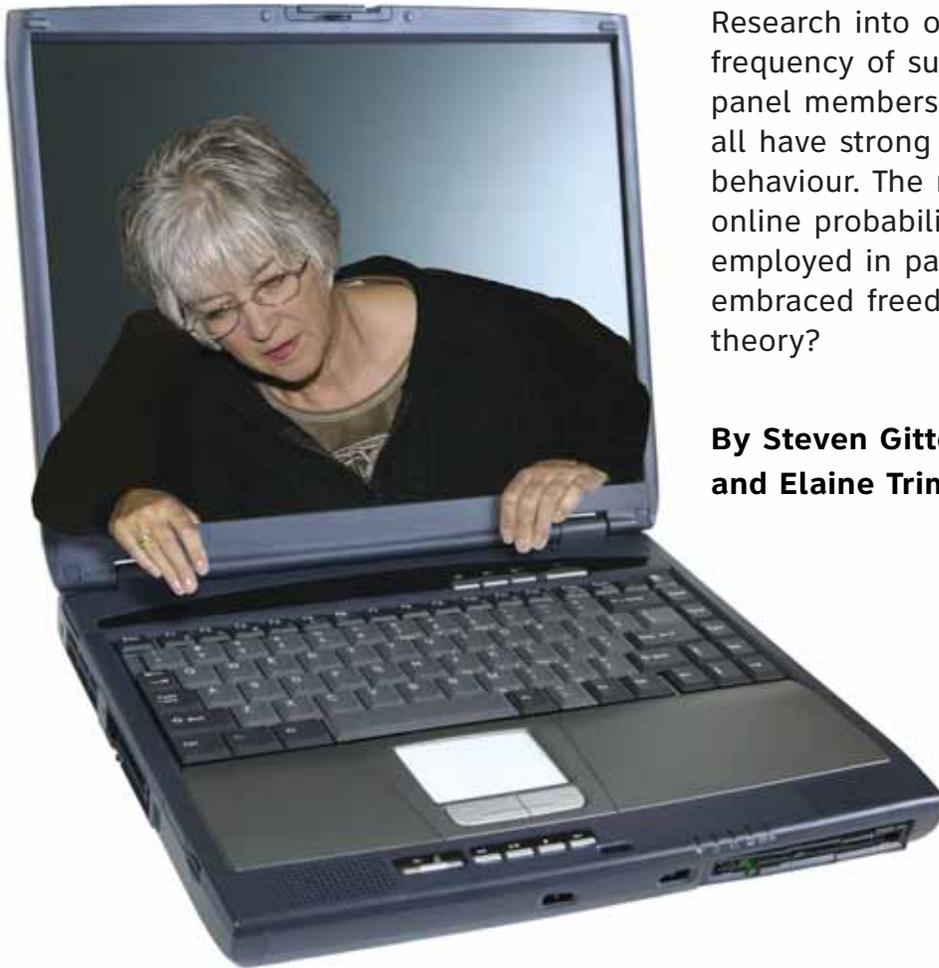


The Perfect Storm: Strong Impacts on Buying Behaviour



Research into online panels shows that frequency of survey-taking, extent of panel membership, and length of tenure all have strong impacts on respondent behaviour. The results may topple the online probabilistic model as it is employed in panels, but isn't it time we embraced freedom from probability theory?

**By Steven Gittelman
and Elaine Trimarchi**

Intuitively, it makes sense: The only way to achieve online quality is to use a probabilistic framework in selecting online respondents when building a panel. But is this true? In spite of the way respondents are selected, those who dislike the process will drop out, leaving behind a select group that likes doing surveys, participates in survey-taking for a diversity of panels, and participates often. Are the respondents who are left in the panel still representative of the population?

Newly recruited respondents behave differently than respondents who have spent years on a panel, and those who don't often participate behave differently than those who make it their daily fare. If respondents who join a diversity of

panels, participate often, and remain on panels for many years are different from the new respondents, then two huge groups of our respondent population are in play and can, by their sheer numbers, change the data we collect from online research panels.

Research that was carried out by Mktg, Inc., measured the differences in buying behaviours between hyperactive, multi-panel, long-tenured respondents and their newcomer cousins who belong to few panels and complete few surveys.

We hypothesize that the behaviours of the two groups are different, their populations large, and their impact great. Business decisions are clearly at risk. Further, it seems

intuitive that the three measures are all highly correlated. New respondents are less likely to belong to a large number of panels. Those who have survived the system for years have probably been acculturated by it and, because they enjoy it, participate often. It takes time for a respondent to join enough panels and receive enough invitations (one or two per day) to manifest hyperactive participation.

