

# 100% of Respondents to This Web-Based Survey Have Access to the Public Internet: A Review of Web-Based Survey Tools for Academic Research

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### **Abstract**

The almost ubiquitous status of the public Internet has brought with it a new era for questionnaire based research. Researchers who previously relied upon expensive and time-consuming manual processes now have the option of using on-line methods for collecting data. Doing so has the potential to reduce costs substantially, as well as improve response numbers and quality of individual responses. The technology is not without its pitfalls however, issues of representativeness of responses, accuracy and reliability of responses, and technical challenges are present. This paper makes a brief discussion of key issues, and identifies two commercially hosted web-based survey tools that the author believes will be useful for the conduct of web-based surveys in an academic context.

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## ***Introduction***

### ***Statement of Issues***

This short study examines the use of electronic means, in particular the World Wide Web (web), to conduct questionnaire based surveys for research purposes. A brief appraisal of the academic literature as it comments specifically on the conduct and the consequences of surveying electronically is made, but the primary goal is to identify and review tools that are suitable for university research students and academic researchers to use in the execution of their own studies.

Electronic surveys may, in most cases, be conducted in one of two ways: either the researcher will write and/or install software on his own server and conduct the entire survey from his own systems, or he may use a pre-configured system offered by a third party. Whilst the flexibility afforded by a completely custom system might be of some value, it is this writer's direct experience that the construction of such a system can be complex and will rarely be an effective use of a researcher's time. This work concentrates therefore on preconfigured systems offered by third party service providers.

### ***Background and Significance***

The questionnaire is an oft used instrument for the collection of quantitative (and to some extent, qualitative) data for study. Whether answered directly by the respondent or executed by a researcher in person or via telephone, it has almost always been paper-based. A paper based survey has significant overheads in preparation and dissemination of materials, retrieval, and data entry. Improvements in technology and in particular the relative ubiquity of access to the public Internet means that the web must be considered as an alternative to the traditional paper based techniques.

## **Literature Review**

Immediately apparent is the rapidity with which the literature on web-based surveying has aged. Even relatively recent studies cite a requirement for “extensive knowledge of client-server computing” (Stanton, Rogelberg 2001, p200) and “time-consuming efforts to ensure the [...] practicality of a web survey”. Aoki and Elasmara (Aoki, K. & Elasmara, M. 2000), position web-based techniques as being “still in their infancy” and regard “these new methods” with “guarded optimism” (Stanton, Rogelberg 2001, p201). In observing that these claims are somewhat inaccurate in respect of the current status of this rapidly advancing technology, this writer contends that a reviewer must regard all but the most recent literature on the subject with the same “guarded optimism”.

Perhaps the most significant matter for concern, alluded to in the title of this paper, is that of the representativeness of web-based surveys. This author's own experience reflects the warning issued by Cook et al (2000) and Zhang (1999): results of web-based surveys are only representative of the sub-group of people who have access to a computer and to the public Internet, and a researcher who attempts to generalise results to the population at large, without further qualification, makes a grave error. Web-based surveys *can* be representative of certain populations where access to the pre-required technologies is widespread however (Cook *et al.* 2000).

High response rates can be (though are not necessarily) beneficial in ensuring representativeness in any population (Cook *et al.* 2000). Results can also be biased if non-responses are in some way correlated to the variables measured in the survey (Hox & de Leeuw 1994). Some methods of solicitation can draw large numbers of responses, but actual response rates are incalculable because the populations are not defined (Cook *et al.* 2000). Response rates for all types of survey have dropped consistently over time (Krosnick 1999), but the web's ability to attract large numbers of viewers and to secure their responses quickly (Kehoe, C. & Pitknaw, J. 1996) may help to address this decline.

Salience of the survey has a strong positive correlation to response rate (Sheehan & McMillan 1999). Similarly, affiliation with a university and some form of pre-notification (Fox, Crasl & Kim 1988) cited in (Cook *et al.* 2000) and the use of reminder email messages (Kittleson 1997), (Zhang 1999) all stand to improve response rates. It is of note that the effectiveness of reminders decreases with their frequency (Zhang 1999), (Kittleson 1997) and this writer has made a point of alerting his spouse to this factor.

