

Chapter 14

Internet Surveys

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Examples

Below follow examples and more additional material accompanying Chapter 14. Note that the numbering refers to the corresponding sections in this chapter.

14.1 INTRODUCTION

Emerging forms of surveys using the Internet technology

In the last few years, we face the integration of Internet with other technologies resulting in new forms of Internet surveys:

1) With the introduction of WebTV devices (a specially-adapted television set designed to allow internet connection or a set-top box which connects to a standard TV for the same purpose) we face **WebTV surveys**, where the survey questionnaire is accessed and filled-in by respondents using their WebTV device. The implementation of such surveys as regards the sample management (especially panels are used in this case) and non-response conversion is similar to typical web surveys referred to in the chapter on Internet surveys. The difference lies in the questionnaire design that is in this case adapted to the WebTV screen, which does not allow as much functionality as a computer-based browser.

2) With the introduction of short message service (SMS) and wireless application protocol (WAP) for mobile phone devices we face computer assisted self-interviewing using mobile phone devices (**M-CASI – mobile CASI** or also called SMP – self-administered mobile phone surveys). An invitation message (SMS or email) is sent directly to the mobile phone and the respondent is invited to carry out a self-administered survey that can be in the form of a simple SMS reply (e.g. Yes – No) or a web survey (using WAP) completed on the mobile headset. However, at the moment, due to small screens and limited usability of mobile phone keyboard, in addition to costs on the side of the respondent, such surveys are still very limited and suitable only for specific cases where only little information

from respondents is needed. On the other hand, sending pre-notifications for web surveys via SMS messages seems promising.

3) Internet technology enters also into classic CATI (computer assisted telephone interviewing) systems. Computer terminals used by interviewers may be connected to the server using the Internet (and not only via an internal network). The Internet is thus used for survey administration (sample management, call scheduling, actual calls, data transfer etc.). In an ideal situation, the interviewers could be working from home, using the same CATI system as in the call center, make use of the IP telephony and be even supervised from the call center via a web cam.

4) Internet could enable even interviewer-administered surveys using "virtual interviewers". The interview could be performed at the "real time" with the interviewer and respondents being in contact using the Internet graphical browser and the web cam, which is a real time camera whose images are accessed using the World Wide Web.

14.2.3 Areas of applications

Psychological Web experiments

Psychological Web experiments are a special research technique that often uses Web questionnaires. An overview and discussion of Web experimental research is provided in a special issue of *Experimental Psychology*, 2002, Vol 49, 9. Examples of such experiments can be found at <http://genpsylab-wexlist.unizh.ch/> (maintained by the University of Zurich). Examples of non-commercial tools for implementing Web experiments are FactorWiz (<http://psych.fullerton.edu/mbirnbaum/programs/factorWiz.htm>) or Wextor (<http://psych-wextor.unizh.ch/wextor/en/index.php>), while there are also other commercial ones on the market.

14.3.1 Coverage

Digital divide

The term “digital divide” refers to the difference between communities or between individuals in their access to computer and the Internet. This difference refers to their socio-economic characteristics, to the ability to use the information –communication technologies (different information literacy and technical skills), and to the difference in availability of quality and useful digital content.

There are continuous research (national and international) projects measuring the digital divide. As an example, see the **SIBIS** (Statistical Indicators Benchmarking the Information Society) project at <http://www.sibis-eu.org/> where data regarding the EU members states, Switzerland and the USA can be found. For the last report (2003) see <http://www.sibis-eu.org/publications/pocketbook.htm>.

14.3.6 Questionnaire design

Examples of question types in Web questionnaires

WebSurvey

1. Which search engine do you use most often?

Yahoo
 MSN Search
 Google

Single answer question with radio buttons

2. Which of the following do you use?

Cell phone
 Personal computer
 Handheld computer

Multiple answer question with check boxes

3. When did you last use your cell phone?

In the last 3 hours
From 3 hours to 24 hours
More than 24 hours ago
Don't know

Single answer question with radio buttons

4. Please comment logo on the right.



Text box for an open-ended question

Inclusion of picture

5. To what extent do you agree/disagree with the following statements?

	Strongly disagree	Somewhat disagree	Partially agree, partially disagree	Somewhat agree	Strongly agree
Information on the Internet is easy to find.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internet is well organized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Grid question

6. How far do you agree/disagree that Internet is useful for your work?

Strongly disagree Strongly agree

Ruler / slide

7. How would you describe the search for information online?

Good 1 2 3 4 5 6 7 Bad
Easy 1 2 3 4 5 6 7 Difficult

Semantic differential



Questionnaire navigation buttons

Progress indicator

14.3.7 Ethical issues

Codes of ethics and ethical guidelines dealing with Internet research

Several professional research associations developed codes of ethics and ethical guidelines dealing with some sort of Internet research, some of them even especially dealing with Internet survey. The below table lists the ones that can be found in English.

