Chapter 3

Sampling, Channels, and Contact Strategies in Internet Survey

Ester Macri
University of Florence, Italy

Cristiano Tessitore
National Statistical Institute of Italy, Italy

ABSTRACT

The global diffusion of the Internet involves economic, political, cultural, and geographical factors, making it a very interesting subject for sociologists and policy makers. In the last few years, big changes in Internet usage have occurred. In particular, during the last decade, new Social Networks have social scientists reconsidering their research methodology and developing new survey techniques (Internet Survey Techniques). One of the main challenges presented by Internet Surveys is the sampling procedure, as it must be reconsidered in order to avoid the risk of bias and a lack of scientific accountability. The main questions are: (1) Are classic sampling methods an effective way to investigate new Web reality? (2) How can we conduct a valid survey using the Internet? In this chapter these questions are addressed with methodological attention, starting with the problem of defining population in Internet Surveys. The authors also illustrate the main channels for the conduct of Internet Surveys and their specific characteristics. Finally, they discuss some sampling procedures and contact strategies used in Internet Surveys, with a particular attention to a new and important channel: Social Networks (especially Facebook and Twitter).

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1. INTRODUCTION

Internet usage is increasing day by day; it is estimated that in March 2011 the global population of Internet users was about 2.095 billion (30.2% of world population). This phenomenon constitutes a very interesting tool for different kinds of academic research, in particular for Social Sciences and Social Research. During the last decade, the birth of new social realities, like Social Networks, have persuaded many social scientists to reconsider their research methodology and to develop new survey techniques (Internet Survey Techniques). The potential of the Internet as a survey channel is huge; the main advantages of Internet surveys are that they are very cheap, very fast, and very flexible. The interaction between respondents and the proposed questionnaire in Internet surveys is dynamic, simple and clear. With this channel a researcher may collect a large quantity of data in a very short time and at low cost. However, using the Internet for data collection in social surveys can be problematic from a methodological point of view. One of the main challenges posed by Internet surveys is the sampling procedure, because it needs to be reconsidered in order to avoid the risk of bias and a lack of scientific accountability. The central question is: are classic sampling methods effective to investigate the new Web reality? The fundamental methodological problem starts with the definition of “population” in Internet surveys. This will be described in detail later.

In this chapter the focus is the problem of defining “population” in Internet surveys, the main channels for the conduct of Internet surveys and their characteristics. Finally, some proposals for sampling procedures and contact strategies for Internet surveys will be discussed, with particular attention to a new and important channel: Social Networks (especially Facebook and Twitter). Furthermore, while there are many different methods to conduct an Internet survey, in this chapter we will try to show costless approaches.

2. INTERNET SURVEYS SAMPLING

One of the main problems encountered by a researcher when designing an Internet survey is the sampling procedure. In this case the classic sampling methods are not effective.

The construction of a good sample is critical to creating a valid survey. According to Kish (1987) and Groves (1989), it is possible to define four different types of populations:

- **Population of Inference (PI):** The set of individuals that are the objects of the study, in a defined time interval (e.g. the population living in Italy in the first semester of 2011).
- **Target Population (TP):** The finite set of individuals target of the study. It is possible that some units belonging to the PI are not included in the TP (e.g. people in the hospital at the moment of the survey). The difference between the PI and TP is defined by the researcher and is generally driven by practical purposes (e.g. the researcher can choose to not survey people living on high mountains).
- **Frame Population (FP):** A list of units used for drawing the sample. It should be a list of elementary units, for example individuals, or a group of elementary units like families.
- **Survey Population (SP):** The set of individuals that will be, if selected, polled. Obviously, the individual inclination to participate at the survey is unrelated with sampling strategies.

There are differences in the size of each of the populations produced by some biases that can be present at the beginning, at the end or during the survey. Without pretending to be exhaustive, some sampling biases are:
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