at the beginning of the chapter are particularly helpful in this regard. Because a decision to conduct a web survey has consequences for the sampling procedure, the chapter also describes the availability of sampling frames and options for mixed-mode approaches. In many ways, therefore, this chapter draws on the book by Dillman et al. (2014). In this context, the authors take a very thoughtful and critical view of similarities and differences between nonprobability and probability-based sampling frames and their consequences for statistical inferences. The authors delineate the problem of noncoverage and nonresponse to web surveys and potential solutions. Furthermore, this chapter offers a general introduction to basic principles of questionnaire design and possible pitfalls in the technical implementation. While not reaching the level of detail on web-questionnaire design as achieved in Couper (2008), they cover all important design issues pertinent to modern web survey implementation. Various methods for questionnaire testing are described and guiding questions help practitioners considering decisions regarding data capturing (for example capturing paradata, which might be useful for field monitoring), data security, and privacy issues. Building on the current research of nonresponse theory, the authors specify influencing factors of nonresponse which are unique to web surveys. In addition, the authors give an introduction to related concepts, such as nonresponse rates, nonresponse bias, incentives, and invitations. Chapter 2 concludes with further guiding questions for practitioners which point to critical time points in the general management of the prefielding phase.

Compared with the chapter on prefielding, the chapter on the fielding of a web survey (Chapter 3) is more concise. The recruitment of respondents and the measurement process are briefly summarized. The chapter provides helpful advice on strategies for launching the survey. The authors suggest a soft launch which involves a small subset of respondents. This soft launch offers the opportunity to conduct first quality checks and detect technical problems. Furthermore, this chapter describes performance indicators and actions that can be taken in case of unexpected events during the survey fielding.

Chapter 4 looks into the postfielding period, which covers data preparation, preliminary results, data exporting and documentation. Aspects of data preparation such as defining the response status, data validations and data editing, imputations and weighting are discussed. The section on imputations contributes to the understanding that imputation

strategies depend on the type of missing data and hence cannot be used in every case. In addition, the chapter discusses the coding of open answers, as well as short and long-term accessibility and solutions for the anonymization of the data.

The emergence of new technologies and thus the use of mobile devices, such as smartphones, challenge the field of survey methodology, in particular in the web survey context. Nowadays respondents are able to use multiple devices, such as computers, smartphones, and tablets, to fill out web questionnaires. Therefore, the authors propose strategies for handling respondents' use of multiple devices in Chapter 5, as the display of web questionnaires can change by browser. Furthermore, the type of device may differ for certain respondent groups and hence device effects can occur (for example, participation rates differ by device). Moreover, the authors discuss the purpose of online panels as a source of web survey respondents and data quality issues regarding both nonprobability and probability-based panels. This is a contribution few other books on web surveys make, yet it is very valuable in current debates concerning the quality of probability and nonprobability online panels (Goel et al. 2015 or Kennedy et al. 2016). The authors further describe what is available on the web survey software market, software characteristics, and their effect during the web survey process. They also point to stages in the web survey process which are not yet or scarcely supported by software. A specific section on finding the right software tool is particularly useful to future practitioners.

Chapter 6 discusses the role of web surveys in the context of general survey methodology. It adds an extended definition of the term web survey mode, as well as its role in the context of the TSE framework (Groves et al. 2011). Beyond that, the authors explain how the TSE framework can be enriched by the concept of survey data quality (Lyberg 2012). In this regard, the authors briefly address the important question of how the survey mode relates to survey data quality. This chapter offers further insights for survey practitioners into variations of the interactive fieldwork design and the project management framework. Once again, questions guide the reader through important legal and ethical issues concerning web surveys.

Chapter 7 covers new trends in technological development, web survey software, methodology, and broader business and societal issues. Among other trends, the authors expect an increasing amount of do-it-yourself research with web surveys, due to the advancement of web survey software. The authors' thoughtful elaboration on the rise and decline of mixed-mode data collection and the integration of survey data with big data is particularly interesting.

In Chapter 8 the authors elaborate on how web surveys have changed and will continue to change the field of survey methodology. They conclude that the discussion on sampling and recruiting respondents in web surveys will persist. Furthermore, they point out topics where further research is needed, such as the development of standards for nonprobability web surveys.

In summary, the chapters provide a rich collection of the current state-of-the-art literature on web survey methodology. In addition to citing the relevant published literature, the authors provide further information at the accompanied WebSM website (http://www.websm.org). However, a "further readings" section at the end of each chapter would have been desirable, as it would have facilitated finding literature on specific topics.

While reading the book *Web Survey Methodology*, I got a strong sense that it was written with students and practitioners in mind who have different levels of knowledge and come from different fields, such as survey or psychological researchers, official statistics, and market or customer-satisfaction researchers. Some chapters are pitched at an introductory level and are useful for practitioners or students who are new to the field, while other chapters target practitioners who want to update their knowledge on web surveys. Even though the book does not offer a recipe on how to conduct web surveys, the authors succeed in instructing readers on the different decisions one has to take throughout the web survey process. Besides offering practical guidance, this book is an excellent, comprehensive, and rich introduction to the field of web survey methodology.

In conclusion, I can highly recommend this book to students, practitioners, and researchers who are planning their own web surveys and wishing to gain theoretical and practical knowledge on web survey methodology.

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