TABLE 1 List of professional associations and codes of ethics dealing with Internet (survey) research

Association: Code, Year of last revision. URL (Region)
▪ AoIR – Association of Internet Researchers: Ethical decision-making and Internet research: Recommendations from the AoIR ethics working committee, 2002.
▪ www.aoir.org/reports/ethics.pdf (worldwide)
▪ APA – American Psychological Association. Kraut, R. et al. (2004): Psychological Research Online. Report of Board of Scientific Affairs' Advisory Group on the Conduct of Research on the Internet. American Psychologist, 59, 2, 105-117. (North America)
▪ CASRO - Council of American Survey Research Organizations: Code of Standards and Ethics for Survey Research Council of American Survey Research Organizations, 2004.
▪ http://www.casro.org/codeofstandards.cfm (North America)
▪ ESOMAR – The World Association of Opinion and Marketing Research Professionals: ESOMAR Guideline on Conducting Marketing and Opinion Research Using the Internet, 2003.
▪ http://www.esomar.org/index.php/codes-guidelines.html (worldwide)
▪ IMRO – Interactive Marketing Research Organization: Code of ethics, 2001.
▪ http://www.imro.org/profstds/index.cfm (worldwide)
▪ MRA – Marketing Research Association: Use of the Internet for Conducting Opinion and Marketing Research, 2000.
▪ http://www.mra-net.org/pdf/internet_ethics_guidelines.PDF (North America)
▪ NESH - National Committee for Research Ethics in the Social sciences and the Humanities: Research ethics guidelines for Internet research, 2003.
▪ http://www.etikkom.no/English/Publications/internet03 (Norway)

EXTENDED GLOSSARY OF KEY CONCEPTS

Table 2. A glossary of major terms

Adaptive questionnaire	A questionnaire that is adapted to a particular respondents in the sense that subsequent questions/answers are presented according to answers to one or more of previous questions (the questionnaire is individualized). This might include skipping or assigning questions, adding previous answers as part of subsequent question wordings etc. Adaptive questionnaires are usually implemented in computer assisted surveys, e.g. web surveys or CATI.
Anonymity (of survey)	A survey is anonymous when it is not possible to link responses to the identity of respondents. Even when list of respondents exists, it is not possible to find out to which respondent individual set of answers belongs.
Automatic skipping	See <i>Conditional branching</i> .
Banner ad	A graphical part of a web page, usually used for advertisements. In case of web surveys it can be used to invite visitors of a web page to participate in a survey. It provides link to a web survey.
Check box	Design element used to present response options in computerized questionnaires. Check boxes are usually used to present response options for questions with multiple possible answers. A respondent can select individual response options by clicking on them.
Computerized self-administered questionnaire (CSAQ)	Computer-based questionnaire completed by the respondent him/herself without the presence of an interviewer. Examples of such questionnaires are web questionnaires, email questionnaires, disk-by-email questionnaires etc.
Conditional branching	A feature of computerized questionnaires which enables automatic skipping (filtering) or assignment of subsequent questions for each respondent individually based on his/her previous answers. This is a feature of adaptive questionnaires (see above).
Confidentiality (of survey)	Confidentiality ensures that respondents' answers are secured from being linked to their identity by unauthorized persons or public. Unlike anonymous survey, it is possible to link answers and respondent's identity. However, this should be

	only available to authorized persons, e.g. researcher for the purpose of non-response conversion.
Context effect (in survey questionnaire)	Effect when respondent's answers are influenced by information he or she gets from the survey questionnaire. For example, when a respondent is answering specific question, he or she might think about it in relation to some previous questions or answers.
Cookie	A file that is sent from a web server to a web browser to be stored on user's disk for later retrieval. It contains data that enable the web server to recognize returning visitor of a web page, though it cannot reveal user's identity. This enables some control over multiple responses to web surveys by potentially recognizing persons who have already completed the survey.
Coverage error	Error of non-observation arising because some segments of target population cannot be measured using specific survey mode. In the case of web surveys, for example, coverage error is high when measuring general population due to relatively large proportion of Internet non-users.
Data security	Protection of data against loss and unauthorized access. It applies to the protection of data during the collection process and when stored at the server. Problem of data security is salient for web surveys since sufficient protection (e.g. encryption) of communication between respondent and server and also data server itself is necessary.
Drop-down menu	A design element used to present response options for single-answer question in web questionnaires. When a respondent clicks on a drop-down menu a list of available response options is opened. The respondents can choose one of them by scrolling down the list and select it.
Drop-out rate	Proportion of respondents who only partially complete the questionnaire and preliminary abandon it. It is calculated as the ratio between number of respondents who abandoned the questionnaire prior its completion and number of all respondents to survey.
Email survey	An Internet survey mode where a survey questionnaire is sent by e-mail to respondents. It can be send within the message itself and