Malicious responses and multiple responses constitute a threat to the integrity of web-based surveys (Zhang 1999), and recruiters should avoid motivating malicious responses by avoiding excessively persistent reminders and inappropriate broadcasts to mailing lists, including instructions explicitly stating that only one response is required, and highlighting the importance of the research. (Stanton *et al.* 2001). This writer warns that like the colloquialism that “locks keep only honest people out”, technical measures to 'prevent' multiple responses are easily circumvented and so should be accompanied by other measures to disincentive and detect same. With proper care, these risks may

not be substantial – offending responses are, in the view of at least one author, rare and easy to detect (Birbaum 2004).

Despite widely held perceptions to the contrary, the Internet is in no way anonymous (Wallace 1999). Even so, this perception of anonymity may be useful to researchers, for people are less reserved when they believe that they cannot be identified (Wallace 1999). The antithesis to this is, of course, that a person who believes himself to be anonymous might be more inclined to act maliciously. Methods such as sending identifying tokens to participants may help to reduce the incidence of malicious responses and multiple responses, but the apparent abandonment of anonymity may equally serve to reduce the number of people who choose to respond at all (Stanton *et al.* 2001).

## ***Aims and Expectations***

The principle aim of this review is to identify web-based survey tools that are operated by third-party service providers and that are suitable for use in a academic research context. A tool or tools of a standard sufficient for the execution of a questionnaire and subsequent data analysis in context of a research methods class at little or no financial cost are sought. Additionally, it is hoped that tools that are sufficiently capable to meet the extended needs of individuals operating in context of a research degree or a formal research project will be identified.

In line with the general nature of the public Internet as a whole, it is expected that a significant number of tools will be discovered that are in the nature of an amusement, aimed at commercial market research, or are otherwise inappropriate for formal academic research. An equally substantial number of tools are expected to offer a limited feature set free of charge, with payment being required to render the tool academically useful.

Whilst most researchers and research students are likely to be essentially proficient in the use of computers and Internet technologies insofar as their day-to-day work is concerned, it is acknowledged that development and maintenance of a deep level of technical understanding is not a high order goal for most researchers. To that end, this study aims to identify tools that are operable with a usual level of computer skill and that do not require specialist technical knowledge.

In light of the very large number of tools on offer, this study does not aim or attempt to conduct an exhaustive analysis of all products in the market.

## ***Method***

A brief use of a generic web search engine to ascertain the breadth and nature of tools on offer was met with an overwhelmingly large array of commercial products. A more targeted search was made by using web directory tools, but even this narrow approach yielded several hundred candidates that broadly fitted the description of web-based survey tool. In light of the large number of tools on offer, the decision was taken to set quite high standards of acceptability in order to quickly narrow the range of tools to a small group for more detailed analysis.

### ***Initial Selection Criteria***

Three criteria were set with the dual purpose of meeting the fundamental aims set for this study and of excluding the vast majority of unsuitable candidates quickly. The three criteria are as follows:

- Must allow operation for at least 14 days and collection of at least 100 responses at no charge. This writer has taken the position that capability sufficient to meet the coursework requirements of a research methods class should be offered free of charge, and that additional capability as required for larger studies might require payment.
- Must support a range of question types suitable for academic level research. At a minimum, multiple choice (single answer or 'radio button'), check list (multiple answer), ranking, matrix and open-ended questions are required
- Must allow export of raw survey data to OpenOffice.org Calc (or Microsoft Excel, SPSS, or equivalent)

In addition a general subjective analysis of presentation and orientation was taken. Tools that did not present credibly, appeared to operate with ulterior motives (such as collection of personal information for marketing purposes) or exhibited a strong commercial orientation were excluded. Tools that were afforded apparent credibility by virtue of their association either with well-known research organisations or academic affiliation were specifically preferred. In view of the fact that this study does not attempt to constitute an exhaustive examination of all tools in the marketplace, a complete list of tools examined is not provided.

### ***Additional Selection Criteria***

A shorter list of candidates was examined in greater detail. The range of technical features offered by each tool was considered, and a list of non-essential features that were considered to be particularly relevant in an academic context were identified. These technical features are listed in the following section.

Two products were identified, and this paper reports in some detail on them.

## ***Technology Features***

Technical features that are likely to be of some relevance and assistance to academic research projects are identified. Both tools reviewed in this paper offer these features.

### ***Email Management***

Many web-based survey tools offer functionality designed to assist in the management of targeted surveys. Where a researcher has a predefined list of subjects, these tools assist the generation of email invitations that are coded, if necessary, so as to uniquely identify each respondent. A researcher using these tools may benefit from the ability to clearly defend the representativeness of their survey insofar as identified targets and a demonstrable lack of duplicate responses are concerned. Both tools reviewed in this paper offer email management tools, though the QuestionPro.com tool does so only in the paid and academic sponsored modes.