As the sample for this test, we used Canadian respondents who participated in our continuous tracker, the Grand Mean Project. We were fortunate to have fifteen panel companies provide samples for this MRIA-coordinated effort. Each respondent completed our standard questionnaire, adapted for the Canadian marketplace. Quotas were set for income, age and gender. We divided up the samples provided by the participating companies so that eight samples participated with MRIA, eight with Mktg. Inc., and one with both MRIA and Mktg. Inc. The combined data were presented by Don Ambrose and Peter Chan at MRIA's Net Gain 4.0 conference in Toronto this past February. We based our conclusions only on the companies that participated directly with Mktg. Inc. Our reason for doing so was simply that MRIA did not use income quota controls, and we did. Otherwise, we are confident that similar conclusions would have been drawn from both data sets.

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Inspiration

Our journey began three years ago, when we launched the Grand Mean Project. Our inspiration came from work then being done by the Advertising Research Foundation (ARF) and others who viewed the study of online sampling frames as a necessary, if uncomfortable task.

In April of 2008, we were privileged to hear Ron Gailey, then of Washington Mutual, present data on two years of online research that he had done for the financial giant between 2006 and 2007. In over 40,000 interviews and 29 studies, the conclusion was the same: purchasing intent dropped substantially over the two-year period. Gailey was confronted by an uncomfortable state of affairs: the data did

not corroborate actual experience. "Unusual survey results have caused alarm ... in every study examined," he observed. "People with more panel tenure gave lower demand." It should have been the alarm that was heard around the world; it did resonate through the United States.

Subsequent research has confirmed Gailey's conclusion. In particular, the ARF lent its support through its massive Foundation of Quality initiative. We expand on the analysis here, bringing a more global focus to the issue. Does the same phenomenon reach across international borders? How fares Canada?

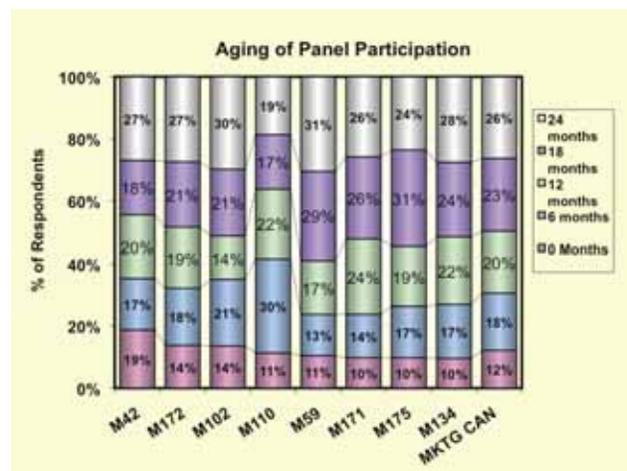
The Perfect Storm

We focus on three measures of hyperactivity: respondent tenure, membership in five or more online panels, and high frequency of survey-taking (evidenced by those who claim to have completed a survey a day and/or thirty surveys in the past month). If all three of these simple metrics move strongly in tandem, it is the meteorological equivalent of barometric pressure, moisture, and differential temperatures all pulling together to pull us apart.

When Ron Gailey found that his data were subject to a typhoon at sea, he was operating in a void. We must hold ourselves accountable for understanding how disparate variables interact, and we must monitor those variables to avoid the worst of circumstances. The ARF concluded that the panels are different and thus not interchangeable. We find that what drives the differences are a number of factors, panel tenure among them (see Figure 1).

If the respondent tenures differ among panels, there is reason to believe that they could also change through time.

Figure 1: Panel Tenure in Eight Canadian Panels



The data are self-reported. Respondents were asked to name all the Canadian panels to which they belonged. The panels are ordered according to frequency of new recruits, from high to low; the variability is quite high.

Respondents are recruited when the demand is high, and perhaps less so in slack periods. To build their base, new panels recruit more frequently than do established ones. Panels that merge, or are acquired often, change their aging profile dramatically, by virtue of the merger of resources.

Fortunately for both Canada and Australia, the frequency of survey-taking has not reached the heights witnessed in the United States, where 32 per cent profess to take a survey every day. At 25 and 22 per cent, respectively, Australia and Canada may be at thresholds that warrant “perfect storm” status.

Our way of testing this perfect storm phenomenon is to measure shifts in buying behaviour as respondent tenure advances. If the buying behaviour shows a dramatic stepwise shift with advancing tenure, then we conclude that conditioning and attrition effects have taken hold of the respondent population in the panel pool. Figure 2 shows this dramatic shift.

