Chapter II

The Context and Culture of the Web as a Research Environment

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Abstract

The World Wide Web provides a unique and idiosyncratic environment for applied social research. Examining the context and culture of this environment can better inform research design. This chapter explores attributes of the Web that influence the administration and outcomes of survey research, examines the dual phenomena of self-selection and nonresponse that frequently encumber the implementation of self-administered surveys on the Web, reviews sample loss as it occurs during the multiple stages of survey response, and identifies elements of the research design that can mitigate the effect of this medium—its context and culture—on survey outcomes.

Introduction

The World Wide Web has been a remarkable phenomenon. It is a universe of networked systems, information, and people—merging the technologies of personal computers, computer networks, and hypertext into a powerful, accessible, and global environment. It is interactive and ubiquitous. It is also transitory and potentially invasive. It is increasingly intuitive and commercial.
Launched in 1989, its reach as a communication medium and a research environment is unparalleled. It is projected that well over one billion of the Earth’s population will be Web users by the year 2006 (ClickZ Stats, 2004). The impact of the Web has been immediate and “to some extent, has caught survey methodologists unprepared” (Dillman & Bowker, 2001). The survey literature as late as the mid-1990s could not anticipate the eventual influence of the Web on the practice of surveying (Schonlau, Fricker, & Elliott, 2002). According to Schonlau et al., some experts predict that Web-based surveys will eventually replace other survey modes altogether.

The Web provides a unique and idiosyncratic research environment for applied social research. While the growing accessibility of the Web enhances its value as a research environment, its other attributes—some delimited by technology and others by societal circumstances—are qualities that directly influence survey research. It is those attributes, specifically those that are derived from the context and culture of the Web itself, that affect external validity and reliability.

The Web as Context

The word context is derived from the Latin words contextus (connection of words) and conterexere (to weave together). The World Wide Web (WWW) is a plurality of connections, a rich texture of networked resources and constructed meaning. Its primary medium is hypertext—a means of connecting content and meaning in non-sequential patterns. This intertextuality of the Web has been called an “open fabric of heterogeneous traces and associations…forever shifting and always mobile” (Taylor & Saarinen, 1994, p. 6).

The man who sired this phenomenon, Tim Berners-Lee, envisioned “an organic expanse of collaboration” (Wright, 1997, p. 67). He imagined it to be a social place—a place for dynamic, purposeful interaction, accessible to all—a global village (Daly, 1996).

In 1980, while serving as a consulting software engineer for CERN, the European particle physics laboratory in Geneva, Berners-Lee created a software program for his own purposes, “to keep track of the complex web of relationships between people, programs, machines, and ideas” (Berners-Lee, 1997b, p. 1). It was inspired by his research on how brains use random associations to link thoughts (Jacobs, 1995). This program, which he called Enquire, became the seminal idea for the Web, using random associations to access information at distributed locations.

When Berners-Lee returned to the CERN on a fellowship, he wrote a proposal to link CERN’s resources by hypertext. He conceptualized a web of relationships, at once complex and simple, diffuse but precise—achieving a natural balance amongst disparate elements. He proceeded to develop the first World Wide Web server and first client, a hypertext browser/editor (Vandendorpe, 1996). In December 1989, Berners-Lee introduced the World Wide Web.

Why the Web? It depicts a “decentralized nonhierarchical topology” (Lange, 1995b, p. 34). World Wide describes its scope. Berners-Lee describes the Web as an abstract space with which people interact, populated by interlinked pages of text, images and anima-