### ***Question Branching***

Question branching functionality may assist where answers to a particular question are required only if a preceding question is answered in a particular way. A respondent might be asked, for example, whether he prefers to drive cars or ride motorcycles. If he indicates a preference for motorcycles, then subsequent questions might concentrate on his interest in same, and he would not be presented with redundant questions regarding cars. At the time a survey is authored, a researcher may include logic that causes this branching to occur. This functionality serves to improve validity of results (by not collecting irrelevant data) and may also serve to ensure that respondents are not frustrated by questions that are not relevant to them.

### ***Question and Survey Libraries***

Libraries of pre-constructed questions may be useful both to ensure consistency across a range of questionnaires and to save time in survey construction. Depending on the specific survey tool in use, a researcher may be presented with the option to construct his own library of questions, and he may be offered a predefined library of questions by the software vendor. In some cases, extensive libraries of entire questionnaires are offered, and a researcher might use a pre-existing survey as a basis for his own construction.

### ***Layout and Presentation Customisation***

The ability to customise presentation and layout of surveys may assist researchers in establishing credibility with respondents. By styling the web-based questionnaire in a manner that reflects the image of the supporting institution or matches letterheads and other publications associated with a research project, a consistent and professional image is conveyed.

## **Acknowledged Bias<sup>1</sup>**

The author is a relative newcomer to academia, having pursued a career in the information technology (IT) industry spanning some twenty years. The author's involvement with the public Internet started just before Australia's first live connection to the Internet was established, and pre-dates the world wide web by several years. After focusing heavily on computer network security and Internet security throughout his commercial career, the author has turned to academia and the field of Innovation, with a particular focus on the diffusion of Free Software and Open Source Software in business environments. The author has a strong bias therefore towards 'free' (as in *freedom*, and sometimes also *free of charge*) and 'open' computer software technologies, and this bias is reflected in this paper. In addition, some statements are made and decisions taken on the basis of the author's direct prior experience.

The author's extensive experience in the IT industry has necessarily given him a different constitution of knowledge to that held by more persons more strongly oriented to academia. There is a risk therefore that the author may take for granted certain features or issues pertaining to software tools, and that some matters may pass unacknowledged as a result.

An acknowledged flaw in the methodology employed herein is that if a particular survey tool does not offer a free-of-charge service that meets the defined criteria, then it is not considered at all. As a result, this approach excludes some otherwise excellent tools. The author contends that familiarity with a particular tool gained by a student at coursework level will be transferable to an upgraded (paid) version of the same tool later in their research career.

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1 Included for the purpose of defending certain bias exhibited by the author in the preparation of this review.

## ***Procedure***

A large number of tools (refer to Appendix D) were briefly examined according to the abovementioned criteria. As intended, the vast majority were excluded at this stage. Those that remained were examined in significant detail, and the author made a, to some extent subjective, identification of the two most useful tools. Those two tools are discussed in some detail in the Results section of this paper.

## **Results**

Two web-based survey tools, QuestionPro.com and HostedSurvey.com were identified as being particularly suitable for research questionnaires in an academic context, and as meeting the aforesaid criteria for selection.

### **Web-Based Survey Tools - QuestionPro.com**

This tool is an entirely web-based service operated from the company's web site at [www.QuestionPro.com](http://www.QuestionPro.com). Registration by providing a name and email address is a prerequisite for access to most of the site's features.

#### **Free Service**

QuestionPro.com satisfies the criteria for free service. Registered customers may operate up to two concurrent surveys for a period of one month with no limit on the number of survey questions. A total of one hundred answers is allowed at no charge. Capability to export raw data to Microsoft Excel format, and basic analysis tools are provided. It is noted that registering for service with this company invokes a subscription to an email marketing list that publicises the company's products. Provision is made for the customer to unsubscribe from the list.

#### **Paid Service**

Payment of a USD\$29.00 per month fee improves the capability of this software package by adding branching logic capability, email management tools and increases the number of responses to one thousand. Higher levels of service are also offered; payment of USD\$99.00 and USD\$249.00 adds an advanced analysis capability, and increases the number of responses to 5000 and 15,000 respectively. It is considered that these paid options will be useful for researchers conducting surveys funded by research grants.

#### **Academic Pricing**

This organisation offers generous support to student researchers, members of academic staff and to universities. Conditional upon the publication of a web link to the company, academically affiliated persons (active students and researchers) are offered greater software functionality and up to 5000 responses at no charge for a six month period. With university affiliation, something that might be arranged by a school research coordinator, advanced analysis tools and twelve month membership is offered.