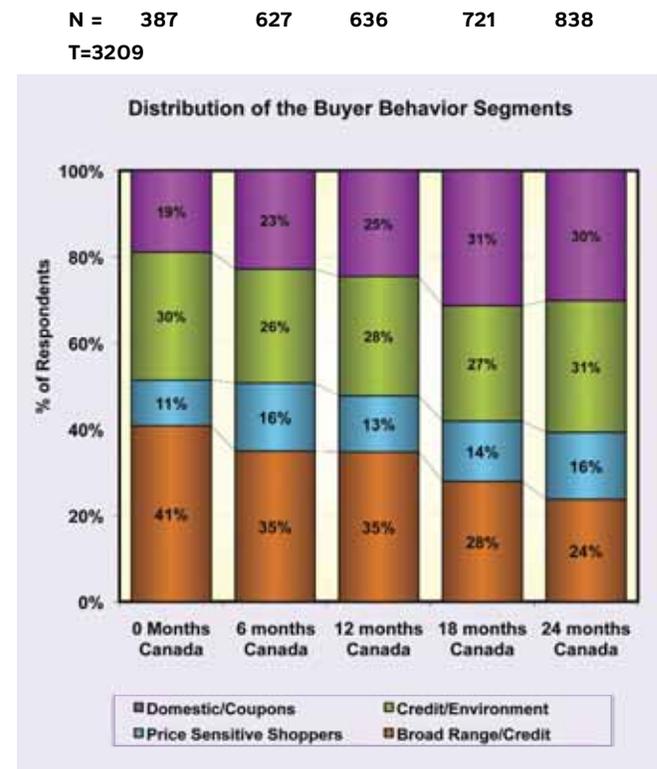
Our current use of non-probabilistic sampling frames is “operating without a net.”

The symptoms of the perfect storm are not limited to buying behaviour. We find them to be quite pronounced in Canadian sociographic and media segmentations as well (shown in Figures 3 and 4, respectively).

Conditioning and/or attrition effects are likely to occur at the core of perfect storm phenomena. Conditioning would involve the change of behaviour in individual respondents as they are exposed to the survey-taking process. The more intense the process, the more likely the conditioning may be. Attrition would involve the disappearance of respondents who decide to abandon the panel community. Perhaps the effect of attrition is also time-related, as it takes time for some stalwarts to be overwhelmed by the intensity of so many invitations.

Of course, the threshold at which respondents throw in the towel differs among individuals. It is clearly reasonable to believe that cumbersome and difficult surveys, the sheer quantity of surveys, boring survey design and, eventually, loss of interest in the process will eliminate all but the hardiest of our respondents. Unfortunately, it seems illogical that respondents who survive the process, complete abundant surveys, and belong to a half dozen or so panels are anything like their cousins, the newcomers to the process, or like those who have long since left the scene. In essence, the sampling frame is threatened by a differential loss of respondents. We see this phenomenon most clearly

Figure 2: Shifts in Buying Behaviour Segments as Respondent Tenure Advances



The change in buying behaviour is most dramatically evidenced in the move from a bottom segment (which includes respondents who purchase a broad spectrum of products online) to those in the top segment (best characterized as consumers who remain loyal to Canadian products and make significant use of coupons but do not use their time online for a diversity of tasks, including product purchasing through credit card deployment).

in the shift in segments from newcomer respondents to those of long tenure.

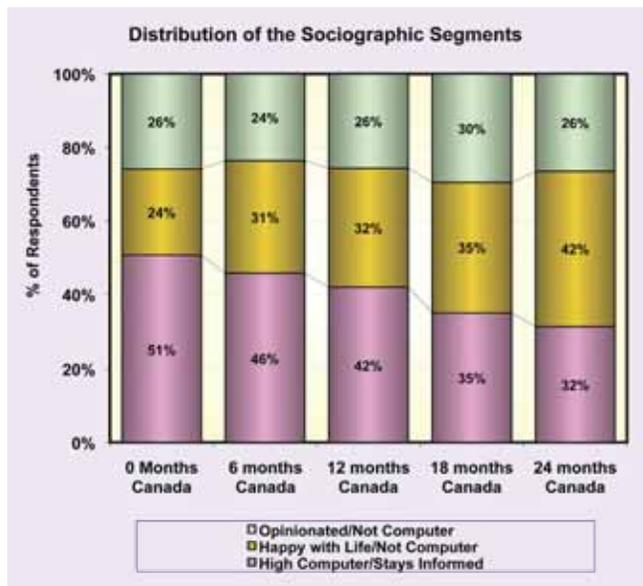
Operating without a Net

It was Reg Baker, of Market Strategies, who first characterized our current use of non-probabilistic sampling frames (online panels) as “operating without a net.” It was once a great comfort to rely on random digit dialing for its reach and probabilistic sampling structure. In the U.S., if not the rest of the world, reliance on the telephone conferred a sense of security. We were not called upon to defend our sampling frame. But then the good old telephone, the gold standard, suffered its own loss in status as wire-cutters, cell-phone users, do-not-call lists, and high refusal rates diminished its utility.