	respondents respond by marking their responses in the reply message. Or it can be send as an attachment file including the questionnaire to be downloaded and run on the respondent's computer.
Follow-up contact	Contact made with non-respondents with the purpose of motivating them to complete the survey and thus to increase response rate. E-mail or mail is usually used for this purpose in web surveys.
Incentive	Material or non-material award for respondents used to increase participation and higher data quality.
Integrated computer-assisted telephone interviewing (integrated CATI)	Computer-assisted telephone interviewing (CATI) system that uses Internet for the survey administration (sample management, call scheduling, data transfer etc.).
Interactive web survey	A web survey using an interactive survey questionnaire – a questionnaire where interaction with the server occurs during its completion. It enables interactive features such as conditional branching, randomization of items, inclusion of multimedia elements, control of answers etc.
Intercept web survey	A web survey in which respondents are recruited by intercepting them during their visit to a specific web page. This is usually done using pop-up windows or banner ads on web page.
Internet survey	Broad term for all surveying modes implemented through one or more Internet services. These include World Wide Web (web surveys), e-mail (e-mail surveys), WebTV (WebTV surveys) etc.
List-based web survey	A type of web survey where a list of units from the target population (sampling frame) is available.
Login procedure (to web survey)	A procedure used in web surveys with restricted access to authenticate respondent's permission of entering the web questionnaire. We speak about automatic login procedure when respondent's identification is part of the survey's URL address provided to him/her to access survey. We speak about manual login when respondent is asked to manually enter his/her username and password to access the survey questionnaire.
Measurement errors	Errors arising in the process of measurement (e.g. surveying). They might be considered as deviations of respondents' answers from their true values. Basically four sources of these errors

Mixed mode survey design	<p>might be defined: interviewer, respondent, questionnaire (e.g. wording, design) and data collection mode. Also called error of observation. Surveying using two or more different survey modes on the same sample. Data obtained by different modes are combined. This is often used when some segments of the target population cannot be measured using a single survey mode. For example, web questionnaire is used for Internet users and mail questionnaires for Internet non-users to overcome the problem of non-coverage in web surveys of the general population. Mixed mode survey designs are also used in order to decrease survey costs: cheaper modes are used first (e.g. web survey) and more expensive modes for non-respondents later on (e.g. telephone survey).</p>
Mobile – computer-assisted self interviewing (M-CASI)	<p>A self-administered survey in which respondent completes the questionnaire using his/her mobile phone device. A survey questionnaire is presented and answered using Short Message Service (SMS) or Wireless Application Protocol (WAP).</p>
Non-probability web survey Non-response bias	<p>A web survey based on non-probability sample of units from the target population. Consequence of non-response error that arises because non-respondents are different from respondents.</p>
Online poll	<p>Usually short, non-probability web survey used for entertaining purposes. It often consists of one or only few questions and is open to all visitors of a specific web page. Usually posted on media web sites.</p>
Opt-out (in web panels)	<p>Feature usually available in web panels. It enables participant to opt out from the panel, that is to leave the panel when convenient to them.</p>
Pre-notification (to survey)	<p>Information for potential survey participant about upcoming survey. It is often an effective method to motivate individuals by stressing the importance and legitimacy of the survey. Pre-notifications might be disseminated using different communication modes such as mail, e-mail, telephone etc.</p>
Probability web survey	<p>A web survey that is performed on a probability sample of units from the target population. There are several types of probability web surveys: list-based web surveys, web surveys on probability pre-recruited lists, on probability panels.</p>

Progress indicator	A graphical or textual element of computerized questionnaires which informs respondent about the proportion of the questionnaire that he/ she has already completed. It is usually implemented in web surveys.
Quality check reminders	Feature of computerized questionnaire which assures quality of entered data. For example, it checks whether the format of the entered response is appropriate (e.g. number or date format), whether mandatory question is answered, whether response is consistent with previous answers etc. If there is an invalid input, the respondent is reminded to make a correction of the response.
Radio button	Design element used to present response options in computerized questionnaires. Radio buttons are usually used to present response options for questions with single possible answer. A respondent can select an individual response option by clicking on it.
Reminders	See <i>Follow-up contact</i> .
Response rate	Indication of data quality in surveys. A ratio between the number of units who responded to a survey and number of all eligible units. It is usually expressed as percentage.
Self-selected web survey	Non-probability web survey for which no access restrictions are used and is not based on any sampling frame. Anyone who wish can access and fill-in the survey questionnaire.
Software package for web surveys	Software product with various features for implementation of web surveys. These can include different features of questionnaire design, survey administration, sample management and results export and analysis.
Static web survey	Web survey based on simple HTML form without interactive features (in contrast to <i>Interactive web survey</i>). The web questionnaire is static – the same for all respondents.
Volunteer opt-in panel	A panel of units which self-selected themselves to it (inclusion in the panel is voluntary, not based on a probability sample from a certain sampling frame). It is a common approach in web surveys where such panels assure large number of participants of desired characteristics. However, since such panels do not based on a representative sampling frame, statistical inference from such surveys is questionable.

Web questionnaire	Questionnaire implemented as an interactive or static web form, based on Hypertext markup language (HTML). Respondent access and complete it using a web browser.
Web survey	Most widely used Internet survey mode implemented using World Wide Web. Respondents access and complete web survey questionnaires using a web browser. Their responses are automatically sent via the Internet to a data server and stored on it.
Web survey introductory page	First page of a web survey. It usually includes basic information about the survey. It may ask respondents to provide login details (e.g. username and password) if access to the survey is restricted.
WebTV survey	WebTV survey is an Internet survey mode, similar to web surveys, with the specifics that respondents access and complete the questionnaire using their WebTV device.