The publication of a web link back to the company will be relatively easy for a tenured member of academic staff to arrange, but it may not be possible for students to do the same, because individual students are not normally represented on university web sites. Issues may also arise where acknowledgement of corporate affiliation is deemed inappropriate for a university web site.

### ***Question Types***

A comprehensive range of question types is offered by QuestionPro.com. In many cases a single question type has several different presentation options. Both single answer and multiple answer questions, for example, may be arranged as a horizontal list, a vertical list or a dropdown menu. Similarly, open ended questions may be structured as single lines, multiple lines, larger comment boxes, or combinations thereof. Matrix tables may be constructed as single-answer, multiple answer or a 'spreadsheet' style for entry of numbers. Likert scales are customisable both in number of choices and the printed labels.

Researchers have the option to construct question codes as they develop the survey. Questions that offer the respondent a choice of multiple answer (single answer, multiple answer, matrix and Likert scales) are coded numerically in the order that the answers are offered to the respondent. It is expected that this means of coding will work well with SPSS. A more complete list of question types and variants offered by QuestionPro.com is provided in Appendix A.

### ***Data Provision and Analysis***

At the free level of service, QuestionPro.com offers both raw data export, and basic analysis tools. All service levels provide export of both raw data and some degree of analysis in Microsoft Excel format. Customers trigger the export of data from a web menu, and the system emails the data file to the customer when it is complete. In practice, this takes only a few seconds, and the data file provided was usable both in OpenOffice.org Calc and Microsoft Excel. In what appears to be a consciously conservative implementation, the raw data provided by this tool includes partially completed surveys and, depending on question type, sometimes splits single responses over more than one row. This is not viewed as a fault, rather as a means of maintaining data integrity. Even so, the raw data may require some manual manipulation prior to transferring it to a statistical analysis package such as PPSP or SPSS, but this requirement is unlikely to be onerous.

### ***Conclusions***

QuestionPro.com provides an excellent array of question types with the flexibility to structure questions according to the requirements of a particular research project. The free-of-charge service offering meets the stated goals of this review, and the 'Student Sponsorship' and 'University Sponsorship' functions are sufficiently generous that many academically affiliated researchers may not need to make use of a paid service at all, providing that they are able to meet the company's requirement for a published web link on a university web page. It is considered that those charged with supervision of research students should consider further examination of the University Sponsorship offering from this company.

Construction of survey instruments is entirely web-based. The process of defining a question involves a series of steps whereby the type of question is defined, the question asked, and the form of answers constructed in a software 'wizard' like process. The interface is intuitive, and not difficult to use.

Determination of eligibility for 'academic' pricing is automated by this company, the author was deemed eligible for 'academic' status within seconds of applying, and so no attempt was made to contact the company for information or support. It should be noted that eligibility is determined by the provision of an established web link to the company from an academically affiliated web site. In situations where establishment of that link is difficult, the process may suffer. This company has worked to minimise the necessity of contact. Extensive documentation and help is provided on line. Technical assistance is available for purchase.

### ***Web-Based Survey Tools - HostedSurvey.com***

HostedSurvey.com also requires registration, but does not force the customer to wait for email confirmations to arrive before beginning work. After registration, the customer is taken directly to the process of defining a new survey. The web site for this tool is at [www.HostedSurvey.com](http://www.HostedSurvey.com).

The company also offers a range of for-fee services that include technical support, data entry, survey authoring and survey outsourcing.

#### ***Free Service***

This service is provided on a per-response basis. The first 250 responses, or completed surveys, are provided at no charge. The free-of-charge service does not have any feature limitation other than the fixed number of responses. This approach, along with the fast registration method will allow a researcher to proceed quickly to a live survey. The registration process and the purchase of additional responses can be completed after a survey is already live and collecting data.

#### ***Paid Service***

Beyond the 250 response limit, customers may pre-purchase more survey completions. Pricing varies according to the number that are purchase, with a quantity of fifty responses priced at USD\$25.00 (\$0.50 each) with the price progressively reducing as the pre-purchased quantity increases. A purchase of blocks of 100, 300, 500 or 1000 responses costs USD\$0.45 per response, and the price drops to USD\$0.20 for blocks of 20,000 responses.

Payment for service in this way does not grant any additional features above the free-of-charge model.