Perhaps we wanted it that way. After all, in Europe, door-to-door is the standard, and the telephone never had glory status. We chose to adopt online research, and we used comparisons to telephone surveys as the bridge over the credibility gap. In the past year, there have been a few advances that we believe to be constructive.

Figure 3: Shifts in Sociographic Segments as Respondent Tenure Advances

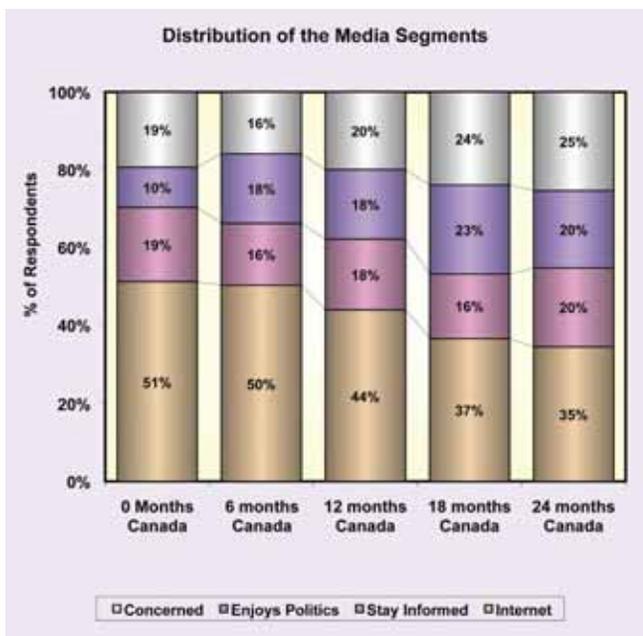
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Sociographic segmentations show a pronounced shift as respondents serve longer terms on panels.

Figure 4: Shifts in Media Segments as Respondent Tenure Advances

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Canadian media segments show a strong shift as respondents serve longer terms with online panels.

Online samples, as used by most researchers and as provided by the online panels, are not probabilistic. We must warn to their non-probabilistic nature. Academic researchers have had a field day attacking commercial research for clinging to the concept that online research is probabilistic. Salvo after salvo has shaken client confidence in our role as keeper of the sampling frame. We have been placed on the defensive, and we must abandon our defenseless position.

These data may topple the online probabilistic model as it is employed in panels. There are a few panels that profess to be using probabilistic methods for recruiting their respondents. Through intense effort, they have selected their members by strict adherence to probabilistic design. Respondents cost more, tend to be loyal, and stay with the probabilistic panels for years. But we ask why one would expect them to be immune to the conditioning and attrition effects that we see here? If the perfect storm can have its day anywhere, it is in these perfect incubators. We suggest that online “probabilistic” panels may be selected through rigorous sampling efforts, but they are no longer behaviourally representative.

Measure Twice, Cut Once

The old carpenter’s axiom has merit. We must learn to measure online sample frames to better understand the sources of their variability. Instead of fearing their differences, let’s celebrate who the respondents are by getting to know them. Ignorance is not bliss; it is just inexcusable.

Let’s embrace the non-probabilistic freedom that we have inherited. It was not our choice to abandon the old safety net, but now that we have done so, let’s seek the advantages that are in the offing. The sampling frame is no longer comprised of the telephone households that we can access. Our statistics are no longer bound to probability theory. We can pursue data wherever they can be found. Let’s drill into the new sampling frame with abandon, revel in it, and thrive by it.

Like a heat-seeking missile following an infrared trace, let’s go after salient bits of information. Let’s coalesce them into a whole that provides data by which business decisions can be made. We are the keepers of the sampling frame, and now that frame has become the world.

Steve Gittelman is CEO of Mktg, Inc.; Elaine Trimarchi is executive vice-president. Each has thirty years of data collection experience, and together they have made the mad pursuit of online quality their mission. They have now rigorously analysed some 200 global panels.