Chapter 39

Using Web Surveys for Psychology Experiments:
A Case Study in New Media Technology for Research

Blaine F. Peden
University of Wisconsin, USA

Andrew M. Tiry
University of Wisconsin, USA

ABSTRACT

This chapter provides readers with a practical guide about how to use commercial Web survey systems for Internet research. The authors frame their approach in terms of stages in the online research process: (1) ideation, (2) implementation, (3) distribution, (4) collection, (5) analysis, (6) dissemination, and (7) retention. Although they focus on implementing psychology experiments, many of their guidelines also apply to survey research. The authors draw parallels between applied (i.e., therapeutic intervention) and basic online research. One conclusion is that there are many methodological, ethical, and technological issues associated with each stage in the online research process. A second conclusion is that their approach benefits both researchers and participants. Future online researchers should modify the analysis and guidelines in light of the contemporary literature.

INTRODUCTION AND BACKGROUND

Behavioral researchers have long used new media to do research. Mainframe computers abetted the cognitive revolution in psychology. Personal computers and the Internet created new opportunities for behavioral and social research. Acquiring one or two personal computers allowed psychologists to establish or refurbish small laboratories and engage graduate students and even undergraduates as researchers in the 1980s. In the 1990s, psychologists began to conduct Internet surveys and experiments. Now psychologists and other social scientists deploy new media to access a global audience. In August 2012, Psychological Research on the Net (United States of America) listed over 300 studies and Online Psychology Research (United Kingdom) listed almost 300

studies. The remainder of the introduction and background describes different kinds of online research and online researchers.

Skitka and Sargis (2006) distinguished three kinds of online research in their content analysis of articles in American Psychological Association (APA) journals. Translational research constituted about 60% of the studies. Translational methods implement Web version of experiments developed offline and thereby allow researchers to conduct a study online and offline at the same time. Phenomenological research investigates topics such as attitudes, behaviors, and cognitions uniquely associated with the Internet and online interactions. For example, interactions online are more likely to be anonymous than other social interactions. Skitka and Sargis used the term *novel studies* to describe the third and least common approach (e.g., only about 5%). As an example, they discussed a study testing hypotheses about musical preferences by examining the music libraries accessible through Websites for sharing and downloading music. In practice, researchers perform translational, phenomenological, and novel research by conducting Internet surveys and Web experiments.

Several kinds of evidence indicate that behavioral scientists administer surveys online more often than they conduct Web experiments. First, Buchanan and Hvizdak (2009) indicate that institutional review boards (IRBs are the American equivalent to Ethics Committees in the European Union) receive more applications for Internet surveys than online experiments. Second, informally perusing either Psychological Research on the Net or Online Psychology Research reveals surveys far outnumber the experiments. Third, there are articles about doing Web surveys in a steadily growing number of disciplines. A fourth and final indication of the popularity of online surveys is the number of commercial software systems for creating and hosting them. Allen and Roberts (2010) labeled the use of Web surveys tools for Internet surveys and experiments as *outsourcing*.

Allen and Roberts argue that outsourcing facilitates online research by novices, but also creates its own methodological, ethical, and technological concerns (see also Buchanan & Hvizdak, 2010).

New media technology allows both experts and novices to conduct social and behavioral research online. The initial online researchers programed their own Websites for surveys and experiments. These early adopters produced a large literature offering practical and technical advice for other expert online researchers (e.g., Birnbaum, 2000, 2001; Gosling & Johnson, 2010). Recently, Birnbaum (2010) summarized the requisite Web-research tools and skills of experts such as hypertext markup language, Web forms, server-side programming, and client-side programming. Contemporary online researchers now include clinicians pursuing therapeutic interventions for people with behavioral and psychological problems. For example, Neville, O'Hara, and Milat (2009) examined applied research combining private and public Websites, online discussion boards, emails, and online diaries to help participants lose weight.

In contrast to experts, novices do online research part-time rather than full-time. Examples of novices include professors balancing teaching and research, graduate students doing a thesis, and undergraduates conducting their first research studies. Members of the novice group gravitate toward the use of Web survey tools for two reasons. Novices tend to conduct online surveys more frequently than online experiments and have little inclination to master the expert online research literature and skills.

Despite differences in their inclinations to master the large expert online research literature and Web programming skills, both expert and novice online researchers share common goals and obligations. For example, both try to maximize the number of recruits to their start pages, the number of participants who complete the study, and attentiveness of participants. In addition, both have obligations to their participants and to online

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