Other pricing models are offered where an organisation chooses to purchase hosted or licensed services on a larger scale. These models are not considered to be within the scope of this report, and so they are not examined here.

#### ***Academic Pricing***

The company web site advises of 'special' pricing arrangements for academic, education and non-profit use but does not publish pricing details. In response to an enquiry, the company advised that once a researcher has established their 'academic' status by contacting the company after registration, the same blocks of responses are offered as discussed above, but they are priced at a flat USD\$0.10 per response, regardless of quantity.

Academic discounts (typically 20%) are also offered to the company's other services, this may be useful where researchers prefer to outsource some or all of the survey process.

### **Question Types**

A full range of question types, sufficient to satisfy most academic requirements is offered. Less flexibility in question layout is offered by this tool, but the question types offered are functional and well constructed.

HostedSurvey.com allows coding of both questions and answers, this feature will likely be useful in generating data that is easily transferable to statistical analysis software packages that have particular requirements for data coding.

Appendix B contains list of question types offered by HostedSurvey.com.

### **Data Provision and Analysis**

Raw data is available for export from this tool via a process similar to that used by QuestionPro.com. In this case the customer schedules an 'export' process and, when it is ready, data files are made available for download from the web site. Data may be exported in a range of formats from HostedSurvey.com, including crosstabulated text, crosstabulated html (web) and XML. The text format is in fact a 'Tab Separated Values' form that can easily be imported to OpenOffice.org Calc, or Microsoft Excel.

Of concern is the way in which way exported data is provided. Whilst the data is eminently usable, the presentation uses naming that may be unfamiliar to some. Whilst this author was able to immediately see the *technical* benefit of the data provided by this tool, a less technically experienced customer may face some initially frustrating difficulties. Both OpenOffice.org's Calc, and Microsoft Excel imported the "CrossTab Text" data provided by HostedSurvey.com, but not without some initial complications. Appendix C details steps for importing the raw data to both programs.

Despite the initial issues with importing data from this tool, the provided data was better presented and likely to require less manual manipulation than that published by the QuestionPro.com package.

### **Conclusions**

HostedSurvey.com offers a flexible and functional survey tool that is suitably constructed for academic use. Of particular note is the 'quick start' that is possible with this product – as previously discussed, a researcher may proceed immediately to construction of their survey instrument even before the registration process is complete. The free-of-charge 250 response capability is more than adequate for use in a "research methods" coursework context, and students who become familiar with this tool will likely be sufficiently satisfied that they will return to it to conduct larger surveys later in their research career. No distinction is made in their pricing model between funded and unfunded research, and so academics may prefer this tool for ease of access and its uncomplicated licensing model.

Question construction options are less flexible than those offered by QuestionPro.com, but some customers will prefer the relative simplicity of this tool.

Replies to emailed requests for information were timely, friendly, and helpful. One request for assistance was met with three separate replies, each offering additional

information as it became available to the respondent. Despite that establishment of 'academic' status is not automated with this company, the speed and efficiency with which communications are conducted means that little detriment is suffered. It should be noted that both companies reviewed herein are physically located on the North American mainland, and so time differentials will affect response times.

## ***Discussion and/or Conclusions***

The overwhelming majority of web-based survey tools considered for this review were unable to meet the criteria established for inclusion. Whilst the criteria were in part designed to exclude most contenders, they also established a basis that this writer considers to be a necessary pre-requisite for usefulness. The two tools that were ultimately selected are well presented, credible, and exhibit a broad set of functional features. Both tools are well suited to research in an academic context, but it should be noted that they are different, and individual researchers should carefully examine both tools to identify the one that best suits their requirements.

Attempts were made to identify the specific tools that researchers have used in the past by examining Internet forums, and abstracts of published papers. With scant exception, this approach met with little useful outcome.

No single tool emerges as a 'favourite', rather both are capable, and will be useful in academic research.

## ***Recommended reading***

The author is indebted to Wright (Wright 2005) for his detailed examination of web-based surveying tools and methods. Associate Professor Wright's treatise on, in particular, the complexities and pitfalls of conducting surveys on the internet is thorough, astute and consistent with the author's own experiences. No attempt is made to reproduce the information here, rather this writer commends Wright's paper to researchers proposing to conduct a study using the public Internet as a medium.

Cook et al (2000) examine means that contribute to improved response rates and consider whether better response rates produce more representative surveys. Zhang's (1999) case study makes a detailed review of the positive aspects and benefits of conducting surveys on line.

