

Chapter XXIII

Mixed–Mode Surveys with Netservey

Savvas Papagiannidis

University of Newcastle upon Tyne, UK

Feng Li

University of Newcastle upon Tyne, UK

ABSTRACT

Mixed-mode approaches are often used to boost response rates and reduce costs. Still, they can increase the complexity of designing, deploying, and managing a survey, especially when combining online and off-line methods, and when the number of modes and recipients increases. This article presents a prototype of a mixed-mode solution that can handle both online and off-line modes, freeing the researcher from the survey's practicalities, especially deploying the survey and collecting the responses. The solution can handle Web, e-mail and postal surveys, using advanced digital printing technology, although in principle, any channel can be utilised.

BACKGROUND

Mixed-mode surveys are often used to overcome the shortcomings of using a single mode, and also to test the assumptions about the sampling, and the reliability and validity of the research methodologies used. On the other hand, multiple modes can increase the complexity of designing, deploying, and managing a survey, as the researcher will need to possess the technical skills and the resources required to run a survey over the selected modes.

Netservey (the name comes from serving surveys online) is a mixed-mode solution that can

handle both online and off-line modes, freeing the researcher from the survey's practicalities, especially deploying the survey and collecting the responses. Netservey began as a tool to organise Web surveys by one of the authors. Dr. Papagiannidis was often asked to build bespoke surveys that often required a lot of programming time and effort. The solution was then coupled with a digital print technology and was presented as a commercial solution, winning the 2004 Enterprise Challenge, the business plan competition organised by the University of Newcastle upon Tyne.

The solution can handle Web, e-mail, and postal surveys; although in principle, any channel could

be added. The biggest challenge that Netservey faces, when it comes to fulfilling these modes, is to automate the logistics of postal surveys: “the questionnaire has to be printed, envelopes to be stuffed, mailing labels and postage to be applied, and then the survey can be mailed to participants; these all cost money and time” (Huang, *In Press*). This process dominates the administration of the survey, especially when it comes to large research projects or repeated surveys. Netservey’s ability to handle postal surveys is very innovative and can resolve most of the logistics of mailing a survey, irrespective of the sample’s size, differentiating it from other online survey solutions.

Of course, this does not imply that digital modes, even the most established ones, like fax, do not pose their own set of challenges when it comes to administering surveys. “Skills and time required for handling differed between the three methods (fax, e-mail, and mail); faxing about 50 copies took several hours, time that could have been saved had we sacrificed the personalised introductory letter” (Quinn, Robinson, & Parham, 1998). For more complex modes, like the Web, “the rapidity of technological change requires that researchers have technology support in developing, testing, and implementing their surveys” (Hayslett & Wildemuth, 2004). Such support increases the cost and time required to implement a new project.

Netservey aims to alleviate the shortcomings of each mode, allowing the researcher to select modes without having constraints imposed by his/her skill set, time, and budget.

SETTING UP A SURVEY WITH NETSERVEY

The management of a survey is carried out online using simple forms. The first step in the setting-up process is completing a form with the survey’s options. These include, among others, the dates to begin and finish the collection of responses,

the number of responses to accept, whether the survey is currently accepting responses or not, a password to protect the survey from uninvited responses, and various mode-related options.

Netservey, by default, assumes that all modes are to be used. If this is not the case, the researcher should not distribute the survey over one of the modes. For example, if no responses are to be received via the Web, then the researcher should not advertise the survey’s Web address.

BUILDING A SURVEY

Netservey can handle multiple modes by breaking a survey’s structure into objects that are stored in a database. These objects are then put together to generate the survey for a specific mode. For example, the solution can output a survey in HyperText Markup Language (HTML) format in order to generate its Web version, or in a portable document format (PDF) format in order to print it and mail it.

When starting to build a survey, the user is presented with the option of using a wizard to create the survey’s structure, or to create a very simple survey that can then be edited accordingly. The time needed to build a survey depends on its complexity, especially the number of questions. Each survey consists of areas, sections, question groups, questions, question options, and question keys. These are the building blocks that come together to generate the questionnaire, as shown in Figure 1.

Areas are used to separate question groups that cover different topics. For example, a survey may have an area covering the main research topics, and a second area with questions aiming to gather personal information about the participant.

Sections are used for conditional logic. A section carries the questions to be asked, while the groups of questions that the section contains correspond to an answer of the conditional logic question. A section may contain one or more groups

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