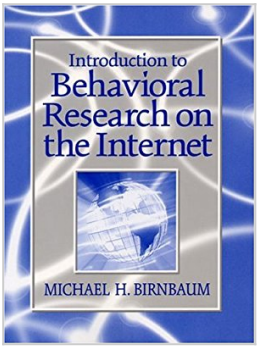

Introduction to Behavioral Research on the Internet

By Michael H. Birnbaum

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Introduction to Behavioral Research on the Internet By Michael H. Birnbaum Bibliography

- Sales Rank: #4889582 in Books
- Published on: 2000-05-23
- Original language: English
- Number of items: 1
- Dimensions: 9.00" h x .38" w x 6.88" l,
- Binding: Paperback
- 267 pages

Editorial Review

From the Inside Flap
PREFACE

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Freedom from the constraints of testing people at a particular time and place, Automatic coding and construction of data files, Opportunity to obtain large and heterogeneous samples, Possibility to conduct cross-cultural research without the expense of traveling, Opportunity to study specific populations of rare conditions, Reduced costs of experimental assistants, and Standardization of experimenter effects.

At the same time, there are new issues with this new method: experimental control and sampling of participants.

Research that compares Web and lab results shows a good convergence between the two methods (Krantz & Dalal, 2000). In fact, some comparisons show that Web data are of higher quality than lab data (Birnbaum, 1999c). Between 1998 and. 1999, the number of studies online doubled.

Even for those investigators who plan to conduct research in the laboratory with college freshmen and sophomores, the Web is a convenient network for the collection of data and also for the publication to other scientists of the exact method by which an experiment was conducted. The advantages in convenience of data processing and for open communication among scientists will cause more and more behavioral research to be done via the Web.

This book presents an introduction to methods and techniques basic to conducting research on the Internet. It also covers problems unique to this form of research and various ways to handle these potential problems. The book also teaches content and methods of data analysis. Each main idea is illustrated by examples included on the companion CD. PREREQUISITES AND ORGANIZATION OF THE BOOK

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The ideas have been presented in a sequence designed to allow a college sophomore enrolled in a course in research methods, a graduate student planning a first-year project, and a professor of psychology experienced in research (but wanting to learn these methods) to profit from the same book.

To get the most out of this book, you should have taken courses in introductory psychology, research methods, and statistics. However, the book is designed to be self-contained and it does not presume this

background. Psychological content (logical reasoning in Chapter 7, decision making in Chapter 8, contextual effects in judgment in Chapter 9, personality testing in Chapter 10, impression formation in Chapter 12, social balance theory in Chapter 13, psychophysics in Chapter 14, scaling in Chapter 15, or Bayesian inference in Chapter 16) is presented without the assumption that the reader is knowledgeable in these topic areas. A glossary of terms used heavily in this area of research is also included at the end of the book.

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Chapter 5 illustrates the use of HTML forms to collect data from people via the Web. A simple experiment is developed that collects a single response from the reader of the page, who can type an answer in a box and push a button to send the datum. This first example illustrates how data can be sent to the experimenter by email. The next example shows how to use a script to append data to a file on the Web server. Three input methods are featured: the text box allows the participant to type a number or short answer, radio buttons allow the reader to click from a multiple choice set, and pull-down selection lists allow the user select one response from a list. An experiment on the classic St. Petersburg Paradox is presented to illustrate a simple method for assigning participants to different conditions and also to illustrate how the choices in a selection list might bias the responses. Chapter 5 requires two 50-minute lectures, and it could be covered in class in 1 week, with students working 2 hours in the lab.

Chapter 6 gives a basic introduction to both Excel and SPSS. Data from the studies in Chapter 5 are analyzed to illustrate the use of Pivot Table Reports in Excel and crosstabs in SPSS. The techniques required to import, filter, and work with data in these programs are described. Procedures for calculating a t-test are also described. An instructor could spend either one or two 20-minute lectures on this chapter, depending on whether the plan was to cover only one or both of these programs. Students would require 2 or 3 hours in the lab or at home to work through the examples in this chapter with their computers.

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Chapter 12 covers the topic of impression formation, showing how to analyze the data from a factorial...

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