Stanton and Rogelberg (2001 p200) make a somewhat negative, but instructive, view of the problems that might arise in web-based surveying. In particular, their identification of contrasting issues of anonymity and malice present a paradox that should be carefully considered.

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## **Appendix A**

Question types offered by QuestionPro.com

- Choice
  - Single Answer [Horizontal]
  - Single Answer [Vertical]
  - Single Answer [Menu]
  - Multiple Answer [Horizontal]
  - Multiple Answer [Vertical]
  - Multiple Answer [Menu]
- Open Ended Text
  - Single Line Input
  - Multiple Line Text
  - Comment Box
  - Combination
- Date/Time
- Rank Order
- Constant Sum
- Matrix Table
  - Radio Buttons
  - CheckBoxes
  - SpreadSheet
- Semantic Differential Scale
  - 2 Items (Yes/No)
  - 3 Items (Likely/Unlikely)
  - 5 Items (Good / Bad)
  - 7 Items (Agree / Disagree)
  - 10 Items (Like / Dislike)
- Likert Scale
  - 5 Items x 1 (Strongly Agree/Disagree)
  - 5 Items x 3 (Satisfied/Dissatisfied)

- 10 Items x 5 (Agree/Disagree)

Additionally, header and footer sections of questionnaire pages may be modified to suit the researcher's requirements, and additional pieces of information, including pictures, may be inserted within the questionnaire.

## **Appendix B**

Question types offered by HostedSurvey.com

- Comments or Essay
- Conditional Question Branch or Skip
- Matrix Question Set (Single)
- Matrix Question Set (Double)
- Matrix Question Set (Open-ended Text)
- Multiple Choice Question (Select Just One)
- Multiple Choice Question (Select All That Apply)
- Multiple Choice Question (Select and Rate)
- Open-ended Text
- Open-ended Text (Multi-part)
- Page Heading
- Password
- Question from Q&A Library
- Question Group from Q&A Library
- Random Order Question Sets
- Rating Scale
- Section Heading
- Section Text
- Summation Question Set
- Template from Q&A Library

## **Appendix C**

Steps for importing “CrossTab Text” from HostedSurvey.com to spreadsheet tools.

### **Downloading Data from HostedSurvey.com**

1. Choose Conduct Survey – View Results – Download Crosstab (txt) from the HostedSurvey.com menu. The export process is initiated.
2. Choose the *View Download Files* hyperlink from the resulting page.
3. Results are listed in reverse date order, most recent at the top. Identify the result set that you wish to download, and click on the small icon immediately to the left of the Survey Name.
4. Save the file to your computer. If the data is displayed in your web browser, choose File – Save from the menu, and save the text file.
5. Start your spreadsheet program

### **OpenOffice.org Calc**

1. Choose *File – Open* from the menu
2. Select the *Text, CSV* option from the *Files of Type* option list
3. Choose the data file using the file browsing window
4. Click *Open*
5. Confirm that *Separated By* and *Tab* are selected
6. View the *Fields* box to confirm that the data appears to be appropriately broken into columns
7. Click *OK*

### **Microsoft Excel**

1. Choose *File – Open* from the menu
2. Select the *Text Files* option from the *Files of Type* option list
3. Choose the data file using the file browsing window
4. Click *Open*
5. Choose the *Delimited* option
6. Click *Next*

7. Confirm that *Tab* is selected in the *Delimiters* box.
8. View the *Data Preview* box to confirm that the data appears to be appropriately broken into columns
9. Click *Finish*

## **Appendix D**

Sources of leads to web-based survey candidates

The following Internet locations were primary sources of leads to software tools that were considered in this paper. Additionally, some use was made of generic Internet search engines with appropriate keywords.

SurveyMonkey.com Competitors List

- <http://www.surveymonkey.com/Pricing.asp>

Google Web Directory

- Computers > Software > Marketing > Surveys  
<http://www.google.com/Top/Computers/Software/Marketing/Surveys/>

University of California, Berkeley Survey Software Review

- [http://www.sims.berkeley.edu/~sinha/teaching/Infosys271\\_2000/surveyproject/surveysoftwarereview.html](http://www.sims.berkeley.edu/~sinha/teaching/Infosys271_2000/surveyproject/surveysoftwarereview.html)

Rashmi Sinha's Survey Software List (University of California, Berkeley)

- <http://www.sims.berkeley.edu/~sinha/surveys.htm>

Google Scholar

- <http://scholar.google.com>  
(Used to search abstracts and papers for references to specific survey tools)